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English Loanwords in Meiteiron
A Linguistic and Sociolinguistic Analysis

P. Pusparani, M.A., M.Phil.
N. Pramodini, Ph.D.

Abstract

English emerged as an International language due to the economic and political power of Britain and the US. Many English words have been absorbed by most of the languages of the world. Meiteiron also contains thousands of such English borrowed words in it. Many of them are firmly rooted in Meiteiron. For this study, a list of English loanwords commonly used in Meiteiron was collected from the written literatures, newspapers, radio, T.V and also from normal day to day conversations.

This paper begins with the background introduction of the study of 'Loanword' and the historical context of the language contact of English and Meiteiron. To discuss the nativization process of English loanwords, the phonemic charts of English and Meiteiron are given in the second section. The nativization of unfamiliar sounds of the English loanwords in Meiteiron is the primary focus of this study which is discussed in the third section of this paper. This is followed by a brief discussion of the medium of borrowing in Meiteiron (Eye and Ear borrowing). The impact of English loanwords on Meiteiron is discussed in the fifth section which includes hybridization, obsolescence and phonemic innovation. Finally, the summary of the study concludes this presentation.

Defining Loan Words

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The term 'loanword' may be defined as the importation of lexical materials from other source languages. Loanwords in a language are the words which have been borrowed from other different languages (Benjamin 1947; Louis 1950; Lehmann 1962).

Borrowing of any vocabulary is especially very common, morphological patterns are less commonly borrowed. And borrowing is mere common at the higher levels of a language, but at the phonological and morphological levels, the elements of any language are native. And bilingualism, more intimate social contact, the usefulness/status of the languages play important roles in deciding the percentage and directions of the borrowing (Lehmann 1962; Hock and Joshep 1996; Franklin 2005).

Loanwords are treated as the milestone in the history of a language: *"Loanwords have been called the milestones of philology because in a good many instance they permit us to fix approximately the dates of much right be termed some of the milestones of general history, because they show us the course of civilization and the wandering of inventions and institutions and in many cases give us valuable information as to the inner life of nations when dry annals tell us nothing but the dates of the king and bishops"* (Jesperson 1982).

The speakers of any language have some contacts with other languages or dialects. Languages and dialects normally do not exist in a vacuum, (Hock and Joshep 1996). There are varieties of factors that initiate language contact- economic contacts, socio-cultural, political relations, aspects of topography, psychological factors, globalization, etc. to name some. And the common result of linguistic contact is lexical borrowing (Bynon 1969; Anderson 1973; Felicity 1989; Bharathi 1992; Kay 1995; Hock and Joshep 1996; Shashikanta and Reddy 2009).

The degree of influence of the source language to the recipient language depends on the nature of the borrowing; the time course of borrowing and the status of the languages. The status of the languages also has a major role to decide the directions (whether one way or two-way direction) of the borrowing. Cultural contact and prestige motives are the two predominant types which lead lexical borrowing, (Bharathi 1992) which is supported by Hock and Joshep (1996) claiming that the major reasons of borrowing is need and prestige. A borrower might have borrowed a loanword only to use just for an occasion, while the listener found it useful and repeat it for the same. This repetition of the word becomes familiar in the recipient language. Unless, one has no knowledge of the source language, the subsequent users of the loanword often will not know that the word is from a different language origin.

Foreign Rule and Influence

The British colonization of India began in the 18th C. The first office of the British Political Agent in Manipur was established in 1835, long before the Anglo-Manipuri War of 1891. By that time, Hindi, Bengali and Assamese had been introduced to Meiteiron through the cultural and religious contact and Hinduism was at its zenith in Manipur after decades of resistance.

After the defeat of the King Kulchandra of Manipur by the British forces in the Anglo-Manipuri war in 1891, Manipur became a part of British Government until it regains its

independence from British on the 15th August, 1947. English schools came up with the initiations of some British Political agents like Sir James Johnstone (1877-1886) and missionaries like Pettigrew (1912) and others.

In 1885, the Johnstone Middle School, Imphal, was established. And since then absorbing English words into Meiteiron probably started which made up a dynamic conglomeration of Meiteiron, Hindi, Bengali, Assamese and English.

Meiteiron

Meiteiron is spoken in Manipur, the North-Eastern state of India. Besides Meiteiron, English has been one of the dominant languages of Manipur since the British colonization of India. And with the passage of time, it has become more popular and gain more prestige in terms of its functions and usages among the Meiteiron speakers. Quite a large number of loanwords from other different Indo-European languages were also introduced to Meiteiron through the vehicle of English, because English language itself, has built up its vocabularies with the sources from many different languages; most English words have been imported from elsewhere, either when invasions of England took place (e.g. the Romans, the Vikings and the Normans) or when the English invaded other countries (e.g. America and India). Imports from Greek, Latin, Norse, French, German, Spanish, Italian and Dutch are so numerous as to be unremarkable.

However, for this present purpose, we restrict on the English loanwords found in Meiteiron which were collected from the written literatures of Meiteiron, daily newspapers, journals, and from the conversations of day to day life.

The paper begins with the background of the study of 'Loanword' and the historical context of the language contact of English and Meiteiron.

In the second section, the charts of consonants and vowels are given.

The nativization of foreign sounds of the English loanwords in Meiteiron is the major focus which is the third section of this study.

The fourth section discusses the medium of borrowing in Meiteiron (Eye and Ear borrowing).

The impact of English loanwords on Meiteiron is discussed in the fifth section which includes hybridization, coining, obsolesce and phonemic innovation.

Finally, the summary of the study concludes this presentation.

Phonological contrasts of English and Meiteiron

It is quite natural that the phonology of English and Meiteiron are different. The details of it can be figured out from the tables below:

Table: 1

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Consonant phonemes of English Language															
	Bilabial		Labio-dental		Dental		Alveolar		Post-alveolar		Palatal		Velar		Glottal
Plosive	p	b					t	d					k	g	
Affricate									tʃ	dʒ					
Fricative			f	v	θ	ð	s	z	ʃ	ʒ			(x)		h
Nasal							n						ŋ		
Lateral							l								
approximant	w								ɹ		j				

Table of English consonants based on Daniel Jones, 15th Edition, 1997

Table: 2

Consonant phonemes of Modern Meiteiron									
		bilabial		Alveolar		palatal	velar		labial-velar	glottal
Nasals		m		n			ŋ			
Plosives	Unasp	p	*b	t	*d		k	*g		
	Asp	pʰ	*bʰ	tʰ	*dʰ		kʰ	*gʰ		
Affricates	Unasp			c	*z					
	Asp				*zʰ					
Fricatives				s						h
Lateral				l						
Flap				*ꞃ						
Approximants						j			w	

* Newly developed sounds of modern Meiteiron.

Vowel phonemes of English language:
    Vowel Chart: 1
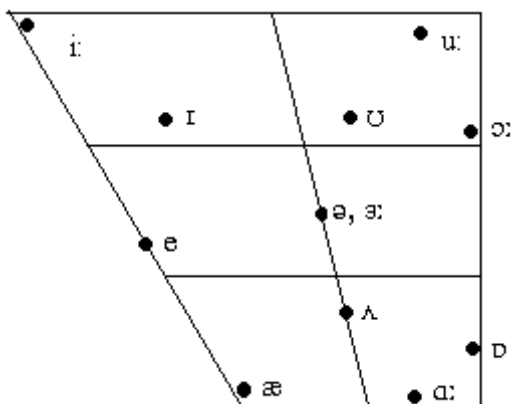
Vowel phonemes of Modern Meiteiron:
    Vowel Chart: 2

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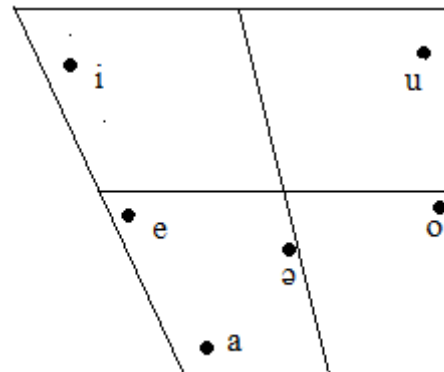
Phonological nativization of English loanwords:

Nativization in this context is the adjustment of an unfamiliar word with all the restrictions of a recipient language; it may be in phonology, morphology or syntax. The most obvious nativization process among all the types is the phonology, which is very much natural to every language. Phonological nativization is the naturalization of unfamiliar sounds in order to make those borrowed words pronounceable by the receivers.

A word, when it enters into a new environment of another language, adjusts with all the restrictions of the recipient language in such a way that the recipient language does not affect its equilibrium.

The flexibility of form and meaning of loanwords enables them to adapt easily to the structure of the host language and current trends and needs (Kay, 1995). In this study, we shall discuss the different phonological nativization processes; such as the substitution of sounds, addition of sounds, deletion of sounds and metathesis.

Substitution of English consonants:

In receiving a loanword, the speakers substitute the unfamiliar sounds of the borrowed word by the nearest possible native sounds. For example, sounds like labio-dental fricative /f/ is not available in Meiteiron, so substituting /f/ with bilabial aspirated plosive /pʰ/ makes sense; it even makes some senses in substituting /f/ by bilabial plosive /p/. The substitutions of English sounds by Meiteiron native sounds are discussed below:

	E. P.	M. P.	Gloss
/f/ > /pʰ/	/**f**æn/	/πH**ɛ**ν/	'fan'
> /p/ (final)*	/**f**aɪl/	/**pʰ**ail/	'file'
	/'səʌ.**f**ə/	/so**pʰ**a/	'sofa'
	/'□**f**.ɪs/	/o.**pʰ**is/	'office'
	/skA:**f**/	/is.ka**p**/	'scarf'
	/hA:**f**/	/ha**p**/	'half'
/v/ > /bʰ/	/**v**əYt/	/β**H**oτ/	'vote'
> /p/ (final)*	/ **v**etᵊrinᵊri/-rə-/	/ **bʰ**etənari/**bʰ**ete-/be-/	'veterinary'
	/**v**idiəY/	/**bʰ**idio ~ **b**i-/	'video'
	/'ɪn.tə.**v**ᵊl/	/in.tər.**bʰ**en ~ -**b**en/	'interval'
	/'in.tə.**v**ju:/	/in.tər.**bʰ**iu/-**b**i-/	'interview'
	/ti:∪**v**i:/	/ti.**bʰ**i/ti.**b**i/	't.v.'
	/stəY**v**/	/is.to**p**/	'stove'
	/glʌ**v**/	/glo**p** ~ golo**p**/	'glove'
/ʃ/ > /s/	/**ʃ**æm'pu:/	/σ↔μ.πυ/	'shampoo'
	/**ʃ**ed/	/**s**et/	'shed'
	/'**ʃ**ʌt.əʳ/	/**s**ə.tər/	'shutter'

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	/ˈfæʃ°n/	/pʰe.sən/	'fashion'
	/ɪlekʃ°n/	/i.lek.sən/	'election'

/tʃ/ > /c/	/tʃɜːtʃ ~ tʃɜːrtʃ/	/χ↔ρσ/	'church'
> /s/ (final)*	/tɔːtʃ ~ tɔːrtʃ/	/τοσ/ τορσ/	'torch'
	/brʌʃ/	brəs/-z /bu.ru.zə	'brush'

Exceptionally /ʃ/ changes to /c/ in examples like machine and parachute.

	/məʃiːn/	/me.cin/	'machine'

This could be from the influence of the spelling (-ch-).

/dʒ/ > /z/	/dʒeɪl/	/ζελ /√ν/	'jail'
>/s, z/ (final)*	/dʒækɪt/	/zeket/	'jacket'
	/dʒenˀrəɪtəʳ/	/ze.ne.tər/	'generator'
	/bʌdʒɪt/	/bə.zet/	'budget'
	/ˈendʒɪn/	/in.zin/en.-/	'engine'
	/ˈpr□dʒ.ekt,-ɪkt /	/pro.zek/	'project'
	/steɪdʒ/	/is.tez,-s/	'stage'
	/ˈmes.ɪdʒ/	/me.sez ,-s/	'message'
	/fridʒ/	/phriz,-s/	'fridge'

/ʒ/ > /z/	/dɪ.vɪ.ʒ°n/	/δι.βι.ζ↔ν/	'division'

/θ/ > /tʰ/	/θæŋk.ju/	/tʰeŋ.kiu/	'thank you'
> /t/ (final)*	/θɜːd (US-) θɜːrd/	/tʰar/	'third'
	/ˈθiə.təʳ/	/tʰe.tər ~ tʰi.je.tər/	'theatre'
	/θriː/	/τΗρι/	'three'
	/ˈbɜːθ.deɪ/-di (US-) /ˈbɜːrθ.deɪ/	/bar.de/	'birthday'
	/bΛːθ/	/βατ/	'bath (bath room)'

*-- these are explained under 'Devoicing of consonants'.

Substitution of English vowels:

Meiteiron has no phonemic contrast between long and short vowels, so the difference between /iː/, /ɪ/ and /i/ does not make any difference while adopting a loanword. For this reason /iː/ and /ɪ/ of loanwords are replaced by /i/ in Meiteiron which is the only nearest available sound. For example,

	E.P.	M. P.	Gloss
/iː/ and /ɪ/	/mɪl/	/min/-l/	'mill'
> /i/	/sɪti/	/si.ti/	'city'
	/stiːl/	/is.tin/-l/	'steel'
	/dʒiːp/	/zip/	'jeep'
	/bɪl/	/bin/-l/	'bill'

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Similarly, /Y/ and /u: / of English, are substituted by /u/ of Meiteiron in the nativization process.

	E.P.	M. P.	Gloss
/Y/ > u	/bYlɪt/	/bu.let/	'bullet'
	/bu:t/	/but/	'boot'
/u:/ > u			
	/fu:t/	/phut/	'foot'
	/dʒu:lai ~ dʒʌˈlaɪ/	/zu.lai/	'july'

One good reason for nativization of English words is, English has 12 vowels while Meiteiron has 6 vowels and so, most of the English vowels are unfamiliar to Meiteiron speakers; hence they are nativized by substituting the unfamiliar sounds with the native sounds. The substitutions of English vowels are as follows:

	E.P.	M. P.	Gloss
/A:/ > /a/	/klA:s/	/klas/kə.las/	'class'
	/klA:k/	/klak/kə.lak/	'clerk'
	/drA:ft/	/drap/	'draft'
	/mA:k/	/mak/	'mark'
	/pA:s/	/pas/	'pass'

In some exceptional cases, /A:/ changes to /ə/. For example,

	E.P.	M. P.	Gloss
/A:/ > /ə/	/mA:stə^r/	/məs.tər/	'master'
	/plA:stə^r/	/pləs.tər/	'plaster'

/Θ/ of loanwords are replaced by /e/ of Meiteiron.

	E.P.	M. P.	Gloss
/Θ/ > /**e**/	/∪bæt.ᵊr.i/	/be.tə.ri	'battery'
	/kæmp/	/kem/	'camp'
	/kænt.sə^r/	/ken.sər/	'cancer'

The English vowel /□:/ and /□/ are naturalized by /o/ of Meiteiron.

	E.P.	M. P.	Gloss
/□:/ > /o/	/b□:l/	/bon/-l/	'ball'
	/h□:l/	/hol/-n/	'hall'
	/'□:k.ʃᵊn /'□ĸ- /	/ok.sən/	'auction'

In a rare case, /□:/ does not change to /o/.

	E.P.	M. P.	Gloss
	/dr□:r/	/drə.war/ -was/	'drawer'
		dər.war/dər.was/	

	E.P.	M. P.	Gloss
/□/ > /o/	/b□m/	/bom/	'bomb'

	/b□ks/		/boks/	'box'
	/'k□fi/		/ko.phi/	'coffee'

In some loanwords /↔/ is replaced by /e/.

	E.P.	M. P.	Gloss
/↔/ > /e/	/kənæl/	/ke.nen/-l	'canal'
	/fainᵊl/	/phai.nen/-l	'final'

As the nearest available sound of / ℘ / is /ə/ in Meiteiron, / ℘ / of English loanwords is replaced by /ə/. For example,

	E.P.	M. P.	Gloss
/ ℘ / > /↔/	/kʌp/	/kəp/	'cup'
	/pʌmp/	/pəm/	'pump'
	/drʌg/	/drək/	'drug'
	/'ʌŋ.kl/	/əŋ.kən/l/	'uncle'
/∈:/ > /a/	/'kɜ:fjuː/	/kar.phi.ju/-phiu/	'curfew'
	/fɜ:st/	/phas/	'first'
/∈:/ > /↔/	/skɜ:t/	/is.kət/	'skirt'
	/tʃɜ:tʃ/	/cərs/cə.rəs/	'church'

Diphthongs:

Some English vowel combinations are not permissible in Meiteiron, so they are either substituted by a vowel or a diphthong of Meiteiron. For example, /eI, I↔, e↔/ are substituted by /e/ of Meiteiron.

	E.P.	M. P.	Gloss
/eI/ > /**e**/	/'teɪ.bl/	/te.bən/-l/	'table'
	/geɪt/	/get/	'gate'
	/bleɪd/	/blet/ be.let/	'blade'
/I↔/ > /**e**/	/'zɪə.rəY/	/ze.ro/	'zero'
	/hɪərəʌ/	/hero/	'hero'
	/'θɪətəʳ/	/the.tər/	'theatre'
	/eɪliəs,-æs/	/e.lais/	'alias'
/e↔/ > /**e**/	/eə.ri. əl/	/e.ren/-l/	'aerial'
	/eərəpleɪn/	/e.ro.plen/ -pen/	'aeroplane'
	/eərədrəʌm/	/e.lo.drom/ e.ro-/	'aerodrome'

The diphthong /↔Y/ is replaced by vowel /o/ of Meiteiron. For example,

	E.P.	M. P.	Gloss
/↔Y/ > /o/	/ləYn/	/lon/	'loan'

	/fəYn/	/phon/	'phone'
	/'kwəY.tə/	/ko.ta/	'quota'
	/kəYt/	/kot/	'coat'

/Y↔/ is substituted by /u/ of Meiteiron. For example,

	/dʒYə.ri/	/zu.ri/	'jury'
/Y↔/ > u			

English diphthongs like /aI, □I, aY/ are replaced by /ai, oi, au/ of Meiteiron respectively. The following examples illustrate it.

	E.P.	M. P.	Gloss
/aI/ > /ai/	/paɪp/	/paip/	'pipe'
	/straɪk/	/is.traik/	'strike'
	/faɪt/	/phait/	'fight'
	/paɪp/	/paip/	'pipe'
	/straɪk/	/is.traik/	'strike'
/□I/ > /oi/	/b□ɪk□t/	/boi.kot/	'boycott'
	/'t□ɪ.let/	/toi.let/	'toilet'
/aY/ > /au/	/əkaYnt/	/e.kaun/	'account'
	/kaʌntəʳ/	/kaun.tər/	'counter'
	/kaYntsᵊləʳ/	/kaun.se.lər/	'counsellor'
	/paYdəʳ/	/pau.dər/bau-/	'powder'

Triphthongs

All the triphthongs are accepted only in the simplified forms in Meiteiron. The following examples illustrate it.

	E.P.	M. P.	Gloss
/aɪə/	/taɪəʳ/	/tə.jar/ təi.jar/	'tyre'
	/daɪət/	/dait/	'diet'
/ai↔/	/waɪʳ/ wai↔(r)/	/wə.jar/ wo.jar/o.jar/	'wire'
/aYə/	/taYəʳ/	/tə.war/təu.war/	'tower'
/aYə/	/taYəl/	/ta.wel/-n/	'towel'

Nativization of triphthongs involves the addition of a semi-vowel which results in splitting a syllable of English into two syllables in Meiteiron. In the above examples, the first element of the triphthongs is /a/ and the last element is /ə/ in which the high front vowel /i/ chooses the addition of /j/ and the high back vowel /Y/ chooses /w/.

As the phonotactics of English and Meiteiron differ, many sounds are restricted to occur at certain positions. Only seven consonants occur at the final position of Meiteiron. Out of

which, three are voiceless plosives /p, t, k/, three are nasals /m, n, ŋ/; and the remaining one is /l/ which occurs as free variation of /n/ only at the word final position. Because of this reason, whenever a loanword enters into Meiteiron with the consonants other than those mentioned seven consonants are substituted by its nearest equivalent sounds available in Meiteiron. This will be illustrated bellow.

Devoicing of consonants

(a) At the final position

Devoicing of voiced consonant plosives at the word final positions of loanwords is made mandatory. Because, Meiteiron permits only three consonant plosives /p, t, k/ at the final positions of words. Hence, any loanword other than these three consonant plosives are all substituted by /p, t, k/ at the final position choosing the nearest possible one. This is illustrated in the following examples:

R.P.	M. P.	Gloss
/æsi**d**/	/e.si**t**/	'acid'
/blei**d**/	/ble**t**/	'blade'
/tju:**b**/	/ti.ju**p**/	'tube'
/tʌ**b**/	/tə**p**/	'tub'
/dʒʌ**g**/	/zə**k**/	'jug'
/mʌ**g**/	/mə**k**/	'mug'

In the above examples, the final sounds /b, d, g/ are devoiced in the process of nativization.

(b) At the initial or medial position

Devoicing in the initial or medial positions of English loanwords is not available. However, a few examples are available in Indo-Aryan loanwords. It may be because of the fact that English came in contact with Meiteiron only after the advent of Bengali and Hindi into Meiteiron. It may also be noted that Meiteiron has developed the voiced phonemes /b, d, g, z, bʰ, dʰ, gʰ, zʰ, ɾ/ by the time English language was introduced to Meiteiron speakers.

Deaspiration of final consonants
The Meiteiron aspirated consonant phonemes /pʰ/ and /tʰ/ replace the English labio-dental fricative sound /f/ and dental fricative /θ/ respectively in the initial and medial positions of loanwords. But when they occur in the final positions, they are deaspirated as aspirated sounds are not allowed in the final position of a word. The following examples illustrate it:

R.P.	M. P.	Gloss
/skA:**f**/	/is.ka**p**/	'scarf'
/hA:**f**/	/ha**p**/	'half'
/bA:**θ**/	/ba**t**/	'bath' (in bathroom)

Both the phonological conditions of devoicing and deaspiration are visible in the following examples:

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R.P.	M. P.	Gloss
/faɪ**v**/	/phai**p**/	'five'
/stə℘**v**/	/is.to**p**/	'stove'

Here, in the above two examples, the labio-dental fricative /v/ is substituted by its counterpart bilabial aspirated plosive sound /bʰ/, as no such sound like /v/ is not available in Meiteiron, then it is followed by the rule of deaspiration of the final consonants which results into a voiced bilabial stop /b/, which again is followed by devoicing of the voiced plosive consonants, and the final result is /p/. However, when they occur in the initial and medial positions, they are not deaspirated. The final aspirated sounds of Hindi loanwords in Meiteiron such as /kʰ/ in /lakʰ/ 'one lakh' and /t5aPikʰ/ are deaspirated in nativization process.

Free Variation of /l/ and /r/

In Meiteiron, /l/ and /n/ are in free variation at the final position of a word, in which case /n/ is more preferable than /l/. Hence, most of the loanwords which end with /l/ has the liberty to shift to /n/ or it remains the same i.e. /l/. For examples:

R.P.	M. P.	Gloss
/kæn.dl/	/ken.dən/	'candle'
/kənæl/	/kenen/	'canal'
/faɪnᵊl/	/phai.nen/	'final'
/hæn.dl/	/hen.dən/	'handle'
/h□s.pI.tᵊl/	/hos.pi.tan/	'hospital'
/həY'tel/	/ho.ten/	'hotel'
/sku:l/	/is.kun/	'school'

Nativization of English consonant clusters in Meiteiron

The occurrences of consonant clusters vary from language to language; the phonotactics of the languages decide the possibilities of the combinations of the consonants. Many languages such as Maori, Piraha), Tahitian, Fijian, Samoan, Hawaiian and Japanese do not permit consonant clusters at all. While on the other hand, language like Georgian is drastically permissive of consonant clustering having clusters of four, five or six consonants which are not unusual—for instance, /brt´q´ɛli/ (*flat*), /mt□s vrtnɛli/ (*trainer*) and /prts□□kvna/ (*peeling*)—and if grammatical affixes are used, it allows an eight-consonant cluster: /ɡvbrdɣvnis/ (*he's plucking us*). Consonants cannot appear as syllable nuclei in Georgian, so this syllable is analyzed as CCCCCCCVC (http://en.wikipedia.org/wiki/Consonant_cluster).

In Meiteiron, consonant clusters occurring at the initial position of native words is very rare while consonant clusters at the final position of a word or a syllable is completely absent. But, a few examples of medial clusters are there in Meiteiron which were apparently developed at the later stage as in the old literatures of Meiteiron (18ᵗʰ C.) no such evidences of consonant clusters are available. All the consonant clusters of Meiteiron are formed with a

following sounds among the consonants /r, l, w, y/. The cluster with /l/ occurs only in the loanwords. Hence, the speakers of Meiteiron having very limited consonant combinations face the problems in accepting a loanword containing clusters or in learning a second language. The simplification processes of the unfamiliar clusters are as follows:

Initial clusters

Initial clusters are rare in Meiteiron, however the only clusters which we find in Meiteiron is formed only with the combinations of /kʰ, k, l, s/ as the first element and /w, y/ as the following element of the cluster. But initial cluster is most commonly found in the onomatopoeic words. Most of the Meiteiron consonants except /m, n, h, l, r, w, y/ can make a cluster with /r/ sound as a following element of the clusters in the onomatopoeic words, while /jʰ, bʰ, dʰ/ can occur as clusters with /r/ as following element in the speakers of some Meiteiron speakers. Initial clusters are simplified in two ways, either by the addition of a vowel or insertion of a vowel.

a)Addition of a vowel /i/ (vowel prothesis),

Loanwords having initial clusters starting with /s/ are all separated by the addition of /i/ at the initial position that results a single syllable into two syllables in Meiteiron. For examples:

R.P.	M. P.	gloss
/stə℘v/	/is.top/	'stove'
/sti:l/	/is.tin/-l/	'steel'
/sk₃:t/	/is.kət/	'skirt'
/sku:l/	/is.kun/-l/	'school'
/sp□:rt/	/is.pot/	'sport'
/sp℘ndʒ/	/is.pon/-ns/	'sponge'

But this initial vowel addition does not cover in the case of cluster with semi vowel. For example:

R.P.	M. P.	gloss
/switΣ/	/suis/sui, suiz/	'switch'
/'swet.əʳ/	/sui.tər/ swe.t↔r/	'sweater'

b) Insertion of vowel
/gl-/

R.P.	M. P.	gloss
/glA:s/	/gi.las/ gi.la.s↔/	'glass'
/gl℘v/	/go.lop/ grop/ /glop/	'glove'
/'glu:kə℘s/	/gu.lu.kos/-gos, /gru.kos/-gos/ /gu.ru.kos/	'glucose'

/kl/

R.P.	M. P.	gloss

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/klA:s/	/kə.las/kə.la.sə/	'class'
/klA:k/	/kə.lak/ klak/	'clerk'
/kl℘b/	/kə.ləp/ kl↔p/	'club'

In the above /gl/ and /kl/ clusters, they are simplified with a vowel /ə/ insertion.   But in the following examples, the simplification process shows the vowel harmony.

/klInIk/	/ki.li.nik/	'clinic'
/klIp/	/ki.lip/	'clip'
/kləYn/	/ko.lom/	'clone'

c) Interchanging the positions of the elements of the clusters (metathesis)

R.P.	M. P.	gloss
/'prez.I.dᵊnt/	/pər.si.den/	'president'
	~ /prə.si.den/	
/prəYgræm/	/por.gam/	'programme'
	~ /pro.gam/	

In the above examples the last element /r/ of the /pr/ cluster interchanged its position with the following vowels.

d) Dropping of the second element of the initial cluster

R.P.	M. P.	gloss
/'preƩəʳ/	/pe.sər /pre.sər/	'pressure'
/træns'fɜːʳ/	/tans.phar/	'transfer'
	/trans.phar/	
/'træktə(r)/	/tek.tər/	'tractor'
	/trek.tər/	

Medial clusters

There are two possible options to form medial clusters in Meiteiron- only the 13 phonemes of Meiteiron viz. /p, b, c, k, t, d, z, g, pʰ, tʰ, kʰ, s, m/ followed by /r/ and the other possibility is /p, d, tʰ, s/ followed by /w/ (Yashwanta, 2000; Madhubala, 2002). Hence, the clusters other than these combinations are problems for Meiteiron speakers, so they are accepted only in the simplified forms while receiving a loanword by the speakers. The simplification of medial clusters with /s/ as the initial element is as follows:

	R.P.	M. P.	Gloss
/st/	/∪lip.stIk/	/lips.tik/	'lipstick'
	/∪redZ.I.stəʳ/	/res.tar/	'register'
	/∩redZ.I∪straʳ/	/res.tar/	'registrar'
/sk/	/haI sku:l/	/hais kul/	'high school'
/sp/	/In∪spek.t↔ʳ/	/ins.pek.t↔ɾ/	'inspector'

In the above simplification, the clusters are split in such a way that the first element i.e. /s/ attached to the previous syllable and the second element remains in its own place initiating the syllable.

Final cluster

Like most of the Tibeto-Burman languages especially of the Kuki-Chin group, Meiteiron has no final cluster (Yashwanta, 2000; Madhubala, 2002). Any loanwords entering into Meiteiron with final cluster are naturalized in the following ways:

a)Vowel epenthesis
   Insertion of /↔/

It seems that the final clusters having the plosive consonants as the first element and the alveolar lateral approximant /l/ as the following element accompany the vowel insertion of /↔/ to simplify the cluster. For examples:

R.P.	M. P.	Gloss
/kæn.dl/	/ken.dəl/-n/	'candle'
/'teI.bl/	/te.bəl/-n/	'table'
/'saIkl/	/sai.kəl/-n/	'cycle'
/'℘ŋkl/	/əŋkəl/-n/	'uncle'

Insertion of /o/
   /h□:rn/ h□:n/   /ho.ron/   'horn'

In the above example, the final cluster /r n/ is simplified with a vowel /o/ insertion which has vowel harmony with the preceding vowel.

b) Addition of vowel

R.P.	M.P.	Gloss
/tæŋk/	/teŋ.ki/	'tank'
/'ketl/	/ke.t↔.li/	'kettle'

The above simplification process is similar with Hindi and Bengali as well. Probably, Meiteiron might have borrowed the simplified form of the particular word from the two languages i.e. Hindi and Bengali; otherwise, 'kettle' could have come under the nativization process of /ə/ addition. This is similar to Assamese producing bench as /ben.si/. *Tank* is borrowed in Korean with the vowel addition of /ŭ/ as *taengkŭ.*

c) Dropping the last sound of final clusters

R.P.	M. P.	Gloss
/'æksIdᵊnt/	/ek.si.den/	'accident'
/dIskaYnt/	/dis.kaun/	'discount'

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/sekᵊnd/	/se.ken/	'second'
/sə'spend/	/səs.pen/	'suspend'
/lA:st/	/las/	'last'
/ædikt/	/e.dik/	'addict'
/dIstrIkt/	/distrik/	'district'
/kæmp/	/kem/	'camp'
/təYst/	/tos/	'toast'

Similar kind of simplification process is available in Khasi language (Awadesh 2009)

d) Metathesis

The process of transposition of sounds or syllables within a word or words within a sentence is called metathesis. This is one of the processes for the simplification of clusters in Meiteiron. For example, the two elements of the cluster of /sk/ in the word's final are interchanged. This phenomenon is even found in the speech of educated people in their casual and careless speech.

R.P.	M. P.	Gloss
/flA:sk/	/pʰlaks/	'flask'
/dIsk/	/diks/	'disc'
/rIsk/	/riks/	'risk'
/desk/	/deks/	'desk'
/m□sk/	/moks/	'mosque'

But the cluster /sk/ in the initial and medial positions of words has an entirely different process as discussed above.

It has been mentioned that the clusters of /l/ occurs only in the loanwords in Meiteiron. The continuous contact with English language, primarily due to the English education and the imitation to pronounce like the native speakers of the source language is the sole reason for such a result. Thus a few consonants as well as their possible combinatory are assimilated into Meiteiron. For example:

Consonant Cluster	R.P.	M. P.	gloss
/pl/	/pl℘g/	/plak/	'plug'
	/plai/	/plai/pə.lai/	'ply'
	/'plæs.tik/	/plas.tik/ /pə.las.tik/	'plastic'
	/pleig/	/plek/	'plaque'
	/plæn/	/plan/pə.lan/	'plan'
/bl/	/b℘lb/	/bləp/	'bulb'
/gl/	/gl℘v/	/glop/ grop/	'glove'
/kr/	/krIkIt/	/kri.ket/ ki.ri.ket/	'cricket'

	/kræk/	/krek/ ke.rek/	'crack'
/tʰr/	/θri:/	/thri/	'three'
/pr/	/praɪz/	/prəis/ pə.raiz/	'prize'
	/pres/	/pres/	'press'
	/praim/	/praim/ pə.raim/	'prime'
	/'preΣəʳ/	/pre.sər/ pe.sər/	'pressure'
/tr/	/tr℘k/	/trək/ tə.rək/	'truck'
	/'trə℘.fI/	/tro.phi/	'trophy'
	/treIn/	/tren/	'train'
	/'træktə(r)/	/trek.tər/ tek.tər/	'tractor'

This is similar to Bengali that the final clusters are very rare; but due to the continuous contact with Sanskrit, Hindi and English languages, many loanwords having final consonant clusters have become extremely common in Bengali which now can even be considered legal consonant clusters of Bengali (http://en.wikipedia.org/wiki/Consonant_cluster). Thus, the speakers of Bengali are acquainted with many final clusters of Sanskrit and English languages. With the passage of time, new set of clusters may be accepted in Meiteiron as it occurs in the speech of conscious speakers.

Medium of Borrowing

As regard with the medium of transmission, two processes can be categorized: Ear borrowing and Eye borrowing.

Ear Borrowing

A type of borrowing that we perceive through the speech sounds by ear. This is the common process of borrowing in most of the languages. But, interestingly in some cases of ear borrowing, it happens that, a borrower, during his conversation tries his best to pronounce the nearest possible sound of a new word that he has already heard from others, and he mispronounces it in doing so. And in the course of time, it gains currency in his society that the object or the concept is known by that wrong/ incorrect pronunciation. Many of such examples are still available in the lexicon of Meiteiron. For examples:

/te.r↔.siŋ/de.rə.siŋ/	'kerosene'	/hem.let/ het.met/	'helmet'
/ke.t↔li/ te.k↔.li/	'kettle'	/gi.t↔r/ gin.t↔r/	'guiter'
/seŋ.gəm/ siŋ.gəm/	'chewing gum'	/s↔s.pen/	'sauce pan'
/hen.d↔.men/	'handyman'	/z↔r.kiN/z↔r.kin/	'jerry can'
/hen.d↔l.men/		/im.be.tər/	'inverter'
/ge.sen/gre.sen/	'glycerin'	/in.bhai.tər/	
kre.sen/		/se.lep/	'slate'
/soda.bai.g↔p/	'sodium-bi-carbonate'	/l↔b.b↔r/	'rubber'
		l↔.b↔r/	
/la.ten/ ~ /lar.ten/	'lantern'	/peN/	'brain'

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/pə.la.sə/ ~ /pə.las/   'pliers'   etc.

Eye Borrowing

Eye Borrowing is the borrowing of lexical items through orthography. This happens when someone finds a new object and known by the brand name written on it. In this case the spelling influences the pronunciation of the word. For example, CVZ – a brand name of motorbike which is supposed to be pronounced as /s:i 'vi: dZi:/ is pronounced as /si. bi. zet/ by Meiteiron speakers. It's because the alphabet '**z**' is pronounced as /zet/ in Meiteiron. Another example is that of a mini car /bʰan/ 'van' which English pronunciation is /væn/. Similar examples are:

R.P.	M. P.	gloss
/bIskIt/	/bis.kuit/	'biscuit'
/'res.tr□nt/	/res.tau.ren/ res.tu.ren/	'restaurant'
/'ribᵊn/	/ri.bon/ li-/	'ribbon'

Words often travel along with the objects that they represent and are introduced into speech communities at the same time as the objects themselves (Bynon 1969, page no. 482). Thus, many new terms are introduced to a language when an object reached a speech community. But sometimes, that thing or object is known by the brand name written on it; and it becomes a generic term for all the varieties of the object.

A brand name representing a thing or a concept

   (a) Colgate 'toothpaste'

It is pronounced as /kol.get/ by Meiteiron speakers. And it is a generic term for all kinds of toothpaste in Meiteiron. Perhaps, this toothpaste (Colgate) was the first popular toothpaste introduced to Meiteiron speakers.

   (b) Surf   'detergent'

All kinds of detergent for washing clothe is known by the name 'surf' which is pronounced as /sə.rəp/ by the speakers. For referring to detergent cake /sə.rəp sa.pon/ is used while /sa.pon/ means 'soap'. Similarly, in Kashmiri[1] language, *leptin chay* 'milked tea' in which *leptin* is a brand name of milk powder.

   (c) Superfine 'imported rice form outside Manipur'

'Superfine' refers to all kinds of non-sticky rice which are very hard to eat. From this term, it seems as if the quality of rice is very fine, soft and costly. But this is not in the case of Meiteiron '*superfine*'. Non-sticky and hard rice are also available in Manipur but they are not

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[1] *This data was collected from Irshad Ahamad Naikoo who is a native speaker of Kashmiri.*

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referred to this name and this term does not include the soft and costly kind of rice like '*Basmati*' even though they are brought from outside the state. Thus, '*superfine*' is considered as very low quality rice with many foreign particles like weeds, stones, etc.

(d) Boy 'notebook/paper'

'Boy' is a brand name of a notebook. This brand name gradually came to be known for any notebook. This word is used in *boy-kolom* 'paper (and) pen' while the actual word for 'paper' is *Che* /ce/.

(e) Brite /brait/ is a big bucket of a particular shape of different colors. This concept came from the fact that when this type of container was brought into Manipur, the brand name 'Brite' was written on it. Later, spellings like 'Bride' and 'Bright' have appeared as a different brand. Similarly, *Syntax* /sin.teks~ sen.teks/ is 'a cylindrical shaped water tank' which is bigger as well as thicker than *Brite* and is normally black in color. *Syntax* became a generic term of any container having the similar shape of it. In Meiteiron, /tengki/ 'tank' is used to mean a 'water or oil reservoir built with cement and brick/ metal'.

But as literacy rate increases among the Meiteiron speakers, people gradually have become more aware and conscious about the usages and pronunciation of the borrowed words and try to more careful about the wrong usage of such generic terms and also try to avoid any sort of mispronunciations.

Impact of English Loanwords on Meiteiron

As Meiteiron had been in contact with English for a considerable period of time, many English loanwords have entered into Meiteiron. There are certain terms in the lending languages which denote specific concept or object which were previously not known to the speakers of the recipient language. For example, in Meiteiron, the concept of Santa Claus and the Angels of Christianity as well as the concept of Tulsi and Ganga in the case of the contact with Indo-Aryans were assimilated as the result of linguistic and cultural contacts with English, Hindi, Bengali and Assamese.

Meiteiron, therefore, also accepted new segmental phonemes and their possible combinations such as the cluster of /bl/ in /bl↔p/ 'blub', /kl/ in /klak/ 'Clerk', and /pʰl/ in /pʰlaks/ 'flask'. Consonant sounds /b, bʰ, d, dʰ, g, gʰ, z, jʰ, r/ now can readily be pronounced at the initial position of loanwords and they can also be conspicuously used in the final position of loanwords which were once a problem for Meiteiron speakers. The followings are some of the impacts of English loanwords on Meiteiron.

Impact on the kinship terminology and proper name

Meiteiron adopted many kinship terms from English such as Mummy, Daddy, Uncle, Aunty etc. and proper names like Jacky, Rosy, Romeo, and Juliet etc. Many educated speakers use English kinship reference in their formal and polite speeches. For example, 'husband' is more preferable to the native terms /nu.pa/ 'man' or /i.pu.roi.bə/ 'my companion' in a formal speech, though /i.pu.roi.bə/ is considered to be highly respectful and polite.

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Hybridization

The term "hybridization" is loosely used in various industries. Basically, hybridization is the process of combining two things together to form something new. The new item is often similar to the original item of each. In fact, it may have the characteristics of the original sources and its own unique characteristics as well after the combination. However, in linguistics 'hybridization' is often a term used to describe a language being blended with another language; a hybrid word is a word made up of elements (or morphemes) from different languages; it can be in word level or in phrase level. 'Television' is a hybrid word from Greek *tele* 'far' and Latin *visio* 'seeing'.

Hybrid words formed with English and Meiteiron are very less in number; but a handful of hybrid words formed with Indo-Aryan languages may be observed. It is because the contact with Indo-Aryan languages is much earlier than European languages.

Above all, the socio-cultural and religious contact between the Indo-Aryan languages and Meiteiron is considerably to a large extent and historically quite old. Close contact with English came only after the Anglo-Manipuri war in 1891. But as of now, the popularity of English is much more than any other languages in Manipur. The processes of the hybridization are discussed bellow,

1. **/bi.lu.ŋa/** 'a kind of small fish not more than two inch length'.

    It is a hybrid word formed by English ***balloon*** and Meiteiron ***Nga*** 'fish'.
    bi.lun + ŋa > bi.lu.ŋa/ bi.luŋ.ŋa
    ballon   fish

The literal meaning of this combination is 'fish that resembles balloon'. In Meiteiron, airplane is known by the name *balloon* of English. This meaning perhaps comes from the appearance of the airline when it is in space that appears very tiny due to its height. The equivalent word in the standard Meiteiron of this word is ***Ngasang*** /ŋa.saŋ/ which literally means 'long fish'. Because of the dialectal difference, this word has variant forms; they are **/be.lun toŋ.bi/** and **/be.lun pai.bi**/.

The name **/be.lun toŋ.bi/** apparently derives its meaning from the belief that this particular fish can fly.

    bi.lun + toŋ.bi > bi.lun toŋ.bi
    plane   board/ sit on

The literal meaning of this combination is 'fish which is on board in a plane' but this is more appropriate to translate as 'a fish which flies like a plane.

Similarly **/be.lun pai.bi**/
    be.lun   + pai.bi
    plane   fly

The literal meaning is 'fish that flies like a plane'

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2. **/bol-ə.kam.bi/** 'balloon'
      /bol/ 'ball' + /ə.kam.bi/ '(that is) blown'

Hybrid formation with the native nominal bound root /-ta/

The native Meiteiron word **/mə.ta/** 'manner, characteristics, look, type, way of doing something' can be attached to the monosyllabic nouns by dropping the suffix **mə-** that results into a hybrid word. For example:

/bek-ta/ 'a kind of bag' which may occur in sentences like the following,
      məsi-di   **bek-ta**   əmə-ni 'this is a kind of bag (~ a different type of bag).'
      this- demo beg-type one-copula

Similarly, /get-ta/ 'a kind of gate '

But /-**ta/** cannot be attached to a polysyllabic nouns or nouns consisting a cluster. For example:

      *bil.diŋ-da 'a type of building'
      *trək-ta 'a kind of truck'
      *plak-ta 'a kind of plug'

In such cases, /mə.ta/ occurs as a single lexical item to covey the same meaning. In fact, this kind of hybrid formation with /–ta/ is of recent development.

Hybridization with Suffixes

In most of the languages, borrowing is mere common at the higher levels; at the phonological and morphological levels, the elements of any language are native (Hock and Joshep 1995). In English, since many prefixes and suffixes are of Latin or Greek origin, it is straightforward to add a prefix or suffix to a word that comes from a different language which results a hybrid word (http://wapedia.mobi/en/Hybrid_word). In Meiteiron, the most common process of hybrid formation is with the Meiteiron suffixes. For example:

      Plural suffix **/-siŋ**/:

In making plurals in Meiteiron, suffix /-*siN*/ is added to the noun or a lexical item *m↔jam* accompanies the noun. Most of the loanwords also come in this rule when making plurals of each word. For examples:

      Computer + /-*siN*/   > /k↔m.pu.t↔r-siN/   'computers'
      Table + /-siŋ/ > /te.bəl.siŋ/ 'tables' etc.

Other than this plural marker, is accusative marker /–**pu/**; demonstrative marker /-**tu ~ -to, -ti/**; locative marker /-**tə**/ etc. in which all the consonants of these markers change to their voiced counterparts if they are preceded by a voiced sound.

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Obsolescence

Words become obsolete or archaic for many number of reasons. Borrowing is one of them. Switching to borrowed words excessively discards the native words which diminishes the usage of the native words. Thus, at later stage, they are being marginalized and have less frequency in general usage; this makes the native words partially or completely archaic words to the new generations. Many speakers do not realize that they are incorporating loanwords in their speech. The excessive usage of English loanwords by educated Meiteiron speakers can easily be evidenced in any one of the popular local newspapers.

Hence, it is questionable whether a person who has less knowledge of English can fully understand the newspaper or not. But as media is the best means for a loanword to spread, the frequent occurrence of the word gives its currency in the lexicon of Meiteiron. Borrowing enriches the lexicon of a language for sure but excessive borrowing under the category of prestige motive may result into making many native words obsolete.

For example, 'Diabetes' is more commonly understood than the native equivalent term 'ising pukchat (/i.siŋ puk.cət/)'; 'office' is more popularly known than 'Loisang /loi.səŋ/'; 'history' or /i.ti.has/ 'history' of Indo-Aryan word discarded the native word /pu.wa.ri/. Similarly, Indo-Aryan loanword /ko.lom/ 'pen' replaced the native term /k^{h}or.zəi/ 'pen' of Meiteiron and now /k^{h}or.zəi/ appears only in the poetic forms.

Phonemic Innovation

In many languages, new phonemes are introduced by a gradual process of borrowing from an exterior source with a period of coexistent phonemic systems (Fries and Pike, 1949).

Loanwords may be taken into a language in a form already acceptable to the recipient language or they may retain some alien feature and so introduce new phonological patterns (Henderson 1970). The nine phonemes (/b, bH, d, dH, g, gH, z, jH, P/) of Meiteiron are the later development sounds.

In the ancient literatures of Meiteiron, these sounds were not available. The voiced consonants /b, bH, d, dH, g, gH/ were developed from their voiceless counterparts /p, p^h, t, t^h, k, k^h/ respectively whereas /z/ and /p/ were developed from /c/ and /l/ in the intervocalic positions or in between two voiced sounds. Though, there are possibilities of the self development of the sounds as the language evolves the contact with the speakers of Indo-Aryan languages like Hindi, Bengali and Assamese enhances in the development of such new sounds in Meiteiron.

As Meiteiron keeps constant contacts with many such languages, especially English in this modern time, in the near future, there are high chances for the development of more new sounds in Meiteiron. For instance, in the speech of educated people, the bilabial fricative /p^h/ in the words like /im.p^{h}al/ 'Imphal (capital of Manipur)' has become labiodental fricative /f/. This appears in the speech of younger generation which emerges as a new trend.

Conclusion

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The contact with English language has tremendous impacts on Meiteiron. As English is an associate official language of the state as well as a global language, the influence of English on Meiteiron is obvious and undeniable. The unfamiliar sounds of English are naturalized by substituting them with nearest possible native sounds, for example, English consonant sounds like /f, v, ʃ, tʃ, ʤ, θ/ are replaced by Meiteiron phonemes /pʰ, bʰ, s, c, z, tʰ/ respectively; English vowel sounds like /Y, æ, ɔ, □/ are substituted by Meiteiron vowels /u, e, o, o/ respectively, English diphthongs like /eə, əY/ are replaced by /e, o/ of Meiteiron and English triphthongs are accepted only in the simplified forms in Meiteiron. The voiced consonants /b, d, g/ at the final positions of English words are devoiced in the nativization process in Meiteiron as /p, t, k/ respectively. /l/ sound in English words at the final position is preferably substituted by /n/ as both sounds occur as free variation at the final position of a word in Meiteiron. English clusters are simplified by inserting a vowel, by dropping one of the consonants of the cluster, by metathesis etc.

The imitation to pronounce like the native speakers of the source languages in accepting loanwords or learning a second language introduces and familiarizes new phonemes and their possible combinations to the speakers of Meiteiron, which, in later stages, become part and parcel of Meiteiron phonemes. For example, the clusters like /pl; kl; bl; gl/ are developed in Meiteiron as a result of language contact with English.

A brand name becomes a generic term in some cases when they are being introduced to the speakers.

Hybridization, obsolescence and phonemic innovations are the primary impacts of borrowing.

It is natural that borrowing of English loanwords enriches the lexical stock of Meiteiron; however, excessive absorption of loanwords may not be a wise attempt as this may endanger many native vocabularies and thereby leading them to the verge of extinction in future. The influence and impact of English on Meiteiron in near future seems potentially more dynamic and vibrant. Therefore, a conscious effort of regulation of language matters must be exercised by the users of Meiteiron.

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Hyderabad, Deccan

July 1, 2010

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Introduction

منظور ہے گزارش احوا ل واقعی

اپنا بیان حسن طبیعت نہیں مجھے

What is the status of Urdu literacy in India at the turn of the twenty first century as gauged through school education? Or how many students in primary schools in various states of India are studying through Urdu as the language of instruction? How many students are learning Urdu as one of the subjects under the three (or four) language formula in various levels of schools? Have the various levels of government—central, state, and local—facilitated or obstructed learning of Urdu in various states since independence? To what can we attribute the uneven levels of Urdu literacy and education in various states? Besides schools run by the state, who are the other institutions involved in promoting Urdu literacy? This Report thus asks five critical questions as noted earlier, and answers to these questions will enable reasonable projections about the future of literacy (as opposed to orality) in and education through Urdu. Essentially, then, this Report quantifies and measures Urdu literacy in India since the 1950s. For the purposes of this Report, literacy is defined as the ability to read and write elementary Urdu in its own script of Perso-Arabic origin. The term "education through Urdu," is defined as education through the medium of Urdu from primary to secondary level in most, if not all subjects. In answering these questions, this Report will concentrate on the question of Urdu literacy and its higher stage, education through Urdu, in the states of Uttar Pradesh, Bihar and Delhi in northern India, and Andhra Pradesh, Karnataka, and Maharashtra in southern India. The role of institutions outside the formal schools system—in particular the Madarsas will be discussed through a quantitative exercise to gauge the number of students

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involved in this stream of education through Urdu. The Report concludes with a summary of key findings and a set of immediate action proposals for reversing the decline of Urdu literacy.

The Report is based on four primary sources. These are: statistics on Urdu literacy and education provided by the Union Government's Commissioner of Linguistic Minorities located in Allahabad, U.P.; data available from the District Educational Officers of the ministries of education in various states, interviews with the officials of public organizations/NGOs, and information available from State Madarsa Boards, both official and non-official. It is surprising that previous official committees on Urdu, weather that chaired by I.K. Gujral or Ali Sardar Jaafari did not bother to collect detailed statistics running over years to get a clear picture of Urdu literacy as measured by number of pupils, schools, and teachers in the nation. Neither did the well-funded National Council for the Promotion of Urdu Language run by the Ministry of Human Resource Development.[1]

Before the advent of British rule on the subcontinent at the dawn of the nineteenth century, Indians received education through two patterns. One, shaped by vocational relevance was given in locally dominant languages to cope with the day-to-day needs of society. The other pattern was to provide education to the elites—sons of literati, the ruling class and high officials—by readings of scriptures and historical texts through classical language such as Sanskrit, Arabic and Persian in Pathshalas, Gurukul, Maktabs and Madarsas. During the Mughals and its immediate successor states in the subcontinent, the language of the royal courts, diplomacy, higher levels of administration, judiciary, and revenue

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[1] Interview with Director Hamidullah Bhatt, New Delhi 9 December 2005; interview with Ali Jawid, New Delhi May 14, 2010. Jawid was director from April 2007 to January 2009.

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collection was Persian.[2] With the consolidation of the colonial rule, the British abolished Persian (in 1836) as the language of judiciary and administration, replacing it with English. The British administration could not resolve or was not interested in resolving the three basic issues of education: the content, the spread, and the medium or language of instruction. While sons of the Indian elite were educated in English schools in urban areas, right from the primary level, the large masses of the population went to schools imparting education through regionally dominant languages in eastern, southern and western India. However, in large chunks of British territories of Punjab, Northwest Frontier, Oudh, United Provinces (modern UP), the princely states of Hyderabad and Kashmir were exceptions to the rule, where Urdu became the language of instruction in schools, and remained so until the late 1940s. During the long years of struggle for independence, nationalist leaders such as Gopal Krishna Gokhale, (1866-1915), Mohandas Gandhi, (1869-1948) and intellectuals like Muhammad Iqbal,(1876-1938), Rabindranath Tagore, (1861-1941) and Mawlawi Abdul Haq (1870-1961) saw the need for universal elementary education through mother tongue.   They hoped that education through mother tongue would be the agent and catalyst for liberation from the European intellectual hegemony, which they thought was as much necessary as political freedom from the colonial power. In Hyderabad, in his Dominions, the enlightened Nizam, Mir Osman Ali Khan (reigned 1911 to 1948) established a full-fledged, well-funded Osmania University in 1917 that imparted higher education through Urdu given that it was the language of instruction throughout the state.[3]

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[2] A summary of education in medieval India is by Aziz Ahmad, *An Intellectual History of Islam in India*, (Edinburgh: University Press, 1969), pp. 52-65.

[3] Haroon Khan Sherwani, "Osmania University: First Phase, Urdu Medium" pp. 237-247, in *Studies in Indian Culture: Ghulam Yazdani Commemoration Volume*, edited by H.K. Sherwani, (Hyderabad, 1962). It is ironic that one of the

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Language Issues and the Constitution

Given the immense linguistic diversity of India, it is unsurprising that there are constitutional provision governing the use of languages in education and administration.[4] The national constitution adopted in January 1950, divides power to enforce decisions on language between the center and the states. Education is primarily a state subject. Article 345 of the Constitution gives the states the power to adopt whatever languages they choose for official purposes within their territory. However, state powers with regard to language policies are not limitless. The Constitution guarantees certain rights to linguistic minorities, which the state are obliged to provide. Article 20 guarantees the right of citizens in any part of India to preserve their distinct language, script or culture. Article 30 guarantees minorities "whether based on religion or language…their right to establish and administer educational institutions of their choice," and to receive state aid for such institutions without discrimination. Article 350A obliges every state and local authority to "provide adequate facilities for instruction in the mother-tongue at the primary stage of education to children belonging to linguistic minority groups." Article 350B establishes a "Special Officer for Linguistic Minorities," to be appointed by the President to report on "all matters relating to the safeguards provided for linguistic minorities under the constitution. These

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first acts of the Indian Military Governor J.N. Chaudhuri was to forcebly change the language of instruction at Osmania from Urdu into English after the Operation Polo of September 1948.

[4] For the question of "official," language status, meant for communicating matters of state administration, see Omar Khalidi, ""Politics of Official Language Status for Urdu in India," *Journal of South Asian and Middle Eastern Studies* 28, 3 (Spring 2004): 53-77.

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reports are then placed before parliament and sent to the state governments. By any measure, the Indian constitutional provisions appear liberal and fair to the minorities. But Indian constitution, like constitutions everywhere is not a self-enforcing document. It requires the executive branch of the government to implement that which is promised in the constitutions. A series of education ministers' conference decisions, memorandums of Indian government, chief ministers' conference decisions since 1949 clearly and unambiguously provide safeguards to the linguistic minorities as detailed in almost every annual report of the Commissioner for Linguistic Minorities since 1956. Most recently, in 2007, the National Commission for Religious and Linguistic Minorities in a report compiled by a former Chief Justice Ranganath Mishra, unambiguously recommended that "the three language formula should be implemented everywhere in the country making it compulsory for the authorities to include in it the mother tongue of every child—including especially Urdu and Punjabi." [5]

In other words, every state in India is under obligation to provide primary education in mother tongue. For instruction in mother tongue at the secondary stage of education, "a minimum strength of 60 pupils in the last four classes and 15 pupils in each class will be necessary, provided that for the first four years, strength of 15 in each class will be sufficient."[6] In other words, this liberal regime is the framework for providing education at primary and secondary level for

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[5] *Report of the National Commission on Religious and Linguistic* Minorities, (New Delhi: Ministry of Minority Affairs, 2007), available on

http://www.imc-usa.org/files/NCRLM_Ranganath_Misra_Report.pdf

[6] Commissioner of Linguistic Minorities in India, 17th *Annual Report,* for the year 1974-1975 (Allahabad: CLM, 1976), p. 5.

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children of linguistic minorities throughout the nation. But are constitutional guarantees and executive decisions actually implemented? In order to examine the implementation of constitutional guarantees to the linguistic minorities, each state merits separate treatment given the wide variation in the attitude of governing political parties in various states. As discussed earlier, we will examine literacy in and education through Urdu in six states, beginning with Uttar Pradesh as it contains the largest number of Urdu speakers.

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Uttar Pradesh: Eclipse of Urdu

A telling picture of UP: no Urdu sign but exhortation in Hindi to learn English in Lucknow in August 2007. Photo by TwoCircles.net

Shortly after independence in mid August 1947, while almost all Indian languages took their rightful place in education, administration and as the medium of mass communication, Urdu did not. It did not for two reasons. First, unlike the speakers of most languages, the speakers of Urdu were not concentrated in one compact geographic region or state to enable political support for the language. They were a minority of speakers everywhere. That situation remains unchanged. The

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second reason was political, particularly in Uttar Pradesh. Unlike the liberal and secular vision of the Congress Party faction led by Mohandas Gandhi,   Jawaharlal Nehru and C. Rajagopalacharya, the Hindutva faction of Congress Party led by Sardar Vallabhhai Patel and provincial leaders in Uttar Pradesh opposed Urdu as they perceived it synonymous with Muslim culture. Puroshottamdas Tandon, a senior leader of the Congress Party fulminated in a speech on 15 June 1948, warning "Muslims must stop talking about a culture and civilization foreign to our country and genius. They should accept Indian culture. One culture and one language will pave the way for real unity. Urdu symbolizes a foreign culture. Hindi alone can be the unifying factor for all the diverse forces in the country."[7] Pundit Govind Ballabh Pant, a Congress leader, (UP Chief Minister 1946 to 1954), speaking in the Constituent Assembly implicitly denied that Urdu was a language distinct from Hindi, characterizing the demand for teaching of Urdu as an "idea of separatism," and a "bogey," raised by proponents of "two nation theory."[8] In October 1947, the Congress-dominated UP Legislative Assembly voted a Hindi-only policy in the state over the objection of the Opposition Muslim League. The Leaguers walked out in protest, to the sounds of Congress Partly legislators calling out, "Don't come back; go to Pakistan."[9]

Another Congress leader Sampurnanand (UP Chief Minister from 1954 to 1960), arrogated to himself the role as a definer of Urdu, declaring it "not … a separate language but merely a style of Hindi in which words of Arabic and Persian

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[7] *National Herald* (Lucknow) 15 June 1948, p. 7.

[8] *Constituent Assembly Debates, Official Report* 7, New Delhi, 1949), pp. 913-916.

[9] *Pioneer*, Lucknow, 5 November 1947, p. 1.

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derivation form a high percentage."[10]Echoing the views of the Congress leaders, the Central Working Committee of the Bharatya Jana Sangh (BJS, the earlier incarnation of Bharatya Janata Party, BJP), declared Urdu to be "the language of no region in India, it being only a foreign and unacceptable style of Hindi with a foreign script and foreign vocabulary imposed on India during a period of foreign domination." [11] Writing in *Organizer*, the BJS mouthpiece, the Party President Deen Dayal Upadhyaya, supported the Congress Chief Minister's notion that Urdu was a foreign imposition.[12] The views of the UP political leaders—whether of Congress or otherwise-- remained the same over several decades. Chaudhuri Charan Singh, who started out as a Congressman and later formed a party of his own, and eventually became a prime minister, believed that "Urdu was imposed by Turks or Mongols (sic) who came from outside; and Urdu was one of the principal causes of India's partition."[13] Banarasi Das (chief minister from 1979 to 1980) and Sripat Misra (1982-1984) both simply denied that Urdu was a language distinct from Hindi. In their respective terms of office, both claimed UP to be a monolingual state and rejected demand for Urdu education as they claimed it would lead to another partition. When Muslim leaders pleaded for simultaneous development of Hindi and Urdu shortly after independence, Banarasi Das, "opposed this idea, arguing that Urdu was the product of conquest and that support for it showed that the theory of two nations survived

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[10] Sampurnanand, *Memories and Reflections,* (Bombay: Asia, 1962), pp. 92-93.

[11] *Central Working Committee of BJS Documents*, V, 8 May 1954, pp. 21-22, as cited in B.D. Graham, *Hindu Nationalism and Indian Politics*, (Cambridge: Cambridge University Press, 1990), p. 118.

[12] Deen Dayal Upadhyaya, "The Politics of Urdu," *Organizer* (26 May 1958), p. 4.

[13] Khushwant Singh, "Charan Singh and Urdu," *The Illustrated Weekly of India* (11 December 1977), pp. 15-16.

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partition."[14] Congress Chief Minister from 1985-1988, Vir Bahadur Singh's first order upon assuming charge was to "remove the name plaque in Urdu from his office."[15] In an intemperate attack on Urdu speakers, a Congress minister Vasudev Singh "wanted Urdu supporters to be paraded in the streets on the back of donkeys," during a debate on official language status in UP Legislative Assembly in July 1985, according to press reports.[16] Although widely and often regarded as sympathetic to minorities, a former chief minister Mulayam Singh insensitively suggested Urdu speakers to change the script of their language.[17] During the tenure of his ministry, the official examination papers for the Fifth class of schools run by Anjuman-i Tarraqi-i Urdu were given in Hindi alphabets despite protest.[18] To their credit, the Nehru faction of the Congress Party, the Communist Parties of India, and a broad spectrum of intelligentsia supported Urdu's teaching. But they proved no match for Urdu's detractors in Uttar Pradesh both within and without the ruling Congress Party.

The position of Urdu speaking population and Muslim population over the decades can be seen in the table noted below.

Table I

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[14] *Statesman* (New Delhi) 20 September 1951, p. 5.

[15] Salamat Ali Mahdi, "Without Comment," *Muslim India* (November 1985), p. 525.

[16] *Northern India Patrika* (Lucknow) 16 July 1985, as cited in Selma K. Sonntag, "The Political Saliency of Language in Bihar and Uttar Pradesh," *Journal of Commonwealth and Comparative Politics* 34, 2 (July 1996): 1-18, citation on p. 16, footnote 48.

[17] D. Gidwani, "Wrong Script: War of Words over Urdu," *India Today* (28 February 1994), p. 20.

[18] Statement of Sultana Hayat, President of the Anjuman as published in *Nida-yi Millat* (Lucknow) 19 May 1991, p. 18.

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Urdu Population and Muslim Population in Uttar Pradesh

Year	Percentage of Urdu Speakers to total population	Percentage of Muslims	Coefficient	Total Urdu Speakers in millions
1951	6.8	14.28		
1961	10.70	14.62		
1971	10.49	15.48		
1981	10.50	15.93	67	9.27
1991	9.15	17.3	51.8	12.49
2001	8.98	18.5		13.3

What does the ideological pronouncement of UP leaders opposed to Urdu suggest? The political and cultural leaders of Uttar Pradesh see India in general and their state in particular as a monolinguistic and monocultural entity. In their thinking it is not enough to promote Hindi, but it also necessary to demote and deny Urdu in order to fulfill the aim of a homogeneous India, captured in the slogan, "Hindi, Hindu, Hindustan," coined by Pratap Narayan Mishra.[19] Thus it is unsurprising that the state governments of UP whether dominated by the Congress Party, or run by coalitions, or controlled by BJP, Samajwadi Party, Bahujan Samaj Party, all have consistently denied the simple, straightforward, constitutional demand of Urdu speakers for primary school education through the mother tongue. What Urdu speakers were asking was nothing more than a continuation of the right to learn their own language, a right that was not denied

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[19] Cited in Omar Khalidi, "Hinduising India: Secularism in Practice," *Third World Quarterly* 29, 8 (2008): 1545-1562.

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during the colonial era. In U.P. during the colonial era, "the media of instruction were both Urdu and Hindi. Those who took Urdu as a first language subject had to read Hindi as a second language and vice versa…There was no question of Urdu or Hindi teachers as no teacher was confirmed in service unless he showed his competence to teach through both Urdu and Hindi by passing a prescribed examination."[20] It changed swiftly after independence. How did the UP administration go about denying Urdu speakers' their basic right? Brushing aside any claims of Urdu speakers, the UP Government declared Hindi in Devanagari letters as the sole language of civil and criminal courts on 8 October 1947. Two years later the UP Board of High School and Intermediate Education decided that only Hindi would be the medium of examination for high schools from 1951 onwards and for Intermediate classes from 1953.[21] Reacting to the unjust move of the UP Board of High School, poet Anand Narayan Mulla penned the oft-quoted couplet:

<div dir="rtl">

یہ حادثہ سالِ چہل و نو میں جو ہوا

ہندی کی چھُری تھی اور اردو کا گلا

اردو کے ادیبوں میں جو مقتول ہوئے

</div>

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[20] Qazi Mohammad Adil Abbasi, *Aspects of Politics and Society: Memoirs of a Veteran Congressman,* (New Delhi: Marwah, 1981), p. 145.

[21] *Report of the Uttar Pradesh Language Committee*, August 1962, chaired by Acharya Kripalani, (Lucknow: Government of Uttar Pradesh, 1963), p. 38.

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مُلّا نامی سنا ہے شاعر بھی تھا

This tragedy that took place in 1949

Involved Hindi's dagger drawn against Urdu's throat

Among those writers murdered in this tragedy

Was a poet named Mulla!

The first subject prescribed in primary school syllabus is Hindi and is called as *Matra Bhasha* mother tongue, regardless of whether it happens to be or not in every case. These measures struck at the root of literacy in and education through Urdu at the primary and secondary levels. Furthermore, the UP Education Code 80(4) makes it mandatory for any recognized secondary school to have Hindi as the language of instruction. Anti-Urdu ideology of the UP Congress led to draconian measures struck at the core issue of Urdu literacy: the right to primary education trough mother tongue. Throughout the 1950s, supporters of Urdu speaker led by Anjuman-i Tarraqi-i Urdu (Association for the Promotion of Urdu) and numerous other organizations petitioned the President of India, met the successive chief ministers and education ministers of UP, wrote memorandums to appropriate authorities at various levels of government, but to no avail. One major instance of Urdu struggle of the 1950s, was the memorandum signed by two and a half million people which was presented to the head of state, seeking presidential intervention to safeguard their mother tongue. Zakir Husain submitted the memorandum in 1954. The memorandum, among other demands, asked for no more than the implementation of the constitutional rights for instruction at primary and secondary levels in mother tongue. The President

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would of course not intervene, unless requested by the Prime Minister. The state authorities in Lucknow remained adamant in obstructing literacy in and education through Urdu in UP. The annual reports of the Commissioner of Linguistic Minorities are replete with specific examples by which the UP administration denied learning of Urdu: limiting facilities for Urdu-speakers only to classes where there are ten such students or schools where there are forty Urdu-speaking students; failure to provide such facilities in some schools even where the requisite number of pupils existed. Even when the Urdu-speaking parents met the difficult conditions imposed by the state, authorities failed to provide mother tongue education.[22] All that the Urdu speakers' struggle of the 1950s produced was a "press note," directly addressed to no one in particular and certainly without the threat of a punitive measure if the recommendations were not put in practice. At the suggestion of Congress Party, the Union Ministry of Home Affairs, through a press note on 14 July 1958, recommended:[23]

Facilities should be provided for instruction and examination in the Urdu language at the primary stage to all children whose mother tongue is declared by the parent or guardian to be Urdu.

Arrangements should be made for the training of teachers and for providing suitable textbooks in Urdu.

Facilities for instruction in Urdu should also be provided in the secondary stage of education.

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[22] *Report of the Commissioner of Linguistic Minorities,* VI (Delhi: Manager of Publications, 1961), pp. 9-10; 135.

[23] *Report of the Committee of Parliament on Official Language, 1958*, (New Delhi, 1959), Annexure IV, pages, 115-117.

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Oddly, it was the Ministry of Home Affairs, not the Ministry of Education that issued the "recommendations." Regardless, the UP administration was not moved. While admitting of certain administrative lapses in the provision of Urdu's teaching, it persisted in the view that Urdu was not a distinct language in the first place, that there was a certain percentage of Urdu speakers in the state, but not a whole community of its speakers whose rights needed to be respected, and finally that Urdu could not be promoted as it would interfere with the projection of Hindi as the sole official language in the state.[24] In fact, in 1963, the UP Government amended the Three Language Formula which substituted mother tongue—regardless of what it happened to be—by Hindi as the first language, classical Sanskrit along with other modern Indian languages as a second language, and English as the third. Sanskrit, a classical, not a modern language was lumped together with "modern," languages with a purpose. Given the lack of teachers in "other modern Indian languages," it was impractical to impart them, so by default Sanskrit was introduced. The third language choice was English, which no pupil or parent wanted to ignore. Thus Urdu was eliminated through a seemingly innocuous mechanism, though it was clear to all and sundry what the intent was. Although even with this amendment Urdu could still qualify as a modern Indian language, yet facilities for teaching Urdu were deliberately not made available, thus forcing students to learn Sanskrit.[25] Evidently, subsequent amendments introduced twenty years later further curtailed learning of Urdu.[26] The decade of

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[24] Paul Brass, *Language, Religion and Politics in North India,* (Cambridge: Cambridge University Press, 1974), pp.204-207.

[25] "How Urdu Was Killed in Uttar Pradesh Through Bracketing it With Sanskrit," *Muslim India* (August 1983),, p. 357, which reproduces the text of UP Government Order dated 16 March 1963.

[26] Khalilur Rab, "Last Nail in the Coffin of Urdu in UP: New School Syllabus Banishes Urdu Even as a Third Language," *Muslim India* (October 1984), p. 462.

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the 1960s passed without any ameliorative measure by the center or the state, despite a litany of complaints, memorandums, deputations and petitions to the appropriate authorities at the center and state. Nearly a quarter century passed and a full generation of Urdu speaking pupils lost their birthright to learn their language before the union government appointed a *non-statutory* advisory committee headed by Inder Kumar Gujral on 5 May 1972. Gujral was then a Minister of State for Works and Housing in the union cabinet. Officially called Committee for the Promotion of Urdu, but unofficially as Gujral Committee, "it was requested to advise the Government on the measures to be adopted for the promotion of Urdu language, and the steps required to be taken to provide adequate facilities for Urdu speaking in educational, cultural and administrative matters."[27] It must be noted that the Committee was merely advisory in nature, not statutory in character, whose recommendations would be binding on the state. The Committee presented its report to the Union Ministry of Education on 8 May 1975. Soon after the Reports' presentation, in a political measure unrelated to the Report, Prime Minister Indira Gandhi declared a state of emergency in June 1975, effectively suspending democratic rights in the nation. According to Gujral, when the Report was presented in the Cabinet "Indira Gandhi was keen to accept and implement the Report in its totality…To her surprise and my dismay, Jagjivan Ram [the then minister for Irrigation and Agriculture], opposed it vehemently. He was not objecting to a particular recommendation or any other—he just did not want to look at the Report. "You want to equate Urdu with Hindi by the back door," he said. Both Nurul Hasan [the then Minister for

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[27] Available online on the website of Ministry of Human Resource Development, Government of India,

http://www.education.nic.in/cd50years/u/47/3Y/toc.htm

Accessed on 2 January 2010.

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Education] and I tried to explain that the Report had in no way to tried to resurrect the old rivalry syndrome…But Babuji [i.e. Jagjivan Ram] was unrelenting. "No, no, he said, forcefully, while others [in the Cabinet meeting] chose not to intervene. Mrs. Gandhi watched quietly. Those were the early days of the Emergency and she was not too sure about Babuji's latent attitude. Instinctively, she felt that he was seeking an issue to embarrass her. She therefore thought it expedient to close the discussion and told Nurul Hasan, "We will look at it later." This evasive instruction consigned the laboriously worked Report to the dark dungeons of the Ministry's archives."[28] The end of the Emergency, and the Congress Party's defeat in 1977 national general elections brought a new government at the Center. The Report was nearly forgotten when the new government presented it to the parliament on 21 February 1979. There was nothing original or revolutionary in the Report. It merely presented the legitimate, basic, constitutional, and fundamental linguistic rights of a minority group. Among other measures, the Report recommended the teaching of Urdu in primary education for those who claim it to be their mother tongue. At secondary level of education, it suggested amendment to the Three Language Formula that would allow teaching of Urdu as one subject in various states. [29] What action did the first non-Congress Central government and the various state governments including UP took on the recommendations of the Report? None whatsoever! When she returned to power a second time in 1980, Indira Gandhi had forgotten the Gujral Report. Just as the Congress government under Indira Gandhi had taken no action on the Report, so also the government under her son and

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[28] I.K. Gujral, "Report on Urdu," *Seminar* 332 (April 1987): 26-29, citation on page 27.

[29] Ibid.

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successor Rajiv Gandhi took no action to implement Gujral's recommendations. On 30 July 1987, the Central government issued a bland statement in the parliament: "The Cabinet decided that since most of the recommendations of the Report would have to be implemented by the states, copies of the Report may be sent to the state governments for their views. Accordingly copies of the Gujral Committee Report were made available to all the state governments…for consideration and comments."[30] Instead of acting on the recommendations of Gurjal Report, the central government constituted yet another Committee to Examine Implementation of the Recommendation of Gujral Committee for Promotion of Urdu, on 15 February 1990 chaired by Ali Sardar Jaafari, (1913-2000), a Bombay-based leftist poet. The Committee headed by Jaafari found that "education has been brought to the Concurrent list as a result of the 42nd Amendment to the Constitution in 1976. Although it was a far reaching step with regard to the sharing of responsibility between Union government and the States, no benefits have accrued to the Urdu speaking population by this measure. The Gujral Committee's recommendation to set up Urdu primary schools where there are 10 percent or more of Urdu speaking people has not been implemented by any of the States. In Uttar Pradesh, for example, ***there is not a single Government Urdu medium secondary school.*[31]** The Gujral Committee's recommendation regarding the Three Language Formula has not been implemented in any of the States in its true spirit."[32] Ironically, when I.K. Gujral became the Prime Minister in

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[30] "Government Statement on the Implementation of Gujral Committee's Recommendation on Urdu," *Muslim India* (September 1987), p. 416.

[31] Yet it does not prevent the Government from claiming their existence, as noted in CLM reports cited up to 1980s.

[32] http://www.education.nic.in/cd50years/u/47/3X/toc.htm

Accessed on 3 January 2010

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April 1997, he took no steps to implement his own recommendations on Urdu. In doing so, he was not alone. He was merely emulating his predecessors. Zakir Husain similarly forgot his earlier passion for Urdu in 1967 upon elevation as President of India. Even earlier, Jawaharlal Nehru, despite his liberal outlook did not pressure the state government of Uttar Pradesh on his government's advocacy for teaching Urdu in primary education. By not coming down hard on the Uttar Pradesh government's anti-Urdu policy, a manifest violation of the constitutional provisions, the Nehru administration and every successive union government is complicit in the state-directed culturecide, as can be seen from the statistics of Urdu speakers' declining number over the decade in various states.

SPEAKERS OF LANGUAGES 1971, 1981, 1991 & 2001: COMPARTIVE STATISTICS

Language	Persons who returned the language as their mother tongue				Percentage to total population			
	1971	1981	1991	2001	1971	1981 [1]	1991 [3]	2001 [4]
INDIA	548,159,652	665,287,849	838,583,988	1,028,610,328	97.14	89.23	97.05	96.56
1 Hindi	202,767,971	257,749,009	329,518,087	422,048,642	36.99	38.74	39.29	41.03
2 Bengali	44,792,312	51,298,319	69,595,738	83,369,769	8.17	7.71	8.30	8.11
3 Telugu	44,756,923	50,624,611	66,017,615	74,002,856	8.16	7.61	7.87	7.19
4 Marathi	41,765,190	49,452,922	62,481,681	71,936,894	7.62	7.43	7.45	6.99
5 Tamil [2]	37,690,106	**	53,006,368	60,793,814	6.88	**	6.32	5.91
6 Urdu	28,620,895	34,941,435	43,406,932	51,536,111	5.22	5.25	5.18	5.01

1,2,3,4** Figures not available for 1981 for Tamil. Source is Census of India

How can we interpret this data? It appears that the absolute number of almost all major languages is decreasing compares to Hindi. In the absence of direct,

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verifiable evidence, one can infer that the number and percentage of Hindi speakers is growing on account of three reasons. One is that the administration has aggressively pursued a policy of monologingualism in Uttar Pradesh by denying school instruction in Urdu since more than half a century. Two generations of Urdu speakers have passed with no opportunity to learn their mother tongue. Consequently, it is fair to infer that those educated—and educated for the first time—in any language happened to be literate only in Hindi, and consequently enumerated that language in census as mother tongue.[33] In number of instances, the census enumerators have deliberately enumerated Hindi as the language of Urdu speakers as illustrated in numerous instances.[34] Hindi is also growing at the expense of Punjabi in Delhi, Haryana and Punjab and among Punjabis living in other states. The sorry state of Urdu literacy is can be seen through the statistics for instruction at the primary and secondary stages of education in Uttar Pradesh from 1955-56 to 2005-2006.

Table II

Urdu Medium Enrollment in Primary Schools in UP, 1955-2010

Year	No of schools	No of students	No of teachers	Source of Info. & Remarks
1955-56		73, 704		CLM/Brass

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[33] M. Ishaq, "Levels of Language Retention among Muslims in Bihar and Uttar Pradesh," pp. 117-126, in *Muslims in India Since Independence: A Regional Perspective*, edited by M. Hashim Qureshi, (New Delhi: Institute of Objective Studies, 1998), based on 1981 census.

[34] Dr. A.J. Faridi, Paul Brass, op. cit., p. Sayyid Hamid, "Mardum Shumari Ya Mardum Bizari," *Nida-yi Millat* (24 March 1991), pp. 11-12.

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Year	No of schools	No of students	No of teachers	Source of Info. & Remarks
1956-57		77, 827		Ditto
1957-58		65, 324		Ditto
1958-59		55, 067		Ditto
1960-61		100, 465		Ditto
1961-62		111, 779		Ditto
1962-63		121, 570		Ditto
1963-64		153, 699		Ditto
1964-65		182, 396		Ditto
Year	**No of schools**	**No of students**	**No of teachers**	**Source of Info. & Remarks**
1965-66		231, 383		Ditto
1966-67		225, 922		Ditto
1968-69	2061	230,577	5000	CLM Report July 1069-June 1970, p.119.
1969-70				Data not furnished, CLM Report July 1069-June 1970, p.119.
1970-71	1780	213,528	39,944	Data pertains to 43 districts; number of teachers seems high, CLM Report, July 1972-June 1973, p. 214.
1971-72	2009	242,608	5030	CLM Report, July 1973-June 1974,p.207.
1972-73	2088	257,435	5417	CLM Report, July 1973-June 1974, p.207.
1973-74	2162	252,420	5338	CLM Report, July 1975-June 1976, p. 209.
1974-75	2546	274,633	6436	CLM Report, July 1975-June 1976, p.209.
1975-76	4967	279714	6696	CLM Report, July 1980-June 1981, p.33.

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Year	No of schools	No of students	No of teachers	Source of Info. & Remarks
1976-77	2616	211236	5517	CLM Report, July 1980-June 1981, p.33.
1977-79				Not furnished, CLM Report, July 1980-June 1981,p.353.
1979-80	1735	210,192	5733	CLM Report, July 1981-June 1982, p.336.
1980-81	1715	213205	5442	CLM Report, July 1982-June 1983, p. 348.
1981-82	1718	222437	5446	CLM Report, July 1983-June 1984, p. 448.
1982-83				Not furnished, CLM Report, July 1982-June 1983, p. 348.
1983-84	842	97,727	2331	CLM Report, July 1984-June 1985,p. 384.
1984-85				Not furnished by government, CLM Report, July 1985-June 1986, p. 51.
Year	No of schools	No of students	No of teachers	Source of Info. & Remarks
1985-86				Not furnished by government, CLM Report, July 1985-June 1986, p. 51.
1986-87	768	103572	2847	CLM Report July 1988-June 1989, p. 110. There are 8423 attached sections in schools teaching through Urdu.
1987-88	422	97761	2117	CLM Report July 1988-June 1989, p. 110. There are 526 attached sections in schools teaching through Urdu.
1988-89				GAP
1989-90	422	97761	2117	30th Report of CLM repeats info based given for 1987-88.
1990				Conflicting data in Jaafari Report, p. 69.
1990-91				No data in CLM Report July 1990-June

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				1991.
1991-92				GAP
1992-93				No data in CLM Report July 1992-June 1993.

CLM/Brass= Paul Brass, *Language, Religion and Politics in North India*, (Cambridge: Cambridge University Press, 1974), p. 208.

No data in CLM Report July 200-June 2001, July 2002-June 2003; or CLM Report July 2004-June 2005. The CLM Report for July 2005-June 2006, the UP Government reported "that there are 422 schools were Urdu is the medium of instruction. There are 422 teachers and about 8,000 students. Another 6, 974 schools are mentioned where Urdu…is taught as a subject. The number of teachers is 3,900 and that of students about 3.88 lakhs. It appears that detailed information about the number of students is not gathered and hence, approximate figures are given. The number of Urdu teachers is, prima facie, short of requirements. It is pertinent to mention that on an earlier occasion during the visit of Deputy CLM, it was found that there were no Urdu schools in Varanasi, Mau and Azamgarh and no statistics were available even at the district level. CLM has not been aware of any improvement in the situation."[35]

The CLM data as shown in Paul Brass's study reveals that in the decade of 1956-1966, less than three percent of total enrollment in primary schools of UP enrolled in Urdu medium schools.[36]

Table III

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[35] CLM Report, July 2005-June 2006, p. 45.

[36] Paul Brass, *Language, Religion and Politics in North India,* (Cambridge: Cambridge University Press, 1974), p.

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Urdu Medium Enrollment in Secondary Schools in UP, 1955-1985

Year	No of Schools	No. of Students	No. of Teacher	Source of info. & Remarks
1955-56		5,432		CML/Brass
1956-57		5,308		Ditto
1957-58		5,393		Ditto
1958-59		5,591		Ditto
1959-60		14,699		Ditto
1960-61		14,827		Ditto
1961-62		20,509		Ditto
1962-63		26,491		Ditto
1963-64		33,227		Ditto
1964-65		37,682		Ditto
1965-66		37,699		Ditto
1966-67		43,248		Ditto
1967-68	634	43,240	701	CLM Report, July 1969-June 1970, p. 127
Year	No of Schools	No. of Students	No. of Teacher	Source of info. & Remarks
1968-69	689	49,114	814	CLM Report, July 1969-June 1970, p.128. Data pertaining to 50 districts.
1969-70				GAP
1970-71	393	26,739	664	CLM Report, July 1972-June 1973, p. 228.
1971-72	610	47,461	939	CLM Report, July 1973-June

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Year	No of Schools	No. of Students	No. of Teacher	Source of info. & Remarks
				1974, p. 221.
1972-73	619	47489	965	CLM Report, July 1973-June 1974, p. 221.
1973-74	521	48735	768	CLM Report July 1974-June 1975, p. 268.
1974-75	107	59593	1835	CLM Report, p. 221. Steep fall in number of schools & inexplicable increase of teachers.
1975-78				Data not furnished, CLM Annual Report, July 1976-June 1977,p. 221.
1978-79				Data not furnished, CLM Report, July 1976-June 1977,p.221.
1979-80	87	93400	2497	CLM Report, July 1981-June 1982, p. 343.
1980—81	86	106687	2641	CLM Report, July 1982-June 1983, p. 359.
1981-82	149	104731	2550	CLM Report, July 1983-June 1984, p. 455.
1982-83	206	45,647	926	CLM Report, July 1984-June 1985, p. 391. Steep fall in number of students and teachers.
Year	No of Schools	No. of Students	No. of Teacher	Source of info. & Remarks
1983-85				Data not furnished. CLM Report, July 1984-June 1985, p. 391

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1985-6				No data, as the State government does not permit Urdu medium schools at secondary level. CLM Report, July 1985-July 1986, p. 52
1986-87	24	3650	1028	CLM Report, July 1988-June 1989, p. 113. Subject students 40023.
1987-88	218	17490	2878	CLM Report, July 1988-June 1989, p. 113. Subject students 54937. Great discrepancy between 1986-87 and 1987-88 figures.
1988-89				GAP
1989-90				30th CLM Report repeats info for the year 1987-88.
1990-91				No data in CLM Report July 1990-June 1991.
1991-92				GAP
1992-93				No data in CLM Report July 1992-June 1993.

No statistics about UP in any subsequent CLM Reports about Urdu medium secondary schools in UP or statistics about number of secondary schools in which Urdu is taught as a subject and teachers involved. In 1990, the Jaafari Report

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noted that "in Uttar Pradesh…there is not a single Government Urdu medium secondary school."[37] Thus it is unsurprising that there are no statistics to report.

Situation Since the 1990s

In the absence of official statistics maintained by the appropriate authority in the relevant department, one is forced to depend on other sources such as surveys. Aijazuddin Ahmad did one such survey in early 1990s. According to this survey only 16.47 percent of all Muslim literates in UP (which are in poor numbers) were educated through Urdu.[38] The Aligarh Muslim University runs 7 high and secondary schools, some of which are Urdu medium. But the quality of education is evidently so poor.[39] The consequences of no-Urdu in education policies of the successive UP administrations have borne fruit. Fully two generations of Urdu-speakers have passed without being able to study their mother tongue. Consequently, a large number of Uttar Pradesh Muslims are unable to identify Urdu as their mother tongue in the census returns as shown in M. Ishtiaq's study.[40] The Hamdard Education Society's 1991-1993 survey conducted in four urban centers—Sambhal, Firozabad, Ghazipur and Zamania—shows that of all the Muslim literates, only 26.64 received primary education through Urdu which

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[37] Jaafari Report, p. 12.

[38] Aijazuddin Ahmad, *Muslims in India: Their Educational…Survey*, IV (New Delhi: Inter-India Publications, 1996)p. 159.

[39] Muhammad Mahmud Fayzabadi, "Muslim University ke Schooli Nizam main Urdu," *Urdu Duniya* (July 2000), pp. 33-34.

[40] M. Ishtiaq, "Levels of Language Retention among Muslims in Bihar and Uttar Pradesh," pp. 117-126, in *Muslims in India Since Independence*, edited by M. Hashim Qureshi, (New Delhi: Institute of Objective Studies, 1998).

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dwindles to 8.84 percent at middle level, shrinks to a further 2.87 percent at high school level, dipping at a mere 2.55 percent at junior college (10+2) stage.[41]Unlike UP, Ishtiaq shows that retention of Urdu as enumerated in census is marginally better in Delhi where there are more schools teaching Urdu.

Appointment of Urdu Teachers

In 1959-1960, Urdu teachers numbered around 30,000.[42] Due to the anti-Urdu policy of the state, they whittled down to a mere 5000 in 1970-1971, a decade later.[43] Evidently the government created 5000 posts in 1984, though teachers actually working were less than 10,000.[44] Activists in UP complained to Jaafari Committee that "a large number of Urdu teachers…are forced to teach subjects other than Urdu," and "a sizeable number of teachers are not qualified to teach Urdu."[45] Whatever be the exact number of teachers, By the mid 1980s and early 1990s, it had come down further. During his second tenure as chief minister Mulayam Singh Yadav's government issued an order (G.O. no. 205-15-5-94-208 dated 04 November 1994), advertising 5000 teacher posts for 13, 866 schools. The government further added another 131 teacher posts lying vacant from the previous year, thus raising the number of posts to 6131. Out of the total posts of 6131, the government filled only 4182 posts. The number of teachers appointed is

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[41] Aijazuddin Ahmad, *Muslims in India: Their Educational…Survey*, IV (New Delhi: Inter-India Publications, 1996)p. 159.

[42] "Neglect of Urdu," *Economic and Political Weekly* (24 August 1984), p. 1410.

[43] Jaafari Report, p. 86.

[44] Jaafari Report, p. 86.

[45] Jaafari Report, p. 86.

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way short of those actually needed.[46] The UP administration informed Commissioner of Linguistic Minorities in 1999 that it had appointed 7, 799 Urdu teachers.[47] In subsequent years, 2002, 2006, 2007, there are reports about further appointments, but the numbers are still less than required.[48] Evidently, Achala Khanna, Director of the UP State Educational Research and Training Council filed an affidavit in a court affirming that "Urdu is not taught in primary schools in UP and hence there is no need of appointing Urdu teachers."[49] The Allahabad High Court thus ordered cancellation of the appointment of 13, 000 Urdu teachers on the grounds that Urdu as a medium of instruction is not permitted under UP Basic Education Teachers Rules, 1991.[50]Oddly, there is only one Junior Basic Training Institute for Urdu medium primary school teachers in all of Uttar Pradesh.[51]

Textbooks

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[46] A.R. Fatihi, "Urdu in the Educational System of Uttar Pradesh," pp. in Sociolinguistics and Language Education: A Festschrift for Dr.D.P. Pattanayak, (New Delhi: Creative, 2001); "5144 Urdu Teachers to be Appointed in UP," *Radiance* (10-16 September 1995), p. 4.

[47] Commissioner of Linguistic Minorities, *Annual Report* 38 (1999-2000), p. 12.

[48] "Appointment of 500 Urdu Teachers," *The Milli Gazette* (1-15 October 2006), p.19, "Urdu Teachers Appointment," *The Milli Gazette* (1-15 January 2007), p. 20, referring to the appointment of 13,000 teachers.

[49] "Effigies of Muslim Ministers Burnt," [in Meerut] *The Milli Gazette* (16-31 January 2007), p. 19.

[50] "On Urdu as Medium of Primary Instruction…" *Muslim India* (October 2007), p. 20; "Appointment of Urdu Teachers," *The Milli Gazette* (1-15 November 2007), p. 19, reports that UP government appealed the decision of the court, though unclear of the result.

[51] S. Imtiaz Hasnain, "Urdu Linguistic Minorities and Education," pp. 175-200, in *Muslims of Uttar Pradesh*, edited by Abdul Waheed, (Aligarh: Centre for the Promotion of Cultural Advancement of Muslims of India, 2007), citation on p. 182. Jaafari Report noted that there were 4 Urdu teachers' training colleges in UP in 1990s, see Jaafari Report, p. 87.

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A spokesman for the Department of Education told Jaafari Committee that there "33 textbooks of Classes I to VII," implying that Urdu was still taught in UP schools in late 1980s and early 1990s, yet the number of schools, students are teachers are not available, perhaps because they were not collected in the first place.[52] The UP Office of the Pathya Pustak Adhyan prepares the textbooks for elementary level, while for secondary schools the task is done by Textbooks Nationalization Unit of the Board of High School and Intermediate Education. It would be fruitful to ask if there any Urdu textbooks prepared now or in the recent past.

Conclusion

At the turn of the twentieth century, the British Governor of UP (1895-1901) Anthony P. MacDonnell directed the use of Hindi in Devanagari letters in the provincial law courts on 18 April 1900. At the time, the Urdu elites saw it as a measure to strike at the roots of their language. A hastily convened Urdu Defense Association met in Lucknow on 18 August of the same year under the leadership of Nawab Muhsin al-Mulk. Flanked by an impressive array of famous literary men such as Abdul Halim Sharar, Mahdi Hasan Fath Nawaz Jang, and Mir Khurshid Ali Nafis, son of the poet Mir Babr Ali Anis, Nawab Muhsin al-Mulk (1837-1907) characterized MacDonell's order as the virtual funeral pyre of Urdu. Substituting passionate lover, the evergreen metaphor from the famous sher of an obscure eighteenth century poet to Urdu, Muhsin al-Mulk asked his audience to give a grand funeral to Urdu

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[52] Jaafari Report, p. 83.

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چل ساتھ کہ حسرت دل مرحوم سے نکلے
اردو کا جنازہ ہے ذرا دھوم سے نکلے

Although it was an exaggeration, for Urdu continued to flourish in colonial U.P., it was the Hindi supremacists led by the provincial Congress Party that dealt the fatal blow to Urdu literacy after independence, not the colonial authorities. The virtual death of Urdu literacy happened on the watch of Jawaharlal Nehru, Maulana Azad, Rafi Ahmad Qidwai and other stalwarts. A determined effort can yet revive Urdu literacy only when political pressure is brought upon the state administration. Anti-Muslim violence erupted on 28 September 1989 in Badayun, when the state made a feeble effort to declare Urdu as a second official language. Hindi supremacists intolerance of Urdu Political consensus is needed to defeat Hindi supremacists efforts to erase Urdu.

Delhi

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An erroneous street sign in Urdu in Delhi in July 2010. Photo by Mutiur Rahman Aziz

For those who know Urdu's literary history, it is hard to imagine Delhi without the central figures of Mir, Mumin, Zawq, Ghalib, and Bahadur Shah Zafar in the eighteenth and nineteenth centuries respectively. So is the case with twentieth century institutions such as Anjuman-i Tarraqi-i Urdu and Jamia Millia Islamia to name the most obvious. However erroneously, for a long time many considered Urdu as spoken by the Delhi elite as the model to be emulated by others. This

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attitude ignored a large number of Dehlawis who spoke Karkhandari dialect.[53] Until 1947, Delhi was a major center of Urdu literary production if not of population. In that year, the partition related violence and pogroms drastically reduced Urdu speaking population.   Subsequent migration to Pakistan that continued until 1971 further curtailed Urdu speakers' numbers. Migration from Bihar, UP and other states has no doubt increased Urdu speakers' population from what it was in the first two decades of independence, yet Urdu instruction in schools remains poor. As the table noted below shows, Urdu medium schools or schools where Urdu may be taught as a subject are fewer than what they ought to be. Humorist Mujtaba Husayn aptly captured the decline of Urdu literacy in Delhi in an article captioned "Jamia se Zamia tak," showing gross errors in the transcription of Urdu in street names in the national capital.[54]

Obtaining accurate information about the number of schools, students, and teachers instructing Urdu are routinely lacking in common with other states. A survey of Okhla, a south Delhi neighborhood in early 1990s revealed that of the surveyed population of literate Muslims, 34.17 percent received education through Urdu, certainly better than compared to neighboring Uttar Pradesh.[55]

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[53] Gopi Chand Narang, *Karkhandari Dialect of Delhi*, (New Delhi: Munshiram Manoharlal, 1961)

[54] Mujtaba Husayn, "Jamia se Zamia tak," *Kitab Numa* (March 2000), pages 44-47. As far back as 1974, I overheard a conversation at a concert in which a woman called Ghalib's lyrics as Galib ka gajal!

[55] Aijazuddin Ahmad, *Muslims in India: Their Education..Survey*, III, (New Delhi: Inter-India Publications, 1995), p. 211. The survey was carried out under the auspices of Hamdard Education Society, New Delhi.

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Table IV

Urdu Medium Enrollment in Primary Schools in Delhi, 1967-2010

Year	No. of Schools	No. of Students	No. of Teachers	Source of info & Remarks
1967-68	12	6, 104	267	CLM Report, July 1969-June 1970, p. 120.
1968-69	12	6, 274	269	CLM Report, July 1969-June 1970, p. 120.
1969-70				Data not furnished, CLM Report, July 1969-June 1970, p. 120.
1970-71	33	11,999	243	CLM Report, July 1972-June 1973, p. 216.
1971-72	34	12, 933	288	CLM Report, July 1972-June 1973, p. 216.
1972-73	36	13064	331	CLM Report, July 1974-June 1975, p. 247.
1973-74	40	15200	380	CLM Report, July 1974-June 1975, p. 247.
1974-75	44	15,200	384	CLM Report, July 1975-June 1976, p. 211.
1975-76	51	16, 305	420	CLM Report, July 1975-June 1976, p. 211.
1976-77	52	15, 222	429	CLM Report, July 1976-June 1977, p. 214.
1977-78	61	16,940	464	CLM Report, July 1976-June 1977, p. 214.
1978-79	65	17,583	497	CLM Report, July 1980-June 1981, p. 355.
1979-80	90	18, 776	610	CLM Report, July 1980-June 1981, p. 355.
1980-81	88	19, 104	576	CLM Report, July 1980-June 1981, p. 105.
1981-82	78	15, 058	555	CLM Report, July 1982-June 1983, p. 351.

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Year	No. of Schools	No. of Students	No. of Teachers	Source of info & Remarks
1982-83	84	23, 334	585	CLM Report, July 1984-June 1985, p. 585.
1983-84	92	25, 368	658	CLM Report, July 1984-June 1985, p. 385.
1984-85				GAP
1985-86	77			Incomplete data in *Muslim India,* (February 1986), p. 82.
1986-87	98	49561	692	CLM Report, July 1998-June 1989, p. 110.
Year	No. of Schools	No. of Students	No. of Teachers	Source of info & Remarks
1987-88				No data
1988-89				GAP
1990-91	88	26,000	??	Incomplete data cited by Muin Akhtar Ansari, "Dehli main Urdu Taalim, 1990-91, *Nida-yi Millat* (1 September 1991), p. 11, based on *Hamari Zaban*. No data in CLM Report July 1990-June 1991.
1991-92				Data not given in CML Reports from 1989-92 according to MI (June 1994), p. 266; and MI (September 1997), p. 410.
1992-93				No data in CLM Report July 1992-June 1993.
1993-99				CLM Reports for the years contain no data for some states.
2000-01	83	20, 507	562	CLM Report, July 2000-June 2001, p. 52.
2001-02				GAP
2002-03	85	22, 857	558	NCPUL Survey as reported in *Muslim India* (August 2002), pp. 368-369. There are 25 middle schools with 20, 897 students. Figures slightly different in CLM Report, July 2002-June 2003, p. 244.

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2003-04	85	25,231	586	CLM Report July 2003-June 2004, p. 250-251. Includes schools run by DMCorp, NDMCttee,& Directorate of Education.
2004-05	103	31,389	587	CLM Report July 2004-June 2005, p. 203-204. Includes schools run by DMCorp, NDMCttee,& Directorate of Education. Additional stats on Urdu as subject.
2005-06	73	21,633	550	Stats incomplete; CLM Report, July 2005-June 2006, pp. 133-134.

Table V

Urdu Medium Enrollment in Secondary Schools in Delhi, 1958-2010

Year	No. of Schools	No. of Students	No. of Teachers	Source of info and Remarks
1958-59	3	1335	43	Data only for two schools, CLM Report, August 1958-July 1959, p. 255.
1967-68	9	2154	157	CLM Report, July 1969-June 1970, p. 129; also indicate 4, 582 students studying Urdu as a subject.
1968-69	9	2165	161	CLM Report, July 1969-June 1970, p. 129; also indicate 4, 649 students studying Urdu as a subject.
1969-70				No data submitted by state, CLM Report, June 1969-June 1970, p. 10.
1970-71				GAP

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Year	No. of Schools	No. of Students	No. of Teachers	Source of info and Remarks
1971-72	16	5109	200	CLM Report, July 1973-June 1974, p. 224. also indicate 4, 601 students studying Urdu as a subject
1972-73	17	5456	269	CLM Report, July 1973-June 1974, p. 224. also indicates 5259 students studying Urdu as a subject
1973-74	20	5491	284	CLM Report, July 1974-June 1975, p. 271-272. Also indicates 5733 students studying Urdu as a subject.
1974-75	17	5700	288	CLM Report, July 1974-June 1975, p. 272. Also indicates 5853 students studying Urdu as a subject.
1975-76	17	6724	314	CLM Report, July 1975-June 1976, p. 225. Also 6419 students took Urdu as a subject.
1976-77	20	7479	323	CLM Report, July 1976-June 1977, p. 223. Also 7012 students took Urdu as a subject.
Year	No. of Schools	No. of Students	No. of Teachers	Source of info and Remarks
1977-78	20	2807	303	CLM Report, July 1976-June 1977, p. 225. Also 7003 students took Urdu as a subject. There seems to be an error in reportage of Urdu medium students. Figures for students taking Urdu as subject mis-noted with Urdu medium.
1978-79				GAP
1979-80	27	8486	292	CLM Report July 1981-June 1982, p. 344.
1980-81	23	9576	376	CLM Report July 1981-June 1982, p. 344. Also 8443 students took Urdu as a subject.
1981-82	25	10,057	360	CLM Report July 1983-June 1984, p. 456. Subject students: 9093

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Year	No. of Schools	No. of Students	No. of Teachers	Source of info and Remarks
1982-83	22	10,258	356	CLM Report, July 1984-June 1985, p. 392. Also 9, 292 students took Urdu as a subject.
1983-84	24	11, 559	396	CLM Report, July 1984-June 1985, p. 392. Also 9, 486 students took Urdu as a subject.
1984-85	98	23322	658	CLM Report, July 1985-June 1986, p. 146.
1985-86	95	225287	681	CLM Report, July 1985-June 1986, p. 146.
1986-87	22	11813	407	CLM Report July 1988-June 1989, p. 113. Subject students: 11813.
1987-88				GAP
1988-89				GAP
1990-91	27			Jaafari Report, p. 72. Data incomplete. No data in CLM Report July 1990-June 1991.
1991-92				GAP
1992-93				No data in CLM Report July 1992-June 1993.
1993-99				CLM Reports for the years contain no data for some states.
Year	No. of Schools	No. of Students	No. of Teachers	Source of info and Remarks
2000-01				Information about secondary schools not available, CLM Report, July 2000-June 2001, p. 52.
2001-02				GAP
2002-03	25			NCPUL Survey as reported in *Muslim India* (August 2002), p.369. There are 25 middle schools with 20, 897 students. Incomplete data in CLM Report, July 2002-June 2003, p. 244.

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2003-04	17	2015	120	Incomplete data in CLM Report July 2003-June 2004, p. 251
2004-05	8	652	16	Incomplete data in CLM Report, July 2004-June 2005, p. 204.
2005-06	2	28	7	Data only from New Delhi Municipal Administration only, not from the state as a whole, CLM Report, July 2005-June 2006, p. 135.

The social composition of the Urdu students is clear, most are children of carpenters, hawkers, imams, muazzins, and other poor people. A survey in 1986, found that a school that was identified as Urdu medium, "turned out to be one that had switched over to Hindi medium."[56] Most of the buildings housing Urdu schools are in poor condition, forcing closure of some schools.[57] Noxious fumes from in-house factories and high decibels of noise in most schools makes for a poor learning environment.[58] Outright lack of or inadequate number of teachers is a perennial problem.[59] There are insufficient number of teachers because, "out of 1640 seats [in elementary school teachers' training centers]…only 20 are available for Urdu medium…"[60] State "government official claim that there is no dearth of

[56] "Urdu Education in Delhi: DSEB Survey of Primary Schools," *Muslim India* (February 1986), p. 82.

[57] Marooshfa Muzaffar, "Building Crumbling, Govt. Says Close Urdu-Medium School," *Indian Express* (11 July 2009), internet edition; Firoz Bakht Ahmad, "56-Year Old Urdu School Faces Closure," *The Milli Gazette* (16-31 July 2004), p. 5.

[58] "Delhi Schools: Saga of Truancy, Apathy and Negligence," *Feature & News Analysis* (September 1992), pp. 1-2.

[59] Chinki Sinha, "Urdu Schools Lack Qualified Teachers," *Indian Express* (2 September 2009), internet edition.

[60] "Delhi Government's Love for Urdu," Khabrein.info June 21 2009; "Petition on Appointment of Urdu Teachers in Schools," *The Milli Gazette* (16-31 December 2009), p. 21.

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books in Urdu medium",[61] but "a majority of principals of government and government-aided schools claim the contrary. Books become available but very late, when almost half the academic year is over. Most of these textbooks are translated from English and are not up to standard."[62] It is not clear if Delhi Bureau of Textbooks is involved in the preparation, publication and distribution of Urdu textbooks. With this state of affairs, it is unsurprising to read captions such as "Dismal Showing of Urdu Schools," or "Urdu Medium Schools Put Up a Very Poor Show," or "Languishing Urdu Medium Schools of Delhi," written by Firoz Bakht Ahmad in press.[63] Ather Farouqui, a Delhi activist describes Bakht's statistics as "fake data," indicating—unsurprisingly-- rivalries between Urdu promoters.[64] Occasionally, the gloomy picture of Urdu literacy is relieved by stray reports—not systematic survey—of improvement.[65] Regardless, the quality of

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[61] "NCERT to Provide Urdu Textbooks," *The Times of India* (28 May 2005), internet edition.

[62] "Urdu Education in Delhi: Status and Problems: A Survey by National Council for the Promotion of Urdu," *Muslim India* (August 2002): pp. 368-369. The textbooks were published by the NCERT, according to Jaafari Report, p. 82.

[63] These reports are written by Firoz Bakht Ahmad "Dismal Showing of Urdu Schools in India," *Indian Express* (Bombay 6 July 1993), p. 8; "Urdu Medium Schools Put Up a Very Poor Show," *Radiance* (11-17 July 1999), pp. 13-14; "Languishing Urdu Medium Schools of Delhi," *The Milli Gazette* (16-30 June 2002), pp. 8-9; and most recently Ahmad sent statistics of examination results of Urdu medium schools of Delhi and other states for the years 2001-2008 by email dated 23 December 2009 without attributing source of the information.

[64] Ather Farouqui, "Fake Data on Urdu Education—one More Fraud," *The Milli Gazette* (1-15 October 2007), p.15; and C.M. Naim's letter to the editor of *The Annual of Urdu Studies* 14 (1999), p. 347; and the letter of Syed Shahabuddin in the same journal on pages 347-350.

[65] Chinki Sinha, "Urdu Schools Turn Around," *Express India* (31 May 2009) internet edition. Sinha reports about improving results in schools in Jaafarbad, Ballmaran, and other areas.

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education in Urdu is low as confirmed by a veteran educational activist Ahmad Rashid Shervani.[66]

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[66] Ahmad Rashid Shervani, "Plight of 4 Muslim-Managed Delhi Schools," *Radiance* (31 July-6 August 2006), p. 14; and in numerous conversations with him from 2005-2010.

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Bihar

If the core of Bihar is recognized as the capital city of Patna, then Mughal Patna called Azimabad qualifies as a major center of Urdu literacy and literary production. Unlike Uttar Pradesh, literacy in and education through Urdu is better provided in Bihar.   At least two reasons account for the better situation of Urdu. One is the relative absence of anti-Urdu prejudice among the ruling elite of Bihar

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as represented by the Congress and other parties. While anti-Urdu sentiments were not entirely absent, as exemplified by the violent anti-Urdu agitation of August 1967 in Ranchi, and burning of Urdu textbooks in 2008 in Saharsa,[67] their intensity   does not compare to the deep-seated, rabidly anti-Urdu pronouncements of the Hindutva wing of the UP Congress and the BJS/BJP. Secondly, Bihar is more heterogeneous than Uttar Pradesh. Whereas the only significant linguistic minority in UP are the Urdu speakers, in Bihar the government has to contend with the demands of the Bengali and Maithili speakers as well. Until the formation of Jharkhand in 2000, Bihar also had to be sensitive to the demands of Oriya and tribal languages. The state of Bihar could ill-afford to antagonize the neighboring state government of West Bengal and Orissa by not providing instruction in Bengali and Oriya respectively. A close scrutiny of the statistics provided by the Commissioner of Linguistic Minorities from 1955 reveals that while Urdu is taught in various primary and secondary schools, and the situation is better than in UP, but nonetheless far from satisfactory.

The position of Urdu speaking population and Muslim population over the decades can be seen in the table noted below.

Table VI

Urdu Population and Muslim Population in Bihar

Year	Percentage of Urdu Speakers	Percentage of Muslims	Coefficient	Total Urdu speakers in millions
1951	6.82	11.58		
1961	9.83	12.45		

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[67] "Thousands of Urdu Books Burn and Thrown in Gutters," *The Milli Gazette* (1-15 September 2008), p. 6.

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1971	9.00	13.48		
1981		14.13	65	4.99
1991	9.9	14.80	66.8	8.54
2001	9.89	13.7		9.5

Through an Official Languages (Amendment) Act, the Bihar administration declared Urdu as the second official language in the state in 1980. Though the Act is not related to education, it still created a political environment conducive to the promotion of Urdu. Significantly, the Amendment took place during the tenure of chief minister Jagannath Mishra, a Maithili speaker. Bihar is one of the poorest states in India, often lawless, misgoverned and mismanaged. Facilities for instruction in Urdu have also suffered due largely to administrative inefficiency, though some instances of discriminatory attitude is also documented. In a document prepared in 1990, the state Anjuman-i Tarraqi-i Urdu lists a number of familiar issues: irregular payment of salaries to teachers, reduction of reservation of Urdu teachers from an agreed upon 10 percent to 6 percent in Training Colleges; lack of provision of Urdu instruction under the central schemes of New Education Policy, 1986; imposition of Sanskrit in schools through a manipulation of the Three Languages Formula; disregard for the implementation of policy to allow Urdu wherever wanted at primary level; appointment of insufficient number of Urdu teachers; and unavailability of Urdu text books in a number of subjects in time for classes.[68] A decade later, in 2000, Rizwan Ahmad repeats the

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[68] "Bihar Newsletter: Problems Faced by the Urdu Speaking People,' *Radiance* (2-8 July 1990), p. 8; "Urdu Academy Lax in Publishing Textbooks," *Radiance* (24-30 October 1993), p. 4; Jaafari Report, p. 82.

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same issues.[69] Muhammad Badiuzzaman, a retired additional district magistrate of Phulwari Sharif claims that, "there is no such post of an *Urdu teacher* in Bihar. In the immediate post-independence era, upon retirement or death of an Urdu teacher the post was abolished. Later on, in 95 percent of the cases, there never was a post of an Urdu teacher."[70] However, Lalu Prasad Yadav, claimed in 2000 when his wife Rabri Devi was the chief minister, that " when appointing 25,000 primary schools teachers, 10 percent were reserved for Urdu teachers, and the appointments were made. Two thousand teachers are being appointed for secondary schools."[71] Only an independent verification can get to the truth.

The Bihar State Textbook Committee with the help of SCERT prepares the textbooks and publishing is done by the Bihar State Textbooks Publishing Corporation established in 1966. The following table describes Urdu medium enrollment in Bihar schools.

Table VII

Urdu Medium Enrollment in Primary Enrollment in Bihar, 1955-2010

Year	No. of Schools	Number of students	No. of Teachers	Source of info. & Remarks
1955-56		130,771		CLM/Brass

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[69] Rizwan Ahmad, "Bihar main Urdu Taalim ki Surat-i Hal," *Urdu Duniya* (August 2000), pp. 21-22.

[70] Muhammad Badiuzzaman, "Bihar main Urdu ka Maujudah Manzar Namah," *Afkar-i Milli* (July 2000), pp. 130-131.

[71] Lalu Prasad Yadav, "Bihar main Urdu…ke Liye Sarkari Iqdamat," *Afkar-i Milli* (July 2000), p. 135, which comes from a speech he delivered to the Urdu editors' conference.

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Year	No. of Schools	Number of students	No. of Teachers	Source of info. & Remarks
1956-57		137,773		Ditto
1957-58		144,492		Ditto
1958-59		160,142		Ditto
1959-60		196,296		Ditto
1960-61		216,330		Ditto
1961-62		213,936		Ditto
1962-63		285,176		Ditto
1963-64		294,845		Ditto
1964-67				GAP
1967-70				Data not furnished, CLM Report, July 1969-June 1970,p. 115.
Year	No. of Schools	Number of students	No. of Teachers	Source of info. & Remarks
1971-72				Data not furnished, CLM Report, July 1973-June 1974, p. 201.
1972-73	3587	294582	6466	CLM Report, July 1974-June 1975, p. 237.
1973-75				Data not furnished, CLM Report, July 1974-June 1975, p. 237.
1975-78				Data not furnished, CLM Report, July 1976-June 1977, p. 206.
1978-80				Data not furnished, CLM Report, July 1981-June 1982, p. 333.
1980-82				Data not furnished, CLM Report, July 1980-June 1981,p. 39.
1982-84				Data not furnished, CLM Report, July 1983-June 1984, p. 443.

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Year	No. of Schools	Number of students	No. of Teachers	Source of info. & Remarks
1984-85				Data not furnished, CLM Report, July 1984-June 1985, p. 380.
1985-86				Data not furnished, CLM Report July 1985-June 1986, p. 63.
1986-89				No data in CLM Report July 1988-June 1989.
1990	5500			Jaafari Report, p. 67
1990-91				No data in CLM Report July 1990-June 1991.
1992-92				GAP
1992-93				No data in CLM Report July 1992-June 1993.
1993-1999				GAP
2000-01				No data in CLM Report July 2000-June 2001.
Year	No. of Schools	Number of students	No. of Teachers	Source of info. & Remarks
2001-02				GAP
2002-03				No data in CLM Report July 2001-June 2002.
2003-04				No data in CLM Report July 2003-June 2004.
2004-05				"No stats given," CLM Report, July 2004-June 2005, p. 140.
2005-06				"No stats given," CLM Report, July 2005-June 2006, p. 97.

CLM/Brass= Paul Brass, *Language, Religion and Politics in North India*, (Cambridge: Cambridge University Press, 1974), p. 208.

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Table VIII

Urdu Medium Enrollment in Secondary Schools in Bihar, 1955-1964

Year	No. of schools	Number of students	No. of teachers	Source of info. & Remarks
1955-56		28,255		Brass
1956-57		30, 453		Ditto
1957-58		31, 639		Ditto
1958-59		35, 214		Ditto
1959-60		32, 159		Ditto
1960-61		37, 377		Ditto
1961-62		41, 243		Ditto
1962-63		39, 226		Ditto
1963-64		27, 169		Ditto
1964-1990				No data available
				No data in CLM Report July 1990-June 1991
Year	**No. of Schools**	**Number of students**	**No. of Teachers**	**Source of info. & Remarks**
1990-92				GAP
1992-93				No data in CLM Report July 1992-June 1993.

The Commissioner Linguistic Minorities data cited from Paul Brass's book shows that the percentage of Urdu students' enrollment to the total enrollment was a mere 4.11 percent in 1956-77, which fell to 2.06 in 1963-64. What is the percentage of Urdu enrollment at primary and secondary schools since 1964?

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Unfortunately, the relevant educational authorities in Bihar have not provided Commissioner of Linguistic Minorities relevant data for the years 1967-1972. Data is available for the year 1972-73 which notes that there are 30 secondary schools with 24395 students and 502 teachers. There is data about Urdu as subject students.[72] Then it is not available for the years 1973-85, as noted in the annual reports. [73] For the rest of 1980s, there is no data. According to Jaafari Report there were 5500 Urdu medium primary schools in 1989. For the 1990s, there is no data, not in the CLM Report July 2000-01 or subsequent ones. In the CLM Report July 2004-June 2005, the Commissioner blandly notes, "no statistics have been given regarding the schools either [where] minority language is a medium or is taught as a subject. Nor are there any details about the teachers or the students."[74] An exactly identical report—word by word—is given in the CLM Report for the subsequent, 2005-2006.[75] In a survey conducted in Kishanganj in 1991 to 1993, Aijazuddin Ahmad found that among "Muslims, the proportion of those who received education through the Urdu medium was as high as 84 percent."[76] However, according to a Bihar State Minorities Commission-sponsored study on the socio-economic status of Muslims, "the large majority of students are divided between Hindi (56.8 percent) and Urdu medium schools

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[72] CLM Report, July 1974-June 1975, p. 253.

[73] CLM Report, July 1969-June 1970, p. 123; CLM Report, July 1972-June 1973, p. 220; CLM Report, July 1973-June 1974,p. 212; CLM Report July 1976-June 1977, p. 214; CLM Report, July 1982-June 1983, p. 353; CLM Report July 1983-June 1984, p. 451; CLM Report July 1984-June 1985, p. 388.

[74] CLM Report July 2004-June 2005, p. 140.

[75] CLM Report July 2005-June 2006,p . 97.

[76] Aijazuddin Ahmad, *Muslims in India: Their Educational…Survey,* I, (New Delhi: Inter India Publications, 1993), p. 161

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(40.3 percent). The proportion of rural Muslim students receiving Urdu medium education includes students both from Madarsas as well as from a number of private educational institutions. In the urban areas, however, only 18.7 percent of the students are found to receive Urdu-medium education…A large majority of urban Muslim students (71.2) go to Hindi medium institutions. English medium institutions, which are usually perceived as better ones account for only 10 percent of the urban Muslim students.[77] Although Bihar has the second largest number of students either studying through Urdu medium or studying it as a subject, yet it seems that a majority of Muslim children are not receiving their education in it.

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[77] *Socio-Economic Status of Muslims in Bihar*, (Patna: Asian Development Research Institute, 2005?), pp. 105-106. The Report has evidently gone missing, see, "Govt Report on Status of Bihar Muslims Goes Missing," *The Times of India*, (15 March 2006), p. 15.

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Andhra Pradesh

Govt. Boys High School, Moghalpura, Hyderabad in July 2010. Photo by Khurram Nafees

The Qutb Shahi sultanate of Golconda held sway over much of the Telugu speaking territories of southeastern India in medieval times, comprising much of modern Andhra Pradesh. In turn the Mughals and the Asaf Jahi rulers of Hyderabad controlled much of the same area, until 1750s, when the Nizam was compelled to cede the Ceded Districts (of Rayalaseema) and the Circars that is the Northern Sarkars or coastal Andhra. For the most part, the political formations of the time did not interfere in the learning of Telugu even when the language of

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higher levels of law courts and administration was Persian (up to 1884) and Urdu from 1884 to 1948. Under the Nizams, Urdu flourished as the language both of public instruction and state administration. The crowning achievement of the last Nizam was unquestionably the establishment of Osmania University, where Urdu was the language of instruction for three decades, 1918-1948. A large number of Urdu medium high schools were the base from which students entered Osmania for higher education. The Urdu phase in old Hyderabad state ended with the Indian army's bloody Operation Polo of September 1948.   A number of government and private schools met the same fate as the new administration sought to remove Urdu from its preeminent status in the educational system.[78] But opposition to Urdu at the highest political level was minimal, and bears no comparison to the UP Congress leadership's open hostility to it. In fact, the chief minister of then Andhra state donated a thousand rupees, without solicitation when Jawaharlal Nehru inaugurated Urdu Hall in December 1955.[79]

However, the formation of Andhra Pradesh in 1956 changed the situation for Urdu. Ten years after the formation of the state, Andhra Pradesh declared Urdu as the second official language in 1966. Even though the second official language status is unrelated to the question of the medium of instruction in schools, Urdu's

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[78] Sayyid Mustafa Kamal, *Hyderabad main Urdu ki Tarraqi: Taalimi aur Sarkari Zaban ki Haysiyat se*, (Hyderabad: Shugufa Publications, 1990); Ravinder Kaur & T. Vijayasri, "Development and Growth of Primary Education;" V. Elizabeth, "The Growth and Expansion of Secondary Education," unpublished papers presented at the Seminar on Management of Education in State of Hyderabad, Hyderabad: Department of Public Administration, Osmania University, December 1985.

[78] Habiburrahman, *Chand Yad Dashtain,* (Karachi: Bahadur Yar Jang Academy, 1986), identifies Phool Chand Gandhi, the then minister for education as the moving spirit behind Urdu's displacement as the language of instruction in many instances, see, pp. 78-79

[79] The chief minister of the then Andhra state was B. Gopala Reddy, 1907-1997.

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elevation as second official language signaled official acknowledgement that there is a significant community of Urdu speakers.

The position of Urdu speaking population and Muslim population over the decades can be seen in the table noted below.

Table IX

Urdu Population and Muslim Population in Andhra Pradesh

Year	Percentage of Urdu Speakers to total population	Percentage of Muslims	Coefficient	Total Urdu Speakers in millions
1961	7.10	7.55		
1971	7.77	8.09		
1981		8.47	91	3.68
1991	8.37	8.9	93.9	5.56
2001	8.36	9.2		6.6

Mawlawi Habiburrahman (1898-1991), the doyen of Urdu struggle in Andhra Pradesh for three decades, 1950s to 1980s, acknowledges that the political leadership of the Congress Party generally supported legislation seeking official status for Urdu with the sole exception of P.V. Narasimha Rao, (1921-2004) the then minister for Education in the state.[80] However, Rao seems to have been a

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[80] Habiburrahman, *Chand Yad Dashtain,* (Karachi: Bahadur Yar Jang Academy, 1986).

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loner, as the then cabinet of Chief Minister K. Brahmananda Reddy supported the move to make Urdu as a second official language. Narasimha Rao actually went a step forward, he instigated 24 Hindi, Kannada, and Marathi school administrators to go on strike on 26 Mach 1966 to protest what they called as the "privileged position," given to Urdu in the official language act. [81] However, thirty five years later, when the second official language status of Urdu was being extended to many more districts in the state in 2001, the vote in the AP Legislative Assembly was unanimous in approval.[82] In other words, the political leadership in Andhra Pradesh weather those of the Congress Party or the Telugu Desham, both secure in the predominant Telugu identity of the state, felt no problem in accommodating to the wishes of Urdu speaking minority for official status. Like other states, Andhra Pradesh is also bound by the constitutional rights and executive decisions governing instruction of minority languages in education from primary to secondary levels. However, there are numerous problems in implementation, which are mainly of administrative and financial nature. A series of memorandums that the Anjuman-i Tarraqi-i Urdu and other organizations submitted to the AP chief minister centers around demands for (a) donations asked by the authorities for parallel Urdu classes or higher levels in the same institution, a rule that was imposed in 1950s, abolished in 1963, and then re-imposed in 1973; (b) implementation of three language formula in a way that does not eliminate Urdu; (c) shortage of Urdu teachers in Urdu as a subject as

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[81] As noted by Habiburrahman in *Chand Yad Dashtain,* op.cit., and reported in *Radiance* (10 April 1966).

[82] Omar Khalidi, op. cit.

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well as for other courses; (d) lack of textbooks in Urdu and other subjects; and (e) lack of Urdu Inspector of Schools.[83]

Textbooks

In Andhra Pradesh, textbooks from I to X standards are published by AP Government Textbooks Press since 1958. The AP Education Secretary informed Jaafari Committee in 1990 "that there was no problem of Urdu textbooks for Urdu medium schools," which "are compiled by NCERT," and of the 3.2 crores of book printed by the state government, a few "lakhs were in Urdu."[84] But almost every year textbooks even when published are not delivered on time due to distribution problems.[85] According to the AP Minorities Commission, in 1990s, "the requirement of books is of the order of 80,000 and it has been represented…that only 40,000 are printed by the Government." [86] Why the discrepancy? There is no clear answer. The Intermediate Urdu students suffer similar issues. The Board of Intermediate Education, BIE, which began in 1971, "never bothered to bring out

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[83] "Andhra Pradesh: Demands of Urdu-Speaking Minority," *Muslim India* (July 1985), p. 326."Memorandum to A.P. Education Minister," *Muslim India* (July 1985), p. 327; "Anjuman Tarraqi Urdu, Andhra Pradesh Memorandum of 8 February 1983 to the NTR Government," *Muslim India* (March 1984): pp 127-128; J.S. Iftekhar, "No Books for Intermediate Urdu Medium Students," *The Hindu* (9 August 2003), internet edition.

[84] Jaafari Report, p. 82. Since Jaafari Report, there is apparently a change as the curriculum and syllabus are prepared by Board of Secondary Education, see*, Regulatory Mechanisms for Textbooks and Parallel Textbooks Taught in Schools Outside the Government System: A Report*, (New Delhi: Committee of the Central Advisory Board of Education, Ministry of Human Resource Development, 2005), p. 27.

[85] "Eight Lakh Textbooks Yet to be Delivered," *The Hindu* (2 June 2010), internet edition.

[86] Andhra Pradesh Minorities Commission, *Annual General Report*, 1993-94, (Hyderabad: The Commission, 1994), p. 93.

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the prescribed textbooks in Urdu."[87] In 2002, "it was the Telugu Academy, which had come to the rescue of the BIE and helped in printing Urdu textbooks."[88] According to M. Abdul Shakoor, the Telugu Academy still publishes Urdu textbooks, a task which ought to have been undertaken by the Urdu Academy.[89]The AP Government's version on safeguards for linguistic minorities [90] published in January 1989, contradicts actual experience of impediments to Urdu literacy and education as gleaned from time to time in *Etemad, Munsif, Rahnuma-yi Deccan*, and *Siyasat,* the four major newspapers published from Hyderabad.

Appointment of Urdu Teachers

According to Muhammad Shafiquzzaman, "the AP government's G.O. no. 472 dated 4 July 1977 providing for… teaching in Urdu wherever a minimum of 10 pupils per class or 30 per school in …primary schools and 45 in secondary schools…is fallacious. When the first Urdu student comes for admission to a class, the class is short of 9 students., and he is advised to join schools where Urdu…is available or to opt for the available medium…Urdu teaching…requires Urdu teacher…posting of Urdu teacher will require creation of a post which …takes years in government…[for its creation]…The transfer of Urdu teachers to non-Urdu schools and non-Urdu teachers to Urdu schools results in the closure of

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[87] J.S. Iftekhar, "No Books for Intermediate Urdu Medium Schools," *The Hindu* (9 September 2003), internet edition.

[88] J.S. Iftekhar, "No Books for Intermediate Urdu Medium Schools," *The Hindu* (9 September 2003), internet edition.

[89] Conversation with M. Abdul Shukoor, Director of Idarah-i Adabiyat-i Urdu, Hyderabad, Jun e 7, 2010.

[90] *Brochure on Safeguard and Facilities for the Linguistic Minorities in Andhra Pradesh,* (Hyderabad: General Administration (Political-B) Department, 1989).

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Urdu schools/classes. Urdu schools are located in cities and towns. And there is always a race for transfer from rural areas to town and cities. Whenever a relative or friend of a minister or M.L.A. or top official posted in rural area is to be brought over to town or cities, naturally the sacrificial lamb are the Urdu teachers. Thus non-Urdu teachers are posted in Urdu classes. With the reduction in number of Urdu teachers, available teachers are asked to take more than one class and gradually the Urdu classes are abandoned. This is a continuous process and is true for colleges as well."[91] Abdul Karim Khan, IAS, then Chairman of the Minorities Commission noted in mid 1990s, " the Government has not filled up the vacancies of Urdu teachers for quite some time, which has affected the teaching the Urdu medium schools."[92] Often times, government does not fill vacancies caused by retirement or death. Sometime the vacancies of Urdu teachers are not filled because of reservation. As per the reservation system, vacancies are reserved in the following manner for various social groups:[93]

Scheduled Castes	15 percent
Scheduled Tribes	06 percent
Backward Classes	25 percent
Handicapped	03 percent
Defense Personnel	03 percent

This reservation system poses a problem because in Andhra Pradesh, it is nearly impossible to find any scheduled caste or tribe person seeking the job of an Urdu

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[91] Mohd Shafiquz Zaman, *Problems of Minorities Education in India,* (Hyderabad: Booklinks, 2001), p. 144-45.

[92] Andhra Pradesh Minorities Commission, *Annual General Report,* 1993-94), (Hyderabad: The Commission, 1994), p. 93.

[93] *Brochure on Safeguard and Facilities for the Linguistic Minorities in Andhra Pradesh,* (Hyderabad: General Administration (Political-B) Department, 1989), p. 47.

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teacher, nearly one hundred percent applicants are Muslim, and good majority women.[94] The reservation system gives the government an excuse not to fill sanctioned posts, thus creating impediments for Urdu pupils. In 2001, Shafiquzzaman estimated that the "number of Urdu teachers has declined by about 2000 or 30 percent, mainly due to failure to fill in vacancies."[95]

There are problems besides the question of Urdu teachers. The absence of libraries, labs, and poor infrastructure are other recurring issues in Urdu schools throughout the state as anyone perusing newspapers can see in the 1990s through the first decade of the twenty first century. The following statistics establish the state of Urdu literacy and education in Andhra Pradesh through several years.

Table X

Urdu Medium Enrollment in Primary Schools in Andhra Pradesh, 1955-56-2005-06 & 2009-10

Year	No. of Schools/Sections	No. of Students	No. of Teachers	Source of Info & Remarks
1955-56	822	59,767	1608	CML Report, 1960-61, p. 150.
1956-57	832	60,575	1658	Ditto
1967-58	1007	89,458	2977	Ditto
1958-59	1106	107,671	3616	Ditto

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[94] Exceptions to the rule are when occasionally someone outside the Muslim community does indeed learn Urdu, see P. Sridhar, "Non-Minority Students Opt for Urdu Here," *The Hindu* (10 November 2009), internet edition. This is a reference to the SC, ST girls learning Urdu in Devarkonda, Nalgonda, A.P.

[95] Mohd Shafiquz Zaman, *Problems of Minorities Education in India,* (Hyderabad: Booklinks, 2001), p. 144-45.

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Year	No. of Schools/Sections	No. of Students	No. of Teachers	Source of Info & Remarks
1959-60	1068	109,116	1648	Ditto; teachers' data incomplete.
1960-61	704	27, 723	916	CLM Report, January-December 1962; not clear why numbers show drastic fall from previous years.
1961-67				GAP
1967-70				No data furnished as noted in CLM Report, 1969-70, p. 115.
1971-72	2830	1,74,010	4959	CLM Report, July 1973-74, p. 200.
1972-73	2868	1,70, 287	4909	Ditto
1973-74	2663	188232	4997	CLM Report July 1974-June 1975, p. 236.
1974-75	2704	202349	5180	CLM Report July 1975-June 1976, p. 204.
1975-76				No data reported as noted in CLM Report, July 1976-June 1977, p. 204;
1976-77	3137	211370	7526	CLM Report, July 1980-June 1981,p. 150.
1977-78	2295	206742	5343	CLM Report, July 1980-June 1981,p. 150.
1978-82				No data reported as noted in CLM Report, July 1982-July 1983, p. 342; & same info repeated in CLM Report July 1983-June 1984, p. 443.
1982-83	2392	247567		CLM Report, 1982-83, p. 380.
1983-84				GAP
1984-85				GAP
1985-86				GAP
1986-87	1358	1,59, 505		Jaafari Report, p. 67. Does not provide teachers' data.
1987-88	1135	1,38,203		Jaafari Report, p. 67. Does not provide teachers' data.

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Year	No. of Schools/Sections	No. of Students	No. of Teachers	Source of Info & Remarks
1988-89	1163	210697	4242	CLM Report July 1988-June 1989, p. 110; no. of sections 1444.
1989-90	1293	237591	5215	30th CLM Report; no. of sections 1711.
1990-91				No data in CLM Report July 1990-June 1991.
Year	No. of Schools/Sections	No. of Students	No. of Teachers	Source of Info & Remarks
1991-92				Data not given in CML Reports from 1989-92 according to *Muslim India* (June 1994), p. 266; and MI (September 1997), p. 410.
1992-93				No data in CLM Report July 1992-June 1993.
1993-97				CLM Reports for the years contain no data for any states.
1998	1293	237,591	5215	Includes primary & upper primary, Govt. data cited by Shafiquzzaman*
1998-2001				CLM Reports for the years contain no data for any states.
2001-02				GAP
2002-03	2517	3,66,057	9801	CLM Report July 2002-June 2003, p. 46.
2003-04	2378	2,79,779	8,003	CLM Report, July 2003-June 2004, p. 64. On p.65, there are stats for another set of teachers not included on p. 64.
2004-05	2372	196, 307	5490	CLM Report, July 2004-June 2005, p. 34. On the same page there is another set of stats for teaching of Urdu as a subject.
2005-06	2522	257074	7466	CLM Report, July 2005-June 2006, p. 35. On the same page, there is another set of stats for teaching of Urdu as a subject.
2009-10	2351	138515	6609	Source: Sarva Siksha Abhyan, School Education Dept,

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				AP Government.

*Mohd. Shafiquz Zaman, *Problems of Minorities Education in India,* p. 141.

Table XI

Urdu Medium Enrollment in Secondary Schools in Andhra Pradesh, 1955-56-2005-06; 2009-10

Year	No. of Schools	No. of Students	No. of Teachers	Source of Info. & Remarks
1955-56	42	2142	123	CLM Report, January-December 1962, p. 244; figures excludes Telangana districts.
1956-57	44	1676	176	CLM Report, January-December 1962, p. 244; figures excludes Telangana districts.
1957-58	119	35,443	1, 407	CLM Report, January-December 1962, p. 244.
1958-59	210	36, 108	1,360	CLM Report, January-December 1962, p. 244.
1959-60	214	44, 934	1, 564	CLM Report, January-December 1962, p. 244. Also shows 134 school sections teaching Urdu with 25, 739 students.
1960-61	220	45, 500	1, 570	CLM Report, January-December 1962, p. 244. Also shows 154 schools sections teaching 26, 168 students.
1961-62	71	35,614	1,424	CLM Report, January-December 1963, p. 197. Another 5, 303 students studying Urdu as a subject, not medium of instruction.
1963	71	31455	1, 299	CLM Report, January-December 1963, p. 197. Another set of stats shows 6, 965 students studying Urdu as a language,
1967-70				Data not reported, CLM Report, July 1969-June 1970, p. 122.

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Year	No. of Schools	No. of Students	No. of Teachers	Source of Info. & Remarks
1970-71	79	31, 611	1, 575	CLM Report, July 1972-June 1973, p. 29. Another set of stats shows 4,131 students studying Urdu as a language.
1971-72	74	31, 654	1,588	CLM Report, July 1973-June 1974, p. 210. Another set of stats shows 3,885 students studying Urdu as a language.
1972-73	83	35,885	1,587	CLM Report, July 1973-June 1974, p. 211. Another set of stats shows 3357 students studying Urdu as a language.
1973-74	102	36,343	1,745	CLM Report, July 1974-June 1975, p. 251. Another set of stats shows 4479 students studying Urdu as a subject.
1974-75	110	34, 347	1, 689	CLM Report, July 1975-June 1976, p. 213. Another set of stats show 5, 894 students studying Urdu as subject.
1975-76				Data not available, CLM Report July 1976-June 1977, p. 215.
Year	No. of Schools	No. of Students	No. of Teachers	Source of Info. & Remarks
1976-77	65	19504	1327	CLM Report July 1980-June 1981, p. 153. Number of Urdu medium sections:378
1977-78	139	12638	1591	CLM Report July 1980-June 1981, p. 153. Number of Urdu medium sections: 364.Subject students:24481.
1978-81				Data not available, CLM Report July 1980-June 1981, p. 359.
1981-83				Data not available, CLM Report July 1982-June 1983, p. 352.
1983-84				Data not available, CLM Report July 1983-June 1984, p. 450.
1984-85				Data not available, CLM Report July 1985-June 1986, p.190.
1985-86				Data not available, CLM Report July 1985-June 1986, p.190.
1986-87				GAP
1987-88				GAP
1988-89	79	28680	1472	CLM Report, July 1988-June 1989, p. 114; 671 sections.
1989-90	143	37534	1471	30th CLM Report; 644 sections.

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Year	No. of Schools	No. of Students	No. of Teachers	Source of Info. & Remarks
1990-91				No data in CLM Report July 1990-June 1991.
1991-92				Data not given in CML Reports from 1989-92 according to MI (June 1994), p. 266; and MI (September 1997), p. 410.
1992-93				GAP?
1993-97				CLM Reports for the years contain no data for any states.
1998	143	37,534	1471	Govt. data as cited by Shafiquzzaman@
1998-2001				CLM Reports for the years contain no data for any states.
2001-02				?
2002-03				
2003-04	191	68, 214	2, 474	CLM Report, July 2003-June 2004, p. 64.
Year	No. of Schools	No. of Students	No. of Teachers	Source of Info. & Remarks
2004-05	365	73, 887	2, 607	CLM Report, July 2004-June 2005, p. 35.; Schools teaching Urdu as subject are 278 with 1, 90, 687 students & 5, 097 teachers. Under 3 language formula from 6-10 grades, there are 88516 students.
2005-06	441	77, 928	2, 705	CLM Report, July 2005-June 2006, p. 37; Schools teaching Urdu as subject are 204 with 31, 289 students; & 1, 151 teachers.
2009-10	602	78957	2281	Secondary schools means upper primary and & High schools students. Source: Sarva Siksha Abhyan, School Education Dept., AP Government.

Table XII

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Urdu Literacy in A.P. from Primary through College Levels in 2009-2010

Level of education	Number of students	Number of teachers	Number of institutions	Boys	Girls
Urdu medium schools 1-10 class	3, 24, 875	9572	3055	108725	216150
Urdu Medium Private schools 1-10	25000-30000		1000		
Urdu Medium Junior Colleges	6208		103		
Urdu Medium Degree Colleges	5104		20		

Source: Commissioner of Examination of Board of Secondary Education & Director of School Education, Government of Andhra Pradesh, as supplied by Dr. S. Abdul Shukoor, Director of Idarah-i Adabiyat-i Urdu, Hyderabad.

Table XIII

SSC Results of Urdu Medium Schools in AP, 2000-2010

Year	Total Students appearing for Examination	Total Passed	Percentage pass
2000	8331	2308	27.70
2001	8669	3370	38.87
2002	9295	3751	40.95

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2003	10002	4991	49.90
2004	10819	6590	60.91
2005	11718	6007	51.26
2006	12505	6396	51.15
2007	12468	6271	50.30
2008	12843	7512	58.49
2009	14183	9089	64.00
2010	12662	8349	65.94

Source: Commissioner Examination, Board of Secondary Education, as supplied to Dr. S. Abdul Shukoor, Director Center for Educational Development of Minorities, Osmania University, HyderAbad.

As can be seen from the Table noted above, the number of students appearing in the SSC Examination is increasing by the year. However, the results of the examination are inconsistent, and need drastic improvement. Although the state government established 21 Urdu residential schools between 1986 and 2008 to help rural students but the Urdu-speaking community seems to be indifferent to it as everyone is caught up in the fever for English medium schools.[96]

Among the impediments of Urdu medium education in junior and degree colleges is the government order on student strength requiring 30 to 40 students in the arts and science streams of the courses. Unlike English and Telugu medium colleges, Urdu medium cannot enroll the required number of students. The

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[96] Iqbal Muhi al-Din, "Urdu Residential Schools aur Colleges ke Taaluq see Awam main lashauri," *Siyasat* (11 August 2003), p. 1; "Bis Sal Qadim Iqamati Schools Band ho jayen ge," *Siyasat* (March 9, 2008), internet edition; "Sarkari Iqamati Madaris se Muslim Tabqe ki Waqfiyat Naguzir," *Siyasat* (7 June 2010) internet edition, complains of the community's lack of awareness of residential schools, though they are supposed to be imparting high quality education.

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government order in 2007 can jeopardize Urdu college as pointed out by MIM MLA Akbaruddin Owaisi.[97] But Urdu speakers are not above blame. A report in Etemad daily notes that "out of 920 seats for residential Urdu medium junior colleges, a mere 96 candidates appeared for the qualifying test for admission," indicating a clear lack of interest.[98]

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[97] "Plea to Save Urdu Colleges," *Deccan Chronicle* 28 February 2007, electronic edition.

[98] "Residential Urdu Medium Junior Colleges se Tulaba ka Adam Istifada," *Etemad* daily (23 June 2010) internet edition.

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Karnataka

Urdu medium school in Bengaluru in July 2010. Photo by Azmat Sharif

Unlike the neighboring states of southern India, such as Kerala, Tamilnadu and Andhra Pradesh where the speakers of respective majority languages—Malayalam, Tamil and Telugu—feel secure in their own state territories, such is not the case with Kannada in Karnataka. At least two reasons account for the insecurity of Kannada speakers. One is that within the state, only 65 percent of

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the population speaks the state/official language, unlike the neighboring states where the percentage is often 80 percent or more. Although the princely state of Mysore was the core of the Kannada speaking population and promoted Kannada language and culture, nationalist historians saw the "rise and fall," of Kannada in starkly anti-Muslim terms. In nationalistic terms, thus, the battle of Talikota in 1565 resulting in the defeat of Vijayanagar kingdom at the hands of the Deccani Muslim sultanates was the "end of Karnataka's glory," and the early twentieth century was the time for "the recovery of past glories."[99] When the states were reorganized in 1956, Kannada-majority districts in neighboring Bombay and Hyderabad merged with Mysore to form Karnataka as it stands today. Kannada became the state's official language in 1963. But insecurity about Kannada's status persists manifesting in various ways, sometimes in violence. For examples, when Doordarshan, the national television's Bangalore station began to broadcast a *10-minute* Urdu news bulletin on 2 October 1994, violence broke out in the state capital, killing 25 people.[100] The man leading the anti-Urdu campaign was the BJP leader B.S. Yediyurappa who called introduction of Urdu broadcasts as a threat to Kannada.[101] He became the chief minister of Karnataka in May 2008. Even though the news bulletin was being introduced as part of the Gujral Committee's recommendations, the union government at the time headed by an anti-Urdu Prime Minister P.V. Narasimha Rao chose not to continue with the broadcast, and hastily recalled Bangalore Doordarshan director Aneesul Haq.

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[99] Janaki Nair, "Memories of Underdevelopment: Language and its Identities in Contemporary Karnataka," *Economic and Political Weekly (*12-19 October 1996), p. 2813.

[100] S. Rai, "Mind Your Language: An Urdu News Bulletin on Bangalore Doordarshan Sparks off Riots," *India Today* (11 October 1994), p. 14.

[101] S. Rai, op. cit, p. 13.

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What was disturbing in the anti-Urdu campaign was, in the words of a journalist, "the active participation of the literary community and such institutions as Kannada Sahitya Parishad. Just how the introduction of a 10-minute Urdu bulletin can injure the interests of the Kannada language is beyond sane comprehension."[102] Urdu alone is the not the victim of Kannada chauvinism.[103] Anti-Hindi and anti-Tamil expressions, often violent, are common.[104] But despite hundreds of government orders for its promotion, Kannada has not made the headway, mainly due to competition with English, not with Urdu, Tamil, Telugu, Tulu or Marathi, the main minority languages.

There is a long history of Urdu medium from the nineteenth century to the 1950s as documented through state reports by Habibunnisa Waliullah.[105] The position of Urdu speaking population and Muslim population over the decades can be seen in the table noted below.

Table XIV

Urdu Population and Muslim Population in Karnataka

Year	Percentage of Urdu Speakers to total population	Percentage of Muslims	Coefficient	Total Urdu Speakers in millions
1961		9.87		

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[102] "Inevitable Distortion," *Economic and Political Weekly* (15 October 1994), p. 2704.

[103] K.s. Dakshina Murthy, "Rajkumar and Kannada Nationalism," *Economic and Political Weekly* (13 May 2006), pp. 1834-1835, for the role of actor Rajkumar in fanning the flames of chauvinism.

[104] Stephen David, "Hate Thy Neighbor: Kannada Belligerence…" *India Today* (23 April 2007), p. 7.

[105] Habibunnisa Begum Waliullah, *Riyasat-i Mysore main Urdu ki Nashw wa Numa*, (Mysore, 1962), pp. 385-425.

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1971		10.63		
1981		11.05	85	2.64
1991		11.06	85.7	4.48
2001	9.96	12.2		5.5

Up to 1980, the state government's attitude toward mother tongue as the language of instruction at primary level was fair, but the following year, it changed.[106] A state-appointed commission headed by V.K. Gokak in 1981 sought primacy for Kannada education at secondary level education in violation of the constitutional right of the minorities.   But in early 2001, the state government accepted the recommendation of a high-level committee headed by the then education minister H. Vishwanath that mother tongue should be the medium of instruction from class I to VII.[107]

Geographically, within the state, most of the Urdu-medium primary and secondary schools or schools teaching Urdu as a subject are found in the Bombay Karnatak and Hyderabad Karnatak regions. Urdu schools in Bombay Karnatak is the legacy of multilingualism education followed in the multi-lingual Bombay province, and in Hyderabad Karnatak, it is the legacy of the Nizam's rule. Contrary to conventional wisdom (stereotype?), attachment to Urdu is not confined to urban areas. It is widespread in rural Karnataka as Professor Mumtaz Ali Khan's

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[106] AbdulWahhab Anadalib, "Karnatak main Urdu ki Ibtidayi Taalim," *Urdu Duniya* (November 2001), pp. 15-116.

[107] "Mother Tongue Medium up to Class VII," *Deccan Herald* (4 June 2001), internet edition.

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study found.[108]   In Msyore city, a study shows that there is support for Urdu medium instruction at primary level, less so at the secondary stage.[109] Thus it is not surprising that the region comprising the old Mysore region lags behind the rest of the state in Urdu education, with the exception of Shimoga, where there has been a notable success through private nursery schools.[110] A similar report comes from the historic town of Bidar, where the Shaheen School established in 1991 "has been producing 100 percent success at the SSLC exams for the last five years.[111] A startling discovery is the number of Scheduled Caste and Tribes students learning Urdu in Bidar, through Social Welfare schools. The issues that face literacy in and education through Urdu in Karnataka are somewhat similar to those in other states, namely the violation of letter and spirit of the three language formula, the lack of teachers, textbooks and infrastructure. In 2005, for instance, according to the President of Karnataka State Urdu Teachers' Association, the state did not extend the satellite-based distance education system called EDUSAT to Urdu medium schools…and that there are no Urdu *anganwadis* (neighborhood schools) among the 45,000 such schools.[112] According to Maqbool Siraj 'S findings, "1146 Urdu primary schools do not have water facility; 1162 do not have toilets; 1288 lack compound walls; 1265 without electricity; 1714

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[108] Mumtaz Ali Khan, *Muslims in the Process of Rural Development in India: A Study of Karnataka*, (New Delhi: Uppal, 1984). Sociologist Mumtaz Ali Khan, who joined the BJP in 2004, became a minister in 2008.

[109] Hans R. Dua, *Language Use, Attitudes and Identity among Linguistic Minorities: A Case Study of Dakkhini Urdu Speakers in Mysore,* (Mysore: Central Institute of Indian Languages, 1985), pp. 33-40.

[110] "Shimoga Shows the Way," *Islamic Voice* (November 2000), online edition.

[111] "Bidar School Shows the Way Forward," *Islamic Voice* (July 2007) internet edition.

[112] "Urdu Education Neglected in Karnataka," *Radiance* (18-24 December 2005), p. 33.

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schools without buildings of their own, and 2000 Urdu-speaking villages or habitations do not have Urdu primary schools within one kilometers."[113]

The textbooks in Karnataka are prepared by State Textbooks Committee and published by Government Textbook Press in Mysore, though it is not clear what role the Press plays in publishing Urdu texts. The State Minorities Commission noted that the "supply of textbooks is not made in time. The Director of Text Books D.E.S.E.R.T. should walk watch the supply of textbooks of all categories including Urdu."[114] The following table shows the enrollment in Urdu medium schools in Karnataka.

Table XV

Urdu Medium Enrollment in Primary Schools in Karnataka, 1955-2010

Year	No. of Schools	No. of Students	No. of Teachers	Source of info. & Remarks

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[113] Email from Maqbool Ahmed Siraj, 6 June 2010, based on research in 2006. Karnataka State Minorities Commission expresses an identical complaint, except that it also notes similar conditions in other schools than Urdu medium, see *Minorities in Karnataka: Vision 2025,* (Bangalore: Minorities Commission, 2005), p. 8.

[114] *Minorities in Karnataka: Vision 2025,* (Bangalore: Minorities Commission, 2005), p.12.

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Year	No. of Schools	No. of Students	No. of Teachers	Source of info. & Remarks
1955-56	1338	88,107	Not available	CLM Report, November 1960-December 1961, p. 157
1956-57	1894	145, 350	Not available	CLM Report, November 1960-December 1961, p. 157.
1957-58	1927	130, 786	4,359	CLM Report, November 1960-December 1961, p. 157.
1958-59	1982	158,537	4,100	CLM Report, November 1960-December 1961, p. 157.
1959-60	2,052	168,787	4,843	CLM Report, November 1960-December 1961, p. 157.
1960-61	2,057	162,800	5,081	CLM Report, November 1960-December 1961, p. 157.
1961-62	2321	213,292	5757	CLM Report, January-December 1963, pp.109-110.
1962-63	2398	266370	6246	CLM Report, January-December 1964, p. 150.
1963-67				GAP
1967-68	2541	274533	7028	CLM Report, July 1969-June 1970, p. 117.
1968-69	2560	284703	7096	CLM Report, July 1969-June 1970, p. 117.
1969-70	2586	293085	7318	CLM Report, July 1969-June 1970, p. 118.
1970-71	2591	307247	7410	CLM Report, July 1972-June 1973, p. 212.
1971-72	2591	313385	7410	CLM Report, July 1972-June 1973, p. 212.
1972-73	2624	316279	7494	CLM Report, July 1972-June 1973, p. 212.
1973-74	2624	322602	7494	CLM Report, July 1973-June 1974, p. 203.
1974-75	2645	331164	7615	CLM Report, July 1974-June 1975, p. 239.
Year	**No. of Schools**	**No. of Students**	**No. of Teachers**	**Source of info. & Remarks**

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1975-76	2686	322065	7669	CLM Report, July 1975-June 1976, p. 206.
1976-77	2689	325622	7995	CLM Report, July 1976-June 1977, p. 207.
1977-78				Data not furnished, CLM Report, July 1976-June 1977, p. 207.
1978-79	2686	342041	7790	CLM Report, July 1980-June 1981, p. 349.
1979-80	2795	355339	8654	CLM Report, July 1981-June 1982, p. 333.
1980-81	2822	360009	8762	CLM Report, July 1981-June 1982, p. 333.
1981-82	2877	363432	9055	CLM Report, July 1983-June 1984, p. 444.
1982-83	2904	368142	9270	CLM Report, July 1983-June 1984, p. 444.
1983-84				No data furnished, CLM Report, July 1985-June 1986, p. 218.
1984-86				No data furnished, CLM Report, July 1985-June 1986, p. 218.
1986-87	2807	490668	10330	CLM Report, July 1988-June 1989, p. 112.
1987-88	2853	530388	11186	CLM Report, July 1988-June 1989, p. 112.
1988-89				27th CLM Report, 1988, claims Urdu education increased in leaps and bounds, increase of 19, 107 students and deployment of 588 more teachers, p. 149.
1989-90	2853	530388	11186	30th Report of CLM. Attached sections of schools : 1430; data for year 1987-88.
1990	2853	462666	11136	Jaafari Report, p. 68.
1990-91				No data in CLM Report July 1990-June 1991.
1991-1992				GAP
1992-93				No data in CLM Report July 1992-June 1993.

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Year	No. of Schools	No. of Students	No. of Teachers	Source of info. & Remarks
1993-2000				GAP
Year	**No. of Schools**	**No. of Students**	**No. of Teachers**	**Source of info. & Remarks**
2000-01	2640	423141	11635	CLM Report, July 2000-June 2001, p.134.
2001-02				GAP
2002-03	3271	456182	13549	CLM Report, June 2001-June 2002, p. 74.
2003-04	3811	No data	15819	CLM Report, July 2003-June 2004, p. 92-93.
2004-05	4097	574152	17227	CLM Report, July 2004-June 2005, p. 59.
2005-06	2326	56135	17779	CLM Report, July 2005-June 2006, p. 51. Not clear why such a steep fall in number of schools.
2006-07				
2008-09		450,897	16298 Working; 17679 Sanctioned posts	Sarva Shikshana Abhiyan, Karnataka
2009-10		443,394	16248 Working; 17860 Sanctioned posts	Sarva Shikshana Abhiyan, Karnataka

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Table XVI

Urdu Medium Enrollment in Secondary Schools in Karnataka, 1959-2010

Year	No. of Schools	No. of students	No. of Teachers	Source of info. & remarks
1959-60	29	5291	399	CLM Report, January-December 1963, p. 199. Subject students: 4953.
1960-61	50	5757	430	CLM Report, January-December 1963, p. 199. Subject students: 5539.
1961-62	30	8253	369	CLM Report, January-December 1964, p. 200. Subject students: 4030.
1962-63	34	6442	347	CLM Report, January-December 1964, p. 200. Subject students: 5765
1963-67				GAP
1967-68	29	17403	649	CLM Report, July 1969-June 1970, p. 125. Subject students: 9366. Discrepancy between numbers of students in previous years not clear.
1968-69	31	10574	656	CLM Report, July 1969-June 1970, p. 125. Subject students: 10,582.
1969-70	28	8440	672	CLM Report, July 1969-June 1970, p.125. Subject students: 12474.
1970-71	34	19829	696	CLM Report, July 1972-June 1973, p. 225. Subject students 12221.
1971-72	29	19353	784	CLM Report, July 1972-June 1973, p.225. Subject students: 9277.
1972-73	32	23036	853	CLM Report, July 1972-June 1973, p.225. Subject students:

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Year	No. of Schools	No. of students	No. of Teachers	Source of info. & remarks
				10919.
1973-74	33	25189	924	CLM Report, July 1973-June 1974, p.215. Subject students: 12222.
1974-75	33	25768	936	CLM Report, July 1975-June 1976, p.216. Subject students: 13121.
1975-76	33	25906	937	CLM Report, July 1976-June 1977, p.216. Subject students: 13212.
Year	No. of Schools	No. of students	No. of Teachers	Source of info. & remarks
1976-77	34	26430	937	CLM Report, July 1976-June 1977, p. 216. Subject students: 13218.
1977-78	43	22773	771	CLM Report, July 1976-June 1977, p. 216. Subject students:12709
1978-79	33	26909	769	CLM Report, July 1980-June 1981, p. 360. Subject students: 13482.
1979-80	41	30189	1016	CLM Report, July 1980-June 1981, p. 360. Subject students: 16288.
1980-81	42	31137	1004	CLM Report, July 1981-June 1982, p. 340. Subject students: 15282.
1981-82	53	101191	2198	CLM Report, July 1983-June 1984, p. 451. Subject students: 944.
1982-83	84	23699	1125	CLM Report, July 1983-June 1984, p. 451. Subject students: 15317.
1983-84				GAP
1984-86				GAP
1986-87	138	24301	1125	CLM Report, July 1988-June 1989, p. 114. Subject students: 32251.
1987-88				27th CLM Report, 1988, claims increase in student enrollment,

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Year	No. of Schools	No. of students	No. of Teachers	Source of info. & remarks
				sections, and teachers, p. 151.
1988-89				GAP
1989-90	99	33390	1196	30th Report of CLM. Attached sections of schools : 267; Subject students 34149 data for year 1987-88.
1990-91				No data in CLM Report July 1990-June 1991.
1991-92				GAP
1992-93				No data in CLM Report July 1992-June 1993.
1993-00				No data available.
2000-01	168	31068	1006	CLM Report, July 2000-June 2001, p. 134. Discrepancy between number of teachers noted, p. 136.
Year	**No. of Schools**	**No. of students**	**No. of Teachers**	**Source of info. & remarks**
2001-02				GAP
2002-03	209	54205	2270	CLM Report, July 2002-June 2003, p .76.
2003-04				Not given in the CLM Report July 2003-June 2004.
2004-05	297	64768	2182	CLM Report, July 2004-June 2005, p. 60. Subject students: 185624.
2005-07				GAP
2007-08		66004		Sarva Shikshana Abhiyan,Karnataka; students in Social Welfare, Local Bodies; Private Aided; Private Unaided number Total 55419. Social Welfare means, SC, ST schools.
2009-10		79016	19,960 Working teachers; 21, 555 sanctioned.	Sarva Shikshana Abhiyan,Karnataka.

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Maharashtra

Until 1960, the Bombay state comprised both the present state of Gujarat and Maharashtra. Given that the state as a whole was multi-lingual also meant the general acceptance of the notion of multilingualism in education.   Within the state, Bombay was the state capital and the icon of modern India, as the most cosmopolitan city in the nation.   The cosmopolitan character of Bombay has significant implications for the question of language choice in primary through higher secondary education. In addition to the numerous caste and community schools established and sustained by voluntary organizations, the municipal

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authorities are involved in the education of various language groups resident in the city: Gujaratis, Hindi speakers, Kannada, Marathi, Sindhi, Telugu, and Urdu, to name the most obvious since the nineteenth century. The advent of independence, linguistic reorganization of 1950s, bifurcation of the composite state in 1960, the rise of Hindu/Marathi chauvinist Shiva Sena since 1966, none could change the basic structure of primary through secondary education in the state as far as the language question is concerned. Like other states, Maharashtra also follows the fundamental principal of primary education through mother tongue and inclusion of mother tongue in the secondary education as a subject, if the language does not happen to be the medium of instruction.

The position of Urdu speaking population and Muslim population over the decades can be seen in the table noted below.

Table XV

Urdu Population and Muslim Population in Maharashtra

Year	Percentage of Urdu Speakers to total population	Percentage of Muslims	Coefficient	Total Urdu Speakers in millions
1961		7.67		
1971		8.40		
1981		9.25	87	
1991		9.7	75.2	
2001	7.81	10.6		6.9

The state is divided into several regions, each with its own distinct recent and distant past, and each with differing legacies of association with Urdu. Until 1956,

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the eastern region of Marathwada was a part of the old Hyderabad state, where Urdu was the language of instruction in many urban areas. The region called Vidarbha known until 1950s as Berar was also a part of the Hyderabad state until 1853, and nominally thereafter until independence. It also inherited a legacy of Urdu schools among Muslims. Similar is the case with the former region called Central Provinces with the capital in Nagpur.[115] Urdu has made inroads in the coastal belt of Konkan, and communities hitherto speaking Gujarati. Since the late nineteenth century, Konkani Muslims, Memons, and the tiny sect of Sulaymani Bohras, both speakers of various Gujarati dialects, have adopted Urdu as the language of primary education, formal communication, and religious discourse.[116] In the Desh region too, Muslims now increasingly use Urdu as the medium of primary school instruction.[117] Unlike many parts of India, where Muslims have not established their own schools, Bombay and Pune are exemplary in community's voluntary effort in establishing and sustaining schools.   Anjuman-i Islam, established in 1874, is the premier organization, with a string of schools and institutions spread over the state. A similar organization, started in 1927, is Anjuman-i Khairul Islam with its own schools imparting Urdu. Twenty years later, in 1947, Haji Ghulam Muhammad Azam, a Gujarati Muslim, donated land to build an educational institution in Pune. By the dawn of the twenty first century, the land is now the site of a host of institutions run by a Trust.[118] Together with the

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[115] Muhammad Sharaf al-Din Sahil, *Nagpur ka Muslim Maashirah*, 3 vols.(Nagpur: Aleem Printers, 200)

[116] Omar Khalidi, *Muslims in the Deccan: A Historical Survey,* (New Delhi: Global Media, 2006).

[117] Veronique Benei*, Schooling Passions: Nation, History and Language in Western India*, (Stanford, CA: Stanford University Press, 2008), see chapter V, From Becoming to Being Muslim: Urdu Education, Affects of Belonging and the Indian Nation, pp. 175-207.

[118] Jyoti Punwani, "Changing Face of Pune Schools," *The Hindu* (18 March 2003), internet edition.

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Kokan Muslim Education Society, (established in 1928 in Bhiwandi, barely 15 miles northwest of Mumbai) the schools run by these voluntary organization have clearly contributed to the rapid Urduization of the disparate groups of Muslims through literacy in standard Urdu. According to Malik Tase, prior to the founding of Kokan Muslim Education Society's first school, "a very large chunk of Muslim population had nothing like a language. Their only vehicle of communication was a dialect that did not function as a language. The school gave them a language (Urdu) which has become the mother tongue of the entire post-1930 generations and Bhiwandi has now become a recognized center of Urdu."[119] Tase's assertion finds corroboration in Nashtar's work on education in Konkan region.[120]There is even an unprecedented Tanzim-i Walidayn-i Urdu Madaris, a parents association of children in Urdu schools. Established in 1991 in Pune, the purpose of the Tanzim is to run Urdu schools to promote education in all groups, as indicated in its annual reports.[121] While a systematic quality assessment of Urdu literacy is lacking, journalistic writings certainly present a positive picture as exemplified by the writings of Hanif Mohammed,[122] Anis Chishti[123], and Muhammad Hasan Faruqi.[124] Jawid and Unaiza Parekh, parents of one student even did a SWOT

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[119] Malik Tase, "Kokan Muslim Education Society, Bhiwandi," *The Milli Gazette* (16-30 September 2006), p. 13.

[120] Abd al-Rahim Nashtar, *Kokan main Urdu Taalim,* (Nairobi: Urdu Writers Guild, 1996).

[121] Tanzim-i Walidayn-i Urdu Madaris, *15th Annual Report*, Pune, 2006, p. 2.

[122] M.H. Lakdawala, "Urdu Medium School Give Tough Competition to Christian Missionary Schools," *The Milli Gazette* (1-15 October 2003), p. 7; the same writer, "Urdu Medium Schools Luring New Converts," *Radiance* (4-10 April 2004), pp. 18-19;

[123] Anis Chishti, "Maharashtra main Urdu Zariya-i Taalim ki Kam Yabi," *Urdu Duniya* (October-December 1999): 35-37;

[124] Muhammad Hasan Faruqi," Maharashtra main Urdu Taalim," *Urdu Duniya* (March 2006): 15-19.

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(Strengths, Weakness, Opportunities, and Threats) Analysis to determine the consequences of Urdu medium education for their child. It became evident that most of the merit students in Maharashtra came from schools teaching through Indian languages. That test resulted in a positive decision in favor of an Urdu school.[125] At least two Urdu medium students—Tanwir Maniar in 1997 and Bilal Iqbal Mistri in 1999-- have topped Maharashtra Secondary School Certificate examinations. According to a press report, in Mumbai "apart from English, now Urdu and Hindi appear to be the favored medium of instruction, the capital of a Marathi-speaking state."[126] However, some school administrators have noted cases of discriminatory practices against Urdu institutions on a number of occasions.[127]

Appointment of Teachers

In 2005, vacancies of 266 teachers of Urdu were left unfilled in Mumbai Municipal Corporations schools due to reservation for Scheduled Castes, Scheduled Tribes and Nomadic Tribes, social groups not found among Urdu speakers of Karnataka who are all Muslim.[128] In Maharashtra, the textbooks are prepared by the Maharashtra Bureau of Textbook Production and Curriculum Research, called Balbharati, or Indian child. Within this Bureau there is an Urdu Language Section

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[125] M.H. Lakdawala, "Urdu Medium Schools Luring New Converts," *Radiance* (4-10 April 2004), pp. 18-19.

[126] Mahesh Vijapurkar," Declining Enrollment for Marathi Medium," *The Hindu* (12 May 2004) electronic edition.

[127] Fatima Anis, *Maharashtra ke Taalimi Masail aur Urdu Schools,* (Bombay, 1982).

[128] "No Teachers in Urdu Schools," *Islamic Voice* (August 2005), p. 5.

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with the responsibility of preparing Urdu textbooks.[129] The following table shows Urdu medium enrollment in Maharashtra schools.

Table XVI

Enrollment in Urdu Medium Primary Schools in Maharashtra, 1959-2010

Year	No of schools	No of students	No of teachers	Source of info & remarks
1959-60	1273	195,738	5227	CLM Report, January-December 1962, p. 208.
1960-61	1313	213,759	5392	CLM Report, January-December 1962, p. 208.
1961-62				Not furnished, CLM Report, January-December 1964, p. 150.
1962-63	804	11,636	2564	Incomplete data in CLM Report, January-

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[129] Balbharati—Urdu Department, see its website,

http://www.balbharati.in/Language/urdu.htm

Accessed on June 16, 2010.

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Year	No of schools	No of students	No of teachers	Source of info & remarks
				December 1964, p. 150.
1963-67				GAP
1967-68	1637	294,107	7984	CLM Report, July 1969-June 1970, p. 117.
1968-70				Not furnished, CLM Report, July 1969-June 1970, p. 117.
1970-71	1712	317,706	8901	CLM Report, July 1972-June 1973, p. 211.
1971-72	1723	327,311	9317	CLM Report, July 1973-June 1974, p. 204.
1972-73	1776	335,689	9329	CLM Report, July 1973-June 1974, p. 204.
1973-74	1781	344,873	10064	CLM Report, July 1974-June 1975, p. 240.
1974-75	1839	356,193	10813	CLM Report, July 1974-June 1975, p. 241.
1975-76	1860	365,930	10739	CLM Report, July 1975-June 1976, p. 207.
1976-77	1878	387,750	11076	CLM Report, July 1976-June 1977, p. 209.
1977-78				GAP
1978-79	1980	408,002	11435	CLM Report, July 1980-June 1981, p. 351.
1979-80	2013	424,842	10506	CLM Report, July 1980-June 1981, p. 351.
1980-81	1984	438,353	11945	CLM Report, July 1981-June 1982, p. 334.
1981-82	2056	462,514	12028	CLM Report, July 1983-June 1984, p. 445.
Year	**No of schools**	**No of students**	**No of teachers**	**Source of info & remarks**
1982-84				Data not furnished, CLM Report, July 1984-June 1985, p. 382.
1984-85	2326	431950	12229	CLM Report, July 1985-June 1986, p.298.
1985-86	2395	467156	12526	CLM Report, July 1985-June 1986, p.298.

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1986-87	2059	530389	13311	CLM Report, July 1988-June 1989, p. 112.
1987-88	2103	545242	14807	CLM Report, July 1988-June 1989, p. 112; no. of sections 291.
1988-89	2087	557565	13662	30th CLM Report, no. of sections 320.
1990	2103	505154	14807	Jaafari Report, p. 68. Repeats info based on 1987-88 from CLM.
1990-91				No data in CLM Report July 1990-June 1991.
1991-92				GAP
1992-93				No data in CLM Report July 1992-June 1993.
1993-99				GAP, no data available in CLM Reports for the period.
2000-01	2541	849,372	18381	CLM Report, July 2000-June 2001, p. 156.
2001-02				GAP
2002-03				No data in CLM Report, July 2002-June 2003.
2003-04	2634	79250	18108	CLM Report, July 2003-June 2004, p. 193. There may be an error in number of students as enumerated.
2004-05	2541	763,738	16804	CLM Report, July 2004-June 2005, p. 156. Fall in number of students and teachers from the previous year.
2005-06				No data given in the CLM Report, July 2005-June 2006.
2006-07				
2007-08				
2008-09				
2009-10				

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Table XVII

Urdu Medium Secondary School Enrollment in Maharashtra, 1959-2010

Year	No of schools	No of students	No of Teachers	Source of info & Remarks
1959-60	67	14,604	773	CLM Report, January-December 1962, p. 248. Subject students:7445
1960-61	81	17,790	966	CLM Report, January-December 1962, p. 248. Urdu Subject students:7969
1961-64				Not furnished, CLM Report, January-December 1964, p.201.
1964-67				GAP
1967-68	101	49,195	898	CLM Report, July 1969-June 1970, p. 125. Urdu subject students: 19184.
1968-70				GAP
1970-71	142	61,900	1540	CLM Report, July 1972-June 1973, p.224.
1971-72	154	66,282	2512	CLM Report, July 1973-June 1974, p. 217.
1972-73	165	77,060	3049	CLM Report, July 1973-June 1974, p. 217.
1973-74	170	81,485	3315	CLM Report, July 1974-June 1975, p. 262.
1974-75	171	84076	3467	CLM Report, July 1974-June 1975, p. 262.
1975-76	164	82808	3190	CLM Report, July 1976-June 1977, p. 218.

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Year	No of schools	No of students	No of Teachers	Source of info & Remarks
1976-77	186	80563	3629	CLM Report, July 1976-June 1977, p. 218.
1977-78				Data not furnished, CLM Report, July 1976-June 1977, p. 218.
1978-79	197	83234	5520	CLM Report, July 1980-June 1981, p. 362.
1979-80	197	90428	5375	CLM Report, July 1980-June 1981, p. 362.
1980-81	208	109523	5785	CLM Report, July 1981-June 1982, p. 341.
1981-82	131	63234	3801	CLM Report, July 1982-June 1983, p. 356.
1982-85				Data not furnished, CLM Report, July 1984-June 1985, p. 389.
1985-86				GAP
1986-87	301	4484885	8206	CLM Report, July 1988-June 1989, p.115.
1987-88	325	156144	8506	CLM Report, July 1988-June 1989, p.115; no. of sections 129.
1988-89	345	169072	8716	30th CLM Report, no. of sections 139.
1990	325			Jaafari Report, p. 73. Also 129 schools with Urdu medium parallel classes.
1990-91				No data in CLM Report July 1990-June 1991.
1992-93				No data in CLM Report July 1992-June 1993.

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Year	No of schools	No of students	No of Teachers	Source of info & Remarks
1993-2000				No data in CLM Reports
2000-01	698	308100	8837	CLM Report July 2000-July 2001, p. 156.
Year	**No of schools**	**No of students**	**No of Teachers**	**Source of info & Remarks**
2001-02				GAP Report not seen
2002-03				No data in CLM Report, July 2002-June 2003.
2003-04	809	377606	10,207	CLM Report, July 2003-June 2004, p. 194.
2004-05	933			Incomplete data in CLM Report July 2004-June 2005, p. 156.
2005-06				No data furnished, CLM Report, July 2005-June 2006, p. 106.
2009	927	50958		The number of students noted here includes only passed students, not the number enrolled. Ummid.com, July 09, 2009

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In addition to the primary and secondary schools, there evidently are 229 junior colleges with 27910 students who passed the exams in 2009 academic year. [130] Judged by the number of schools and enrolled students, it is clear that Maharashtra tops the list of states with highest Urdu literacy. [131]

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[130] "Insufficient Junior Colleges in Maharashtra Escalating Dropout Cases," Ummid.com 09 July 2009.

[131] Tanzim-I Walidayn-i Urdu Madaris, based in Pune, gives an even higher data. It estimates 2000 KG classes comprising of 2000 teachers and 100,000 students; 4000 primary schools, 2000 teachers and 750,000 students; 1500 secondary schools, 8000 teachers, and 450,000 students; 200 junior colleges, 1000 teachers and 50, 000 students. Letter from Mirza Zafar Ahmad Baig & Ishaq Shaikh, Vice President & General Secretary respectively of the Tanzim, dated 14 May 2010.

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Urdu Literacy: State Report Cards, 2004-2008

The State Report Cards (SRCs) is a database of statistics on elementary education, i.e. primary through secondary schools received from all states and union territories of India. Among other datasets, the SRCs provide data on examination results, teachers, mediums of instruction, among other parameters on which information is not available in other sources. Extracting data on medium of instruction, this Report presents statistics on Urdu enrollment in 6 states over four years, 2004-2008. The tables noted below are arranged in order of largest number of students in each state, thus Maharashtra tops the list and UP is at the bottom.

Maharashtra

Year	Total enrollment	Urdu Enrollment	% of Total Enrollment
2004-05	12551005	717282	
2005-06	14647728	8411556	
2006-07	15163550	917210	
2007-08	14579816	953028	

Bihar

Year	Total enrollment	Urdu Enrollment	% of Total Enrollment
2004-05	12717460	828678	

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2005-06	13316926	884812	
2006-07	14789364	758984	
2007-08	16629913	874529	

Karnataka

Year	Total enrollment	Urdu Enrollment	% of Total Enrollment
2004-05	7729775	465523	
2005-06	6741266	336185	
2006-07	7781686	451188	
2007-08	7898916	473384	

Andhra Pradesh

Year	Total enrollment	Urdu Enrollment	% of Total Enrollment
2004-05	11333887	310782	
2005-06	11122940	293009	
2006-07	11278928	319852	
2007-08	11012673	311017	

Delhi

Year	Total enrollment	Urdu Enrollment	% of Total

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			Enrollment
2004-05	2041377	18516	
2005-06	2216194	24850	
2006-07	2350023	27440	
2007-08	2420187	25894	

Uttar Pradesh

Year	Total enrollment	Urdu Enrollment	% of Total Enrollment
2004-05	26577442	136262	
2005-06	29487223	97561	
2006-07	31740201	117656	
2007-08	31706325	128892	

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CBSE Exams and Urdu Literacy

Central Board of Secondary School Education, CBSE is a national organization with a history dating back to 1921. Its purposes are

> To prescribe conditions of examinations and conduct public examination at the end of Class X and XII. To grant qualifying certificates to successful candidates of the affiliated schools.

> To fulfill the educational requirements of those students whose parents were employed in transferable jobs.

The results of students who appeared through Urdu medium for CBSE exam for the year 2005 [?] as cited in Sachar Report (page 82, Fig. 4.29) show that performance in CBSE examination is poor. A report compiled by M. Hanif Lakdawala shows that in 2007, the "All India Urdu result in class 10 stands at 50 percent while the non-Urdu result is 78 percent. In class 12, the overall non-Urdu result is 85 percent while in Urdu it is 66 percent. Last year [2006], it was 57 percent and in 2005 it was 35 percent…this is the best Urdu result in two

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decades."[132] The Delhi schools in the past did poorly. But evidently there is a marked improvement, as the 2010 result shows. The pass result has shot up to nearly 90 percent, compared to a sorry 31 percent a decade ago.[133] The Urdu Model Schools located in Vatepalli, Hyderabad, Darbhanga, Bihar, and Mewat, Hyderabad successfully completed first year of education based on CBSE syllabus. The results, according to a report in *Etemad* have been encouraging.[134]

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[132] M. Hanif Lakdawala, "Urdu Schools: Much Distance to Travel," *Islamic Voice* (July 2007), internet edition.

[133] "Delhi CBSE Results: At 89.12 Percent Urdu Schools Race Ahead," Ummid.com 23 May 2010,

http://www.ummid.com/news/2010/May/23.05.2010/delhi_cbse_results_urdu_schools.htm

[134] "Pahle Urdu Model School ki Kamyab Takmil," *Etemad* (28 June 2010) internet edition.

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Role of Madarsas in Urdu Literacy

Madarsas have a long and distinguished history in India. They have existed since the early days of Islam in the subcontinent.   While the histories of major institutions such as Deoband, Nadwat al-Ulama and others are available, there are no reliable statistics of for madarsa students and teachers in the past to measure their extent, geographic location and influence.[135]   For more recent times, there are some statistics. The Hamdard Education Society in New Delhi conducted a survey of 576 madarsas between 1989 to 1991. It reveals an expansion of madarsas from 1, 06, 678 in 1989 to 1, 47, 011 two years later.[136]   Citing unnamed, undated surveys conducted by National Council of Applied Economic Research (NCEAR) and National Council for Educational Research and Training (NCERT), the Sachar Report claims "that only about 4% of all Muslim students of the school going age group are enrolled in the Madrasas. At the all-India level this works to be about 3% of all Muslim children of school going age. The NCAER data is supported by estimates made from school level NCERT (provisional) data; which indicates a somewhat lower level of 2.3 % of Muslim children aged 71-9 years who study in Madrasas. The proportions are higher in rural areas and amongst males."[137]   According   to   India   Human   Development   Survey   data   of   2005,

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[135] Statistics for enrollment at Deoband and Nadwa from 1945-71 in Mushirul Haq, "Religious Education," pp. 22-42, in his *Islam in Secular India,* (Simla: Indian Institute of Advanced Studies, 1971); and more recent research in *Islamic Education: Diversity and National Identity, Dini Madaris in India Post-9/11,* edited by Jan-Peter Harmut and Helmut Reifeld, (New Delhi: Sage, 2006).

[136] Qamaruddin, *Hindustan ki Dini Darsgahen*, (New Delhi: Hamdard Education Society, 1996), as cited in Qamaruddin, "Status of Madrasa Education in India," *Radiance* (10-16 August 1997), pp. 33-34.

[137] *Social Economic and Educational Status of the Muslim Community of India*, (New Delhi: Prime Minister's High Level Committee, Government of India, 2006), pp. 75-77, citation on p. 77.

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enrollment figures in Madarsas are only about one percent of the overall population. This calculates to about 5% of the Muslim children.[138]

Regardless of exact numbers, the madrasas play a major part in Urdu literacy. The language of instruction in most madarsas has been Urdu in most states of India. In some madarsas of Kerala, Tamilnadu and West Bengal, the language of instruction is naturally Malayalam, Tamil, and Bengali respectively.[139] But these are exceptions; the rule still is that Urdu is the language of instruction in madarsas. It is not the purpose of madarsas to specifically promote Urdu, but given that literature on Islam in it is unrivalled by any Indian language, Urdu is the natural choice as the medium of madarsa education. The curriculum, content, "relevance," and standard of education at the madarsas, is irrelevant to the purposes of this Report, which is to gauge the status of literacy in and education through Urdu. How many madarsas there are in the country? The Union Ministry of Human Resources Development estimates the nationwide total as around 27, 500, according to a 2006 press report, though it does not tally with other figures

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http://minorityaffairs.gov.in/newsite/sachar/sachar.asp

[138] http://www.ihds.umd.edu/

Accessed 30 June 2010. I am indebted to Prof. Solande Desai for this reference.

[139] B.M. Idinabba, from the Beary ethnic group of Muslims in Karnataka made what must be characterized as a highly eccentric statement calling upon Madarsas in his native state to adopt Kannada instead of Urdu, see Jaideep Shenny, "Idinabbad Keen on Madarsas Adpopting Kannada," *The Hindu* 7 March 2005, internet edition; "Kannada Camps in Madarsas and Mosques," *The Hindu* (12 June 2010), internet edition.

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attributed to it.[140] The following table gives both HRD and other estimate of number of madarsas.

Table XIII

Madarsas in Selected States of India

State	Recognized Madarsas Per HRD	Madarsas/Maktabs Supported under SSA Per HRD	Unregistered/unrecognized Maktabs/Madarsas supported under SSA Per HRD	Madarsas Per Other Estimates
AP	103			250 [141]
Assam	384	395	588	633[142]
Bihar	3577	882		1118[143]

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[140] "Number of Madarsas in the Country," *The Milli Gazette* (16-31 March 2006), p.20.

[141] Based on estimate of Rahimuddin Ansari, Secretary, Dini Madaris Board, AP, given to the author in Hyderabad, 9 December 2009. He estimates the total number of resident and nonresident students at various madarsas to be around 5,000 and 6,000 respectively in all of AP.

[142] Syed Ahmed, "Assam Seeks 50 Crores for Madrasa Modernization," *Radiance* (1-7 November 2009), pp. 13-14. The discrepancy between the HRD and Assam Madarsa Board may be because of different dates from which the data is available.

[143] Figures obtained from the Bihar State Madrasa Education Board website http://biharmadrasaboard.edu.in/index.html

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Delhi			40	
Gujarat	1050			
Haryana			30	
HP	8	8	67	
Karnataka	323			
Kerala	42			
MP	4472	3280		
Maharashtra				2637[144]
Manipur				72[145]
Orissa	887	500	123	
Punjab			14	
Rajasthan	1570	747+256	261	5000[146]

Accessed on January 8, 2010, the same figures also given in *Socio-Economic Status of Muslims in Bihar*, (Patna: Asian Development Research Institute, 2005?), pp. 138-139. The Report has evidently gone missing, see, "Govt Report on Status of Bihar Muslims Goes Missing," *The Times of India*, (15 March 2006), p. 15.

[144] Figure supplied by *Lok Rajya,* (September 2008), p 311. *Lok Rajya* is a government monthly publication in Urdu published in Mumbai.

[145] Syed Ahmed, "A Madrasa Board in Manipur in the Offing," *Radiance* (23-29 August 2009): 16-17. Apart from madarsas, there are 97 *maktabs.*

[146] "In Rajasthan, 3.5 Lakh Students Receive Education in 5000 Madarsas," *The Milli Gazette* (16-31 August 2009), p. 9, quoting a report of the State Education Department based on the year 1999-2000 estimates.

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Tamilnadu	2		
Tripura	41		
Uttarkhand	92		
Uttar Pradesh	997	291	706	2160[147]
W. Bengal	508	508		575[148]
Total	14229	6867	2588	

Source: Regulatory Mechanisms for Textbook and Parallel Textbooks Taught in Schools Outside the Government System: A Report, by Committee of the Central Advisory Board of Education, Ministry of HRD, 2005, p. 39.

According to Mohd Shafiquzzaman, in 2001, in Bihar "there are 1307 affiliated Madarasas…receiving grand from Madarsa Education Board, and 2986 madarasas without grant from the Bihar Madarsa Board," which incidentally was established way back in 1922? It began as Madarsa Examination Board.

How many students are there in the madarsas? The Sachar Committee's estimate is 4 percent of the total Muslim student enrollment. This is still a sizeable number.

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[147] This is a combined figure for three levels of madarsa education in UP, Tahtaniya, primary from class 1-5 (451) ; Fauqaniya, middle, 6-8 (316); ; Aliya, high (1393), Figures for the year 2009/2010 supplied by the Deputy Registrar of UP Madarsa Board via Prof. Masood Alam Falahi, Maulana Azad National Urdu University, Lucknow, January 11, 2010 by email.

[148] Syed Ahmed, "NCERT Hails Madrasa Education System," *Radiance* (27 September-3 October 2009), pp. 12-14. This figure closely tallies with the announcement of the State Minority Affairs Minister Abdus Sattar's statement in October 2009, reported by Subir Bhaumik, "India State Changes Madrasa Rules," *BBC News* online 16 October 2009. Abdus Sattar's figure was a total of 576 madarsas. The madarsas in Bengal have a long history, see *History of Madrasa Education with Special Reference to Calcutta Madrasa and W.B. Madrasa Board,* (Calcutta: Rays Anwar Rahman, 1977).

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Beyond Formal Schools and Madarsas: the NGOs

Besides the madarsas, there are a number of other institutions involved in imparting preschool and elementary education through Urdu. The most recent example is that of Pratham, which means beginning or start in Sanskrit. Pratham is the largest non -governmental organization working to provide quality education to the underprivileged children of India. Pratham was established in 1994. See its website http://www.pratham.org/.

Pratham's National Urdu Seminar in Sept. 2007 in New Delhi. Photo by Pratham.

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Basing on the widely accepted estimate that nearly 90 percent of all Indian students receive primary education through mother tongue, Pratham started a program of preprimary education run in the poorest *bastis,* or slums run by teachers—mostly female—coming from the same community as the students.[149] Pratham runs several specific programs: The first is Balwadi, literally meaning "baby sitting," but which provides preschool education to children from ages 3 to 5 years. The Balwadi classes build the social, emotional, motor and cognitive skills of the children, thereby preparing them to adjust to the school atmosphere. This also helps the problem of retention and achievement at a nascent age. Since most parents in slums are illiterate and unable to help their children, the Balwadis are a big help. The second program Balvachan, "child's promise," is for pupils from ages 5 to 6, is designed for children who are attending Balwadis and Anganwadis. It seeks to build their language and math skills to quip them to enter schools. Working children pose a barrier to Pratham 's mission of "every child in school and learning well." To end this barrier, the Pratham set up a number of residential schools to teach children who have been rescued from work. Through Residential Bridge Course the children are mainstreamed into schools. Non Residential Bridge Course Centers is another program meant for children between the ages 3-14 years. The centers are established to target the dropout and the children who have never been to schools. The Centers are run in partnership with Sarva Shiksha Abhyan, (SSA) "education for all," a state-run initiative. Mother Literacy Program of Pratham aims at imparting literacy skills to females of age 15 and up. This

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[149] See MIT's Jameel Poverty Action Lab Policy Brief, no 2 on Pratham at

http://www.povertyactionlab.org/evaluation/teaching-pre-schoolers-read-randomized-evaluation-pratham-shishuvachan-program-india

Accessed on July 20 2010

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program helps make the students literate with basic math and imparts self-confidence in them to assume active role in the education of children of their families. There is also a Pratham 's pilot program of 30 madarsas in Hyderabad in partnership with SSA. Finally, the Pratham has School-Community Linkage Program in partnership with SSA, whose main goals are to make students identify alphabet and numbers; proficiency in reading fluently; writing paragraphs; and to do arithmetic appropriate to their respective standards. The parents will be involved in improvement of learning quality, to mainstream children to schools, to increase attendance rate and retention of children, and to activate libraries.

It has began an Urdu literacy program as well, as documented on its Urdu report website,

http://www.prathamap.org/Urdu%20Report.html

Pratham has produced some quality storybooks inaugurated in 2009 by Vice President Hamid Ansari, see

http://www.indiaeducationdiary.in/showCD.asp?newsid=1821

The Maktabs, as distinct from madarsas, for instance, merit study. One example is found in Jamilur Rahman's thesis on Delhi maktabs.[150] The Deeni Taleemi Council of Uttar Pradesh (DTC) is another such institution. Began in 1959 under the leadership of Mawlana Abulhasan Ali Nadwi (1913-1999) and Qazi Adil Abbasi (1898-1980), among the functions of the DTC is to "popularize Urdu as the

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[150] Jameelur Rahman, *A Study of the Role of the Maktabs in the Total Literacy Campaign in the Muslim Areas of Walled City of Delhi*, M.Ed dissertation, Dept. of Education, Jamia Millia Islamia, 1995).

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medium of instruction in schools."[151] By late 1970s, Abbasi claimed that there were "about nine thousand primary maktabs," spread over "46 districts," with "a total student population of about 5 lakhs."[152] The DTC "prepared and published the textbooks," for the students.[153] In 1998, the DTC Superintendent H.U. Azmi estimated "20,000 independent and self-supporting maktabs (primary schools) all over the state," of UP.[154] Ten years since Azmi's statement, a much lower figure has been given by a DTC official, "almost 12,000 maktabs," according to Masudulhasan Usmani.[155] Mostly recently, there are a mere 1000 maktabs in the state. The students obtain basic education through Urdu in science, math, Hindi, and Islamic studies. At the fifth grade, the students go through an entrance exam. If the students pass, they can then enter either government schools or go to the higher grades of madarsa education.[156] Some 10, 000 students are enrolled in 2010 in the maktabs.[157]

Jamia Urdu is an examination body formed as Bazm-i Iqbal in Agra in 1939. It changed the name to Jamia and moved to Aligarh in 1949. The Jamia's purposes,

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[151] H.U. Azmi, "Contribution of Deeni Taleemi Council to Muslims' Education in Uttar Pradesh," p. 149, in *Education and Muslims in India Since Independence,* edited by A.W.B. Qadri, (New Delhi: Institute of Objective Studies, 1998), pp. 147-150. Azmi was the superintendent of DTC in 1998.

[152] Qazi Mohammad Adil Abbasi, *Aspects of Politics and Society: Memoirs of a Veteran Congressman,* (New Delhi: Marwah, 1981), p. 161.

[153] Qazi Mohammad Adil Abbasi, *Aspects of Politics and Society: Memoirs of a Veteran Congressman,* (New Delhi: Marwah, 1981), p. 163.

[154] Azmi, op. citi. 148.

[155] Omair Anas, "Deeni Taleemi Council," *Radiance* (30 October-5 November 2005): 82-85.

[156] Interview with Dr. Masudulhasan Usmani over the phone May 23, 2010.

[157] Interview with Dr. Masudulhasan Usman over the phone May 23, 2010.

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among others are, "to promote Urdu as mother tongue," and "to establish examination centers."[158]   Correspondence course and long distance learning is also among the purposes of the Jamia, though not accomplished. The name *Jamia* Urdu is inaccurate. In Urdu, *jamia* means university. Jamia Urdu is not a university. It is an examination body, pure and simple. The Jamia provided an opportunity for a large number of indigent students who could not afford the cost of formal education to obtain certificates of various levels based on home learning. The number of candidates appearing for the Jamia's examinations shows an impressive increase from 1949 to 1989 in various states.[159] The Jamia established its own curriculum and a book depot for distribution of textbooks. It owns a purpose-built building and paid staff—numbering 135 in Aligarh in June 2010. The Jamia's brochure available in June 2010 informs that its examinations (therefore its certificates) are recognized by 16 universities, 4 boards/directorates of education in 3 states as well as three governments. Annually, it holds five examinations, namely Ibtidai, Adib, Adib-i Mahir (first and second years); Adib-i Kamil, and Muallim-i Urdu (first and second years). Muallim-i Urdu certificate holders are able to qualify for Basic Training Certificate, (BTC) enabling them to obtain jobs in primary schools in UP.

 At the close of the twentieth century, the Jamia was at the threshold for further progress, but those at the helm of its affairs took a different course. According to journalist Ubaidur Rahman, "Jamia, where around 1.4 lakh students appeared in different examinations in 1998, has seen a steady decline ever since. Only 64 thousand students appeared in different examinations in 1999 and the strength

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[158] *Tarikh-i Jamia Urdu: Bayadgar-i Jashn-i Zarrin,* edited by Masud Husain et al, (Aligarh, 1990), p. 84.

[159] *Tarikh-i Jamia Urdu: Bayadgar-i Jashn-i Zarrin*, op. cit, pp, 134,192-93.

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declined further to a meager 35 thousand last year."[160] Evidently the then registrar of Jamia Anwar Saeed, (d. 2009) was responsible for a major embezzlement, as "all the money in different accounts of the Jamia has been emptied, rather stolen. Its Rs 15 million deposit with Steel Authority of India (SAIL) has been withdrawn and squandered away."[161] A new registrar Saba Khan took over the job in 2005.[162] Since then she and the Officer on Special Duty, OSD Farhat Ali Khan have steadily worked for restoring Jamia to its earlier role, and advance its mission. Thus in 2009 as many as 70,000 candidates appeared for the five exams it held. While the numbers dipped to 68,000 in 2010 for various reasons beyond the control of Jamia, OSD Farhat Ali Khan estimates that a 100, 000 candidates will appear for exams in 2011. In the 2010 exams, 10,000 belonged to the Muallim-i Urdu category who are likely to get jobs as teachers in UP. [163]

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[160] Ubaidur Rahman, "Jamia Urdu Thrown to the Wolves," *The Milli Gazette* 01/08/2001, posted on

http://www.milligazette.com/Archives/01082001/07.htm

Accessed on June 8, 2010.

[161] Ubaidur Rahman, "Jamia Urdu Thrown to the Wolves," *The Milli Gazette* 01/08/2001, posted on

http://www.milligazette.com/Archives/01082001/07.htm

Accessed on June 8, 2010.

[162] "Saba Khan New Registrar of Jamia," **The Milli Gazette** (1-15 April 2005) posted on

http://www.milligazette.com/Archives/2005/01-15Apr05-Print-Edition/011504200555.htm

[163] Interview with Farhat Ali Khan, Aligarh June 10, 2010.

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The Jamia Millia Islamia's Center for Distance and Open Learning runs an Urdu correspondence course through English and Hindi since 1970, as gleaned from its website

http://www.jmi.ac.in/cdol/ucc.syllabus.htm

The present writer was unable to obtain any statistics showing the performance of this course over the years.

In Andhra Pradesh, there are two examples of efforts to teach Urdu outside the formal, state-funded school system. One is run by the Anjuman-i Tarraqi-i Urdu. The summer school began in 1975. Consisting of six weeks of classes in which students ranging in age from 6 to 22 take part, the summer school is designed for those who want to learn basic Urdu. Each year about 150 pupils enroll, according to Ghulam Yazdani.[164]

The daily *Siyasat*, a family-run newspaper launched a basic Urdu literacy program in June 1994, under one of its unit, the Abid Ali Khan Educational Trust. It devised three basic, progressive levels for learning to read and write basic Urdu. They are called Urdu Dani, Urdu Zaban Dani, and Urdu Insha. The first two levels concentrate on reading, the third on writing. The Trust supplies the Urdu primers, pencils, notebooks and the blackboards. Each course is programmed for six months, weekly duration consisting of one hour per day of teacher/learner interaction. The students are both adults and children. The literacy program is

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[164] Conversation with Ghulam Yazdani of Anjuman-i Tarraqi-yi Urdu, AP, June 6, 2010.

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very popular among women as documented by UNESCO.[165] By 2010, over a million students had gone through the program. The Abid Ali Khan Trust's Urdu literacy program has spread beyond Andhra Pradesh to a number of other states. In 2010, the newspaper claimed that 13, 580 students took part in the examination for three diplomas of Urdu Dani, Zaban Dani and Urdu Insha.[166] Idarah-i Adabiyat-i Urdu is the examination body for Siyasat's literacy program. The decadal figures for Urdu literacy program of the Abid Ali Khan Trust can be seen from the following Table.

Year	Centers	URDU DANI			URDU ZABAN DANI			URDU INSHA			
		Applied	Appeared	Pass	Applied	Appeared	Pass	Applied	Appeared	Pass	
JAN	513	19152	14579	13864	10444	8013	7833	8865	6503	6069	

[165] *Education Initiative for Women by The Siyasat Daily,* Paris: Unesco, 2006, available on

http://unesdoc.unesco.org/Ulis/cgi-bin/ulis.pl?catno=147090&set=4B16362B_2_73&database=ged&gp=0&mode=e&lin=1&ll=f

[166] *Siyasat*, online edition 31 January 2010, internet edition.

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2000									
JUN 2000	516	16909	13704	13079	1822	6188	5978	6460	4556	4301
JAN 2001	514	17205	13315	12380	10713	8108	7658	7031	5315	5083
JUN 2001	473	19181	15902	14678	9288	6954	6727	5991	4361	4185
JAN 2002	417	12413	9851	9307	7810	6090	5860	5407	4237	3962
JUN 2002	487	13483	10872	10250	8088	6399	6174	5961	4519	4245
JAN 2003	326	9334	6956	6754	5463	3936	3860	4077	2839	2727
JUN 2003	309	8260	6780	6635	4590	3753	3687	3329	2671	2518
JAN 2004	319	8571	7106	6916	5360	4226	4118	4122	3213	2917
JUN 2004	272	6763	5175	4955	4655	3088	2984	2869	2006	2851
JAN 2005	314	8816	6991	6610	4888	3699	3633	3807	2712	2634
JUN 2005	329	6376	5060	4908	4119	3135	3091	3208	2310	2303
JAN 2006	315	10222	9182	9009	6751	5113	5086	4856	3720	3657
JUN 2006	321	9832	9123	9091	5283	5189	5060	4312	3997	3845
JAN 2007	229	5618	5482	5350	4813	3608	6562	1551	1487	1410
JUN 2007	294	8756	8281	8152	6011	5181	5015	4642	6468	3255
JAN 2008	263	9753	8629	8505	4881	4892	4702	4556	3318	3215
JUN 2008	231	6280	5888	5828	5287	4396	4155	3853	2708	2691
JAN 2009	258	-	8229	-	-	4341	-	-	3675	-
JUN 2009	210	-	-	-	-	-	-	-	-	-
JAN 2010	239	-	-	-	-	-	-	-	-	-
JUN 2010	208	-	-	-	-	-	-	-	-	-
TOTAL		196924	171105	156271	110266	96309	92183	84897	70615	61868

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Distinct from the Abid Ali Khan Trust's exams are another set of examinations

conducted by the Idarah-i Adabiyat-i Urdu, an organization for the promotion of Urdu established in 1938. Besides a possessing an important library, a museum, and a collection of archival materials, the Idarah is active in advancing Urdu literacy. To this end it conducts three progressive levels-- Urdu Fazil, Alim and Mahir-- of examination leading to award of diplomas. The following table shows the statistics of the three exams conducted by the Idarah from 2000-2009.

Year	Appeared Urdu Fazil	Passed	Appeared Urdu Alim	Passed	Appeared Urdu Mahir	Passed	Total Appeared	Total Passed
2000	3460	2091	1486	1086	544	441	5490	**3618**
2001	3900	2371	2167	1650	616	499	6683	**4520**
2002	6430	2605	3706	2193	626	393	10762	**5191**
2003	7448	2847	3631	2163	342	231	11421	**5241**
2004	7025	2779	2739	1487	227	135	9991	**4401**
2005	4595	2447	1933	1382	155	110	6683	**3939**
2006	1781	1251	1048	827	107	83	2936	**2161**
2007	2130	1678	1220	1021	96	81	3446	**2780**
2008	1824	1404	1204	1075	46	42	3074	**2521**

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2009	1705	1263	991	886	46	35	2742	**2184**

In 1999, the AP Board of Intermediate Education recognized the Fazil course as equivalent to Intermediate in Humanities for all those students who studied English as one of the subjects. However, the BIE derecognized the Fazil degree in 2004.[167] Despite recognition by several universities, the decision of the BIE put thousands of students in uncertain conditions, as many were appearing for District Selection Committee (DSC) exams, upon passing which they would have qualified to obtain jobs as School Assistants in secondary schools and as Secondary Grade Teachers, SGT. The Idarah is working to get the recognition restored in order to ensure students' continued interest in the diplomas.

The Hyderabad-based Foundation for Educational and Economic Development, FEED, established in 1993, runs 57 Urdu medium schools across Telangana, according to its 2010 report.[168]

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[167] J.S. Iftekhar, "DSC-2003: Urdu Fazil Students in Quandary," *The Hindu* (26 February 2004), internet edition, idem, "DSC Notification Baffles Urdu Medium Students," *The Hindu* (7 December 2003), internet edition; and "DSC Candidates in a Fix," *The Hindu* (2 July 2006) internet edition.

[168] Report on http://www.feed-hyd.org/aboutus1.htm

Accessed January 11 2010; according to the Foundation newsletter, there were 9, 350 students in its 57 schools, while its only 5 English medium schools enrolled , 2660 students located in Adilabad, Mahboobnagar, Medak, Nizamabad and Rangareddy district, see *FEED Newsletter* 4 (2009-2010), p. 4.

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Beyond Formal Education: State-Funded Institutions

ہیں کواکب کچھ نظر آتے ہیں کچھ

دیتے ہیں دھوکا یہ بازی گر کھلا

The union government established a well-funded central organization called Tarraqi Urdu Board in 1969 funded by the Ministry of Education. The union government reconstituted the Board as the National Council for the Promotion for Urdu Language, NCPUL in 1996 under the Ministry of Human Resource Development. The foundation stone for a dedicated office building for the Council was laid on 27 March 2010 in Jamia Nagar's Okhla Vihar area in New Delhi. It runs a scheme for the establishment of Urdu study centers to run one year diploma course.[169] What have been the successes, lessons or failures of this scheme? It is yet to be disclosed, though Vice-Chairman of NCPUL Chandrabhan Khayal claimed that "there were around 350 centers to teach Urdu till a few years ago. Now [in 2010] we have 662 centers around the country…Each center has at least 30 or more students."[170]

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[169] http://www.urducouncil.nic.in/

Accessed on May 10 2010.

[170] Mohammed Wajihuddin and Anahita Mukherji, "Urdu and Sanskrit Hold Fort," *The Times of India* (27 March 2010) internet edition.

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However, allegations of fraudulent schemes in the NCPUL led to the arrest of its director Hamidullah Bhatt in 2005.[171] But, using his clout with Kashmiri members of parliament, Bhatt managed to come back to the same post in April 2009, despite demand for his removal by academics, activists, and scores of parliamentarians cutting across party lines.[172] Bhatt eulogized Urdu-hating BJP's union minister for Human Resource Development during 1999-2004 and initiated schemes clearly injurious to Urdu.[173]

In 2006, the Ministry of Human Resource Development established three centers professional development of Urdu teachers at Maulana Azad National Urdu University in Hyderabad, which is called Center for Professional Development of Urdu Teachers, see its website

http://www.manuu.ac.in/cpdumt.html

And at Jamia Millia Islamia, it is called Academy of Professional Development of Urdu Medium Teachers

http://www.jmi.ac.in/apdumt/majorareas_apdumt.htm

and at Aligarh Muslim University in Aligarh it is called Urdu Academy, see

http://www.amu.ac.in/uacademy.htm

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[171] Athar Farouqui, "The Great Urdu Fraud," *The Milli Gazette* (1-15 May 2005), inter edition; "CPUL's Hamidullah Bhatt in CBI Net," *The Milli Gazette* (16-31 October 2005), p. 20; Andalib Akhtar, "Committee to Probe Activities of Urdu Council," *The Milli Gazette* (1-15 August 2005), p. 17; "NCPUL and Hamidullah Bhatt: Fall of the Invincible," *The Milli Gazette* (1-15 November 2005), pp. 16-17.

[172] Anita Joshua, "MPs Demand Removal of NCPUL Director," *The Hindu* 18 August 2009, internet edition.

[173] Bikramajit De, "Abuse of Urdu," *Economic and Political Weekly* (27 November 2004), pp. 5085-5088.

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The websites indicates various programs and courses that the centers offer, though an independent assessment of their activities so far is unknown.

Governments in AP, Bihar, Delhi, Karnataka, Maharashtra, and UP established Urdu academies between 1972 to 1981 with the objective of advancing the cause of Urdu. However, many of the Academies have become dens of corruption and malpractices exemplified by the case of financial scandal that rocked the UP Urdu Academy in November 2005 involving illegal withdrawal of funds.[174] Issues other than finances also plague Urdu academies. Evidently, "less than one third of the 45 board member of the Andhra Pradesh Urdu Academy know the language," [175] in 2002. Six years later, a *Deccan Chronicle* report headlined "Urdu, Greek to Academy Staff," quotes the Academy President Rahimuddin Ansari saying that the director does not know how to read or write Urdu."[176]

The A.P. Academy's website claims that there is a scheme of Open Urdu Schools, "meant for the Urdu mother tongue drop outs at primary level in 8 districts, [through which] 100 Urdu Open Schools [have been] established---(Hyderabad 40, Ranga Reddy 10, Medak 08, Nizamabad 08, Kurnool 10, Guntur 08, Cuddapah 08, Anantapur 08).[177] It also awards "best" Urdu teachers and students.

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[174] "Financial Scandals," *The Milli Gazette* (1-15 February 2005), http://www.milligazette.com/Archives/2005/01-15Feb05-Print-Edition/011502200559a.htm

Accessed on May 10, 2010.

[175] "Urdu Panel Does not Know Urdu," *Deccan Chronicle* (8 October 2002), internet edition.

[176] "Urdu, Greek to Academy Staff," *Deccan Chronicle* (28 January 2008), internet edition.

[177] There is no indication of what year this scheme began, see

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The Delhi Urdu Academy runs several programs related to literacy, such as Urdu adult education program, Urdu coaching classes, Urdu Certificate course centers; a part time Urdu teaching program in schools and scholarship and prizes for students in Urdu medium schools or students opting for Urdu as one subject in schools.[178] There are no statistics about the number of students involved in each of the schemes nor any information on when each program began.

The **Central Institute of Indian Languages** (CIIL) was set up on the 17 July 1969 to assist and co-ordinate the development of Indian Languages in Mysore. The Institute is charged with the responsibility of serving as a nucleus to bring together all the research and literary output from the various linguistic streams to a common head and narrow the gap between the basic research and development; research in the field of languages and linguistics in India.

The **CIIL** also runs seven Regional Centers in the various linguistic regions of the country to help and meet the demand for trained teachers to implement the three-language formula and thereby provides assurance to linguistic minorities. It has published a few books on Urdu, see its website

http://www.ciil.org/

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http://www.aponline.gov.in/apportal/departments/departments.asp?dep=25&org=168&category=about#openSchools

Accessed on May 14, 2010.

[178] http://artandculture.delhigovt.nic.in/urdu/scheme.htm

Accessed on May 14, 2010

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The CIIL runs an online course for learning Urdu, though it would be good to know how many people have used it since the year it began, which is not indicated. There are two Urdu Research and Teaching Centers that CIIL runs in Lucknow and Solan, Himachal Pradesh. An independent assessment of their scientific output in the development of Urdu pedagogy is needed, though the one page devoted to it in Jaafari Report is not encouraging.[179]

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[179] Jaafari Report, p. 93.

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Major Findings

The major findings of the Report based on the statistics state education authorities provided to the CML and to the State Report Cards establish the state of Urdu literacy in India. The most recent statistics available through the State Report Cards are shown in the following table. The states are noted in order of highest Urdu enrollment, which are compared with Urdu population in each state. If the enrollment figures are compared with Muslim population in each state the results will be even more revealing.

Urdu Literacy in Six States: Comparison of Urdu Enrollment in Six States in 2007-08

State	Urdu mother tongue Population in millions per Census 2001	Urdu Medium Enrollment in Primary-Secondary Schools	Source
Maharashtra	6.9	953028	State Report Cards
Bihar	9.5	874529	Ditto
Karnataka	5.5	473384	Ditto
Andhra Pradesh	6.6	311017	Ditto
Uttar Pradesh	13.3	128892	Ditto
Delhi	1.0*	25894	Ditto

*Delhi Urdu population in 2001 is 872,581,94 & rounded off to a million for 2010.

In light of the statistics shown above, it is clear that

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1. Urdu literacy in India is highest in Maharashtra as measured by the number of schools, students, and teachers imparting education through Urdu medium or as a subject. It compares very well considering that its Urdu population is roughly the same as in neighboring Andhra Pradesh. Maharashtra's record is of course hugely better than Uttar Pradesh with twice larger Urdu population.

2. Bihar comes second, with the largest number of schools, students and teachers. But it does not compare as well when its larger Urdu population is taken into account. Perhaps it is due to the general poverty of population known as "backwardness," in Indian parlance.

3. Karnataka comes third. Despite its slightly smaller Urdu population with neighboring Andhra Pradesh, it has done better. This is surprising and calls for further investigation into this matter.

4. Andhra Pradesh is fourth. Despite, or because of the Nizams' legacy, it has not done as good as one would expect. It is perhaps because in the Nizams' era, the medium of instruction in government schools was predominantly Urdu, which changed after 1948 Operation Polo, as the new administration switched the medium to Telugu in most schools.

5. The combined literacy figures of the three states of AP, Karnataka and Maharashtra conclusively establish that Urdu literacy is now highest in the Deccan states. It is hardly a coincidence. Literary Urdu in the form of Deccani or pre (or proto)-Urdu began fully two centuries before Urdu literacy began in the plains of northern India.

6. Delhi and UP combined come a distant fifth, firmly blasting the myth that *wadi-i Gang-o jaman*, Indo-Gangetic plains is the heartland of Urdu. In the

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post-colonial state-sponsored culturecide, Urdu literacy is nearly wiped out in UP. Ideological opposition to the teaching of Urdu is harshest in Uttar Pradesh, regardless of political parties in power. In this regard there is no difference between the BJP, Congress and other parties. The removal of Urdu from state schools happened in the heyday of Nehru, not that of Vajpayee. There was nothing left for BJP to do in UP as the UP Congress had successfully wiped Urdu from government schools.

7. Madarsas play a pivotal role in the perpetuation of Urdu literacy. Indeed they are the fortresses of those faithful to Urdu. Madrasas have made inroads into regions hitherto considered outside the traditional areas of Urdu literacy.

8. State-funded institutions with enormous funds have done poorly in the spread and perpetuation of Urdu literacy. Absence of accountability and transparency is at the heart of such failure.

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Immediate Action Proposals

1. The statistics collected in the Report are based on those supplied to the Commissioner of Linguistic Minorities and other sources. NGOs, voluntary organizations and those concerned with the promotion of Urdu should double check the statistics. For example, using Right to Information Act, RTI, an attempt should be made to find out the physical location of schools, sections/parallel classes identified by the governments in order to ascertain their actual existence. Part of the inquiry should be to verify the number of students and ascertain the exact degree to which Urdu in its own script is part of the curriculum.

2. Using RTI, a census should be undertaken to verify the actual number of teachers identified as Urdu teachers currently employed. Part of this inquiry should also include the total number of vacancies of Urdu teachers so far sanctioned and actually at work. A related item of inquiry should be to find out the appointment of inspecting staff for Urdu schools in each state. The Gujral Committee had recommended the creation of a Joint Directorate (Urdu) in each education department.

3. Appropriate authorities of Urdu Academy, NCERT, SCERT, and others should be asked to report on the state of the affairs about preparation, publication and distribution of Urdu textbooks in a timely fashion every year. If the authorities fail to furnish a report, recourse must be made to RTI.

4. The present Report is quantitative. Other researchers should undertake a study to report quality of Urdu literacy in schools weather run by the state at various levels, private organizations and madarsas.

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5. The financial irregularities in all state-funded agencies such as NCPUL, Maulana Azad National Urdu University, and Urdu academies should be investigated to ensure accountability. The same applies to nongovernmental Urdu organizations that receive public funds.

سفینہ جب کہ کنارے پے آلگا غالب

خدا سے کیا ستم و جورِ نا خدا کھیے

سفینہ جب کہ کنارے پے آلگا غالب

خدا سے کیا ستم و جورِ نا خدا کھیے

سفینہ جب کہ کنارے پے آلگا غالب

خدا سے کیا ستم و جورِ نا خدا کھیے

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More Than Meets the Eye
Reasons Behind Asian Students' Perceived Passivity In The ESL/EFL Classroom

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Abstract

This paper investigates several common alleged stereotypes related to the Asian learners in terms of reticence and passivity in the classroom and it reviews the factors offered as explanations for the perceived reticence and passivity. In addition to acknowledging the part culture plays in this behavioral profile, we have argued that factors other than culture i.e., students related and teacher issues play no less a role in the way Asian students interact in the ESL/EFL classroom. Finally, this paper summarizes some of the pedagogical implications of this stereotyping.

Keywords: passive, Stereotype, second language learning, reticence.

Introduction

In recent ESL/EFL literature, Asian (especially East Asian) learners of English as a foreign/second language have been arguably reported as reticent and passive. The most

common allegations are that these students are reluctant to participate in classroom discourse; they are unwilling to give responses; they do not ask questions, they are passive and over- dependent on the teacher (Braddock et al., 1995; Cortazzi & Jin 1996; Jones et al 1993; Tsui, 1996).

While some researchers (e.g., Cortazzi & Jin, 1996; Littlewood & Liu, 1996,) have challenged these allegations, more interested researchers have chosen to explore the factors behind such alleged behavior of the Asian students. By resorting to socio -cultural interpretations of the Asian societies, many researchers (e.g., Flowerdew & Miller, 1995; Ferris & Tagg, 1996; Turner & Hiraga, 1996) generalized that these shortcomings on the part of the Asian students result from certain cultural attributes of Asian societies. It is perhaps relatively easier to establish whether or not Asian students are reticent and passive learners than to explain why *some* Asian learners have indeed been observed to be quieter than desired.

In this paper, I will review the reasons offered as responsible for this behavioral profile of the Asian students and I will report the findings of existing studies as evidence against the alleged behavior to support my argument that the reasons attributed for the passivity of the Asian students goes beyond the cultural interpretations. In fact, factors that are commonly held responsible may be deeper and more diverse than meets the eye. I will argue that a number of issues related to both teachers and students have a lot to do in the circumstances where behavior of reticence and passivity is indeed observed. Finally, I will summarize the implications this stereotyping might have on teaching learning as a whole.

What is Stereotype?

Stereotype is a belief about an individual or a group, based on the idea that all people in a certain group will act the same way. Stereotypes are often based on superficial observations and experiences which reflect preconceived ideas. When someone says that all members of a particular race, religion, ethnic group, gender or other group are "lazy," "rude," "cheap," "criminal," or "good at math," he or she is expressing a stereotype. All groups have individuals who demonstrate these characteristics.

To label an entire group based on the actions of a few of its members is to stereotype. Stereotypic representations have been broadly defined as cognitive structures that contain a perceiver's knowledge, beliefs, and expectancies about a social group (Hamilton & Troiler, 1986, cited in Spencer-Rodgers, 2001). According to Spencer-Rodgers, (2001), stereotypes have been conceptualized as culturally shared beliefs about the attributes that characterize a group of people (consensual, cultural, or social stereotypes) and in terms of unique, personal beliefs about the attributes of a group (individual, personal, or idiosyncratic stereotypes) (p.642).

Thus, stereotypes are often based on superficial observations that reflect preconceived ideas. Stereotypes tend to judge a group of people from the performance of an individual.

Asian Students' Alleged Behavior

In order to keep pace with the globalization in which English is playing a crucial role, Asian countries notably China, Japan, and South Korea have put a lot of emphasis on teaching English.

Firstly, as English is increasingly becoming an international language, these countries have undertaken reform in the teaching of English as a foreign or second language, which in turn has generated more and more research interest in ESL/EFL practices in these countries and regions (Cortazzi & Jin, 1996; Li, 1998; Littlewood, 1999; LoCastro, 1996; Park & Oxford, 1998).

One common and recurring finding in these studies is that more often than not Asian learners of English are generally reticent and passive learners (Braddock et al., 1995; Cortazzi & Jin, 1996; Flowerdew & Miller, 1995; Ferris & Tagg, 1996; Turner & Hiraga, 1996; Tsui, 1996).

Secondly, an ever- increasing number of Asian students is coming to the Western universities to pursue higher studies. These students are also reported to have been found as passive and deficient in critical thinking (Fox, 1994). Braddock et al. (1995, cited in Jones, 1999) in their survey at Macquarie University in Sydney found that 60% of the staff respondents viewed Asian students as quiet and inactive in class and reported much better communication with Australian, American, and European students. Cortazzi & Jin (1996) asked 15 highly experienced Western teachers of English working in Chinese universities about the strong and weak points of Chinese students' learning styles. In the estimation of those teachers, on the strong side, Chinese students were diligent, persistent, thorough and friendly; extraordinarily good at memorizing; had a strong desire to learn English well and so forth.

However, on the other hand, these Western teachers reported that Chinese students were not active in class; they were unwilling to work in groups; they preferred whole-class work or individual work (to group-work or pair-work); and they were shy.

Flowerdew & Miller (1995) in their study on the notion of culture in foreign language university lectures in Hong Kong reported that expatriate lecturers were frustrated with students' reluctance to give their opinions, even when asked. They speculated that this lack of enthusiasm to participate in the classroom interaction might result from a negative attitude which has something to do with the local and academic cultures that students operate in.

Exploring the differential patterns of participation of Asian and non-Asian university ESL students in the United States, Sato (1982) found a disproportionate distribution of talk in favor of non-Asians. She disclosed that her Asian subjects tended to have fewer turns; bid for turns less often, and receive fewer personal solicits from the teacher.

In Turner & Hiraga's (1996, cited in Liu & Littlewood, 1997) study of the effect of different cultural assumptions on academic tutorials, it was found that Japanese students in Britain appeared passive and unwilling to engage in dialectic and analytic discourse in tutorials. Turner & Hiraga suggest that Japanese academic culture, which values the demonstration rather than transformation of knowledge, could be the cause of students' passive behavior.

Tsui (1996) asked a group of 38 foreign teachers working in secondary schools in Hong Kong to react on their own teaching and identify a specific problem that might form the basis for classroom action research. Over 70% of the teachers identified getting more student oral response as one of their major problems. These teachers described their students as "passive", "quiet", "shy", "unwilling to speak English" and so forth.

In addition to these findings from empirical studies, other researchers have voiced their speculations about Asian learners' characteristics based on their studies of socio-cultural aspects of Asian societies.

For example, Littlewood (1999) predicts that East Asian students' reticence might have to do with collectivism which might deter them from engaging in argumentative discussion. Therefore, in open classroom, Littlewood concludes that East Asian students will be reluctant to "stand out" by expressing their views or raising questions, particularly if this might be perceived as expressing public disagreement.

Biggs (1996) summarizes some Western misperceptions of the so-called Confucian-heritage cultures, one of which is that "overseas Asian students typically take a low profile, rarely asking questions or volunteering answers, let alone making public observations or criticisms of course content" (p.47).

Interpretations of Reticence and Passivity

The cause of Asian students' alleged passive learning behavior is often attributed by the researchers to the unique culture of learning, which is deeply rooted in the traditional values about education in Asia. As the most common interpretation, the Confucian influences have been frequently cited in the literature as the main cause of the perceived reticence of not only Chinese students but also students in other Asian countries.

According to Littlewood & Liu (1996), like Asian values, the biggest cliché about Asia today, Confucian values have become a convenient explanation for observed or

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behavioral trait. Scollon & Scollon (1994, cited in Liu & Littlewood ,1997) state that the Confucian teacher-student relationship does not encourage questioning in class because "questioning might be thought of as saying that the teacher had not taught well because there were still unanswered questions" (p.17). It is believed that in Confucian times (and a long time after that period) there was great respect from the pupils for the knowledgeable teacher. Passivity and reticence were indications of respect for the teacher. It was not only acceptable but also desirable for students to listen to and obey the teacher. Challenging the teacher by asking questions was not believed to be an accepted practice.

> ". . . consciousness and recognition of teacher authority has been a significant aspect of Chinese traditional values since Confucius and a strong element in Chinese approaches to learning." (Cortazzi & Jin, 1996, p. 179).

This argument about teacher authority, however, does not conform to the Confucian doctrine (Kumaravadivelu, 2003). Confucius did advocate respect for knowledge and knowledgeable persons. This is not at issue. However, the fact is that respecting knowledge and knowledgeable teachers does not necessarily mean students should be compliant and passive to the teacher. This is manifested in Confucius's well-known saying: "*shi bu bi xian yu di zi; di zi bu bi bu ru shi"*, which means "the teacher does not always have to be more knowledgeable than the pupil; and the pupil is not necessarily always less learned than the teacher".

Confucius had another saying which is known in virtually every household in China "*san ren xing, bi you wo shi"*, meaning "among any three persons, there must be one who can be my teacher". Obviously Confucius was not supportive of the idea that the pupils should blindly accept whatever the teacher imparts. Traditional Chinese education also greatly values "challenging".

This is seen in one motto frequently recommended for Chinese students - "*Qin xue hao wen"*, meaning "a good student should study hard and always be ready to ask questions". This was also evidenced by Cortazzi & Jin (1996) from Chinese students' perception of being a good student. A fairly high percentage of students mentioned that a good student is active and asks questions in class. He 'should not only learn everything from the teacher but create things through his learning'. 'He learns actively, not passively.' 'If there is anything which can't be understood he will raise his hand immediately and discuss it with his teacher.'(p.191)

Firstly, Liu & Littlewood (1997) expressed a similar view by analyzing the Chinese term for "knowledge". In Chinese, the term for "knowledge" is made up of two characters. One is *xue* (to learn) and the other is *wen* (to ask). This means that enquiring and questioning are central to the quest for knowledge. Therefore, respect for teachers does not seem to be a major cause for some Asian students' reticence in class, and the notion

that Asian students are not inclined to challenge the teacher's authority for this reason does not hold much ground.

Secondly, a number of Western professors in the study of Ferris & Tagg (1996) view Asian students' difficulties with academic listening and speaking tasks, emanating from cultural inhibition or shyness. It is argued that Asian cultures generally value collectivism and discourage individual self-expression, creativity, and critical thinking; whereas Western culture displays the opposite characteristics (Ballard & Clanchy, 1991, Flowerdew & Miller, 1995). However, these perceptions seem to be over generalizations because collectivism does not preclude questioning and the small samples on which these claims are based do not represent the whole Asian culture.

Thirdly, Cheng (2000, p. 441) poses two crucial questions in this regard: If cultural differences between the East and the West cause reticence for Asian students, does it mean all Asian countries share the same culture, which typically causes passivity? Or does it mean Asian countries do have different cultures, but these different cultures coincidentally all cause inhibition for language learners? How can all Asians have same attitude and different cultures? None of the answer to these questions is affirmative.

The other factor, namely anxiety or fear of making mistakes which is frequently cited as a cause of the perceived reticence and passivity is also allegedly related to certain aspects of Eastern culture, such as the desire to be right and perfect and fear of losing face (Liu & Littlewood, 1997; Jones, 1999).

It is true that a high degree of anxiety is likely to have a negative effect on second language learning (Ellis, 1994) in general and speaking it in particular. However, there is a gap in literature to evidence that learners' degree of anxiety is related to their local culture.

When analyzing the causes behind Hong Kong students' anxiety in the classroom, Tsui (1996) in his study concludes that the degree of anxiety in the language classroom largely depends on the teacher's strategies (e.g., questioning techniques, wait times allocation of turns). Successful strategies minimize language learning anxiety and unsuccessful strategies aggravate language learning anxiety.

As a possible reason for this behavioral pattern of the Asian students, Ballard & Clanchy (1991) have come up with a continuum of cultural attitudes to knowledge ranging from "conserving" to "extending". According to this concept, it is the reproductive approach to learning, which favors strategies of memorization and rote learning and positively discourages critical questioning of either the teacher or the text, is the dominant tendency in formal education in much of Southeast Asia and other Asian countries.

According to Ballard (1996), Buddhism and Confucius based societies respect for the teacher is a duty which follows those of respect for the Buddha, the law and the monks, the dynamics of the classrooms are shaped by the "impossibility of questioning, much less contradicting the teacher. In Japan the subordinate role of the student overrides any attempt to develop independent or individual views" (p.154). In these societies "the classroom is not a venue for critical questioning or argument." This differs from the current Western education system which   Ballard & Clanchy (1991) summarizes as:

> "…even at the primary level, the dominant tendency is to urge students toward an ultimately speculative approach to learning, to encourage them to question, to search for new ways of looking at the world around them."(p.23)

This difference in education system is further discussed by Ballard & Clanchy (1991) with their comparison of Asian and Western college teachers. In the West college teachers assume that it is their duty to develop their students as independent learners, with the competence 'to analyze', 'to question', 'to criticize', 'to evaluate'. They want their students to apply these capacities across the whole range of their learning. They want them to adopt:

> "a critical stance not merely to the issues, points of view, and evidence raised in the course of lectures and class discussions, but equally to the theories, data and conclusion offered by the foremost scholars in the field. From their first year at college students are trained to consider critically everything they read or hear; it is not presumptuous they are told, for a student to raise questions about the wisdom of the respected scholars –it is mandatory."(p.23)

Knowledge, according to Ballard & Clanchy (1991), is never absolute. It must continually be questioned and challenged if it is to continue to be valid. In the East the traditions of scholarship attest to knowledge as wisdom and it is the student's duty to learn knowledge, to acquire this wisdom as it is handed by wise and respected teachers. The teachers' duty, on the other hand, is to impart a base of knowledge fully and clearly to their students. Between such reciprocal roles and duties there is no scope for critical questioning and analysis, or for reevaluation leading to new conclusions.

Leki (1997) is critical about the view Ballard & Clanchy (1991) hold about oriental attitude towards knowledge and learning. Leki comments that this kind of cross-cultural explanation for behavioral differences "risks turning ESL students into cardboard characters whose behavior is simply determined by cultural norms and who has no individual differences or subtleties obscured by these behaviors" (p. 239).

However, empirical studies by Stephens (1997) indicated that Ballard & Clanchy's (1991) views are over generalized and oversimplified. The participants in Stephens' (1997) study did not accept whatever was 'handed by wise and respected teachers and

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according to one participating Asian teacher "….still there are people who are very critical and outspoken. It's difficult to generalize the attitude of the 'we'" (p.119). In instances of disagreement with their teachers, students' silence does not necessarily indicate respect for the teacher. As another participant comments, "it may also be that those who keep silence are not quite sure or quite understand what the supervisor said" (p. 119). Yet another participant teacher comments in this regard, "….the situation has changed now. Students can raise questions which they do not agree with"(p.118). Stephens concludes that this kind of view is "over simplified, and confirming the view of 'culture' as an area of contested discourse rather than a reified construct" (p.119).

Ballard & Clanchy (1991) seem to imply that, since Asian students do not criticize in the classroom publicly in their first culture, they are devoid of the ability to criticize. Leki (1997) suggests that one has only to become closer with these students to find that they "most certainly can and do criticize not only teachers but also institutions and other authorities." (p.239). She refers to both the Chinese revolution (1949) and demonstration at Tiananmen Square (1989) as examples of Chinese students willing and able to criticize in public (and fight for their beliefs). Zamel (1997) also suggested that, such an attitude i.e. non-critical, led Western pedagogues to think the ESL students as less capable of thinking or analyzing critically. This ultimately played a role in limiting "our expectations of students, and reduce instruction to what Fox (1994) herself recognizes is a "caricature" of genuine academic work" (p.343).

The Role of Cultural Differences

While cultural differences are important to understand in dealing with various aspects of human experiences, attributing some Asian language learners' reticence and passivity to solely cultural attributes seems to be groundless and detrimental. Stephens (1997) points out that this simplification may actually be harmful to the understanding of student behavior:

> "in seeking cultural explanations for miscommunication between Chinese students and their tutors in the UK, there is a danger of overlooking what gaps may exist in students' language proficiency and experience, and at the same time resorting to over-generalizations about culture which have a surface appeal, but which are not supported by strong research evidence." (p. 123)

Research has thus attributed cultural differences between the East and the West as an interpretation for the passive learning behavior of the Asian learners. However, counter evidence against passivity is also found which is presented in the following section.

Evidence Against Alleged Passivity

Language learning is an extremely complex process, which is further complicated by the learners' individual differences and their different social, political and cultural backgrounds. As Tudor (1998) puts it,

> the reality of language teaching [and learning] emerges from a dynamic interaction of [individual and socio-cultural] rationalities, a process which is unique to each classroom and which can rarely be predicted in advance. (p. 319)

It is, thus, reasonable to hypothesize that it is difficult to identify and categorize any learning behavior as shared among a number of groups of individuals especially when they have divergent culture and cover a massive geographical (physical) area. Therefore, the notion of Asian ESL/EFL learners' reticence and passivity may in fact be more of a myth than a universal truth. As Cheng (2000) says in this regard,

> My instinctive distrust of the myth primarily derives from my 10 years' of teaching experiences in China, the numerous class observations that I have made at all levels of English language teaching (ELT) in China, and my discussions with colleagues from around the world. Among the students that I have taught or observed, some are indeed reticent and passive, but many are extremely active and even aggressive. My teaching experiences and my observations have convinced me that Asian students (at least Chinese students) are not culturally predisposed to be reticent and passive in language learning (p.438).

In order to testify whether his teaching experiences and observations are exceptions, Cheng (2000) conducted an informal survey about other teachers' attitudes towards Asian learners' alleged reticence and passivity. He posted the allegations mentioned above on TESL-L[1] and asked for colleagues' reactions. Eighty percent of the responses challenged the stereotypes of Asian students as passive classroom learners. In addition, teachers provided detailed descriptions of the classes they had taught, illustrating that students gave no sign of reticence and passivity at all.

Further, Stephens (1997) mentioned that her own experience in working with mainland Chinese students has disabused her "of more stereotypes than it has supported generalities."(p.121) Stephens is of the opinion that familiarity with any cultural group can reveal individual differences which eventually seem more pronounced than initially perceived or expected similarities. Stephen concluded that if a collectively-oriented culture signifies an overriding tendency to conformity and cooperation with the group, then her experience of working with Chinese students in the UK do not lend it support. . (p.121)

In their two large-scale surveys with university teachers and students in Hong Kong, Littlewood & Liu (1996) found that students gave no evidence of reluctance to adopt

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[1] a world-wide e-mail discussion forum for teachers of English as a second language

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active speech roles in the classroom as students at both secondary and tertiary levels welcomed opportunities (at least in their English classes) to participate actively in class. This is also supported by Littlewood's (1999) discussions conducted in China where students were found generally critical of their teachers for not raising enough points for discussion in class. In a later study, (Littlewood 2000), students' responses to the three questions that dealt with "teacher authority" showed that the students (1) did not see the teacher as a an authority figure who should not be questioned; (2) that they did not want to sit in the class passively receiving knowledge; and (3) they only partly agreed that the teacher should have a greater role in evaluating their learning. (p.33). Littlewood (2000) concluded that this is more likely to be a consequence of the educational contexts that have been provided for them, rather than because of any inherent dispositions of the students themselves.

Further, students' responses to the questionnaire gave clues as to the ways in which students would have liked to be active and independent. They liked activities where they were part of a group in which they were 'all working towards common goals'. When working in these groups they would like to 'help keep the atmosphere friendly and harmonious'. They also liked to 'see a practical purpose' (p.34) in what they were asked to do and to feel their own success will benefit other people. The overall message that emerges from Littlewood's study is that "Asian students do not, in fact, wish to be spoon-fed with facts from an all- knowing fount of knowledge. They want to explore knowledge themselves and find their own answers" (p.34).

Results of Spratt's (1999) study on learners' preferred activities also indicated that students in Hong Kong had a positive attitude towards classroom participation. Among 48 classroom activities, the mean scores for 20 activities were above 4.00 (including 4.00, estimated from graph) on a 1-6 Likert scale. This means students liked these 20 activities, 12 of which were related to class-room participation.

Similar evidence from inside the classroom is becoming more and more common. For example, Ho & Crookall (1995) report on the high degree of autonomy achieved by Hong Kong Chinese students in the context of a simulation, while Marshal & Torpey (1997, cited in Littlewood 2000) reported on their successful experience of involving Japanese students in actively co-constructing a syllabus. Outside the field of language teaching, research (e.g., Whitemill et al,1997, cited in Littlewood 2000) with problem-based learning in Hong Kong revealed how students were readily able to free themselves from the direct authority of their tutors in order to solve problems in groups and organize their own learning .

Contrary to western stereotypes of 'passive', over- dependent student, participants' response in Cortazzi & Jin's (1996) study showed that "a high percentage of Chinese student value independent study" (p.191). In identifying the characteristics of a good student, participants in Coatazzi & Jin's (1996) study made comments such as

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"…. the good student 'should not be dependent on text book only'. 'He not only listens to the teacher but also thinks about it himself'. 'He masters what the teacher has taught and knows other things by himself'. (p.191)

From the evidence cited earlier, it is reasonable to infer that Asian ESL/EFL students (maybe students throughout the world for that matter) are on a continuum from "very active" to "very passive". Some students are very active, some are very passive, and some are in between. Perhaps the proportion of the "very passive" ones among Asian students is larger than the proportion of their Western counterparts.

In addition, students' opinion emphasized that inner mental activity, questioning, reflection and self- effort of a student are as important as a teacher's instruction: 'he should be good at asking questions which he meets in study life and in life' (p. 191). Some students value the expression of diversity of opinion. Good students 'have the courage to bring up opinions different from those of the teacher. (p. 191). 'A good student must respect the teacher'; but not necessarily with obedience, 'a really good student does not always obey the orders of the teacher. He or she should have their own brains' (p. 191).

From Korea, Park & Oxford (1998) reported on an experimental English Village Course program for college students in Korea. Students attending the program were very active and revealed great willingness to participate in the various activities provided. The success of this program indicated that when a suitable environment is available, most learners can be active and participative.

From Thailand, Thein (1994) reported another success story of an intensive English program conducted at the Asian Institute of Technology in Thailand. The participants in the program, who came from different Asian countries, after a few initial difficulties, began to interact with everyone in the class, participate in discussions, ask questions, respond to others, and put forward their own views. In fact, they exercised considerable initiative in class.

Results of Garrott's (1995) study also exhibit that contemporary Chinese college students tended toward individualism to a much greater degree than analysis carried out at the culture level alone would suggest.

So, while on one hand, teachers complained (and research also claimed) that Asian ESL/EFL students are reticent and passive in class and reluctant to participate in group discussions, on the other hand, reports about students' preferences and behavior indicated that they did (1) like group discussions; (2) they wanted to take active roles in class, and

(3) they wanted to cooperate with the teacher. If we take both the professors and the students' claim for truth, there are two possibilities to account for this contradiction.

Some Possibilities

One possibility is that the professors' and teachers' impression of Asian students' reticence and passivity is expressed by 'some teachers', 'a number of professors' or 'a certain percentage of professors' rather than all teachers or professors.

Another possibility is that Asian students say that they like to take an active role in class but, in reality, some of them are unable to do so due to reasons such as (1) unsuitable methodology; (2) not allowing adequate wait time; (3) lack of language proficiency; (4) incomprehensible input; (5) anxiety. These possibilities co-exist in ESL/EFL reality. More extensive empirical research is needed in order to determine the proportion of "very passive" Asian students and whether this proportion is substantially larger than that of their Western counterparts. And more effective research methods (such as class observations) rather than questionnaires drawing on professors' impressions might help find the truth.

From the discussion above, it can be said that there are instances where Asian students have taken an active role in classroom learning. And it is also evidenced that passivity results from shortcomings both from teachers' and students' sides. The following section explores further these teacher and student- related issues that may account for why some Asian ESL/EFL students are unable to take an active role in the classroom despite their eagerness to do so.

Plausible Reasons for Passivity

In view of the earlier arguments against the cultural interpretations of some Asian students' reticence and passivity, the question arises, "If culture is but one aspect, what other factors must be considered? In my opinion, the factors are much more complex than they are thought to be. Culture is an important element in explaining the alleged behavior, but there are also several teacher and student-related issues which need to be further explored as they are often ignored. All of these factors are of course interconnected and cover both teacher and student-related issues.

The teacher related issues include:

(1) unsuitable methodology;
(2) intolerance of silence and imprecise answers;
(3) failure to relate material to local context;
(4) incomprehensible input; and,
(5) interpersonal skills.

Student related issues include:

(1) lack of language proficiency;
(2) fear and shyness;
(3) anxiety;
(4) adjustment; and
(5) lack of socialization.

Each of these will be discussed further below. As previously mentioned, language learning is an extremely complex process. Any particular observed behavior may be caused by a combination of factors. Kubota (2001) says in this regard "being reticent in mainstream classrooms has more to do with an unwelcoming atmosphere, the mainstream members' lack of willingness to take their share of responsibility to interact with L2 speakers, particular gender dynamics in the classroom, or even mainstream peers' negative attitudes toward ESL students" (p. 31).

Teacher related issues

Teacher related factors may account for the extent to which students engage in interaction. Issues like teachers' approaches and methodologies, their sense of judgment as to where and when to invite students' opinion, their attitude toward teacher-student relationship, may make a difference in the response rate. While selecting the method and approaches if teachers fail to take a whole range of aspects like the learners' age, social contexts, motivation, proficiency level, learning goals etc into account, the class might turn out to be a 'response- poor' one .

Unsuitable methodologies

Different language teaching methodologies entail different learners' behavior in the classroom. A particular methodology may attract or detract learner participation. For example, in a teacher-centered teaching and learning environment, the learners are doomed to reticence and passivity.

Whatever rationale is behind this practice, the result is that such an approach and atmosphere will not encourage students to speak freely, but in fact will prevent any pattern of classroom interaction at all. The teacher plays all the roles in the "pseudo-interaction". And of course the teacher may well say that the students are reluctant to speak so I simply give them the answer.

With a less teacher-centered method, the interaction in the classroom would be different. Cheng's (2000) observations in China based on his supervision of 6-8 pre-service EFL teachers doing teaching practice in secondary schools found that, despite the similarity in

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their background, students' behavior in different classes differed greatly depending on the teacher's method. That is, when teachers adopted a learner-centered method, classes tended to be much more active. Cheng (2000) refers to a similar instance found in a Western teacher's account of a class she taught in Korea:

> "I completed pre-skill activities (e.g., brainstorming and suggesting appropriate vocabulary that might be used, setting schemata), a main activity that accounts the performance level of the students (giving a well-designed intermediate-level activity to intermediate-level students), and then post-activity exercises (e.g. debriefing, summarizing). The students were involved and enthusiastic. It was hard for me to get them to quiet down and pull together as a whole class at the end of the activity". (p. 443)

Before leaving for Korea, this teacher had received well-intentioned advice from her colleagues about ELT in Korea. She prepared herself by reading about Confucianism and Buddhism in order to understand her students' behaviors better. However, as she explains, "passing on the stereotypes was more impeding than helpful" (p. 443). What proved more useful was to concentrate on developing/ searching for more effective teaching methods for her class rather than depending on stereotypical information.

In 1994, Harklau opined that classroom participation depended on how discussion was organized and framed. This organization and framing of discussion resulted in qualitatively superior input and richer, more frequent opportunities for interaction and spoken language output. Further, Harklau (1994) found that in an ESL situation where input from the teacher was more comprehensible, it led to creating extended opportunities for students to interact and participate. Students agreed that they talked the most in ESL classes. As one ESL student commented, "and here [ESL class], I dare to talk more, and gradually I will rather ask more question" (p. 252).

Harklau (1994) also found that the type of question was a factor in increasing ESL students' participation and self expression. For example, it was found that employing an approach which used open-ended questions, modeled extended responses and then asked students to do the same worked very well.[2] Students were not only active participants in these types of ESL class activities, but they even bid for turns.

However, this problem of methodology, as Cheng (2000) points out, is not confined to students who go abroad to study, i.e., ESL situations, but in EFL situations. Students also experienced the same problem when methodological conflicts arose. For example, in China most Western teachers are generally happy with the students' participation in speaking and listening classes, because most students have a strong motivation to experience authentic English with their Western teachers.

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[2] "If you had to think of one picture from the 80s that you would remember, what would it be? Mine would be…." She then called on every student in class to share his/her opinion (Harklau 1994, p.252).

The trouble begins when these Western teachers are assigned to teach reading and writing due to the fact that Western teachers are not familiar with how English reading and writing skills are taught in Chinese classrooms. Western teachers often follow the Western way of teaching which is based on employing considerable discussion as part of the methodology.

This fact leads to a mismatch between the teachers' and students' expectations in that most Chinese students deem reading to be the most important part of their English course. They count on this course "to expand vocabulary, consolidate grammar (at elementary level), increase knowledge, and hopefully develop effective reading strategies and fast reading speed" (p.443). As a result, Western teachers teaching reading and writing lessons are very likely to experience reluctance by the students to participate in classroom discussions.

Unfamiliarity with methods or processes

Asian students are not very familiar with pair-work and group-work, which are integral to the Western style of teaching and are unfamiliar to Asian students. Yet some Western teachers have tended to continue to use their approach without assessing students' preferences or without providing any orientation or guidance as to the formats and functions of these activities.

Cortazzi & Jin (1996) also found a mismatch between teacher and student expectations in classroom activity. While western teachers preferred and expected group work in class, Chinese students believed that the best use of class time for the teacher is to explain things. However, "obliging people to do otherwise could appear to be an infringement of personal liberty and choice, and it is hard to see how this can fit in with any attempt to genuinely humanize the classroom (Hyde (1993, cited in Cheng, 2000)." Imposition of any kind, will in all likelihood, lead to quietude and non-participation due to students' lack of understanding or resistance to the teaching method. Therefore, teachers who plan to use methodologies involving students' participation must make sure that the students are familiar with and accept such methodologies. Otherwise, this may require orientation in advance.

Intolerance of silence and imprecise answers

Teachers' intolerance of silence may in fact result in more silence. Not all students are equally prompt in organizing their thoughts. Yet some teachers might expect an immediate response from the students.

Many teachers in Tsui's (1996) study report that they themselves disliked or were afraid of silence, and that they felt very uneasy or impatient when they failed to get an

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immediate response from students. Therefore, when any student failed to respond promptly, they allocated the turn to other students without allowing the first student enough wait time.

Sometimes the teacher kept repeating the same question or the name of the student. To the teacher it was a way to fill the silence, and in effect, the teacher not only put a great deal of pressure on the students and frightened them, but also may have undermined the self-esteem. Rowe's (1969, cited in Tsui, 1996) study revealed that the average wait time was only one second.

Another study by White & Lightbown (1984, cited in Tsui, 1996) revealed the average wait time to be 2.1 seconds. For ESL students who are still learning the target language, it is often impossible to produce an immediate verbal response to the teacher's question. New students may take some time first to process the question and then to formulate the answer before it is voiced to the class. A short wait time is intimidating. It is possible for the teachers, (as is evidenced by Tsui 1996), to have the misconception that an effective teacher should solicit immediate responses from students and that there should be "talk" all the time. The consequence of such a belief was expressed by one teacher in the study, "When there is more teacher talk, there will be less student participation, resulting in long silences in the classroom that will prompt the teacher to talk even more" (p. 153).

Linked to this intolerance of silence is the uneven allocation of turns. In order to ensure and elicit responses, teachers tend to ask the brighter students. In such instances, the weaker and shyer students feel ignored and thus do not wish to give responses. In fact, the more they feel neglected the less willing they will be to contribute.

Another facet of teachers' intolerance is their obsession with 'correct' or 'right' answer. If teachers are obsessed with the 'correct' or 'right' answer and keeps constantly correcting the students' delivery, as is frequently the case in EFL contexts, they will prefer not to speak up. Tsui (1996) says in this regard, "given the importance that many ESL teachers attach to correctness, the constant error correction students receive from the teacher can be seen by them as a form of mild public humiliation" (p. 156).

Failure to relate material to local context

In an EFL situation, it is often a common practice for Western teachers to draw on or to use examples from their home cultures to explain issues or problems. However, this inability /reluctance to relate material to the local context on the part of the Western teachers is one major factor contributing to passivity of Non Native English Speaking (NNES).

Flowerdew & Miller (1995) reported that some of the examples the lecturers used were unfamiliar to the students and oriented too much to the U.K. resulting in confusion on the part of the students.

In circumstances like this, students will definitely be unable to contribute to the classroom. A student from a class on housing given by a British lecturer resounded this very complaint, "Usually he [the lecturer] takes example from U.K. and sometimes I don't understand because I am not familiar with U.K. housing. Because he is British he is familiar with the U.K. situation but not Hong Kong". (p. 360)

Further, Flowerdew & Miller (1995) have drawn attention to another facet of this problem which involves Western teachers (in EFL situations) referring to international celebrities, products and organizations which might be well known locally but by either different names, or adapted to Cantonese phonology. [3]

Incomprehensible input

One explanation for a lack of response is that students do not understand the teachers' instructions and questions or the teachers themselves ask unclear or ambiguous questions. This was found in Tsui (1996) where one teacher reported that: "I realized that what I thought were simple and clear questions were in fact quite difficult to understand. Not only this but the questions were often confusing and not specific enough" (p. 154). In such instances, Asian students do not usually ask the teacher for clarification, this is particularly true when they have to ask questions in English.

In classes with foreign teachers the accents might be incomprehensible for the Asian students. Asian students must undergo language competency tests to study abroad. Generally students listen to recorded cassettes and audio visual materials but when exposed to the actual non-recorded voices of their foreign teachers, the variation in English accents may prove difficult to comprehend.

Students may have trouble particularly during the long sentences. Studies (e.g., Horowitz et al. 1986; Liu 1989; cited in Tsui, 1996) showed that students were frightened when they did not understand what the teacher was saying in the foreign language. 20 percent of the students in the survey of Horowitz et al (1986) agreed with the statement, "I get nervous when I do not understand every word the language teacher says" (p.159).

Liu (1986), also found that students strongly agreed with the statement, "I always try to catch every word when listening to English, if I fail to do so, I will feel anxious and this

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[3] As an example, Flowerdew & Miller (1995) mentioned a lecturer who based a complete lecture around the computer product Atari from the assumption that it would be familiar to his students. However, it later turned out that Atari has a completely different name in Cantonese, so students did not pick up on the significance of this important example.

affects my comprehension what follows" (p.159). They also agreed with the statement, "Before and when listening to English I am worried that I fail to understand." (p.159)

Thus, if students are unable to fully understand or to relate to what the teacher is saying, there will be little classroom interaction on the part of the students.

Interpersonal skills

Teachers' personality and interpersonal skills may be a factor behind students' participation and response. EFL students may distance themselves from their foreign teachers as they have almost nothing in common. A foreign teacher, in essence, appears as a stranger in the classroom. Because the teacher is the 'odd one out', it is the teacher's responsibility to build a rapport with his/her students. Teachers should take the initiative to befriend the students within the shortest possible time. One of the foreign teachers in Flowerdew & Miller (1995) study said, "I want a more interactive and participatory style…I want the students to question me about my experiences". (p.359)

Students will ask questions about a teacher's experience if and when they feel close to and easy enough with the teacher. Due to lack of interpersonal skills/ aloof or reserved personality of the teacher, students may not feel free to interact with the teacher. The more friendly and accessible the teacher is, the higher are the possibilities of interaction. Personal experience of a colleague of ours shows the value of this friendliness and accessibility.[4]

This is further evidenced by Stephens (1997) who stressed a frank and friendly personal relationship with the students which helped students open up. When teachers are able to establish such a relationship as Stephens (1997) herself did, students may be less afraid or worried in voicing their opinions. Due to her personal relationship with the students Stephens found that "friendly disagreement" (p.119) was a constant feature of their discussions.

Responding to disagreement is equally crucial for creating participation –friendly atmosphere in the classroom. Some teachers express their annoyance if the students' response does not match their expectation. They do it by stopping the learner half way through the response, by facial expression (e.g., wrinkling the forehead), by declaring the response as imprecise and so forth. This kind of attitude on the part of the teacher may deter students from venturing a response. In instances of disagreement or imprecision, if the teacher appreciates the student by saying things like - what you say is quite interesting …what else can be said?... or- yea…. that is another way of looking at this issue and so on.

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[4] One of my classmates has taught in China for two years. She reports her students to be so free and friendly with her that they come to her place at their will, chat for hours, sometimes go out for dinner, sight seeing, shopping, etc.

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Thus, lack of rapport between the student and teacher may partially account for the passivity of the students. Another facet of the socialization is associated with the concept of being 'sociable' which means the teacher will realize/ have an understanding of the students' problem and will offer help spontaneously without waiting to be asked. For example, Chinese students with problems in the class expect the teacher to realize this and offer help, whereas the western teacher will usually assume that any students with problem will ask for help; yet a Chinese student rarely asks questions like this in class (Cortazzi & Jin, 1996).

Student related issues

Being active in the classroom involves some skills on the part of the students. While lack of language proficiency surfaces as the most common factor behind the perceived classroom behavior of Asian students, a few other factors such as fear and shyness, anxiety, adjustment, lack of socialization may be equally important. Following is a discussion of these student related issues.

Language Proficiency

Students' lack of required language proficiency can probably be the biggest factor behind reticence in ESL/EFL classes. Tsui (1996) reported that most teachers (in her study) attributed student reticence to low English proficiency. The students in this study initiated a response, but then decided not to take the risk and resorted to a declaration of ignorance. It is likely that students are either not sure of the answer and had difficulties in expressing themselves.

One of the teachers interviewed in that study opined that the students' failure to respond to teachers' questions was a result less from lack of knowledge but more of the insufficient English proficiency.

This is a rather natural expected result when students pay too much attention to the development of receptive skills and too little attention to that of productive skills, such as oral communicative ability. Asian students have very little opportunity to speak in English in their early schooling. Littlewood & Liu, (1996) found that listening to the teacher in an EFL situation was the foremost activity, followed by writing essays and reading comprehension exercises.

In an EFL environment where input is poor, opportunities to communicate/use the language is restricted basically to the classroom, proficiency and confidence suffer. When Asian students come from an ESL to an EFL environment (to study in the Universities) with such poor oral communicative ability, they are more likely to be quiet.

Jones (1999), investigating this EFL to ESL situation, pointed out "beyond doubt, language difficulty is a significant factor in inhibiting effective communication between NNS students and their NS teachers and counterpart" (p. 257). He further commented that although these students had been officially judged competent to undertake studies through the medium of English, many of them still struggle with the language and some certainly are restrained in participation by the fear of making face-threatening linguistic errors in the presence of their native peers.

Most Asian EFL students who seek study opportunities in Western universities have to take TOEFL, GRE, IELTS or other equivalent language tests. However, a high score on any of these tests does not necessarily mean the test takers' overall English proficiency required to undertake academic studies in the West. Scores on these high stake tests do not reflect, nor are they designed to indicate communicative competence.[5] No doubt, these students can obtain high scores, but their language proficiency, especially their oral communicative skills, is far from what is required for their intended academic studies in the West.

Mason (1995, cited in Ferris & Tagg, 1996) claims that students with TOEFL scores high enough for admission to most US university programs (550-600) may not be linguistically proficient enough for the academic listening tasks confronting them. Naturally we can make an inference that if Asian students have fewer problems with language, both in understanding and production; they would be more inclined to take active roles in class.

Stephens' (1997) study supported this influence by reporting that Chinese students participate freely and independently in discussion where they understand the language that is being used, and where the ground rules for the expression of ideas are made clear. Providing necessary support and allowing learners the opportunity to plan before they produce may also encourage greater learner participation in the language classroom.

Fear and shyness

The lack of proficiency is further complicated when the fear of making mistakes is added to the equation. This fear of making mistakes deters students from speaking out in front of their peers and teachers. Cortazzi & Jin (1996) illustrated that students were 'afraid of being ashamed', 'afraid of asking foolish questions', 'feared others' murmurs', 'those who didn't ask questions actually had a lot to say but were too shy to speak in class', 'students in China are not as extrovert as those in the west. They often preferred to be asked to answer a question rather than initiate one'. (p.196)

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[5] In China, TOEFL takers spend hundreds of hours doing simulated tests to develop test-taking strategies rather than improving their real language skills. The practice cassettes for listening comprehension are invariably taped with standard American English. The speech and accent are manipulated closest to the real tests. (Cheng, 2000)

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Research by Tsui, (1996) corroborated this aspect of fear and shyness. Students' fear of making mistakes and being negatively evaluated both by teachers and their peers might result in passivity. As one teacher in the study pointed out- "They are unwilling to speak in English for fear that they may make silly mistakes in front of the brighter students" (p.150). In some instances students preferred to remain silent to avoid being laughed at as the question was deemed too simple or too complicated for them to answer. Students' passivity at times may be interpreted as a lack of preparedness for the lesson, but in fact, it is shyness that makes them remain quiet. The following quote from one teacher indicates this,

> … I wondered whether they prepared their lesson or not. Actually most of them did but they were too shy to give an answer even though they knew the answers. Also they were afraid of losing face in front of their classmates if they gave me a wrong answer (p.150)

Liu's (1989) study revealed that the students found it embarrassing to raise their hands to answer questions in class. They were very nervous when their teacher asked them a question which they have not prepared for. They were afraid of making mistakes and they felt very uneasy when they couldn't express themselves.

According to Tsui (1996) students' fear of making mistakes and being negatively evaluated can be teacher- induced. The following excerpt indicated how teachers with unrealistic expectations tended to add to the fear of the students: "though my attitude might be gentle and encouraging, I was expecting some correct answer most of the time. Given the [sensitive] nature of the class, they would feel the strain and were less willing to contribute unless they felt they have got the 'right answer'" (p.151).

Anxiety

In addition to fear of making mistakes or of appearing stupid, anxiety may another big factor behind the reticence. The anxieties students may experience in language learning and speaking may include anxiety for high performance, test anxiety, and anxiety for shining out in front of peers. Language learning is not merely a process of acquiring linguistic rules or participating in communication activities but also a constant process of undermining our self-concept. As Tsui (1996) said in this regard:

> we need to understand language learning not only as a process of acquiring linguistic rules or participating in communication activities, but as a process in which individual learners are constantly putting themselves in a vulnerable position of having their own self-concept undermined and subjecting themselves to negative evaluations . This process is stressful and likely to generate much anxiety in the learners (p. 155).

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A component of foreign language anxiety is language shock which refers to negative self-perception (Schumann & Schumann, 1978, cited in Hilleson, 1996). With this form of anxiety students feel they can not function properly within the community since they have been deprived of their real personality and are embarrassed to display a self that is fundamentally incompetent.

Guiora (1983; cited in Tsui, 1996) also described second language learning as "a profoundly unsettling psychological proposition" When communicating in a second language, learners may continually feel insecure about fully representing their personality and their intelligence. As Horowitz et al (1986; cited in Tsui, 1996) pointed out, "any performance in the L2 is likely to challenge an individual's self concept as a competent communicator and lead to reticence, self-consciousness, fear or even panic" (p.156). Studies on language learning anxieties in ESL/EFL classrooms showed that in general students were afraid to speak in a foreign language. Nearly half of the participants in a study undertaken by Horowitz *et al* (1986, cited in Tsui, 1996) reported that they started to panic when they had to speak without preparation in language classes and that they were nervous and confused when speaking in their language classes.

Another facet of this anxiety was found with students with high English competency in the study of Allwright & Bailey (1991). They pointed out that some very competent learners were anxious because if they did not make mistakes, they would stand out from their peers and be resented. To avoid this, they deliberately made mistakes. Even when this may have resulted in being criticized by the teacher, one result of this dilemma was that some students withdrew from interaction in general. Tsui, (1996) indicated that the anxiety generated by trying not to show that one was better than the rest was perhaps even more serious among Chinese students, whose culture emphasizes modesty.

Test anxiety and fear of negative evaluation also deterred students from participation. Test anxiety arose from the fear of failure which is closely related to fear of negative evaluation. In many ESL/EFL classrooms students are constantly required to perform orally in front of the whole class, which is often one form of testing. Their performance is thus continuously evaluated by both their teachers and their peers. It is therefore understandable that different students will try to avoid this type of subjecting themselves to evaluation by the teachers and their peers.

Finally, related to the performance and 'face' is the need to speak without any errors. Strong desire to speak English well substantially adds to the anxiety. A study by Yu et al (1996, cited in Littlewood & Liu, 1996) indicated that when students spoke English they had a strong need to speak it well and many students were overcome by a sense of unease because they did not think they were performing well enough. Related to this is the anxiety about standing out in a group or the likelihood of making a fool of themselves, especially when they are not confident about their English. The concept of "uncertainty

avoidance" might work here. Speaking up in class especially raising questions or comments is a risky business in many students' eyes.

Adjustment

When students migrate from an EFL environment to an ESL environment, it may take some time to settle in the new teaching learning culture. Asian students consist fairly a large chunk of the student population in Western universities.

According to Ballard (1996), so long as these students are in their home educational systems, differences in intellectual approach between school and university, between one degree and another, between one discipline and another are relatively easy to accommodate. When they come to the western universities, they are not merely coming from other language backgrounds but more importantly from other cultural background. Now they have to adjust to a new intellectual culture, a new way of thinking and processing knowledge to meet the expectations of the Western academia.

The teaching- learning approaches may be new and even strange to Asian students. They may not see any point in taking part in discussions at all. Even if they do see the point, and have a strong desire to participate, they may not be ready yet, partly because they are not used to the new teaching style and partly because they are unsure about the Western style discourse conventions such as the rules of turn-taking and the use of non-verbal language (Cheng, 2000). Thus, students may take some time to adjust to this new teaching learning culture of Western academia.

Littlewood's (2000) discussions with Hong Kong Chinese students who took courses for international students in the UK and USA revealed their initial difficulties in adapting to the 'new' class discussion style in their programs. In part, these difficulties were linguistic, but they were also due to different conventions and expectations. One student, for example, talked about her initial annoyance with other students who persistently interrupted the teacher. Another student in Ballard (1996) explained: "I do not wish to be like Australian students who criticize each other and even contradict their lecturer" (p.158). These instances indicate that Asian students have trouble understanding the norms and forms of Western classroom interactions and therefore the issue of adjustment might have a role behind their passivity.

Lack of socialization

Mixing with their Western peers in foreign university settings may be a good avenue for ESL students to be familiar with the Western culture and social norms. It might help them overcome the shyness and nervousness they might experience in expressing themselves in the second language as well as minimizing the difficulty in understanding

conversations   which may cause anxiety at an interactional level when attempting to develop relationships with other students.

However, ESL students often do not interact much with their Western peers outside the classroom. Once they are out of the classroom, they hang around with their compatriots, virtually living in an EFL situation. As a result, they are intimidated by the sociolinguistic environment of classes.

Lack of linguistic competence coupled with a lack of background knowledge of the target culture leads to frustration and embarrassment for the Asian students. This is evident from the sentiment of a participant in Harkalaus (1994) study,

> "… It is very hard for a newcomer, especially, you know, you do not know English, not very well. And then you don't know about, the society very much, you know, they talk about singer or movie star. You could not know anything right?" (p. 263)

From the above discussion it is found that a host of interrelated issues both from the teachers' and students' side play a role in the reticence and passivity of Asian students. From the teachers' reports (e.g., Tsui, 1996) on their attempts to overcome the perceived problem of reticence, we can see that teachers' strategies minimize or exacerbate student participation in classroom learning.

Teacher's personality may also be a factor in building a quick rapport with the students which may bridge the gap between the student and the teacher.

There are student related issues such as lack of adequate language competence, fear and shyness, anxiety, and lack of socialization. Lack of socialization, particularly in EFL environment, may lead to the lack of exposure to the second language and culture. There are student related issues that have overlapping with teacher related issues. For example, students' fear and anxiety can be teacher –induced. In the following section I will briefly discuss the implications of stereotyping on teaching- learning.

Pedagogical Implications of Stereotyping

Stereotyping students   has adverse effects on both teaching and learning. It might lead to an underestimation of the potential of ESL/EFL students which in turn might dent the self confidence of the learners. Basically, misunderstanding potential by teacher leads to reduction of self-confidence of student. Through this stereotyping, Asian students' abilities and ways of learning are being interpreted according to current Western notions of English language teaching. Such views promote a monolithic, static, and exoticized image of culture as well as promote deterministic thinking that regards students as rigidly bound by cultural traditions (Kubota, 1999 p.14).

Cortazzi & Jin (1996) argue that this is a kind of linguistic or cultural imperialism in which one culture of learning is imposed on those who naturally follow another, and that the latter way is made to appear inadequate or second class. Stereotypes might hinder the quest for clarity as Garrott (1995) has pointed out that stereotypes cloud rather than clarify, and labels are odious.

Wolfe et al (1996) has also elaborated on the negative effects of stereotyping in the classroom. According to them, stereotypes can significantly bias our judgments about other people. Rosenthal & Jacobson's (1968, cited in Wolfe et al, 1996) work on teacher expectancies suggests that a priori expectations about a student's academic ability can easily lead a teacher to treat the students differently and in accordance with those expectancies, cause students to conform to these expectancies, regardless of their natural ability. Cautioning that stereotypes have a "more subtle and, perhaps, more pernicious influence on the stereotyped targets" Wolfe et al. goes on to comment that:

> Given the subtle bias potentially present in the treatment of members of stereotyped groups, outcomes or evaluations may be accurate and deserved, but often they are biased and unfair. This leaves members of stereotyped groups in a quandary: Are these evaluations fair or are they the result of prejudice? (p. 179).

Another unfortunate consequence of stereotyping according to Major & Crooker (1993, cited in Wolfe et al, 1996) is that any positive outcomes may also be questioned. That is, members of stereotyped groups might discount positive evaluations and successful experiences as attempts to avoid appearing prejudiced or as the result of feelings of pity. Not taking credit for success may lead to a decline in motivation and achievement. Even if no one overtly expresses this belief, the culturally shared stereotype that Asian students are neither as active nor intelligent as their Western peers, might undermine academic performance.

Stereotyping might have the worst effect on students through what has been called self fulfilling prophecy in educational psychology. It is a concept to explain how a belief or expectation, whether correct or not, affects the outcome of a situation or the way a person (or group) will behave. Thus, for example, if we keep telling a teenager that he is worthless, has no sense of right or wrong, and is not going to amount anything, he will probably respond accordingly.

In the same way, if teachers form certain expectations of a group of students and communicate those expectations with various cues, the group will tend to respond to these cues by adjusting their behavior to match them. The result is that the original expectation becomes true. This creates a circle of self-fulfilling prophecies. Good & Brophy, (1986) suggested that once a teacher develops an expectation about a student,

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such as a particular student is not capable of learning; the teacher interprets subsequent ambiguous behavior or events in a way consistent with the original expectation.

Thus, stereotyping may potentially impede the learning of Asian students by deteriorating their self-confidence through biased judgments of their Western teachers. Stereotyping may lead to an underestimation of the potential of Asian students. It may also subject the students to a different treatment which in turn may result in a decline of motivation.

Conclusions

Culture certainly plays an important role in the social and academic development of students, but it should not be regarded as the sole factor behind the reticence and passivity of the Asian students. In this paper, we have reviewed the cultural factors attributed to the alleged reticence and passivity of Asian students and argued them to be over-generalizations.

A careful look at the studies from which these generalizations emanate reveals that the allegations are largely based on the impressions of a small number of teachers or professors in small scale surveys. Therefore, counter evidence is not difficult to find as we have done in this paper.

However, it may be easier to establish whether or not Asian students are reticent and passive learners than to explain why *some* Asian learners have indeed been observed to be quieter than desired.

In this article we have argued that both teacher and student related factors other than cultural attributes may also have their role behind the perceived reticence and passivity of the Asian students. Other factors and solutions to the problem in question are candidate for further exploration.

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English for Medical Students of Hodeidah University, Yemen

A Pre-sessional Course

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CERTIFICATE

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This is to certify that the dissertation entitled **English for Medical Students of Hodeidah University, Yemen: A Pre-sessional Course** ,submitted in partial fulfillment of the requirements for the degree of **MASTER OF ARTS (ENGLISH**) ,is a piece of research work done by **Mr. Arif Ahmed Mohammed Al-Ahdal** under my guidance at **the English and Foreign Languages University, Hyderabad.**

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My debt to scholars whom I knew only from their works, needless to say, is felt all through this humble endeavour.

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NEEDS ANALYSIS (NA)

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CONCLUSIONS, LIMITATIONS AND SUGGESTIONS

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Abbreviations

EAMP = English for Academic Medical Purposes

EAP = English for Academic Purposes

EMP = English for Medical Purposes

EOP = English for Occupational Purposes

ELP = English for Legal Purposes

EST = English for Science and Technology

ETO = English for Telephone Operators

EGAP = English for General Academic Purposes

ESAP = English for Specific Academic Purposes

EPP = English for Professional Purposes

ECA = English for Chartered Accountants

EBP = English for Business Purposes

PSA = Present Situation Analysis

LSA = Learning Situation Analysis

TSA = Target Situation Analysis

ETO = English for Telephone Operators

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LSRW = listening, speaking, reading and writing

NA= Needs Analysis

LSP= Language for Specific Purposes

ELT=English Language Teaching

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SYNOPSIS

Despite Arabic being the medium of instruction in Yemeni schools, English is the medium in many higher educational institutions in Yemen, like medical colleges. This change in the medium puts a strain on the students. As a result, many of them rush to language teaching institutes to learn to cope with the new medium in tertiary education. Many students, it is observed, watch English movies and use electronic media to develop communication skills. They struggle hard to learn to both receive and produce English sentences and discourse.

The deficiency of the English–oriented programmes at the pre-university level can be traced to the approach adopted by the teachers of English. They design courses and teach them in such a way that the learner is no more than a passive element in the educational process. Teaching or learning, in such a strategy, is essentially monologic; it is not based on interaction as promoted by the communicative theories of language teaching.

The increasing significance of English in all the fields of knowledge calls for a re-orientation in the curriculum, the methods of teaching and the approaches adopted to serve such a purpose.

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The present study is divided into seven chapters. Chapter one is introductory, and deals with the context of the study; it discusses the role of English as an international language, the status and use of English in Yemen. It also sheds light on the intent and justification for a course for medical students of Hodeidah University, and presents the research questions that this study attempts to answer. Chapter two describes the origins and classification of ESP, and examines the contrast between ESP and EGP. Chapter three defines Needs Analysis and its role in an ESP context. It also discusses the different approaches to Needs Analysis. Chapter four talks about the importance of aims and objectives in general, and presents the aims and objectives of the course at hand. Chapter five argues for the essentiality of syllabuses and introduces the syllabus used on this course. Chapter six draws attention to ESP materials and presents the materials prepared for the subjects of this study. Chapter seven presents the limitations of the course and gives the researcher's own observations. It also contains a feedback questionnaire.

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Chapter One

1.0. Introduction

In the 1960s, the level of education in Yemen left much to be desired. Not many people attended school then. And all those who learnt how to read and write in Arabic did so with only one purpose: to be able to read and recite the Holy Qur'an. Thus there was no need for learning English. It should also be stated here that during the Imam reign (1918–1962), people were kept away from and deprived of basic knowledge of new social, educational values and concepts. When the Imam rule came to an end in 1962, people realized the importance of education; they started sending their children to schools. The new government made it a point to provide equal educational opportunities to all Yemeni nationals irrespective of their sex and age. It established the policy of sending students abroad for education and signed contracts with teachers from different parts of the world to come and teach Arabic and English in Yemen. It also started conducting business transactions with the world. With the advancement in business, science and technology, English became very important and the number of foreign teachers of English in Yemen kept increasing steadily. New Universities were established and Yemeni citizens started joining the Departments of English where they were trained/ educated to teach English.

Medical institutions in many EFL countries including Yemen have recently adopted English as the medium of instruction. In such institutions, learners are

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likely to have problems coping with the change of medium. It is worth quoting Chia et al (1998:190) here: "Students who just step out of high schools where the medium of instruction is not English are, more often than not, overwhelmed by anxiety, or even frustration, when confronting such an intimidating task".

Presently, English is taught as a requirement course/ subject in the English-medium as well as regional-medium faculties in Yemen. Thus teachers on these faculties should try and lessen students' anxiety as well as help them get over it. They should provide them with the skills essential to speaking good English and help them learn English to be able to perform tasks such as accessing medical texts published in English to continue their professional development.

Higher medical education in the Arab world in general and in Yemen in particular has received little attention so far. Though the curriculum prepares the students well and provides them with good content knowledge of their specialization, they finish their four years of college without being able to speak English well. This is because oral communication skills are not paid the attention required at the school level. Students who pursue medical studies are poorly equipped to deal with functional English. Moreover, some of the teachers assigned to teach English to students in colleges are not trained to teach ESP courses. Thus they find it difficult to enrich their students' knowledge of medical English. Without conducting any needs analysis, these teachers simply teach whatever is convenient to them. The teachers' exam-oriented approach to

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teaching is a general problem faced by all graduate students in all disciplines in Yemen.

As stated earlier, more and more English is needed by more and more Yemenis nowadays. Sometimes students seek the help of their fellow-students to understand the lectures given by their teachers and the presentations made by their classmates. This course is, therefore, designed to help such students improve their oral communication and presentation skills.

1.1. English as an International Language

That English is a very important language in the world of communication, business and medicine at the international level is an undeniable fact. The world's most widely surfed or cited journals are either published in English or translated into English. English is the language of international travel and tourism and the language of science and technology.

English has been growing tremendously over the years. Recognizing the role of English as an international language, White (1988:9) says:

" in the twentieth century English has become the language of the world, thanks to the linguistic legacy of the British Empire , the emergence of the USA as an English speaking superpower and the fortuitous association of English with the industrial and technological developments of the nineteenth and twentieth centuries. ", and that "The role of English as a language of international communication had expanded by the 1950s. There was much

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greater mobility of people as a result of growth in air travel and international tourism. English was supported by the growth of radio, film and television".

In fact, as evident from the advertisements for jobs, excellent communication skills in English have become a necessary tool in all professions. In this context, the learning and teaching of English has become most essential in Yemen.

1.2 English in Yemen

English enjoys the status of a foreign language in Yemen. It is taught as a compulsory subject in government schools from class seven and is the medium of instruction in a few academic disciplines at the tertiary level. In private schools, however, it is taught from kindergarten. There is a genuine need for teaching/ learning English in Yemen for many reasons some of which are:

1- Higher education in Yemen is expanding; there is a need for offering advanced courses in the fields of medicine, science and technology, which makes the use of English in higher education necessary.

2- The number of Yemeni students going to the UK, USA, India, and Malaysia, etc for higher studies is on the increase and they need advanced proficiency in English. (Bose, 2001:16)

Though English is taught in Yemen in order to enable students to use English accurately and appropriately, and create an interest in them to continue to learn English for pursuing higher studies, these objectives are not always

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achieved. This is because most teachers of English teach English through Arabic thinking that students will find it difficult to understand English, if taught through English. Thus students who do their graduation in the Faculty of Medical Sciences find it difficult to interact with their teachers in English. They also find it difficult to follow the lectures that are given in English.

1.3 Statement of the Problem

A great number of Yemeni medical students do their schooling in regional-medium schools; they find it difficult to understand lectures in college as the medium of instruction there is English. Consequently, they fail to pass most of the courses. They badly need to gain some proficiency in English or improve their threshold proficiency level in English. This pre-sessional course will, therefore, help them do so.

1.4 Scope of the Study

The scope of the study is limited to an investigation of the needs of the fresh medical students of Hodeidah University, Yemen, with regard to English. It is further delimited in terms of the number of study participants/respondents i.e. the questionnaire was administered to only ten Nursing students, ten Laboratory students and ten Dentistry students. A bigger number of students would have given an even clearer picture of their needs. Further research can identify even more specifically the needs of medical students across different Yemeni Universities.

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1.5 Statement of Intent

This 20 hour Pre-sessional ESP Course is intended to provide medical students of Hodeidah University with essential conversational skills at the pre-college stage so that they do not find it difficult to understand the lectures in English and the presentations made by their classmates in English when the academic year begins. It also intends to improve the learners' communication skills in dealing with patients' history, describing case studies and to enable them to make effective subject presentations. It will also help them carry out related tasks and activities in English. The course is a part-time course to be held on weekdays (Saturday and Wednesday) - two hours a day; it is a narrow-focus EAMP (English for Academic Medical Purposes) Course.

1.6 Justification for the Course

Yemeni students spend 6 years studying English as a school subject. Though this is the case, school leavers cannot speak English well. This is because most of the Yemeni teachers of English do not pay enough attention to the dialogic nature of language learning. They spend almost all class time teaching students forms and patterns of the language. This, in most cases, does not provide students with opportunities to voice their opinion and express their personal meaning. Rather it encourages memorization of particular structures, which is not enough for using the language creatively. Prioritizing accuracy over fluency is also one of the reasons behind the students' inability to

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use the language productively. Because they lack general English skills, Yemeni students cannot cope with learning medicine.

The target group of this study comes from various educational, social, economic and linguistic backgrounds. They lack communicative competence in English. Throughout their four-year Degree Course, they are expected to learn by making their own presentations and follow those made by their classmates. This course is, therefore, designed to help the learners speak good English, build up their confidence level so that they can make professional presentations and participate in classroom discussions. It also intends to help the learners master medical terminology and their pronunciation. It is hoped that this course will be of help even to the teaching staff in the Faculties of Medical Sciences as it encompasses the learners' self-expressed needs. Thus the teaching staff can modify and adapt their materials keeping the learners' needs in mind.

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1.7 The Hypotheses & Research Questions

1.7.1 The Hypotheses

The two hypotheses of the study are:

a) ESP is an 'orphan' in Yemen and nobody wants to teach it.

b) The ESP teacher's job in Yemen is very difficult as the Yemeni school leavers' general English is not up to the mark.

1.7.2 Research Questions

The present research attempts to answer the following questions:

1. What is the status of ESP in Yemen, with special reference to EAMP?

2. Are the Medical Students of Hodeidah University aware of their English language needs, lacks and wants?

3. What perceptions do teachers have of their learners' English language needs?

4. Are ESP materials available in Yemen?

5. Is it possible to design and teach an ESP course in Yemen?

6. How can the English courses taught in the Medical Sciences Faculty be improved in order to meet the needs of medical students?

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Chapter Two

English for Specific Purposes (ESP)

'… from each according to his abilities, to each according to his needs.'

- Karl Marx

2.1 The Origins of ESP

The rise and growth of ESP were not planned. In fact there are three main forces that converged together and led to its birth i.e. 1) the demand of a brave new world, 2) a revolution in Linguistics and 3) focus on the learner. Let us look at them one by one.

2.1.1 The Demand of a Brave New World

After the Second World War, there were a lot of social, economic, political changes in the world, besides a lot of developments in science and technology. As a result of this, a number of business transactions were to be made. Thus there was a need for an international language. The role fell on English as it was the language of the USA and many other western countries. Moreover, it so happened that there was an oil crisis in the west that resulted in Western money flowing into the oil-rich countries i.e. Gulf / Arab countries. Arabs needed English to communicate with the Western experts. Because of the need in the market, Arabs started learning English in a short period of time to satisfy the demands of the 'Brave New World'.

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2.1.2 A Revolution in Linguistics

Whereas traditional Linguistics set out to describe the language features, revolutionary linguists began to focus on the ways in which language is used in and for real communication. In other words, there was a movement from Structural Linguistics to Functional Linguistics. It centered upon language as a product of society. At the time arose the distinction between spoken register and written register, and the need to recognize the existence of different types of English in different situations. Concurrently, there arose a need for designing short-term courses. For designing such courses, it was important to study the linguistic features / characteristics of the situation (language in a bank, for example) in advance. The dictum was "Tell me what you need English for and I will tell you the kind of English you need".

2.1.3 Focus on the Learner

At this time, there was a move from behaviourism to cognitivism in psychology. A lot of attention was now given to the ways in which learners acquire knowledge and the differences in the ways in which language is acquired. Each learner was seen as an individual – their desires, wants, interests and attitudes to learning were given importance. Thus learners' motivation level, learning styles / strategies to learning became important. Designing specific courses to meet learners' individual needs was a natural extension of this thinking.

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2.2 What is ESP?

English for Specific Purposes is an offshoot of Language for Specific Purposes (LSP) and a branch of ELT; it began in the 1960s. It is a short term, need-based course for a group of learners pursuing a common goal to which they are likely to be more motivated. It involves teaching/learning of English for a clearly unique and identifiable goal, using specific materials related to that goal. It is all about 'relevance' i.e. it is more concerned with the learner as an individual. It gives great importance to practical outcomes. "The main concerns of ESP have always been, and will remain, with needs analysis, text analysis, and preparing learners to communicate effectively in the tasks prescribed by their study or work situation". (Dudley- Evans and Jo St John, 1998).

ESP can mean English for Special or Specific Purposes. When we say English for Special Purposes the focus is more on English (Special English). When we say English for Specific Purposes, the focus is more on the purpose i.e. the learners' needs. Moreover, English for Special Purposes meant a mere addition of 'registers' to use in a particular situation. Thus it was restrictive in scope. English for Specific Purposes comprises language description theories of learning and needs analysis, as stated by Hutchinson and Waters (1987). In both ways, it focuses on developing the learners' communicative competence in specific fields such as Medicine, Tourism, Business, etc.

Let us now look at a few definitions of ESP by some pioneers in the world of ESP. Peter Strevens (1988) states that English for Specific Purposes is

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a particular case of the general category of special-purposes language teaching. He defines ESP in terms of its absolute and variable characteristics:

(a) Absolute characteristics:

   - designed to meet <u>specified</u> needs of the learners;

   - related in content to particular disciplines, occupations and activities;

   - centred on language appropriate to those activities in syntax, lexis, discourse, semantics and so on and analysis of the discourse;

   - in contrast with 'General English'.

(b) Variable Characteristics:

   - may be restricted to the learning skills to be learned (for example, reading only);

   - may not be taught according to any pre-ordained methodology.

The word <u>specified</u> in the first absolute characteristic suggests that the learners are in a position to specify their needs.

John Munby (1978) says that "ESP courses are those where the syllabus and materials are determined in all essentials by the prior analysis of the communication needs of the learner".

It is believed that no two people can have identical needs. Ideally an ESP course should have one tutor to cater for the needs of one student. This is

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emphasized in the definition of Robinson (1980): "Quintessential ESP, if we can pinpoint it, is perhaps this: materials produced for use once only for one group of students in one place at one time". This definition suggests that with time, technology changes and the needs of learners also change.

2.3 ESP vs. EGP

"What distinguishes ESP from General English is not the existence of a need as such but rather an awareness of the need".

Hutchinson and Waters (1987)

The above statement of Hutchinson and Waters suggests that in an ESP situation, the awareness of learner needs is of great importance. It is much higher than in EGP.

ESP differs from general English in that it is based on a close analysis of the learners' communicative needs for a specific occupation or academic activity, as well as a detailed analysis of the language of that occupation or activity (Strevens, 1980). Unlike in general English courses, in an ESP course, English is taught "not as an end in itself but as an essential means to a clearly definable goal" (Mackay and Mountford , 1978, p.28), and it is taught "for a clearly utilitarian purpose of which there is not doubt" (Mackay, quoted in Robinson, 1980, p.6). The learners and their purposes for learning English are the major differences between ESP and EGP. ESP learners are highly motivated because their needs are catered for. EGP helps students to cope with

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any course. It gives them the ability to generate more language. EGP learners, if taught well, can use English to cope with the language in any undefined tasks. In an ESP situation, however, learners are trained to perform some particular, job-related functions; they learn the language in order to execute a set of professional skills. Another important difference is that, EGP objectives are not listed on the basis of Needs Analysis. Whereas learner motivation is fairly high in ESP, it is low in EGP. One disadvantage of EGP courses is that the teachers are not accountable; therefore their commitment to teaching is, in most cases, not ideal.

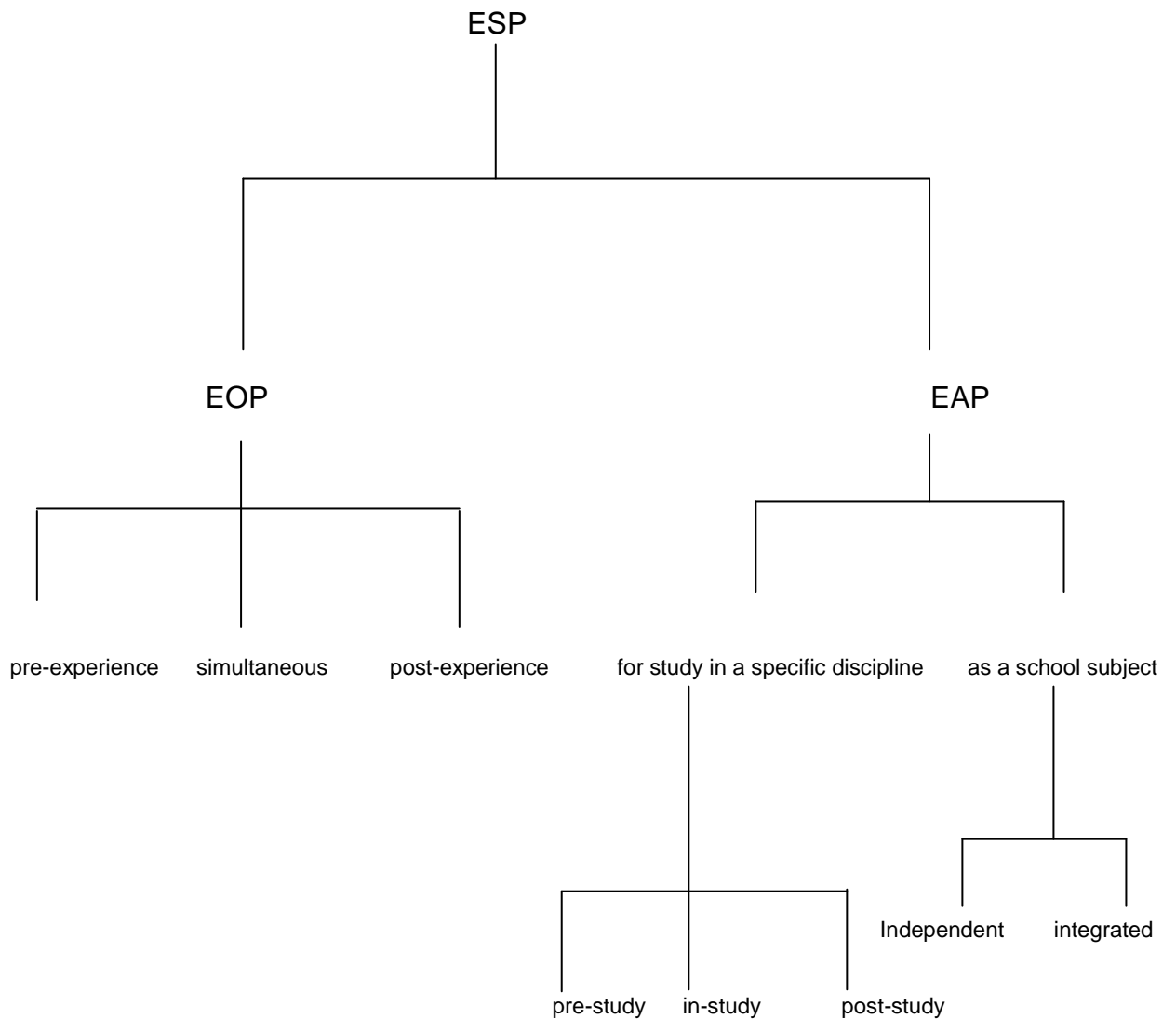| ESP	EGP
1. part of specialization	1. part of general education
2. aims at restricted competence	2. aims at general capacity
3. texts/materials/restricted to subject specialization ('narrow angle')	3. materials based on general texts ('broad angle')
4. small homogeneous group	4. large heterogeneous group
5. cost effective / value for money	5. expensive
6. teachers and institutions accountable	6. teacher accountability low
7. training orientation – training fails if "output" behaviour does not equal	7. education orientation-output does not usually equal input. (Humanist/HRD

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"input" instruction (Technical model)	model)
8. aims at 100% success rate	8. results not predictable
9. immediate return on training investment	9. long-term investment (deferred purpose)
10. specification of aims/goals: what the learner has to do with language once he has learned it	10. specification of objectives: what the learner has to do in order to learn

Below are the differences between ESP and EGP as indicated by Widdowson (1983) in <u>Learning Purpose and Language Use</u>.

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2.4 CLASSIFICATION OF ESP (Pauline Robinson, 1980)

ESP
- EOP
  - pre-experience
  - simultaneous
  - post-experience
- EAP
  - for study in a specific discipline
    - pre-study
    - in-study
    - post-study
  - as a school subject
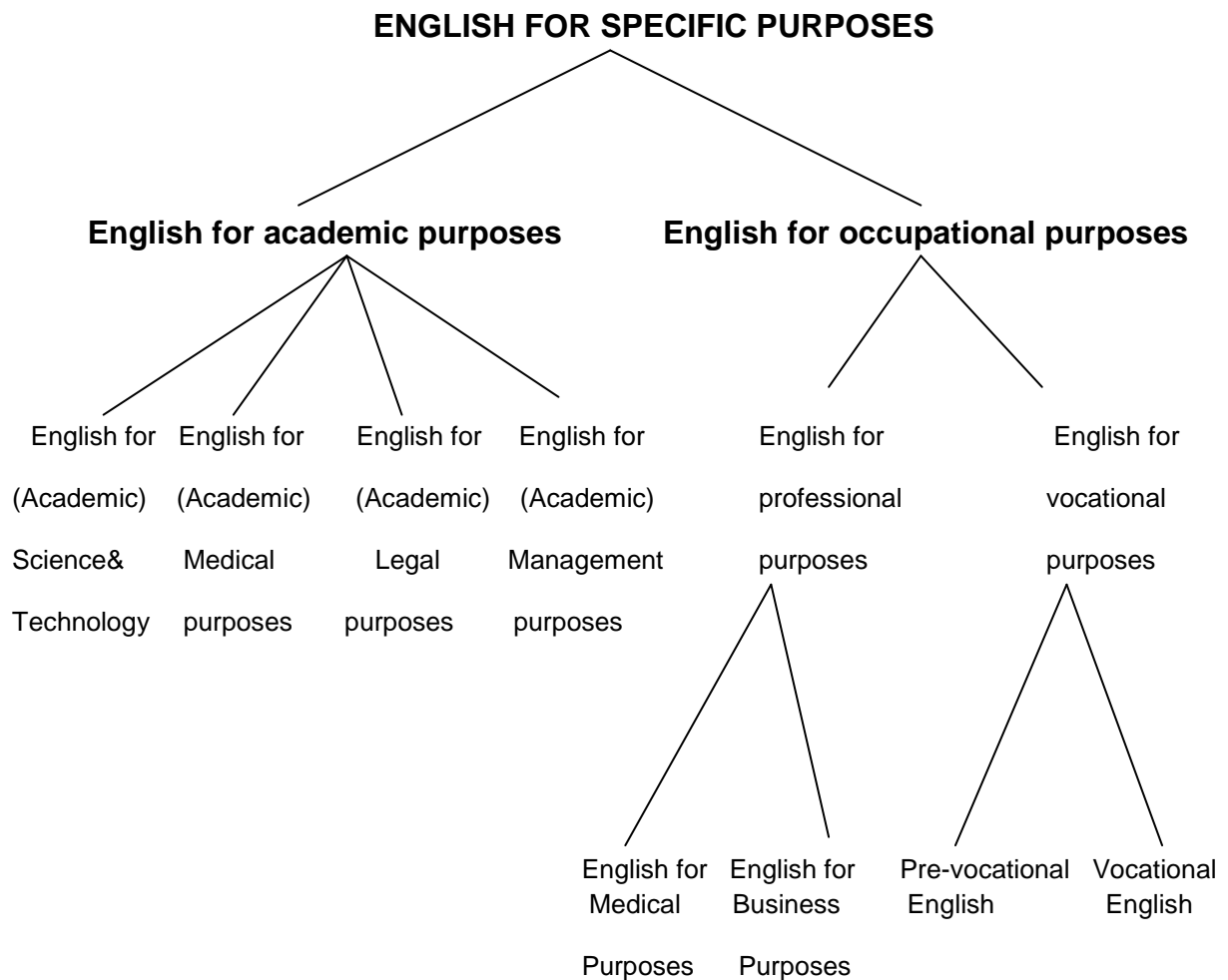   - Independent
    - integrated

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ESP CLASSIFICATION BY PROFESSIONAL ARES (Dudley-Evans and St

John Maggie Jo, 1998:6**)**

ENGLISH FOR SPECIFIC PURPOSES

English for academic purposes **English for occupational purposes**

English for (Academic) Science& Technology

English for (Academic) Medical purposes

English for (Academic) Legal purposes

English for (Academic) Management purposes

English for professional purposes

English for vocational purposes

English for Medical Purposes

English for Business Purposes

Pre-vocational English

Vocational English

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Chapter Three

Needs Analysis (NA)

'Tell me what you need English for, and I'll tell you what English you need.'

- Richards and Rodgers

3.1 What is Needs Analysis (NA)?

Needs analysis is basically one of the approaches to course design. It is a process by which we determine learner needs. Tony Dudley-Evans and Maggie Jo St John (1998) define it as "the process of establishing the <u>what</u> and the <u>how</u> of a course". The two words <u>what</u> and <u>how</u> show that an ESP course designer has to design their questionnaire in such a way that will help them arrive at the course content and pay some attention to the methodology that will suit the learners best. However, we are given to understand that more attention should be paid to the 'what' part of it.

Dudley -Evans refers to needs analysis as the procedures used to collect information about learner needs. It actually includes all the activities used to collect information about the learners' learning needs, wants, wishes, desires and lacks. Some think that needs analysis is restricted to the pre-course stage. This is not true. Needs analysis can also be carried out as the course progresses. It is, in fact, an endless process of questioning, checking and evaluating.

3.2 The Role of NA in ESP Course Design

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English for Specific Purposes (ESP) is known as a learner-centred approach to teaching English. An ESP course is designed to meet the needs of learners for use in their specific areas of study or work such as medicine, science, technology, etc. Hence is the importance and necessity for needs analysis in an ESP context.

Needs analysis is, in fact, the be–all and end–all of an ESP course. Thus an ESP course designer has to give it the attention it deserves. The information gathered from a needs analysis can be used to specify the goals and the teaching objectives of the course which will form the foundation for developing materials, activities, assignments and tests. Moreover, it helps the course designer place a learner on an appropriate course, and gives focus to the course.

It is true that when we design any course, we begin with certain assumptions about what the students need. But it is only through needs analysis that we come to know about the real needs of the learners.

The significance of the word <u>each</u> in Marx's statement "from <u>each</u> according to his ability to <u>each</u> according to his need" is that learners' needs differ from one learner to another and that an ESP course designer has to take the learner's individual needs into consideration. This brings us to the key word i.e. 'needs'. Let's now look at the word "needs" in a more detailed way.

Needs

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Needs have been variously defined. Richterich (1972) states that ".... A need does not exist independent of a person. It is people who build their images of their needs on the basis of data relating to themselves and their environment." As Brindley (1984: 28) puts it, "the term needs refer to wants, desires, demands, expectations, lacks, constraints and requirements".

There are different ways of classifying needs. Basically needs are of two kinds i.e. <u>language needs</u> and <u>learning needs</u>. Language needs constitute the content of the course and learning needs refer to a particular mode / process of teaching i.e., the methodology. Another way of classifying needs is by dividing them into <u>objective</u> and <u>subjective</u> needs as termed by Richterich (1972). Objective needs are perceived needs that are spelt out by an outsider i.e. the course designer or the sponsor. They are verifiable and based on facts that are seen by others. Subjective needs are felt needs that are spelt out by the insider i.e. the learners themselves. They are based on the learners' cognition or attitude. It should also be stated that there are other ways of classifying needs. Tony-Dudley Evans and Maggie Jo St John (1998), for example, classify needs into <u>product-oriented</u> and <u>process-oriented</u> needs. Product-oriented needs are goal-oriented based on target-situation needs; the focus here is on the final outcome or the end-product of learning. Process-oriented needs are based on the learners' learning situation and focus on the process of learning.

Widdowson (1981) states that product-oriented needs refer to what the learner needs to do with the language once he has learnt it and process-oriented needs refer to what the learner tends to do in order to actually acquire the language. In other words, product-oriented needs refer to the end of

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learning and process-oriented needs refer to the means of learning. Hutchinson and Waters (1987), however, divide needs into <u>target needs</u> and <u>learning needs</u>. Target-needs refer to the needs of the place / situation in which language will be used or in which learners are likely to use English. In other words, what the learners need to do in the target situation is what is meant by target needs. Learning needs refer to the processes and methodology that the learners are comfortable with. According to Hutchinson and Waters (1987), target needs are divided further into <u>necessities</u>, <u>lacks</u> and <u>wants</u>. Necessities refer to language needs only i.e., what the learner needs in order to function effectively in the target situation, lacks are defined as the gap between the existing proficiency level of the learner and his / her target proficiency level. Wants come from the learners. They refer to what learners personally want the course to provide them with. It is important to remember that while analyzing learners' needs, we have to go by the needs of the majority of learners as it is not possible to attend to the needs of each individual learner. Thus we have to do some kind of prioritization in which we take the needs of the majority of learners into consideration.

3.3 Approaches to Needs Analysis

Previously when materials producers conducted needs analysis for designing ESP courses they did so by looking at Register and Discourse Analyses. These two kinds of analysis are briefly discussed below.

(a) Register Analysis

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This kind of analysis focuses on vocabulary and grammar. It refers to a specific use of language for a specific discipline. By register, we do not mean a special variety of English, but a distinctive use of English. Analysis refers to the linguistic analysis of a particular register. The assumption here is that different disciplines have different registers.

(b) Discourse Analysis

This refers to the rhetorical organization of language that signifies meaning. In other words, it is to do with how a text is organized to produce meaning .It is not only to do with meaning of sentences, but with the ordering of sentences as well. The focus here is on language functions and notions, and the assumption is that distinctive disciplines are organized in different ways.

At present, to design an ESP course, one has to look at the learners' PSA, LSA, and TSA which are explained below:

(1) Present Situation Analysis (PSA)

This type of analysis tells one the strengths and weaknesses of the learners. In other words, it looks at the learners' current use of language with the purpose of assessing their lacks.

(2) Learning Situation Analysis (LSA)

This type of analysis tells one the learners' methodological experience, learning process, learning needs, learning styles and the learners' level of motivation. That is to say, it helps the course designer know the learners'

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wants, felt and process-oriented needs, personal and cultural background. Moreover, it tells the course designer about the learners' previous learning experience as well as their reasons for learning, and their expectations from the course.

(3) Target Situation Analysis (TSA)

This type of analysis tells the course designer the language needs of the learner. It helps him / her have an idea about the learners' objective and product-oriented needs which in turn will help in finding out more about the activities and tasks the learners will be using English for.

While designing questionnaires we have to keep the above three approaches / types of needs analysis in mind. It may also be interesting to notice that in needs analysis, the analysis can be equated to a journey whose starting point is the PSA, whose route / path is LSA, and whose destination is TSA. It is thus important to remember that needs analysis is the cornerstone of an ESP course.

3.4 Sources for Needs Analysis

There are two questions we need to address here. They are as follows:

1) Who are the agencies / sources that course designers should meet for needs analysis?
2) What tools should they use in Needs Analysis?

Below are the agencies that should be approached for needs analysis:

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1) Learners

2) Sponsors/employers

3) Teachers

4) Former Students (to see what problems they faced during their student life)

5) Colleagues

6) Other ESP researchers in the area / field

3.4.1 Learners

As the entire programme revolves around learners, they are, undoubtedly, a potential source for needs analysis. This is reinforced in this definition:

"ESP courses are those where the syllabus and materials are determined in all essentials by the prior analysis of the communicative needs of the learners." (Munby, 1978)

3.4.2 Sponsors/employers

Sponsors/ employers are also a potential source for needs analysis as they are aware of the contexts in which the learners need to use the language.

3.4.3 Teachers

In an academic setting, teachers can definitely give an idea about the needs of the learners. Thus they can be approached for needs analysis.

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3.4.4 Ex-Students

Former students can be approached for needs analysis with the purpose of checking what problems they faced during their student life.

3.4.5 Colleagues

Colleagues who have already conducted similar courses can be of some help in conducting needs analysis.

3.4.6 ESP Researchers

Other ESP researchers in the area/field can help in giving an idea about the learners' needs based on the needs they have met so far.

3.5 Methods used in Needs Analysis

As for gathering information, there are different ways / tools/ methods / instruments of doing so. Let us look at each of them individually:

3.5.1 Questionnaire

A questionnaire is a set of meaningful, sensible, clear and short questions. It should attempt to get as much information as possible. It should also strike a balance between length, interest and coverage.

- Advantages of a questionnaire:

- It can be administered to a large number of respondents.
- It is a time-saving device.

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- The data is easily analyzable or tabulated.

- <u>Disadvantages of a questionnaire</u>:

- The answers can be superficial and very mechanical.

3.5.2 Structured-Interview

A structured-interview is a group of pre-determined questions administered by the interviewer. For this, planning is very important. The questions to be asked should be planned beforehand. The interviewer has to ask them in a clear focused manner, and record the interview for future reference / documentation. An interviewer has to show interest in what the interviewee is doing and must be an active listener because he / she may need to ask follow-up questions. He /she also needs to be able to summarize. In short, a structured-interview is a way of getting maximum information in minimum time. It can be done with sponsors. It is particularly useful for TSA, PSA.

3.5.3 Observation

This is an important tool for carrying out needs analysis. It usually takes place in a business situation. Thus one has to be very discreet. The respondents may resent the presence of an observer, which is why an observer should assure the respondents that the information he / she gets is very confidential.

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3.5.4 Analysis of Authentic Data

This is also an essential tool for carrying out needs analysis. Here an interviewer has to get samples of production skills such as looking at letters written by the respondents to see what problems they have. Videographing and speech discourse are some examples of authentic data. Another way of doing it is by giving a passage with errors to the learner and to get them to correct the errors, and then analyzing their corrections. This kind of analysis is particularly useful for speaking and writing. It can also be the basis for materials production.

3.5.5 Informal Discussion

"Many needs analyses are carried out on an informal basis depending on the time and resources available" (Richterich and Chancerel 1977, Richterich 1983) (cited in Richards 1984: 6).

So as a way of carrying out needs analysis, informal discussions can be done with learners, sponsors or whoever can give information in this regard. With the help of informal discussions, course designers are likely to get a complete picture of the learners' needs.

3.6. Steps in Needs Analysis

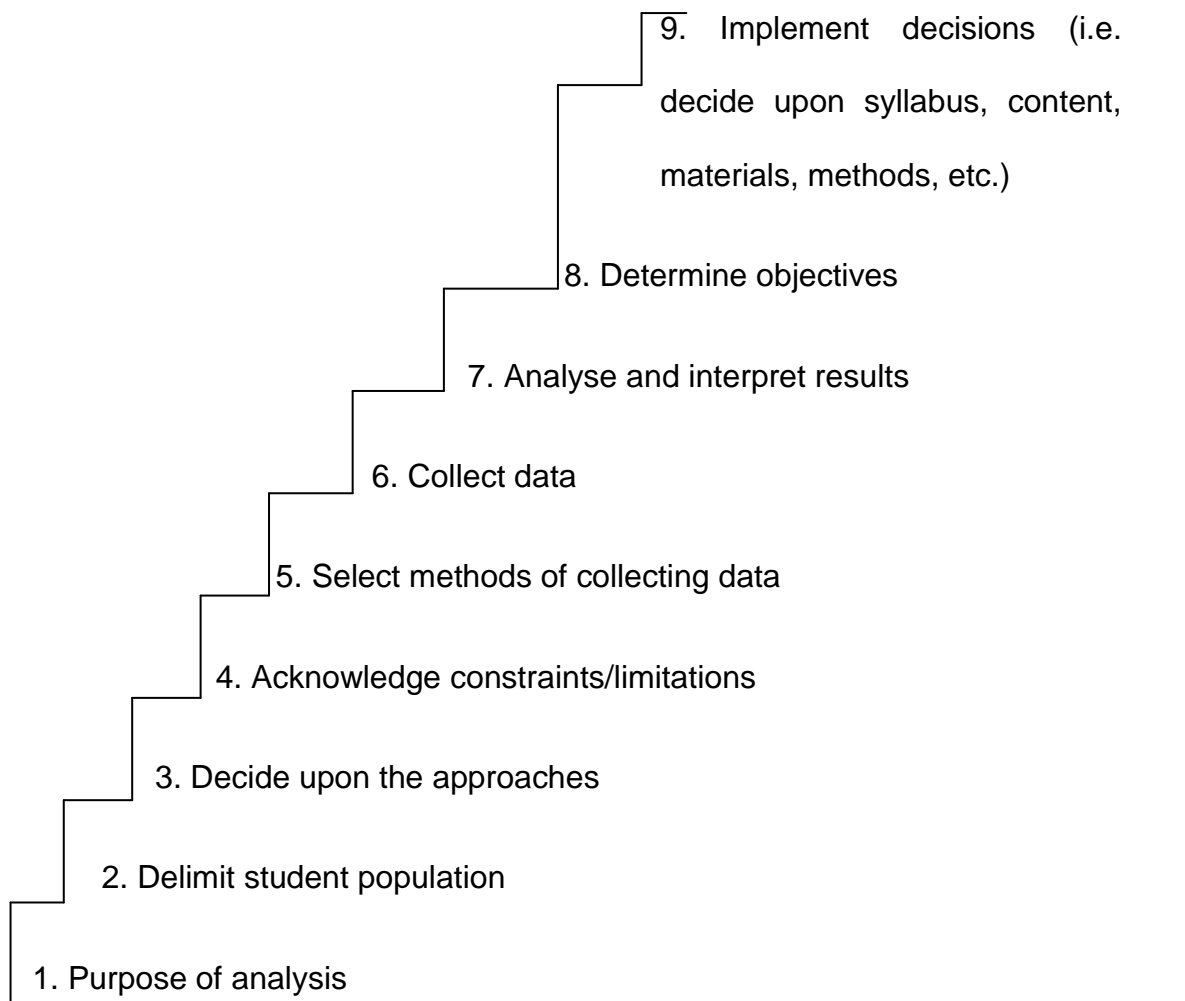(An adaptation from English for Academic Purposes- R.R. Jordan, 1997)

Steps in Needs Analysis

10. Evaluate procedures and results

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9. Implement decisions (i.e. decide upon syllabus, content, materials, methods, etc.)

8. Determine objectives

7. Analyse and interpret results

6. Collect data

5. Select methods of collecting data

4. Acknowledge constraints/limitations

3. Decide upon the approaches

2. Delimit student population

1. Purpose of analysis

A current model of needs analysis by Dudley Evens is provided below:

A CURRENT CONCEPT OF NEEDS ANALYSIS (By Tony Dudley-Evens and Maggie Jo St John, 1998)
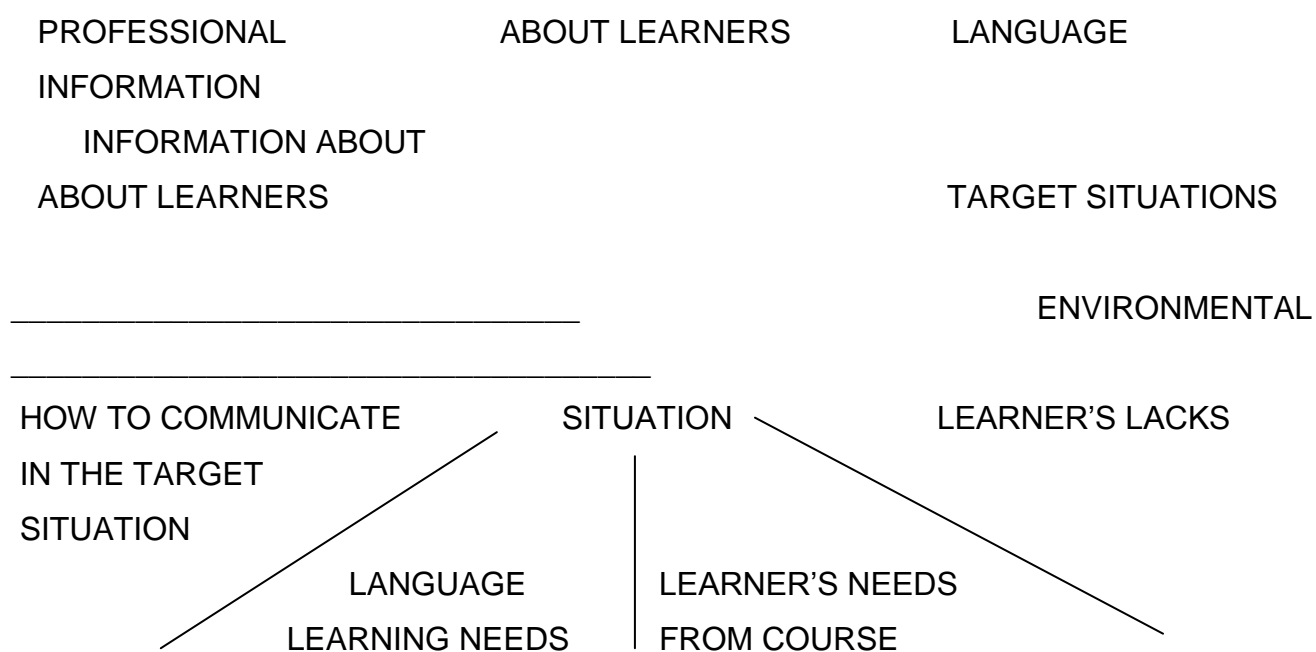
The approaches that are included in this current concept of needs analysis is given diagrammatically in fig.1

PERSONAL INFORMATION

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PROFESSIONAL   ABOUT LEARNERS   LANGUAGE
INFORMATION
    INFORMATION ABOUT
ABOUT LEARNERS   TARGET SITUATIONS

                                                        ENVIRONMENTAL

_____

_____

HOW TO COMMUNICATE   SITUATION   LEARNER'S LACKS
IN THE TARGET
SITUATION
                    LANGUAGE   LEARNER'S NEEDS
                    LEARNING NEEDS   FROM COURSE

3.7 Procedures Used

So far I have discussed the different methods / tools that can be used in needs analysis. As stated earlier, this course is designed for medical students of Hodeidah University, Yemen. In fact, when I went there to analyse the needs of the learners, it was end-semester examination time. Thus making use of all the five methods was not possible because of the limitations of time.

Given the circumstances, only two of the said methods could be used i.e. an informal discussion and a questionnaire. Whereas the questionnaire was administered to the respondents, I had an informal discussion with the learners, teachers as well as some former students. It should also be stated here that I

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would have had a clearer picture of their needs had I been able to observe some of the classes.

3.8 Data Analysis

3.8.1 Learner Profile

The methodology of data collection and the research tools used have been discussed a little earlier in this chapter. In this section, the data obtained for the research will be interpreted and analysed. Some of the learners are males and some are females. They are pursuing an undergraduate medical course in the Faculty of Medial Sciences, Hodeidah University, Yemen. Their age is between 18 and 22. They come from different academic backgrounds. 20% of them have had more than six years of English instruction. In other words, they did their schooling in English-medium schools. The remaining 80% have had only six years of English instruction. That is to say, they did their schooling in regional /Arabic medium schools. 40% of them have attended a course in Spoken English and found it useful. All of them think that English is important in their medical study for the following reasons:

1. To be able to speak with teachers and understand them well.
2. To speak with doctors and write exams.
3. To read medical books written in English.
4. To use English as an international language.
5. To use it in a foreign country.

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6. Its importance in getting a job.

Though there are some things in common among the learners, they do also differ in many aspects related to their difficulties in the language, their wants, and lacks, and the styles and strategies of learning they use. An overview of all these similarities and dissimilarities is given in the tables below:

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S. Number		Mohamed Al-Qadasi	Jamal Ali Al-haboury	Abdu abdullah Atadeeb	Radfan al Kadasi	Afrah Gebreel	Asmaa Saleh	Qana Hogary	Zeinab Al-Sagir	Hind AbdeAlkadir	Saberin Al agbry
1	**Gender**	Male	Male	Male	Male	Female	Female	Female	Female	Female	Female
2	**Age**	20	19	21	20	19	21	19	21	19	20
3	**Name of your Department**	Nursing	Nursing	Nursing	Nursing	Nursing	Nursing	Nursing	Nursing	Nursing	Nursing
4	**Years of English instruction in school**	6 years	12 years	6 years	6 years	6 years	6 years	6 years	6 years	6 years	6 years
5	**Medium of instruction in school**	Arabic	English	Arabic and English	Arabic	Arabic	Arabic	Arabic	Arabic	Arabic	Arabic
6	**Why is English important in your medical study?**	Medical books are in English	To speak to patients	English is very important in a doctor's life	Medical books are in English	All medical resources are in English	Classes are taught in English	English is important in a nurse's life	English is important for my career	Nursing is taught in English	My future in nursing depends on it
7	**Have you attended any special course in English?**	No	yes	Yes	No	Yes	Yes	No	No	No	No
8	**How useful was the course?**	__	Very useful	Not useful	___	Not useful	Very useful	__	_	__	__
9	**Preferred way of**	Individually	From teachers	In small groups	From teachers	In small	In small	From teachers	In pairs	From teachers	From teachers

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#	Question										
	learning					groups	groups				
10	Say whether the two English courses taught in the first year of your programme provide you with the essential skills to speak English well.	No	No	No	No	No	No	No	No	Yes	No
11	What do these two courses lack?	Teachers are not good	Conversations	Conversations and Reviews	Teachers are not good	Two semesters are not enough- listening and speaking	Listening practice and conversation	Grammar is not taught well, listening	Grammar is not taught well	_____	Teachers are difficult to follow
12	What would you like to become after graduation?	A nurse	A doctor –assistant	A doctor- assistant	A nurse/ university teacher/ doctor-assistant	A nurse	A university teacher/ a lab technician	A nurse/ a university teacher	A nurse/ a doctor-assistant	A doctor-assistant	A nurse/ a doctor-assistant
13	Rate your English proficiency in										
	Listening	Average	Average	Average	Good	Average	Average	Poor	Good	Poor	Average
	Speaking	Poor	Average	Poor	Average	Average	Average	Poor	Average	Poor	Average
	Reading	Poor	Good	Good	Average	Good	Average	Good	Average	Good	Good
	Writing	Average	Good	Poor	Good	Good	Average	Average	Good	Good	Good
14	The skills you need	Speaking and	Listening and	Speaking and writing	Speaking and	Listening and	LSRW	Speaking and	Speaking and reading	Listening and	Speaking and

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#	more help with	Reading	speaking		reading	speaking		listening		speaking	listening
15	**Have a problem in**										
	Holding a conversation in English	Yes	No	Yes	No	Yes	No	No	No	Yes	No
	Framing simple questions	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes
	Taking turns in conversations/ discussions	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes
	Providing responses to simple questions	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes
	Choosing the right word while speaking	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Saying what you want to say	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Pronouncing medical terminology correctly	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
16	**Do you use gestures and facial expressions to communicate**	Yes	NO	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
17	**Do you have any fear of making mistakes while**	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

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	speaking?									
18	**Other problems you have while speaking**	Pronunciation	Shyness and grammatical error	Shyness and word difficulty	Problems in grammar and pronunciation and fear of speaking	____	Can't follow others who speak English fast	Some words have different meanings	Pronunciation and grammar	Feel shy	Feel shy
19	**How often do you face problems with each of the following?**										
	Expressing your ideas and thoughts clearly	Often	Often	Sometimes	Sometimes	Often	Sometimes	Often	always	Often	Often
	Speaking in front of audience	Sometimes	Always	Always	Always	Always	always	Always	Sometimes	Always	Never
	Forgetting what you were about to say	Never	Often	Often	Often	Sometimes	Often	often	Sometimes	Often	Never
	Saying what you want to say quickly enough	Often	Always	Always	Always	Never	Sometimes	Sometimes	Sometimes	Often	Always
	Groping for the right words to describe symptoms/cases	Always	Often	Sometimes	Sometimes	always	Sometimes	Sometimes	Always	Never	Always
	Using the wrong word/phrase in speech	Always	Often	Always	Sometimes	Sometimes	Sometimes	Always	Sometimes	Often	Always

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20	Where do you usually use English?										
	In college	Yes	Yes	Yes		Yes	Yes	yes	Yes		Yes
	When socializing			Yes	Yes					Yes	
	At home			Yes							
21	Who do you use English with?	Teachers and doctors	Foreign doctor and tourist	Doctors/teachers and foreigners	Teacher/friends and doctors	Teachers	Teachers	Teachers/ doctors	Teachers/doctors	Teachers/ doctors/ tourists	Teachers/ doctors/ tourists
22	Purposes needed for using English										
	Following lectures	Yes	Yes	Yes	Yes	yes	Yes	Yes	Yes	yes	Yes
	Participating in question-answer session in class	Yes	Yes	Yes	Yes	yes	yes	Yes	Yes	Yes	Yes
	Understanding spoken presentations by classmates	Yes	Yes	Yes	Yes	yes	Yes	yes	Yes	Yes	Yes
	Participating in classroom discussion	Yes	Yes	Yes	Yes	yes	Yes	Yes	Yes	Yes	Yes
	Listening to teachers instructions	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	yes	Yes

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	Giving spoken presentations	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Asking teachers for clarification/ repetition	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
23	**List some other situations in which you use English**	Speaking with doctors	Reading newspapers, and talking with foreigners	Speaking with friends/ doctors and teachers		Using computer and internet	_____	Speaking with doctors	Speaking with doctors	Speaking with teachers and doctors	Reading books and speaking
24	**Do you want your friend or teacher to correct your mistakes?**	Teacher	Friends	Teacher	Teacher	No	Yes	Teacher	Teacher	Teacher	Teacher
25	**Which of the following make(s) the learning process easier for you?**	Video material /Handouts and other printed materials	Audio/ video/handouts and other printed materials	Audio/video and handouts and other printed materials	Audio and video materials	Audio materials	Audio/video / handouts and other printed materials	Audio/video / handouts and other printed materials	Handouts and other printed materials	Audio/video and handouts and other printed materials	Video materials/ Handouts and other materials
26	**Things you usually do to make the most of a lecture**										
	Be attentive in the class	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
	Prepare for the lesson beforehand	Yes	Yes	No	Yes	No	No	No	No	No	No

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	Take notes while listening	No	Yes	Yes	No	Yes	yes	Yes	No	Yes	Yes
	Interact with the teacher	No	Yes	Yes	Yes	No	Yes	yes	Yes	No	No
	Discuss the lecture with friends after the lecture	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
	Read extensively on the subject of the lecture	No	Yes	Yes	No	No	No	No	No	No	No
27	**Do you usually spend some time on homework?**	Yes	yes	Yes	Yes	No	yes	yes	Yes	Yes	Yes
28	**How much time?**	8 hours	5 hours	4 hours	8-9 hours	2 hours	8 hours	6 hours	4 hours	5 hours	6 hours
29	**Do you want to attend a course in spoken English?**	Yes	Yes	Yes	Yes	Yes	Yes	Yes	yes	Yes	Yes
30	**Reasons for willing to attend a course in English**	To improve my knowledge	To understand much	I like to learn more	To speak English well	To improve my Spoken English	To Improve my speak skills	I want to learn a lot more	_____	I want to speak good English	_____
31	**How long do you want the course to be?**	20 hours	20 hours	20 hours	20 hours	20 hours	20 hours	20 hours	20 hours	20 hours	20 hours

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32	When would you like the course to be held?										
	Weekdays	Yes	Yes	Yes	Yes	yes	yes	Yes	Yes		Yes
	Weekends									Yes	
	Time of classes	10 -12	Morning	Morning	Morning	4 pm onwards	9-12 am	8-12 am	8-12 am	5-8 pm	10-12 am
33	What do you want from the course?	Improve my speaking and reading skills	Be an English speaker	Improve speaking	Improve speaking/writing and listening	Improve speaking/ vocabulary	Follow the lectures	Improve speaking, writing, reading and listening	Improve speaking and reading English	Improve speaking, writing and reading	Improve speaking, reading and writing

S. Number		Ibtisam Ali	Haifa Ahmad	Aheer Ismaeel	Abdullah Mohd	Mona Ali	Bushra Alshmiry	Hafssa Al shamy	Somaiah Ali	Hanan Ahmad	Sanar Alhakemy
1	Gender	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female
2	Age	20	21	22	20	21	19	20	21	21	19
3	Name of your Department	Dentistry	Dentistry	Dentistry	Dentistry	Dentistry	Dentistry	Dentistry	Dentistry	Dentistry	Dentistry
4	Years of English instruction in school	6 years	6 years	6 years	12 years	12 years	12 years	12 years	6 years	6 years	6 years

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#	Question										
5	**Medium of instruction in school**	Arabic	Arabic	Arabic	English	English	English	English	Arabic	Arabic	Arabic
6	**Why is English important in your medical study?**	It is an international language	It is a world language	It is important for my study and life	To be able to speak with teachers and hospital doctors	It is important in my life (traveling outside)	To understand medical books and speak with teachers	To speak with teachers and understand medical books	It is a world language	To understand books in English	To understand books in English
7	**Have you attended any special course in English?**	No	No	No	Yes	No	Yes	Yes	No	Yes	Yes
8	**How useful was the course?**	____	_____	_____	Somewhat useful	_____	Very useful	Very useful	_____	Somewhat useful	Very useful
9	**Preferred way of learning**	From teachers	In pairs	Individually	In small groups	In pairs	From teachers	In pairs	In small groups	In small groups	From teachers
10	**Say whether the two English courses taught in the first year of your programme provide you with the essential skills to speak English well.**	yes	Yes	No	No	Yes	No	No	No	Yes	Yes

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11	What do these two courses lack?	_____	_____	Classroom arrangement and right conditions (hot weather)	Conversations and pronunciation	_____	Speaking practice	Classroom right conditions and speaking practice	Dialogues and pronunciation	Dialogues and pronunciation	_____
12	What would you like to become after graduation?	A university teacher/ a dentist	A university teacher/ a dentist	A university teacher/ a dentist	A dentist	A university teacher/ a dentist	A university teacher/ a dentist	A university teacher/ a dentist	A dentist	A dentist	A doctor-assistant/ a dentist
13	Rate your English proficiency in										
	Listening	Poor	Good	Good	Average	Good	Poor	Good	Poor	Average	Good
	Speaking	Average	Average	Average	Poor	Average	Poor	Average	Good	Poor	Average
	Reading	Good	Average	Average	Poor	Good	Average	Average	Poor	Poor	Good
	Writing	Good	Good	Good	Average	Good	Good	Excellent	Average	Average	Good
14	The skills you need more help with	Speaking and listening	Speaking and reading	Speaking and reading	Speaking and reading	Speaking	Listening and speaking	Speaking and reading	Listening and speaking	Reading	Speaking
15	Have a problem in										
	Holding a conversation in English	Yes	Yes	Yes	Yes	No	No	No	Yes	yes	No
	Framing simple	No	No	No	Yes	No	No	No	No	Yes	Yes

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	questions										
	Taking turns in conversations/ discussions	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
	Providing responses to simple questions	No	No	Yes	Yes	Yes	no	No	No	Yes	Yes
	Choosing the right word while speaking	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No
	Saying what you want to say	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No
	Pronouncing medical terminology correctly	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
16	**Do you use gestures and facial expressions to communicate?**	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
17	**Do you have any fear of making mistakes while speaking?**	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No
18	**Other problems you have while**	Pronunciation	Pronunciation	Grammar	Pronunciation	Grammar and pronunciation	Lack of opportunity	Pronunciation	___	Pronunciation	Poor vocabulary

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#	Question										
	speaking?										
19	**How often do you face problems with each of the following?**										
	Expressing your ideas/thoughts clearly	Sometimes	Often	Sometimes	Always	Always	Sometimes	Sometimes	Often	Always	Often
	Speaking in front of audience	Always	Always	Often	Always	Always	Sometimes	Always	Always	Often	Sometimes
	Forgetting what you were about to say	Often	Often	Sometimes	Always	Sometimes	Sometimes	sometimes	Often	Always	Sometimes
	Saying what you want to say quickly enough	Always	Always	Always	Often	Always	Sometimes	Often	Always	Often	often
	Groping for the right words to describe symptoms/cases	Sometimes	Sometimes	Always	Always	Always	Sometimes	Often	Sometimes	Always	Often
	Using the wrong word/phrase in speech	Sometimes	Sometimes	Sometimes	Always	Sometimes	Sometimes	Sometimes	Often	Always	Sometimes
20	**Where do you**										

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	usually use English?										
	In college	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	When socializing						Yes				Yes
	At home	Yes		Yes			Yes				
21	**Who do you use English with?**	Teachers and friends	friends	Friends	Teachers, doctors and patients	Brother	Teachers, parents, friends	Sister and classmates	Friends	Doctors, patient & teachers	Teachers and friends
22	**Purposes needed for using English**										
	Following lectures	Yes	Yes	Yes	Yes	Yes	Yes	yes	Yes	yes	yes
	Participating in question-answer session in class	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes
	Understanding spoken presentations by classmates	No	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes
	Participating in classroom discussions	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes

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	Listening to teacher's instructions	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Giving spoken presentations	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
	Asking teaches for clarification/ repetition	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
23	**List some other situations in which you use English**	_____	_____	In the clinic	With patients	___	Watching foreign channels	Reading books	_____	___	Using atlas
24	**Do you want your friend or teacher to correct your mistakes?**	Yes, both	Friends	Yes, both	Teacher	Teacher	Yes, both		Teacher	Teacher	Yes, both
25	**Which of the following make(s) the learning process easier for you?**	Video materials/ handouts and other printed materials	Handouts and other printed materials	Audio/ video materials	Handouts and other printed materials	Video materials	Video materials	Handouts and other printed materials	Video/ audio materials/ handouts and other printed materials	Audio materials/ handouts and other printed materials	Video materials
26	**Things you usually do to make the most of a lecture**										

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	Be attentive in the class	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Prepare for the lesson beforehand	No	No	No	No	No	No	Yes	No	No	No
	Take notes while listening	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes
	Interact with the teacher	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	No
	Discuss the lecture with friends after the lecture	Yes	Yes	Yes	No	No	No	No	Yes	No	Yes
	Read extensively on the subject of the lecture	No	No	Yes	Yes	No	Yes	No	No	No	No
27	**Do you usually spend some time on homework?**	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
28	**How much time?**	4 hours	2 hours	3 hours	5 hours	2 hours	2 hours	3 hours	2 hours	4 hours	2 hours
29	**Do you want to attend a course in spoken English?**	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes

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#	Question										
30	Reasons for willing to attend a course in English	_____	_____	I need it	I need it	_____	To improve my speaking skills	I have many problems in Spoken English	_____	It is very important for me	To learn English properly
31	How long do you want the course to be?	20 hours	20 hours	20 hours	20 hours	10 hours	20 hours	10 hours	20 hours	20 hours	10 hours
32	When would you like the course to be held?										
	Weekdays			Yes	Yes		Yes	Yes		yes	Yes
	Weekends	Yes	Yes			Yes			Yes		
	Time of classes	Evening	Morning	9-12 am	8-10 am	4 – 6 pm	9-12 am	9-12 am	Morning	10-12 am	9-11 am
33	What do you want from the course?	Improve speaking and reading skills	Improve speaking English	Improve speaking skills	Improve speaking skills	Improve grammar and speaking skills	Improve speaking, writing and understanding English	Improve speaking skills	Improve speaking skills	Improve speaking skills	Improve vocabulary

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S. Number		Sami Rabai	Nawal Mohammad Al masny	Abdulla Said	Widian Ahmed Ali hothephy	Aisha Alwesaby	Abeer Abdul Rahman	Manal Al shorafi	Sahar Al Riffee	Tahany Aish Mohammed Bocksh	Abdal Fatah Abusaad
1	**Gender**	Male	male	Male	Female	Female	Female	Female	Female	Female	Male
2	**Age**	20	19	20	19	20	19	20	20	18	20
3	**Name of your Department**	Medical Laboratory	Medical Laboratory	Medical Laboratory	Medical Laboratory	Medical Laboratory	Medical Laboratory	Medical Laboratory	Medical Laboratory	Medical Laboratory	Medical Laboratory
4	**Years of English instruction in school**	6 years	6 years	6 years	6 years	6 years	6 years	12 years	12 years	12 years	12 years
5	**Medium of instruction in school**	Arabic	Arabic	Arabic	Arabic	Arabic	Arabic	English	English	English	English
6	**Why is English important in your medical study?**	Books are in English	Books are in English	To understand medical books	To speak with doctors	To get a job and read books	To read books and get a job in future	It is a world language	Textbooks are in English	To read books in English and get a job in future	To write exams and speak with doctors
7	**Have you attended any special course**	No	Yes	Yes	No	No	Yes	No	No	No	Yes

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#	Question										
	in English?										
8	**How useful was the course?**	__	Not useful	Very useful	__	_	Somewhat useful	__	__	__	Somewhat useful
9	**Preferred way of learning**	In pairs	From teachers	From teachers	From teachers	From teachers	From teachers	From teachers	From teachers	Individually	In pairs
10	**Say whether the two English courses taught in the first year of your programme provide you with the essential skills to speak English well.**	No	No	No	Yes	No	No	No	No	No	No
11	**What do these two courses lack?**	Reading and speaking practice	Speaking, reading, writing practice	Conversations and listening practice	_____	Spelling/ writing, speaking and reading practice	Pronunciation	_____	Conversations	Grammar, reading and spelling practice	Pronunciation and writing practice
12	**What would you like to become after graduation?**	A lab technician	A university teacher	A lab technician	A lab technician	A lab technician	A lab technician	A lab technician	A lab technician	A University teacher	A lab technician
13	**Rate your English proficiency in**										

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	Listening	Average	Good	Average	Good	Poor	Good	Good	Good	Good	Good
	Speaking	Good	Poor	Good	Average	Poor	Poor	Average	Average	Average	Average
	Reading	Average	Poor	Good	Good	Good	Poof	Good	Good	Good	Good
	Writing	Good	Average	Good	Average	Good	Average	Good	Good	Good	Average
14	**The skills you need more help with**	Listening and reading	Speaking and reading	Listening and speaking	Writing and speaking	Listening and speaking	Reading and speaking	speaking	speaking	speaking	Writing & speaking
15	**Have a problem in**										
	Holding a conversation in English	No	yes	No	No	Yes	Yes	No	No	Yes	Yes
	Framing simple questions	No	Yes	No	No	No	No	Yes	No	No	Yes
	Taking turns in conversations/ discussions	Yes	Yes	No	Yes	Yes	No	No	Yes	No	Yes
	Providing responses to simple questions	No	Yes	No	No	No	Yes	Yes	Yes	No	No
	Choosing the right word while speaking	Yes	yes	No	Yes	Yes	Yes	No	Yes	Yes	No

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	Saying what you want to say	Yes	Yes	No	Yes	Yes	No	No	No	yes	Yes
	Pronouncing medical terminology correctly	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
16	**Do you use gestures and facial expressions to communicate?**	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
17	**Do you have any fear of making mistakes while speaking?**	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
18	**Other problems you have while speaking**	Feel shy and lack of opportunity	___	Can't speak English fast	Fear and shyness	Feel shyness	Fear and shyness	___	Poor vocabulary	Poor vocabulary	Feel shy
19	**How often do you face problems with each of the following?**										
	Expressing your ideas and thoughts clearly	Sometimes	Always	Sometimes	Always	Often	Sometimes	Often	Sometimes	Often	Often
	Speaking in front of	Sometimes	Sometimes	Sometimes	Never	Always	Always	Always	Always	Always	Sometimes

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	audience									
	Forgetting what you were about to say	Often	Often	Sometimes	Sometimes	Often	Often	Some times	Sometimes	Always	Always
	Saying what you want to say quickly enough	Sometimes	Sometimes	Often	Often	Often	Always	Sometimes	Always	Often	Often
	Groping for the right words to describe symptoms/cases	Always	Always	Sometimes	Often	Always	Always	Sometimes	Sometimes	Often	Always
	Using the wrong word/phrase in speech	often	Always	Sometimes	sometimes	Sometimes	often	often	sometimes	always	sometimes
20	**Where do you usually use English?**										
	In college	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
	When socializing	Yes			Yes						Yes
	At home		Yes		Yes			Yes			Yes
21	**Who do you use English with?**	Doctors and friends	Teachers and foreigners	Teachers and friends	Teacher, parents and friends	Teachers and friends	Friends and sister	Sister	Friends	Teacher and sister	Doctor friend/ sisters
22	**Purposes needed for using English**										

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	Following lectures	yes	Yes	Yes	yes	Yes	yes	No	Yes	Yes	Yes
	Participating in question-answer session in class	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
	Understanding spoken presentations by classmates	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
	Participating in classroom discussions	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
	Listening to teachers' instructions	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Giving spoken presentations	Yes	Yes	Yes	Yes	Yes	Yes	Yes	no	Yes	Yes
	Asking teachers for clarification/ repetition	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	yes	Yes
23	**List some other situations in which you use English**	Speaking with foreigners	__	Speaking with doctors and foreigners	Speaking with foreigners	___	With doctors and patients	Speaking with foreigners	__	Understanding different meaning of same word	___
24	**Do you want your friend or teacher to correct your**	Friend	Teacher	Yes, both	Yes, both	Teacher	Teacher	Yes, both	Yes, both	Teacher	Teacher

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#											
	mistakes?										
25	**Which of the following make(s) the learning process easier for you?**	Audio materials / printed materials	Audio/video materials/handouts and other printed materials	Video materials/ handouts and other printed materials	Video materials/ handouts and other printed materials	Audio materials/ printed materials	Audio/ video materials	Video materials	Video materials	Audio materials/ printed materials	Video materials/ printed materials
26	**Things you usually do to make the most of a lecture**										
	Be attentive in the class	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes
	Prepare for the lesson beforehand	No	No	No	No	No	Yes	No	No	No	yes
	Take notes while listening	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes
	Interact with the teacher	No	No	Yes	Yes	No	No	Yes	No	No	No
	Discuss the lecture with friends after the lecture	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	No
	Read extensively on the subject of the lecture	No	No	No	No	No	No	yes	No	Yes	Yes

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#	Question										
27	**Do you usually spend some time on homework?**	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
28	**How much time?**	1 hour	2 hours	2 hours	4 hours	2 hours	2 hours	1 hour	Half an hour	2 hours	2 hours
29	**Do you want to attend a course in spoken English?**	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
30	**Reasons for willing to attend a course in English**	My Spoken English is bad	I need to improve my speaking skills	To improve my speaking skills	To become excellent in spoken English	To strengthen my Spoken English	I am poor in Spoken English	_____	No need	To strengthen my English	I like Spoken English
31	**How long do you want the course to be?**	16 hours	10 hours	10 hours	10 hours	10 hours	20 hours	20 hours	__	10 hours	20 hours
32	**When would you like the course to be held?**										
	Weekdays	Yes	Yes	Yes		Yes	Yes	yes	__	Yes	Yes
	Weekends				Yes						
	Time of classes	Evening	Morning	10-12 morning	After noon	Morning	9-12 am	9-11 am	__	Morning	Morning
33	**What do you want from the course?**	Improve speaking,	Improve speaking skill	Improve speaking skill	Improve speaking skill	Improve speaking and writing skills	Improve reading and	Improve speaking skill	__	Improve speaking and	Improve speaking skill

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		reading and listening skills					speaking skill			writing skills	

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3.8.2 Analysis of the data

Three of the questions in the questionnaire require rating–scale responses. Thus the point system has been used to convert them into quantifiable variables. The data collected has been tabulated below.

Table-1

How would you rate your English proficiency in the following?	Excellent (4)	Good (3)	Average (2)	Poor (1)	Total points
Listening	---	13	11	6	67
Speaking	---	2	17	11	51
Reading	---	16	7	7	69
Writing	1	18	10	1	79

To get an idea about the learners' strengths and weaknesses in the four skills, they were asked to assess their own proficiency level by rating them on a four-point scale. They think that they are more proficient in writing and reading than they are in listening and speaking. Their responses to question (10) show that they need more help with speaking. They consider speaking to be vital to success in their course of study. Out of the thirty respondents ten stated that they need more help with speaking and reading, nine with listening and

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speaking, five with speaking only, three with speaking and writing, and one with all the four skills.

Table-2

Indicate how often you face problems with each of the following:	Always (3)	Often (2)	Sometimes (1)	Never (0)	Not applicable (0)	Total points
expressing your ideas and thoughts clearly?	6	12	12	0	0	54
speaking in front of an audience?	19	3	8			75
forgetting what you were about to say?	5	15	10	0	0	53
saying what you want to say quickly enough?	11	12	6			67
groping for the right words to describe symptoms / cases?	14	6	10			60
using the wrong word/phrase in speech?	9	6	17	0	0	49

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Table – 2, which includes the learners' responses to question (15), shows that the learners face many problems in speaking in front of an audience, saying what they want to say quickly enough and groping for the right words to describe symptoms/ cases. When it comes to expressing their own ideas/ thoughts clearly, they forget what they were about to say and use the wrong word/ phrase in speech.

Table – 3

Do you have a problem in:	Yes	No
holding a conversation in English?	15	15
framing simple questions?	13	17
taking turns in conversations / discussions?	22	8
providing responses to simple questions?	15	15
choosing the right word while speaking?	25	5
saying what you want to say?	21	9
pronouncing medical terms correctly?	27	3

Table – 4

For what purposes do you need to use English?	Yes	No
For following lectures?	29	1

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For participating in question – answer sessions in class?	25	5
For understanding spoken presentations by classmates?	24	6
For participating in class discussions?	27	3
For listening to teachers' instructions?	30	0
For making spoken presentations?	27	3
For asking teachers' for clarification/ repetition?	26	4

There are more 'Yes's' than 'No's' in the learners' responses to question (II) as indicated in tables (3) and (4) above. This clearly speaks volumes of their need for a course in communication skills.

Table – 5

What do you usually do to make the most out of a lecture?	Number of learners	Percent
Be attentive in the class	27	90
Prepare for the lesson beforehand	7	24
Take notes while listening	22	75
Interact with the lecturer	15	50
Discuss the lecture with friends after the class	21	73
Read extensively on the subject of	7	24

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the lecture		

The above table gives us an idea about the different strategies the learners use to make the most out of the lectures/ classes they attend. The majority of them (90%) listen to lectures attentively. This shows their desire and thirst for knowledge. Just a few of them (25%) prepare for the lesson before-hand and read extensively on the subject of the lecture. The reason they gave for not doing so is that they have to work after their classes to earn their livelihood. 75% of them take notes while listening. Whereas 70% discuss the lecture with their friends outside the class, only 50% interact with the lecturer. This is obviously because with their friends outside the class they can freely switch over to their mother tongue i.e. Arabic. They, however, feel shy to interact with the lecturer in English and lack the proficiency to do so.

Table – 6

What is your preferred way of learning English?	Number of learners	Percent
In pairs	6	20
In small groups	6	20
Individually	3	10
From teachers	15	50

Table-6 shows the learners' learning styles.

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For 20% learning in pairs is the preferred way of learning English. 20% have ticked learning in small groups as their preferred way of learning. High priority (50%) is given to learning from teachers. This is a clear indicator that the learners are not aware of or used to learner-centred classrooms. The teacher is most important to them. This may be because teachers do not involve learners in the learning process. They do not put in any effort to make them autonomous.

The learners belong to three Departments i.e. Nursing, Medical, Laboratory and Dentistry. 30% of them would like to become dentists, 30% lab technicians, 35% doctor – assistants and the remaining 5% university teachers and medical sales representatives. As stated earlier, they come from different academic backgrounds. 30% of them have had 12 years of English instruction and 70% have had 6 years of English instruction. 60% have not attended any special course in English. The remaining 40% have attended an English course before entering college, 20% of whom found it very useful, 10% somewhat useful and 10% not useful at all.

Almost all of them think that the two English courses taught in the first year of their four-year programme do not provide them with the essential skills for speaking English. These two courses lack conversation practice and medical terminology. All the learners with no exception use gestures and facial expressions to communicate, and have a fear of making mistakes while speaking. Apart from this, they need to improve their pronunciation and enrich

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their knowledge of medical terminology. They usually use English with teachers in college and doctors/patients in hospitals. Almost all of them stated that printed and audio materials make the learning process easier for them. They spend about four hours on homework and hardly prepare for lessons beforehand due to time constraints. They want a 20- hour part- time course any time in the morning and expect the course to help them improve their speaking and reading skills.

Having conducted the needs analysis, gone through the syllabus of the Faculty of Medical Sciences and analysed 20 samples taken from the courses and textbooks that these medical students study, I came to know about the language structures and language functions that they have to deploy during their study. As the learners expressed their long-term goals, I have also included functions that they would eventually be using in their profession.

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Target Language Analysis

Grammar Items

> Imperatives

> Interrogatives

> Simple Present Tense

> Simple Past Tense

> Adjectives

> Adverbs

> Passive Voice

> Conditionals

> Modal verbs

Language Functions

> Asking for and giving information

> Describing (introducing oneself and others)

> Defining

> Classifying

> Clarifying

> Asking for clarifications

> Inquiring

> Suggesting

> Directing

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- Comparing

- Agreeing

- Disagreeing

- Note -making / note -taking

- Informing

- Assuring

- Giving instructions and advice

- Diagnosing

- Warning

Target Situation Analysis

The learners require English for immediate use as well as future use. At present, they need English for study purposes (listening to lectures, making notes, participating in classroom discussions, making powerpoint presentations and writing exams). They also need English to communicate with non Arabic-speaking people when they take up some work soon after graduation. As part of their course requirements, they have to go to hospitals and laboratories for practice. Thus they will need to use English with non Arabic–speaking patients and doctors in those places. Reading passages/texts have been included as a base for speaking. Though the learners' content knowledge is good, they cannot follow the lectures due to their low proficiency level in English. This course is, therefore, intended to be offered as a pre-sessional course in order to bridge or minimize the said gap. Keeping the learners' proficiency level in mind, the tasks

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have been designed. That is, the same tasks may not be that challenging for medical students in a country like India, for example. Moreover, it will provide them with the technical and sub – technical vocabulary that they would need in their study. A part of every unit will be devoted to the teaching of the pronunciation of medical vocabulary as most of the students seem to have a problem with the pronunciation of medical terms. It also aims at giving these students tips and practice on how to perform tasks effectively during their studies as well as in their future jobs in English.

3.9 Questionnaire

A copy of the questionnaire administered is attached herewith.

QUESTIONNAIRE

Dear Student,

The purpose of this questionnaire is to know your specific needs with regard to English. This will help me design a course for you based on your language needs. Hence, you are requested to kindly take a few minutes and give frank and honest responses to he questions. I can assure you   that the information given by you will be kept confidential and used for this project work only.

Name: _____   Name of your Academic Institution _____

Age: _____   Gender: Male☐ Female☐

Name of your Department: _____

1. How many years of English instruction have you had?

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…………………………………………………………………………………….…………

2. What was the medium of instruction in your school?

………………………………………………………………………………………….

3. Do you think English is important in your study? Why? Why not?

…………………………………………………………………………………….

…………………………………………………………………………………….

4. In case you have attended any course in English, please indicate the length and frequency of the course (e.g., 20 days, 2 hours per day).

…………………………………………………………………………………….

5. How useful was the course? Please circle your choice.

- Very useful
- Somewhat useful
- Not useful

6. What is your preferred way of learning English?

- In pairs
- In small groups

  Individually

7. (a) Do you think the two English courses taught in the first year of your four year Programme provide you with the essential skills to speak English (well)?

Yes ☐ No ☐

 - (b) If your answer is 'No', what do you think these courses lack?

- ………………………………………………………………………………..
- ………………………………………………………………………………..
- ………………………………………………………………………………..

8 What would you like to become after graduation? Tick your choice.

a. A pharmacist   ☐

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b. A nurse ☐
c. A medical sales representative ☐
d. A university teacher ☐ ☐
e. An assistant- doctor ☐
f. A lab technician ☐
-Any other(s), please specify.

……...

9. How would you rate your English proficiency in the following? (Tick your opinion:)

	Excellent	Good	Average	Poor
Listening	☐	☐	☐	☐
Speaking	☐	☐	☐	☐
Reading	☐	☐	☐	☐
Writing	☐	☐	☐	☐

10. Which of the aforementioned skill(s) do you need more help with?

……………………………………………………………………………….

11. Do you have a problem in:	Yes	No
(a) holding a conversation in English?	☐	☐
(b) framing simple questions?	☐	☐
(c) taking turns in conversations / discussions?	☐	☐
(d) providing responses to simple questions?	☐	☐
(e) choosing the right word while speaking?	☐	☐
(f) saying what you want to say?	☐	☐
(g) pronouncing medical terminology correctly?	☐	☐

12. Do you use gestures and facial expressions to communicate? Yes ☐ No ☐

13 Do you have any fear of making mistakes while speaking? Yes ☐   No ☐

14. What other problem(s) do you have while speaking?

………………………………………………………………………

………………………………………………………………………

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15. Indicate how often you face problems

with each of the following: (Tick the appropriate box)

	always	often	sometimes	never	Not applicab

a. Expressing your ideas and thoughts clearly. ☐ ☐ ☐ ☐ ☐

b. Speaking in front of an audience. ☐ ☐ ☐ ☐ ☐

c. Organizing notes/materials into coherent units. ☐ ☐ ☐ ☐ ☐

d. Forgetting what you were about to say. ☐ ☐ ☐ ☐ ☐

e. Saying what you want to say quickly enough. ☐ ☐ ☐ ☐ ☐

f. Groping for the right words to describe

symptoms / cases. ☐ ☐ ☐ ☐ ☐

g. Using the wrong word/phrase in speech. ☐ ☐ ☐ ☐ ☐

16. When / Where do you usually use English? Tick your choice(s).

- In college ☐

- When socializing ☐

- At home ☐

17. Who do you use English with?

…………………………………………………………………………………………
……………………………………………………………………………………
…………………………………………………………………………………………

18. For what purposes do you need to use English? You can tick more than one answer.

	Yes	No
• For following lectures?	☐	☐
• For participating in question – answer sessions in class?	☐	☐

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- For understanding spoken presentations by classmates? ☐ ☐

- For participating in class discussions? ☐ ☐

- For listening to teachers' instructions? ☐ ☐

- For making spoken presentations? ☐ ☐

- For asking teachers' for clarification/ repetition? ☐ ☐

19. List some other situation(s) in which you use English.

- …………………………………………………………………..

- …………………………………………………………………..

20.. If you make mistakes in speech, do you want your friends or the teacher to correct you?

………………………………………………………………………………

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21. Which of the following make(s) the learning process easier for you? Tick your choice(s).

- Audio materials. ☐
- Video materials. ☐
- Handouts and/ or other printed materials. ☐

22. What do you usually do to make the most out of a lecture? Tick your response(s).

a. Be attentive in class   ☐
b. Prepare for the lesson beforehand. ☐
c. Take notes while listening. ☐
d. Interact with the lecturer. ☐
e. Discuss the lecture with friends after the class. ☐
f. Read extensively on the subject of the lecture. ☐
g. Other ways (please specify) …………………………………………

23. Do you usually spend some time on homework? If so, how much?

   (e.g., 3 hours per day.)

   …………………………………………………………………………..

24. Do you want to attend a course in Spoken English? If yes, why?

   …………………………………………………………………………..

25. How long do you want the course to be?

10 hours   ☐   12 hours ☐

16 hours   ☐   20 hours ☐

26. When and what time would you like the course to be held?

*   Weekdays   ☐   Time: ☐

*   Weekends   ☐   Time: ☐

27. What do you *want* from this course?

   ………………………………………………………………………………

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……………………………………………………………………………………………

<div align="right">Thank you for your co-operation.

Arif Ahmed Al-Ahdal</div>

Chapter Four

Aims and Objectives

'Tell us what you need to learn and for what purposes. We will then devise a course which will teach you precisely that: no more and no less…and we will do so by means of highly effective teaching methods.'

<div align="right">- Peter Strevens**(1988)**</div>

4.1 What are aims and objectives?

Aims and objectives play an important role in any course. _Aims_ refer to the general purpose of a language programme. In other words, they refer to a statement of a general change that a course seeks to bring about in learners. They are derived from the information gathered from the needs analysis process. They refer to the use to which we put the knowledge/ language received during a course after the course is over. Aim statements reflect the ideology of the curriculum and show how the curriculum will realize it. Whereas aims are expressed in general terms and are intended to be achieved over a long period of time, _objectives_ are expressed in very specific terms and are intended to be achieved in a short time span. Within aims we have objectives. Objectives refer to a statement of specific changes a programme seeks to bring about in learners. They result from an analysis of the aims into different

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components. In other words, they are smaller units of learning that can be numerable. They are usually written in terms of learner outcomes.

4.1.1 How are aims important?

- They give focus / direction to the course.

- They are a set of guidelines to learners and teachers.

- They provide a clear definition of the purpose of a programme.

- They describe important and realizable changes in learning.

4.1.2 How are objectives important?

- They form the basis for activities and tasks.

- They make the teacher accountable.

- They are units of measurement with regard to the progress of teaching.

- They describe learning in terms of observable behaviour.

Having looked at learners' lacks, wants, and needs, let us now study the aim(s) and objectives of this course.

4.1.3 Aims of the Course

This course aims at:

(1) providing the medical students of Hodeidah University with basic communication and presentation skills for use in their academic life and future workplace.

(2) enriching their summarizing, note-making and note-taking skills.

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(3) improving their pronunciation.

4.1.4 Objectives of the Course

At the end of the course, the students will be able to:

(1) introduce themselves and others

(2) frame and provide responses to simple questions

(3) hold conversations with patients without difficulty

(4) give information to patients about relevant medical matters

(5) discuss patient-related issues with English-speaking colleagues

(6) summarize a medical text

(7) take and make notes in an effective manner

(8) pronounce medical terms correctly.

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Chapter Five

Syllabuses

'…to achieve the required level of linguistic competence in the minimum of time.'

\- Fityjohn

In the previous chapter, we looked at aims and objectives in general and then arrived at the aims and objectives of the present course. This in turn has led to the syllabus for the course which will be discussed later in this chapter.

5.1 What is a syllabus?

… Syllabuses relate to specific languages to be taught to more or less specific groups of learners for more or less specific purposes with more or less specific limitations of time and money. Textbooks and teaching materials of all sorts are the concrete realization of the syllabus plan. (cited in Krishnaswamy, N., Verma, S.K., Nagarajan, M .N 1992).

A syllabus is a list of topics, themes, functions, etc. that are used in a language programme.

Nunan (1988) states that a syllabus is a specification of what is to be taught in a language programme and the order in which it is to be taught. It may contain all or any of the following:

phonology, grammar, functions, notions, topics, themes, and tasks. Hutchinson

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and Waters (1987) look at a syllabus from the point of view of the outcomes rather than the process. To them "a syllabus is a statement of what is to be learnt in terms of language and linguistic performance."

It is certain that a language syllabus plays a fundamental role in the development of language programmes. It gives a direction to the learning–teaching process. It gives direction and guidance to teachers. It helps them know which skill is in focus; it states the focus of each lesson, be it a language element, a skill or a sub-skill. Developing the syllabus is important because language is a big entity and the syllabus helps one teach it bit by bit, in manageable units. In order to make the teaching process a success, we need a well-thought out, well-directed syllabus. A syllabus can be arranged in different ways.   It depends on:

1. One's perception of what language is

2. Needs of the course

3. Needs of the learner

It also involves needs analysis and establishing goals. In other words, the content of the syllabus derives from a needs analysis of the learner's specific communication requirements as in the case of the present course .It entails the selection, gradation and presentation / sequencing of the language and content of a course. To design a syllabus is to decide what is to be taught and in what order.

5.2 Types of Syllabus

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Syllabuses   can be   divided into two categories depending on what they focus on. These two categories are Product-oriented syllabuses and Process-oriented syllabuses. They are briefly discussed below.

Product-oriented syllabuses are the realization of the synthetic approach to syllabus design and process-oriented syllabuses are the realization of the analytic approach to syllabus design. The grammatical/ structural syllabus, the functional/ notional syllabus and the lexical syllabus are examples of product-oriented syllabuses; the procedural syllabus, the task-based syllabus and the content-based syllabus are examples of process-oriented syllabuses.

In the product-oriented syllabuses, the components of language are looked upon as building blocks. The process of learning takes place step-by-step till the learners synthesize the whole language. The following points are important to remember about product-oriented syllabuses:

- They are linear i.e. learners have to learn language sequentially.
- They are additive i.e. the learners cannot go to item (a) until they have learnt item (b).
- The language content is carefully selected and controlled i.e. the learners have no control over the content.
- They are teacher-fronted or teacher-centred as teachers control the content.
- They are linguistically oriented.

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One more thing to remember about these syllabuses is that their language content is graded on the basis of the following:

- The grammatical complexity

- Frequency of occurrence

- Range

- Teachability/ learnability

- Contrastive difficulty in relation to the learners' mother tongue.

Process-oriented syllabuses developed as a result of a sense of failure about product-oriented courses being able to enhance communicative language skills. The focus here is on the process and not the product of learning. Below are some important points to remember about process-oriented syllabuses:

- They are activity/ task-based.

- They are based on the purpose for which language is taught.

- They are learner-centred.

- They focus on the performance requirements of instruction.

A very important distinction between the two syllabuses discussed here is that product syllabuses focus on the knowledge and skills which learners should gain as a result of instruction, while process syllabuses focus on the learning experiences themselves (Nunan, 1988:27).

It is worth mentioning here that the advantage that process syllabuses have over product syllabuses is that the learners whose academic institution follows the former type will, at some point of time, become autonomous.
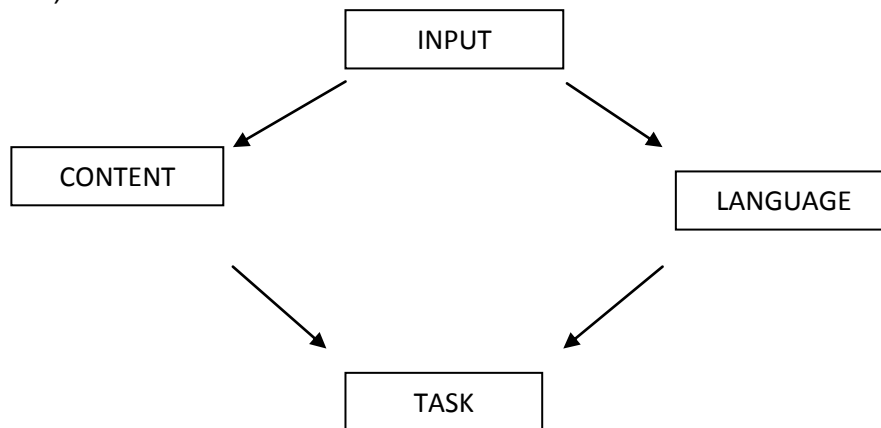
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Let us now look at different types of syllabuses.

a. Topic Syllabus

Here, a particular theme / topic is discussed in each unit. The subject matter is primary and language learning is incidental to content learning. It is important for ESP in the sense that the themes have to be related to the content.

b. The Grammatical / Structural Syllabus

In this syllabus, the focus is on grammar. It centres around grammatical items that are graded from simple to difficult. It can improve the learners' grammatical competence, but not likely to improve their communicative competence.

c. The Functional / Notional Syllabus

The focus here is on the functions performed when language is used as well as the notions the language is used to express. <u>Describing</u>, <u>explaining</u>, <u>discussing</u> are a few examples of functions, and <u>time</u>, <u>space</u> and <u>obligation</u> are examples of notions. In this syllabus, a list of functions and notions is made and graded in terms of their usefulness to the learners, and the language necessary for performing these functions is provided to the learner. The advantages of this type of syllabus are:

(1) It is based on the learners' perceived needs.

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(2) Learners can start putting to use whatever language they learn in the classrooms.

(3) Learners who do not complete the course also develop some communicative ability.

However, the limitation of the functional-notional syllabus is that the list of functions and notions (like the lists of words and structures) may not necessarily reflect the way language is learnt.

d. The Discourse / Skills Syllabus

This focuses on providing learners with specific abilities / competencies that are essential for using the language. In this type of syllabus, each sub-skill becomes a unit.

e. The Situational Syllabus

Here the focus is on the situations in which learners will be using English. In other words, the focus here is on teaching the language that learners need to perform effectively in specific situations such as ' At the doctor's. This is particularly useful for people who use English for limited purposes, as their motivation will be high.

f. The Task -based Syllabus

This kind of syllabus assumes that language learning takes place with tasks as the organizing principle. Thus tasks are of great importance in this kind

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of syllabus. Puzzles, quizzes, pair-work, group work, role-play, simulation are examples of tasks.

g. The Lexical Syllabus

This type of syllabus is based on the theory that language is not a set of grammatical rules but that it consists of lexical items / chunks of language. The learners are exposed to the different ways these lexical items or words are used in their most natural environment. This will enable the learners to use the language for communication. It is also believed that these fixed expressions make learners efficient users of the language.

5.3 The Syllabus to be used on this Course

It is important to point out that any language syllabus is mostly a combination of two or more of the types mentioned above with one type dominating and that in practice these types rarely occur independent of one another. The syllabus used here is an integrated or eclectic syllabus, though it is more of a combination of situational and functional syllabuses. As the course aims at providing Yemeni medical students of Hodeidah University with basic communication and presentation skills, it contains some of the language functions they are to perform while using English in colleges or in their future workplace.

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The materials consist of seven units that have been arranged thematically. However each unit focuses on a specific skill (s), a specific function(s) and a specific grammar item(s). Each unit is also a combination of 4-5 tasks.

5.4 Timetable

Based on my estimation as well as the respondents' wishes expressed in the questionnaires, a 20- hour course has been designed and will be taught according to the following timetable:

Day	Unit	Duration	Topic
Saturday	1	2 hours	Let's Know Each other Better
Sunday	2	3 hours	With A Patient (I)
Monday	3	3 hours	Preventive Medicine
Tuesday	4	3hours	Welcome To My Clinic
Wednesday	5	3 hours	With A Patient (II)
Saturday	6	3 hours	Take Care of Your Teeth
Sunday	7	3 hours	Mosquitoes and Blood

N.B. Saturdays and Sundays are working days in Yemen.

As indicated in the table above, except for the first day (2 hours), a 3-hour class will be held every day for six working days from 9.00 am – 12.00 noon on campus.

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Chapter Six

Materials and Methodology

'… materials produced for use once only for one group of students in one place

at one time.'   - Pauline Robinson (1980)

6.1 ESP Materials

Hutchinson and Waters state that "materials writing is one of the most characteristic features of ESP in practice. In marked contrast to General English teaching, a large amount of the ESP teacher's time may well be taken up in writing materials" (1987: 106). In fact, materials in general and ESP materials in particular play a very important role in the learning- teaching process. In an ESP context, they lend variety to classroom discussion, stimulate the learning process, and organize teaching and learning. In an ESP situation, the teacher is the course designer/ materials producer, which is not always the case in an EGP context. As an ESP course is a customized course, it has to be related to an academic or occupational discipline. The present course is an example of a customized course. According to Tony Dudley-Evans and Jo St John (1998), materials are supposed to:

- provide a stimulus to learning;

- help to organize the teaching-learning process;

- embody a view of the nature of language;

- reflect the nature of the learning task;

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- broaden the basis of teacher training by introducing teachers to new techniques; and

- provide models of correct and appropriate language use.

They state that good materials should contain:

- interesting texts;

- enjoyable activities which engage the learners' thinking capacities;

- opportunities for learners to use their existing knowledge and skills; and

- content which both learner and teacher can cope with.

Dudley Evans and Jo St. John (1998) state that materials are a must in an ESP context as they can be used:

- as a source of language

- as a learning support

- for motivation and stimulation

- for reference.

In an ESP situation, authentic materials are very important because our main aim in teaching ESP students is to prepare them for real-life experience. Thus an ESP teacher not only needs to be well-qualified but also an efficient materials producer.

To be an efficient materials producer, Tony Dudley-Evans and Jo St John (1998) observe that an ESP teacher needs to:

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-   select appropriately from what is available;

-   be creative with what is available;

-   modify activities to suit learners' needs; and

-    supplement by providing extra activities/ inputs.

Below is a materials design model consisting of four elements i.e. input, content focus, language focus, and task, taken from Hutchinson and Waters (1987: 109)

```
                    ┌─────────┐
                    │  INPUT  │
                    └─────────┘
                   ↙           ↘
      ┌───────────┐             ┌───────────┐
      │  CONTENT  │             │ LANGUAGE  │
      └───────────┘             └───────────┘
              ↘                   ↙
                  ┌─────────┐
                  │  TASK   │
                  └─────────┘
```

It is also important to point out that an ESP course can be broad-focused or narrow-focused; at times it is a combination of the two. The present course has a broad focus because it is an integrated course and concentrates on some functions that the learners perform at their college. Moreover, an ESP course can either be an intensive or extensive course. The present course is an intensive course as it has an exclusive focus on the aims and objectives to be achieved within a specific period of time (seven days).

A blend of created and adapted materials has been used here. The

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books I have consulted while preparing the present materials are included in the bibliography. The pictures used in this project have been taken from google.com (images).

Since I am offering this EAMP Course to a group of medical students, I will be using an interactive methodology. In other words, I will use pair work, group discussion, role play, etc to prepare them for real -life tasks. I will also provide them with handouts and worksheets to satisfy their need to be part of an activity-ruled classroom.

6.2 Units

The materials designed for this course are given below.

Unit One   **Let us Know Each Other Better**

> **Skills:** Reading and speaking
>
> **Functions:** Introducing oneself, others and greeting
>
> **Language focus:** Simple present tense and interrogatives

Starter

Go round the class and find out:

a) how many people have the same name as yours
b) how many people read more than 2 hours a day.
c) how many people are married

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Task 1

Work in groups of three. Ask each other questions about the following ten categories using the words in the box below to know each other better.

1. Name	6. Brothers and sisters
2. Birth	7. Hobbies
3. Address	8. Reasons for studying medicine
4. Age	9. Goals in life
5. Father's job	10. Likes / dislikes

How many	Why	Are
When	Is	Where

❖ *Now tell the other groups about the two friends you have made in the group. Use the ten categories given above to introduce them.*

Example

My friend's name is Adel. He is 22 years old, etc.

Task 2

Read the following dialogue between Dr. Pushkin and Dr. Mohammed, the Technical Manager of AI - Olofi hospital, and do the tasks following it.

Dr. Pushkin: (Knocks on the door)

Dr. Mohammed: Come in.

Dr. Pushkin: Good morning.

Dr. Mohammed: Good morning. Please have a seat. How can I help you?

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Dr. Pushkin:	Oh, thank you, **I'm** Pushkin, the new surgeon from Russia.
Dr. Mohammed:	<u>Pleased to meet you</u>, Dr. Pushkin. I was told you reached here yesterday night. **I'm** Mohamed Al Faqeeh, the Technical Director here.
Dr. Pushkin:	<u>Pleased to meet you, too, Sir</u>.
Dr. Mohammed:	Please **don't** call me 'Sir'. You may call me Mohamed. This is Dr. Maher and that is Dr. Najeeb.
Dr. Pushkin:	Nice to see you, Dr. Maher and Dr. Najeeb.

Did you notice? When Dr. Pushkin introduces himself to Dr. Mohammed, Dr. Mohammed says <u>Pleased to meet you</u>; Dr. Pushkin replies <u>pleased to meet you, too, sir.</u> <u>Pleased / nice / delighted, etc to meet you</u> is an expression we use when me meet people or when people introduce themselves to us.

Dr. Maher:	Nice to see you, too. Please call us Maher and Najeeb.
Dr. Pushkin:	**It's** very kind of you.
Dr. Najeeb:	By the way, did you have a comfortable flight from Moscow to Hodeidah?
Dr. Pushkin:	Yes. The flight was very comfortable, thank you.
Dr. Mohammed:	**You're** indeed a godsend. **You've** really come at the appropriate time. We have to do a heart surgery and our surgeon Dr. Sulaiman is not feeling well today.
Dr. Pushkin:	Oh, really! Let me get ready, then.
Dr. Mohammed:	Let me show you your room first. This way, please.

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> Note the highlighted words above, "I'm", "don't", "it's", "you're" and "you've". Such words are very common in Spoken English. People normally do not say "I am Mohammed". They say "I'm Mohammed". Try and use such WEAK forms in your speech.

Task 3

Dr. I.B. Sharma, one of your professors, happens to come to the Medical Laboratory where Sahar Mustafa and Ahmed Ali are working. They introduce themselves to him.

Ahmed Ali

Hi! I'm Ahmed Ali, your student in college.

Sahar Mustafa

Good evening, Sir. I'm Sahar Mustafa, your student in college. What can I do for you?

❖ *Whose self introduction is better, Ahmed's or Sahar's? Why?*

Tasks 4

Work in pairs and state the best response to each of the following situations.

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(A) Dr. Sharma has been appointed to work in a hospital. He goes to work for the first time. He is asked to meet the Director General of the hospital. He enters the Director General's room.

    a. Hello, I'm Dr. Sharma. And what's your name?

    b. Good morning, Sir. I'm Dr. Sharma, the new Cardiologist from India.

    c. Hello, are you the Director General of this hospital?

(B) *Your friend Ali wants to study Medicine in a Russian University, where Dr. Pushkin finished his Ph.D. You introduce your friend Ali to your colleague Dr. Pushkin and seek his help in this matter*.

You:

a) Good morning, Pushkin. Meet my friend Ali.
b) Good morning, Pushkin. Get my friend Ali admission to a Medicine course in Russia.
c) Good morning, Pushkin. This is my friend Ali. He wants to study Medicine in Russia. Do you think you can help him get admission to the MD Programme this year?

Task 5

What will you say to introduce yourself to the following?

a) Your fellow students in class on the first day of college?
b) The Dean of your college?
c) An old classmate whose name you have forgotten?

Task 6

Pair Work

What will you say to introduce

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1. Your classmate to the Dean of your college?
2. An old classmate to a new one?
3. Your old classmate to the Manager of the hospital in which you are working?
4. Your brother who has recently been appointed as a teacher in your college to your teacher?
5. Your father to the Head of your Department?

One of you makes the introduction and the other one replies

Below are some ways that will help you introduce yourself and others to different people in a polite manner. Some information about responding to introductions is also given.

1. Introducing yourself

Informal	**Formal**
Hi! I'm Ahmed Ali,	Good morning, I'm Ahmed Ali.
Hello, I'm Ahmed Ali.	
Hello, you must be Waleed.	May I introduce myself? I'm Ahmed Ali, a newly – appointed cardiologist here.
Excuse me, you're Waleed,	I'd like to introduce myself. I'm Ahmed Ali.
aren't you? I'm Ahmed Ali.	
Excuse me, my name is	
Ahmed Ali. Aren't you Ahmed Ali?	
	Allow me to introduce myself.
I'm Waleed. Remember me?	I'm Ahmed Ali, a newly-appointed cardiologist here.

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Excuse me. I don't think   .

we've met before.

My name is Ahmed Ali.

I'm afraid I don't know/ remember

your name. I'm Ahmed Ali.

Good morning. Ahmed Ali

speaking (on phone).

2.   Introducing others

Informal	**Formal**
Waleed, meet Ahmed Ali,	Good morning Dr. Qassim.
my childhood friend.	May I introduce to you
This is Ahmed Ali, my	Dr. Mohammed, our new colleague?
childhood friend.	
I'd like you to meet Ahmed Ali.	
Waleed, this is Ahmed Ali,	Let me introduce our new colleague,
my childhood friend.	Dr. Mohammed
Have you met/ Do you	
know Ahmed Ali? He is -----	
Waleed, Ahmed Ali.	
Ahmed Ali, Waleed.	
	It gives me great pleasure
By the way, do you	to introduce (to you) this evening's
know each other?	guest/ speaker, Dr. Mohammed.

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> NB: when you introduce a person, say his / her name and give some more information about him/ her. This will give the other person a clue or an idea about how to begin the conversation.

3. Responding to introductions

<u>Informal</u>   **<u>Formal</u>**

Hi / Hello!   It's a great pleasure to meet you.

How do you do?

Hello, how do you do?   Delighted to meet you.

Hi / Hello, I'm Waleed.   I'm very glad to meet you.

Nice to meet you. Pleased

to meet you. I've been eager

to meet you.

I'm Waleed. Nice to meet you.

I'm not Waleed. I'm Arif. I'm Ameena.

Good to meet you.

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Pronunciation

The pronunciation of the suffix or regular past marker /-ed/ or /-d/ differs according to the preceding sound. For example, in the word 'pleased', the –ed is pronounced as /d/ because the preceding sound is /z/. Generally –ed is pronounced as /d/ if it is preceded by a vowel or b, g, v, f, l, m, n, z; It is pronounced as /t/ when the verb ends with a voiceless sound other than /t/. If the verb ends with /t/, we pronounce the suffix –ed as /id/ .Consider the following examples:

love ⟶ loved ⟶ / lʌvd /

play ⟶ played ⟶ / pleid /

talk ⟶ / tɔ:kt/

want ⟶ / wɒntid/

Now underline the words in which the –ed is pronounced as / d /

cooked   considered

cleaned   pronounced

needed   showed

slowed   watched

Vocabulary:

The suffix – logy means science. For example, cardiology is the science of heart, psychology the science of the psyche or the self.

What do the following words refer to?

❖ Diabetology

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- ❖ Gastroenterology

- ❖ Physiology

- ❖ Ophthalmology

- ❖ Nephrology

- ❖ Neurology

- ❖ Dermatology

- ❖ Urology

Can you give more examples?

Note to the teacher:

Tell your students the difference between "how are you?" and "How do you do?".

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> **Skills:** Reading, speaking and listening
>
> **Function:** Greeting, asking for and giving information
>
> **Language focus:** Simple past tense

Starter

-- *What do you see in this picture?*

-- What questions do you think an E.N.T doctor should ask to learn about his/ her patient's throat problem?

Task 1

    Read the following conversation between Dr. Mohammed and an Indian patient and pay attention to the underlined parts.

Mr. Bala: (Knocks on the door) Excuse me, Sir.

Dr. Mohammed: Hello. Please come in. Take a seat.

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Mr. Bala:	(Sits down). Thank you, doctor.
Dr. Mohammed:	You look Indian.
Mr. Bala:	Yes, I am.
Dr. Mohammed:	When did you come to Yemen?
Mr. Bala:	Last month. In fact, I'm teaching at Hodeidah University and my name is Bala.
Dr. Mohammed:	Nice to meet you, Mr. Bala. I am Mohammed. . Now tell me your problem.
Mr. Bala:	Nice to meet you, too, Dr. Mohammed. I've got a really bad throat and a splitting headache.
Dr. Mohammed:	Do you have any other problem?
Mr. Bala:	Yes, doctor. I have an upset stomach as well.
Dr. Mohammed:	Have you got diarrohea?
Mr. Bala:	No, doctor.
Dr. Mohammed:	When did this stomach ache start? Before or after the throat pain?
Mr. Bala:	Last night. Immediately after my throat started irritating me.
Dr Mohammed:	Did you overeat last night? Did you have anything cold?
Mr. Bala:	No. I ate what I usually eat for dinner i.e. curd, chicken and bread. I had a glass of water after that.
Dr. Mohammed:	You have to cut down on meat.

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Mr. Bala:	Should I give that up, then?
Dr. Mohammed:	Not really. Try not to eat non-vegetarian food at night. Curd or milk with bread should be fine.
Mr. Bala:	Sure, doctor.
Dr. Mohammed:	I also think you need to get an endoscopic test done. Meet me with the test report for the prescription after two hours.
Mr. Bala:	Will the report be ready by then?
Dr. Mohammed:	It usually takes one and a half hours.
Mr. Bala:	See you after 2 hours then and thank you very much.
Dr. Mohammed:	You are welcome.

The underlined parts in the above conversation are in the past tense. Remember to use the simple past when you talk /ask about things related to the past.

Did you notice? Before the doctor diagnoses the patient's problem, he first greets the patient (Nice to meet you, Mr. Bala), asks about the problem (Now tell me your problem), (When did it all start?), asks further questions related to the problem (Do you have any other problem?) (Have you got diarrohea?), and prescribes some test as well as diets / medicines. (I also think you need to get an endoscopic test done), (You have to cut down on meat), (Curd or milk with bread should be fine).

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Read the above conversation with one playing the role of the patient and the other that of the doctor. The rest of the class can play the role of the patient or the doctor and ask you any other questions they would like to.

Task 2

Below are some functions with the examples mixed up. Complete the table. Then compare your answers with those of the one sitting next to you. You can use questions like 'What example did you give for "greeting"?'

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Functions	Examples
Greeting	Morning.
Asking about the problem.	Is there anyone in the family who has the same problem?
Asking further questions related to the problem	What is the problem?
Prescribing diets	Nice to meet you.
	What is the trouble?
	Does it hurt when you cough?
	You need to have juice only for two days.

Functions	Examples

Task 3

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Complete the following conversation between a doctor and a patient using six of the sentences in the box below:

Patient: Good afternoon, Doctor.

Doctor: _____. _____.

Patient: (Sits down). Thank you. (Coughs a lot).

Doctor: You seem to have flu. _____.

Patient: Mmmmm, it has been there for two days now.

Doctor: _____. Say 'AAA'.

Patient: (Opens his mouth and says, 'AAA'). My throat is burning, doctor.

     It's very painful.

Doctor: Yes, I can see that.

      _____?

Patient: Since this morning.

Doctor: _____?

Patient: Anything cold? Hmm, oh, yes. I ate a lot of ice cream yesterday.

Doctor: That's not good for your health, my dear chap.

- Did you have anything cold yesterday?

- Open your mouth, please.

- Have a seat.

- How long has the cough been there?

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Task 4

Students will get a copy of a conversation that took place between a patient and a doctor with some missing parts in it. They will listen to the conversation on a tape recorder and complete the missing parts.

A: Please come in, <u>what's the trouble?</u>

B: Good evening, doctor. I've been feeling rather sick these last few days.

A: <u>What exactly is the problem?</u>

B: I often feel uneasy and feel quite sick. Have had a lot of pain in the stomach for several days. I've also had severe headaches every now and then for over two days.

A: <u>What's your appetite like?</u>

B: Not at all good. I don't feel like eating anything.

A: All right, <u>let me take your temperature first</u>. Give me your wrist, please. There's nothing wrong with the pulse. Now take off your pullover.

       <u>Let me examine your stomach</u>. <u>Please lie down on the couch</u>.

       <u>Do you feel any pain here?</u>

B: Yes, some pain.

A: <u>And here</u>?

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B: Oh, that's quite painful!

A: All right. Put your dress on.

B: I hope there's nothing serious, doctor?

A: No, nothing serious. <u>I'm prescribing some capsules</u>.

       <u>Take them as I've suggested for three days and you will be all right.</u>

B: Thank you very much, doctor. Goodbye.

Task 5

What questions would a doctor ask to get the following responses? The first one has been done as an example for you.

(a) Doctor: **When did the problem start**?
    Patient: The problem started last month.

(b) Doctor: _____?
    Patient: No. I did not have anything for breakfast. In fact, I <u>took</u> the medicine on an empty stomach.

(c) Doctor: _____?
    Patient: No. My grandparents did not have this problem.

(d) Doctor: _____?
    Patient: I went to bed at 10.00 o'clock last night.

(e) Doctor: _____?
    Patient: I had a splitting headache as well as severe fever in the morning. Now I feel better.

Task 6

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What would you say to do the following? Work in pairs and play the role of a doctor and a patient. Then exchange roles.

1. Greet a patient.
2. Ask the patient to describe symptoms.
3. Ask further questions about the problem.
4. Ask about the duration of the problem.
5. Prescribe a diet.

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Pronunciation

Look how the letter **c** is pronounced as / **k** / in the following words:

condition, curd, doctor, come, cut, stomach, function.

Can you think of other examples in which the letter c is pronounced as / k /

Vocabulary

prescribe   ⟶   prescription

describe   ⟶   description

You must have noticed the changes that accompany the change from verb to noun. Now complete the following table.

Verb	Noun
Diagnose	
Suggest	
Pronounce	
Endure	
Complete	

Note to the Teacher

- Draw the students' attention to the fact that there are different ways of greeting e.g. a very good morning to you, good morning, morning, etc.

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- Draw your student's attention to the fact that a doctor may have to use different tenses in order to diagnose or inquire about a patient's problem as shown in tasks 1 and 5 above.

Have fun!

The patient shook his doctor's hand in gratitude and said, "Since we are the best of friends, I would not want to insult you by offering payment. But I would like you to know that I mentioned your name in my will". "That is very kind of you", said the doctor emotionally, and then added, "Can I see that prescription I just gave you? I'd like to make a little change…"

There's 'sand' in my throat,

And my nose is runny.

A 'train' in my ears

A cold's not funny!

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> **Skills**: Reading and speaking
>
> **Functions:** Defining, agreeing, disagreeing and warning
>
> **Language focus:** Modals and conditionals

Starter

Read the following conversation between two friends.

Ahmed: I feel dizzy

Ali: What is wrong? Have you had your breakfast?

Ahmed: Not yet. In fact, I woke up at 7.00 o'clock with a severe
             fever. So I took an aspirin.

Ali: That means you took the aspirin on an empty
stomach?

Ahmed: Yes.

Ali: Do not do it again. You should not take any pain-killer on an
             empty stomach. Remember also that **prevention is better than
             cure**.

Ahmed: You are right.

❖ *What does "prevention is better than cure" mean?*

Task1

Read the following the passage quickly and do the tasks that follow.

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Doctors prescribe medicines to treat diseases, or disorders of the body. However, the medicine we need is often very expensive or difficult to find. There are also many diseases which doctors cannot cure.

Suffering from any illness is an unpleasant experience. It is better to protect ourselves from diseases before they are contracted. The work of preventing diseases is known as preventive medicine. There is an English proverb which says "Prevention is better than cure". But before we can do anything to protect our health, we must first understand the causes of diseases.

Infectious Diseases

Diseases which can pass from one person to another are called infectious diseases. These diseases are caused by microbes. A microbe is a very small living thing which cannot be seen by the naked eye. Scientists study these microscopic organisms under an instrument called a microscope.

Microbes are found almost everywhere in nature: in the air, in the soil, in the water, and in to plants, to animals and to man. Not all microbes are harmful to man; many are useful. Microbes can be classified into four main groups: viruses, bacteria, protozoa and fungi.

When microbes enter into the body, they begin to multiply or breed. Their numbers increase very quickly, and they cause disorder. They attack certain cells of the body and produce poisons. These poisons are called toxins.

Parasitic Worms

A parasite is a small organism which lives on or inside a larger organism and takes its food from it. Several types of parasitic worms affect man.. Threadworm, roundworm and ascaris do not usually cause serious illness. Tapeworm and hookworm are more serious infections.

Non-Infectious Diseases

Many diseases are non-infectious. They are not caused by microbes, and they do not pass from one person to another. They are sometimes caused by living and working conditions.

Diseases which are caused by a particular kind of work are known as occupational diseases. One of the commonest of these is a skin problem known as dermatitis. Dermatitis may be caused through contact with substances such as motor oil, cloth dyes, wood and certain chemicals.

Deficiency diseases are another very important cause of ill-health. They are caused by a lack of the correct food.

Cancer is a non-infectious disease in which certain cells of the body change and begin to grow and spread in the body in an abnormal way. Different cancers affect different parts of the body. The cause of many cancers is not yet known. We know, however, that lung cancer is commonly caused by cigarette smoking.

❖ *What is the passage about*?

………………………………………………………………………………………………
………………………………………………………………………………………………
………………………………………………………………………………………………

Notice that the highlighted parts of the text are definitions. When we define something, we

1) label or name it,

2) specify the class/ category it belongs to, and

3)state the function it does.

Given below are some definitions of terms that you would come across in your study. Read them and identify the instruments they describe.

❖ An instrument with two long thin parts used for picking and holding things.

…………………………………………………………………………………

❖ An instrument used for listening to somebody's heart and breathing.

…………………………………………………………………………..

❖ An instrument used for measuring the temperature of a person's body.

…………………………………………………………………………..

Now try and define the following terms using the list given in the box above.

1. A microscope …………………………………………………….
2. An endoscope …………………………………………………….

Task2

Individual/ Pair Work

Now go back to the passage. Read it carefully and find the answers to the questions given below. Discuss your answers with your partner.

a. Why do doctors prescribe medicines to patients?

……………………………………………………………………………………

……………………………………………………………………………………

……………………………………………………………………………………

……………………………………………………………………………………

…………………………………………………

b. Give some examples of how microbes can be useful to man.

……………………………………………………………………………………

……………………………………………………………………………………

……………………………………………………………………………………

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…………………………………………………………………………….……….……….……
…………………………………………………

c. Can we say that all parasitic worms are microbes? Why or why not?

…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………

d. A patient comes to you. He thinks that **HIV** can spread through mosquito
bite. How will you convince him that what he thinks is wrong?

…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………
……………………………………………..

❖ *Now frame questions to which the underlined parts of the sentences below
are the answers*:

e. …………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………
……………………………
<u>No</u>. *Not all microbes are dangerous; many of them are useful.*

f. …………………………………………………………………………………………
…………………………………………………………………………………………
………………………..

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Infectious diseases <u>are diseases which can pass from one person to another.</u>

g. …………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………
………………………………………

Deficiency diseases <u>are caused by the lack of the right food.</u>

h. …………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………
………………………………………

<u>Viruses, bacteria, protozoa and fungi</u> are the kinds of microbes mentioned in the   text.

i. …………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………
………………………………………

Microbes are found almost <u>everywhere in nature.</u>

Task3

Discussion

Read the following extract from an interview with a doctor published in The Hindu, an Indian Newspaper, carefully and do the tasks that follow it. You can check the dictionary for any difficult word*.*

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Coming back to the issue of controlling modifiable risk factors, how does one do this?

First, people who smoke need to be persuaded to quit smoking or at least reduce it.

Second, owing to economic development there is a section of the urban population that has a sedentary lifestyle and is prone to heart diseases. The projections for the year 2025 are that half of India's population would be living in the urban areas. So, those exposed to heart diseases will also increase. Thus it is important to encourage physical activity.

Third, check your blood pressure regularly. If it cannot be controlled by physical activity, plenty of medicines are available.

Fourth, high cholesterol or high fat content. If that is not reduced, the walls of the blood vessels will narrow and constrict the blood flow, which will cause hypertension. At some point the narrowing blood vessel is going to close, stopping the blood flow and leading to a heart attack. A heart attack means that the cells around that area are dead.

The most common risk factor is diabetes. Type Two diabetics are non-insulin-dependent. This is owing to increased sugar intake. This can be tackled easily by consuming less sugar and at the same time taking lots of fresh vegetables and fruits. This sugar crosses the blood barrier at a much slower rate than refined sugar, which increases sugar levels.

Blood pressure can also be controlled by reducing salt intake. Vegetarians get heart problems primarily because most often the food is over-cooked and leaves no nutrients. This requires education not of the patient alone but of the person who cooks.

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Thus, there are several proven methods of controlling and avoiding heart diseases. And, as can be seen, it is a multi-factor, multi-partner effort even within society and a family. It is just not an issue of money from developed countries.

a) Do you agree with all the methods mentioned by the doctor to avoid heart disease? Discuss with your partner.

b) If you were asked to talk about the methods necessary for avoiding heart diseases, what would you add to what the doctor mentioned in the interview?

c) Talk to your partner about any work which people have done in any village/ town/ sub-town/ city that you know to prevent illness.

d) Much of a doctor's job consists of treating and curing illness. This is what we call curative medicine. Should preventive medicine also be an important part of a doctor's job? Why do you think so?

Agreeing and disagreeing

We need to be polite especially when disagreeing with someone .The following are some useful ways of agreeing and disagreeing politely with people.

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Agreeing	Disagreeing
Yes, I agree with you.	I'm afraid I can't agree with you on that point.
Yes, it is.	I don't fully agree with you.
Quite.	I wonder if that is right.
Of course you are right.	I can't quite see myself agreeing to that.
Exactly.	I don't quite agree.
I couldn't agree more.	I'm sorry I disagree with you.
That's just what I have in my mind.	You couldn't be more wrong.
You are quite right.	I'm not sure I really agree with you.
	Certainly not!
	Come off it!
	Of course not!

There are three kinds of conditional sentences.

1. If they interview me, I will tell them about better methods of controlling heart diseases.

   The verb in the if- clause is in the present tense and the verb in the main clause is in the future. This kind of sentence expresses a condition that is likely to be fulfilled.

2. If she came to me, I would help her.

   The verb in the if-clause is in the simple past and the verb in the main clause is in the present conditional. This sentence expresses a condition that is unlikely to be fulfilled.

3. If they had brought the patient earlier, they would have met the best surgeon in the Middle East.

   The verb in the if-clause is in the past perfect tense and the verb in the main clause is in the perfect conditional. This type of sentence expresses a condition impossible of fulfillment because the sentence refers to a past event.

Task 4

Study the following table carefully and do the tasks given below:

Vaccination or Disease	Recommendations or Requirements for Vaccine-Preventable Diseases
Routine	Recommended if you are not up-to-date with routine shots such as measles/mumps/rubella (MMR) vaccine, diphtheria/ pertussis /tetanus (DPT) vaccine, etc.
Yellow Fever	CDC yellow fever vaccination recommendation for travelers to Sudan. Vaccination should be given 10 days before travel and at 10 year intervals if there is on-going risk.
Hepatitis A or Immune Globulin (IG)	Recommended for all unvaccinated people traveling to or working in countries with an intermediate or high level of hepatitis A virus infection where exposure might occur through food or water. Cases of travel-related hepatitis A can also occur in travellers going to developing countries with "standard" tourist itineraries, accommodations, and food consumption behaviors.
Hepatitis B	Recommended for all unvaccinated persons traveling to or working in countries with intermediate to high levels of endemic HBV transmission and who might get exposed to blood or body fluids, through medical treatment, such as for an accident, and for all adults requesting protection from HBV infection.
Typhoid	Recommended for all unvaccinated people traveling to or working in Central Africa, especially if visiting smaller cities, villages, or rural areas and staying with friends or

	relatives where exposure might occur through food or water.
Meningococcal (meningitis)	Recommended if you plan to visit countries that experience epidemics of meningococcal disease during December through Junes.
Rabies	Recommended for travelers spending a lot of time outdoors, especially in rural areas, involved in activities such as bicycling, camping, hiking, or work. Also, children are considered at higher risk as they tend to play with animals and may not report bites.
Polio	Recommended for adult travellers who have received a first dose with either inactivated poliovirus vaccine (IPV) or oral polio vaccine (OPV). They should receive another dose of IPV before departure.

Do you know what function the highlighted words in the table above serve? They indicate obligation, possibility, suggestion, warning, etc. and they are called modals.

❖ May is used to indicate possibility. 'Might' and 'could' are also used in this sense. 'May' is more formal than the other two:

1. That may happen if we are careless.
2. His ideas might be very similar to yours.
3. That could be harmful to your health.
4. He might not understand the case of this patient.

❖ 'Can' and 'could' are mainly used to indicate ability, skill, awareness or capability.

1. He could be a very unpleasant neighbor.
2. I can see only the bold letters, not the small ones.
3. After the accident she could barely walk.
4. She got excellent treatment at Al-Hodeidah Specialist Hospital. She can walk now like a normal person.

❖ "Should" is also used to indicate importance of an action, as shown in the example below:

1. You should keep the medicine in a fridge.

Task 4

Work in pairs. *What precautions will you ask each of the following people who come to you for consultation to take? One of you plays the role of the person who is travelling and the other that of the doctor. Remember to use modals in your speech.*

1. Muhammad is a Yemeni civil engineer. He is travelling to Somalia and planning to stay with two of his Somali friends in a village.

2. A Yemeni student called Abdullah is going abroad. He has neither taken an inactivated poliovirus vaccine nor polio vaccine.

3. Ali, a Yemeni teacher of English, is travelling to the Sudan. He does not remember whether he has been given the vaccines Hepatitis A and Hepatitis B or not.

4. Sami is a civil engineer. He is to supervise the establishment of a school in a village called Al-Ogoor in which there are many snakes.

Task 5

You are in a meeting along with three other doctors. A patient with high fever and vomiting sensations is brought to you. You look at his/her symptoms and diagnose his/her illness. Discuss with the other three doctors the different

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possibilities. If you like, you can finally conclude that he/she has malaria. Remember to use modals in your discussion. You can also use the clues given below.

Body – yellow – jaundice ------------------------------

Lung infection – pneumonia ------------------------------

High fever – shivering – malaria-----------------------------

When you discuss a patient's problem / illness with another doctor, you can use expressions like:

- He has high fever. Could it be a viral infection?

- I think it might be --------

- It could also be ------

A slight change in spelling can change pronunciation too. Note, for example, warm / wɔ:m / and worm / wɜ:m /, wood / wʊd / and word / wɜ:d /. Practice pronouncing the following words:

would --- world

look --- lock

knock --- neck

Words which differ in one sound, with the result of a change in meaning, are called minimal pairs. Can you think of more examples?

Vocabulary

A prefix is a syllable that is placed at the beginning of a word to modify or change its meaning. "Hyper-" means beyond, more than or more than normal. The opposite of 'hyper –' is' hypo-' It means under, below normal.

Can you cite more words starting with <u>hyper</u> – and <u>hypo</u>-?

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Just for fun!

A: My daughter believes in preventive medicine, doctor.

Doctor: Oh, really?

A: Yes. She tries to prevent me from taking it!

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> **Skill:** Listening, speaking and writing.
>
> **Functions:** Explaining and making suggestions
>
> **Language focus:** Adverbs and interrogatives

Starter

What do you think the symptoms of influenza are? Are they similar to those of leukemia?

Task 1

Read the following text and do the task that follows it:

A 63-yea -old bachelor who worked as a bank clerk developed symptoms similar to those which had affected several of his colleagues who had been diagnosed as having influenza. He felt feverish, had a running nose, aches in his muscles and generalized <u>malaise</u>. He therefore stayed off work in his bed sitting room. After 48 hours the landlady noticed that the milk on the doorstep had not been taken in for the previous two days and also that his cat had not been fed. On entering his room she found him confused and delirious. She called a doctor, who immediately had him admitted to hospital.

The only significant history was that five years previously, when he had last consulted his general practitioner because of bleeding <u>hemorrhoids</u>, a routine blood count had been performed which showed Hb 12.6 g/dl with normal film, and white count 21,000/mm^3 (21 x 10^9/1), 90 percent of which were <u>lymphocytes</u>. At that stage he was referred to hospital, where it was found that he had some enlarged <u>lymph nodes</u> in both sides of the neck and both <u>axillae</u>, and that the spleen tip was palpable. Chronic lymphatic <u>leukaemia</u> was

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diagnosed. The patient was kept under six-monthly follow-up, with no change in the signs or blood picture. He had remained <u>asymptomatic</u> throughout the five-year period.

In the personal history, his weight had been steady and his bowels were now less troublesome since he had taken bran each morning, which had a good effect. He smoked 30 cigarettes a day, and some times more.

a) Sit in pairs and read the passage silently. Then role-play the situation as a doctor and a patient.

b) How would you explain the underlined terms to a patient's attendant in simple English? One is done as an example for you.

1. Leukaemia is a type of cancer in which the blood contains too many white blood cells, causing weakness. It can be serious in some cases.

The prefix (a-) pronounced /ei / means 'not'. <u>Asymptomatic</u> is the opposite of <u>symptomatic</u>. Look up the dictionary for words to which you can add the prefix (a-) to get their opposites.

Task 2

Your teacher will play a tape-recorded dialogue. Listen to it carefully and do the task that follows it:

Doctor: I think I have **already** met you somewhere.

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Patient:	Here, doctor. I was here last year.
Doctor:	Mmm Oh, yes. You are teacher Ameena. Tell me. What's bothering you?
Patient:	I feel like vomiting.
Doctor:	Have you any trouble with your stomach or bowels?
Patient:	Well, I sometimes get a bit of indigestion.
Doctor:	I see, and could you tell me more about that?
Patient:	Well, it only comes on if I have something hot and spicy, you know, like a curry.
Doctor:	Does anyone in your family have an ulcer problem?
Patient:	Only my husband.
Doctor:	I see, you don't have to worry then. And what's your appetite like?
Patient:	Not bad.
Doctor:	And any problems with your waterworks?
Patient:	No, they're all right.
Doctor:	And are you still having your periods **regularly**?
Patient:	No, they stopped, must have been five years ago.
Doctor:	Any pain in the chest, any palpitations, swelling of the ankles?
Patient:	Not really, doctor.
Doctor:	And what about coughs or wheezing or shortness of breath?
Patient:	Only when I have a cold.

Doctor: Have you noticed any weakness or tingling in your limbs?

Patient: No, no I **really** can't say that I have.

Doctor: What sort of mood have you been in **recently**?

Patient: I've been feeling a bit down. You know, I'm not sleeping well.

> Did you notice? The highlighted words in the dialogue above serve a specific function. They are called adverbs. An adverb is a word that tells us more about a verb. It "qualifies" or "modifies" a verb e.g. she ran <u>quickly</u>. It can also modify an adjective (she is <u>really</u> sick) or another adverb (it works <u>very</u> well).

Based on your understanding of this patient's case, state the problems that she has and say what you think the causes of these problems are. Discuss in groups of 3.

Task 3

Below is a patient's report. Read it carefully and do the task that follows it.

Saleh is a 42–year-old man who is currently an in-patient at hospital. His medical record shows that he has been in and out of hospital frequently for 25 years with "heard voices", as described by him. On admission this time, he says, "I thought my family members were following me. I hear a voice, usually a woman's voice, and she's tormenting me. I can't eat well."

Unlike others, he finished his primary education in TEN years. He has been separated from his wife and six children for seven years. He drinks coffee

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and smokes. His father was suffering from alteration in perception and thought process. Ms Nawal is Saleh's primary nurse. When Saleh met her, he was dressed in pajamas and bathrobe. His hygiene is bad, and he is badly undernourished; he tells the nurse "I hear voices at night telling me to jump off the top roof". Ms. Nawal notes the following symptoms:-

1. Echopraxia   2. Bloking   3. Stereotype movements
4. Neologisms   5. Depersonalization   6. Mannerism

During the first interview, Saleh only occasionally makes eye contact and speaks in a low monotone. At times, he glances about the room as if distracted, mumbles to himself, and appears visibly upset.

---*Discuss the case and say how you can help the patient. You can suggest different lines of treatment.*

Task 4

Listen to the dialogue carefully and complete the personal details and present complaint section of the case notes below as you listen

SURNAME		FIRST NAME	
AGE	SEX	MARITAL STATUS	
OCCUPATION			
PRESENT COMPLAINT			
O/E			

General Condition			
ENT			
RS			
CVS			
GIS			
GUS			
CNS			
IMMEDIATE PAST HISTORY			

❖

❖

❖ *Now work in pairs and role- play the consultation /situation /conversation. You can refer to the above table.*

When we build a patient's history, we usually ask about a few things:

General information / Personal details

1. What's your name?
2. How old are you?
3. What's your occupation?
4. Where do you live?
5. Are you married?
6. Do you smoke? How often?

Present illness

Starting the interview

What's brought you along today?

What can I do for you?

Type of pain / severity of problem

Can you describe the pain?

Is it continuous or does it come and go?

How long does it last?

Relieving / aggravating factors

Is there anything that makes it better / worse?

Does anything make it better / worse?

Precipitating factors

What seems to bring it on?

Does it come on at any particular time?

Medication

Have you taken anything for it?

Did (the tablets) help?

Other symptoms

Apart from your (headaches) are there any other problems?

Previous health / past history

How have you been keeping up to now?

Have you ever been admitted to hospital?

Have you ever had (headaches) before?

Has there been any change in your health since your last visit?

Family history

Are your parents alive and well? ,

What did he / she die of?

How old was he/she?

Does anyone else in your family suffer from this problem?

- ❖ To rephrase, if the patient does not understand, try another way of expressing the same function, for example:

    What caused this?

    What brought this on?

- ❖ You can use the word "any" to make your questions short. For example, instead of asking the question "Have you any trouble passing water?" you can say "Any trouble passing water?"

Task 5:

Read the case report given below paying particular attention to the order in which the information is presented. Then do the task that follows it.

A 43-year-old man had headaches that usually started with a feeling of blood rushing to the right eye quickly followed by severe pain. The headache usually lasted 20 minutes to two hours and, if excruciating, was accompanied by scotomata of flashing lights in the right eye, nausea, and vomiting. Diurnal or nocturnal attacks have occurred about twice each day for four to eight weeks every year since 1969. Personal and family histories were non-contributory, findings from general examination; EEG, skull x-ray film, and nuclide brain scan were unremarkable.

Take the above case–report as an example, and write out the case report of this patient.

35-year-old woman Mrs. Amal telephoned A&E – 3 am c/o severe vomiting five hours duration – very loose motions several times – same period – some cramping pains – central/ lower abdomen – started about six hours prior – call – smoke and alcohol no – previous evening egg mayonnaise sandwiches

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No dysuria – period's regular – last menstrual period two weeks ago – appendicectomy 15 years before – nullipara.

Examination – temperature 38.1C – not anemic – pulse 110/70/min/regular – blood pressure 108/82 – respiratory rate 19/min – tongue dry – some tenderness centre abdomen / left iliac fossa – no guarding – auscultation bowel sounds prominent no lymphadenopathy.

Pronunciation

Observe the shift of stress in the following examples:

symptom ⟶ symptomatic

problem ⟶ problematic

lymph ⟶ lymphatic

Adding "ic" does not only change a noun into an adjective, but also shifts the stress from the first syllable to the last but one syllable. Try to pronounce the words provided below with the correct articulation of the stress.

therapy ⟶ therapeutic

diagnose ⟶ diagnostic

lethargy ⟶ lethargic

organ ⟶ organic

Vocabulary

Adding the suffix – **ful** usually changes the word from noun into adjective.

E.g.   meaning ⟶ meaningful

        pain ⟶ painful

        care ⟶ careful

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hand   ⟶   handful

Can you give more examples of this sort?

Unit Five   **With a patient (II)**

> **Skills:** Reading, listening and speaking
>
> **Functions:** Giving instructions / advice
>
> **Language focus:** Imperatives

Starter

What is the first word that comes to your mind as soon as you hear the word "patient (n)"?
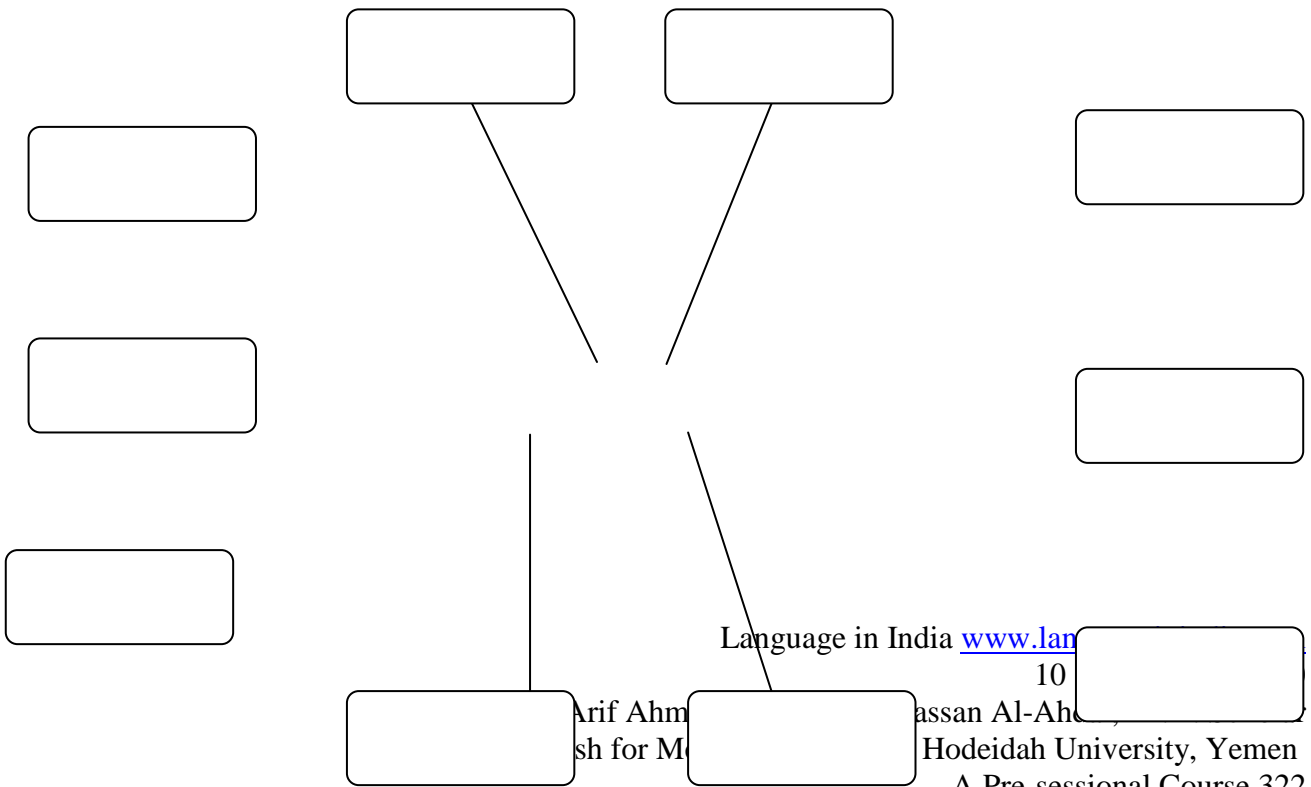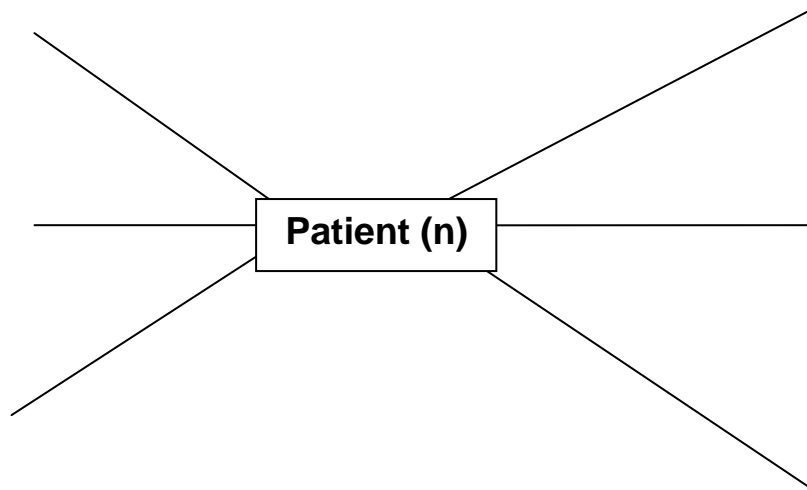
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Patient (n)

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Task 1

Now let's read the following conversation between a doctor and a patient.

Mr. John: Good morning, doctor.

Dr. Fuaad: Good morning. What can I do for you?

Mr. John: Well, I am John. I met Dr. Mohammad yesterday and explained my stomach problem to him.

Dr. Fuaad: Fine. Did he ask you to go in for any test?

Mr. John: Yes, he did.

Dr. Fuaad: Did you meet him with the test report?

Mr. John: No, I didn't.

Dr. Fuaad: Show me the report, then.

Mr. John: Here you are, doctor.

Dr. Fuaad: (looks at the report). The report says that you have acid reflux.

Mr. John: What does that mean?

Dr. Fuaad: It is the backflow of stomach acid into your food pipe.

Mr. John: I see. Is that the reason why I sometimes choke when I'm asleep?

Dr. Fuaad: Yes. How often do you have this heartburn problem?

Mr. John: What do you mean by heartburn?

Dr. Fuaad: It is simply the thrust of stomach acid into the mouth.

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Mr. John: Once a month actually. When this heartburn occurs, I feel I'm dying. Is it so serious, doctor? Isn't there any medicine for that?

Dr. Fuaad: Look, Mr. John I'll prescribe some medicines. However, prevention is the best medicine. By the way, do you like spicy food?

Mr. John: Yes, I do. I like it very much actually.

Dr. Fuaad: You'd better stop taking spicy food. You ought to be careful about the things you eat.

Mr. John: What do I do now?

Dr. Fuaad: You should take the medicine at the prescribed time. You also need to follow a diet rich in fiber every day, eat smaller, more frequent meals, have your meal at least 2 to 3 hours before you sleep, limit your intake of acid-stimulating food and beverages, stop smoking, maintain a reasonable weight, exercise regularly, keep your head raised a few inches while you sleep and relax. That is all you need to do to be well.

Mr. John: Thank you very much, doctor.

Dr. Fuaad: Welcome. Meet me next month for a check-up.

Mr. John: Sure, doctor. Goodbye.

Dr. Fuaad: Take care. Bye.

Did you notice? After giving the necessary advice, prescribing medicine and diet, the doctor tells the patient when to come for the next check- up.

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The underlined verbs above serve a specific function. They tell the patient what to do. They usually come at the beginning of a sentence. The subject in each of these sentences i.e. you, is implied. When doctors give instructions to patients, they use this kind of sentences.

To give advice / make suggestions, you can use expressions like:

- I'd suggest that you...
- Perhaps you ought to …
- I think you should ….
- You'd better ….
- Why don't you…..?
- My advice would be to ……
- I'd advise you to ….
- I'd recommend ….

The expression had /'d better can be used to indicate a course of action which would be wise or advisable. Instead of saying 'It would be advisable for you to stay in bed', doctors usually say "you'd better stay in bed".

Pair work

Think of 5 pieces of advice that a doctor would give to a patient with anaemia and a bad cold. Then communicate them to your partner using the expression 'had better'. Now your partner gives you five instructions e.g. "Eat an apple every day".

Task 2

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Role play

Take turns in asking each other to clarify the instructions that the doctor has given to the patient in the conversation above. The one who asks the question plays the role of the patient and the one who answers plays the role of the doctor.

Example:

Patient: Do you mean that I should eat dinner two hours sharp before I sleep?

Doctor: Not really. I simply mean that you should not go to bed immediately after eating.

Task 3

What responses will you give to the patient's questions given below?

- Does 'heartburn' have anything to do with the heart?
- Is it a serious problem? (Reduce the patient's anxiety/ worry).
- Are there any drugs for treating acid reflux?

Task 4

Students will listen to a conversation, based on which they have to answer the questions following the tape script given below.

Doctor: Well, Muneer. There is really nothing wrong with you. That's what the reports show.

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Muneer: Then why is it that I'm always so tense?

Doctor: I think your condition has a lot to do with your way of life or habits.

Muneer: Way of life? Habits?

Doctor: Yes, now tell me. You smoke, don't you?

Muneer: I'm afraid I do, doctor.

Doctor: Rather heavily, I imagine.

Muneer: About fifty a day, I suppose.

Doctor: You should do your best to stop, you know.

Muneer: I've tried to give up smoking several times but that doesn't seem possible.

Doctor: Fifty a day is overdoing it, you must admit. You must cut it down. I want you to make a real effort.

Muneer: Well, it's easy to say 'give it up' or cut down on it but, you know how difficult it is.

Doctor: In my opinion you have no choice. Either you make a real effort or there's no chance of your feeling better. I could prescribe a tranquillizer but would that help? I would like to see you normal again. And that's why I want to know a few more things.

Muneer: Right, doctor.

Doctor: Your eating habits, for example. What do you normally eat during the day?

Muneer: I'm a good eater. At about 8.30 a.m. I eat a good breakfast.

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Doctor: A good breakfast? What is it?

Muneer: Usually three or four egg sandwiches, with three or four cups of tea. I really enjoy my breakfast.

Doctor: I can see you do, but I'd advise you to eat much less. We'll come to that later on. Go on.

Muneer: Before lunch, I have one or two samosas at about at 11.00 a.m. and a cup of tea. I've got so much work in the office that I begin to feel hungry one or two hours before lunch time.

Doctor: And then lunch?

Muneer: Around 1.15 p.m. Lunch has to be quick because I've to reach office at 2.00 p.m. and I want 15 minutes for the newspaper.

NB: *the teacher has to pause the tape at this stage and ask the students the following questions*:

1. *What do you think the patient's problem is?*
2. *What advice /instructions would him?*

❖ *Now listen to the doctor's advice/ instructions and check whether you have come up with the right prediction and appropriate advice/ instructions or not.*

Doctor: Try not to hurry through lunch.

Muneer: But I do make up for it in the evening. My dinner is rather heavy and I eat it leisurely.

Doctor: You do obviously enjoy your food. That's fine. But I recommend that you eat less, and eat healthy food.

Instead of having that enormous breakfast, for example, take something light –a slice of bread with salad and a cup of milk. And no samosas at 11.00 a.m. A cup of tea should do. It isn't good to have three or more cups of coffee.

Muneer: I see. What about lunch?

Doctor: Eat your lunch leisurely. Remember that your health is at stake, not your job. After dinner, you should go for a walk. And have it a little early too.

Task 5

Pair work

Mr. Saleh neither sleeps nor eats well. Moreover, he is an over – anxious person. Therefore he has some health problems. He visits a doctor. Role-play the dialogue before the class without preparing for it. The doctor has to give the patient the necessary advice and instruction.

Pronunciation

The following words contain the long vowel /ai/.

prescribe, describe, sometimes, spicy, advice

Pick the words from the list given below that do not have the /ai/ sound. advice, fly, explain, while, exercise, after.

Vocabulary

A phrasal verb is a combination of a basic verb + another word or words (particle). The other word(s) can be prepositions and/or adverbs. For example, <u>give up</u>, <u>get up</u>, <u>put aside</u>, and <u>take down</u>. The important thing about phrasal verbs is that their meaning is not equal to the meaning of the verb and the particle. Look at the following examples:

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- ❖ Fall out = (of hair, teeth) become loose and unattached

- ❖ Get over something = recover from an illness, loss or difficulty

- ❖ Bring something up = vomit

- ❖ Come down with something or some disease = become sick

- ❖ Look after = take care of

- ❖ Give up = stop

- ❖ Look up = search for a meaning of a word in the dictionary

- ❖ Look for = search for something

Can you think of more examples of phrasal verbs?

Note to the Teacher

Tell the class that a doctor plays an important role in changing a patient's false notions. Take the help of the tape-recorded dialogue (task 4) to do so.

Just for fun!

Patient: Doctor, I am here to seek your advice, please.

Doctor: Sure, tell me.

Patient: You said that I should be careful about the things I eat.

Doctor: Yes. I think you should.

Patient: What do you advise me to eat, then?

Doctor: Since rice is good for your health, you'd better eat a plate of
             kabsah/ biriyani 3 times a day.

Patient: Shall I have that before or after the regular meal, doctor?

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> **Skills:** Reading, writing, and speaking
>
> **Functions:** Listing, note-making, summarizing, asking for clarifications, expressing opinions and assuring
>
> **Language focus:** Conjunctions

Starter

1. *What do you see in the above picture?*
2. *Why do teeth problems seem common in Yemen?*

Task 1

Read the following interview taken from Yemen Times Newspaper and do the tasks that follow it:

Q: Among which group of the population is tooth decay more prevalent?

A: Chewing qat and shamma are widespread. They contribute directly to bad oral hygiene and an increasing incidence of certain oral diseases such as periodontal diseases and oral cancer. For these reasons, paying real attention to oral hygiene is considered one of the primary needs for good health care.

This is particularly important as there is no research center to study the side-effects of chewing qat and using shamma.

Q: How important is oral hygiene for pregnant women?

A: I always advise mothers of the importance of primary health care to them and their children. As a dentist, I find great negligence among pregnant women about oral health. This goes far beyond the extraction of one tooth or more after each delivery. Some physiological changes may occur during pregnancy due to poor oral hygiene. There are no national plans for combating the spread of dental diseases, especially during pregnancy.

Q: What about dental diseases among children?

A: There are dental problems among the majority of Yemeni children, especially from the age of three up to their teens. Many oral health problems occur due to lack of fluoride in drinking water. Schools do not give children instructions on how to clean their teeth and the use of preventive methods.

The loss of deciduous teeth before the appearance of the permanent ones leading to malocclusion and malnutrition is one major problem which affects Yemeni youths. Because there is no planning for oral hygiene, I have made much effort to advise and treat my patients whenever possible.

As you may know, the percentage of fluoride in water in Sanaa is less than what is required; this leads to reduced resistance against dental caries. While in other governorates, fluoride is extremely high causing fluorosis, the teeth become yellowish and ugly, resulting very frequently in psychological problems especially among females.

Q: How harmful is qat chewing?

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A: From my personal experience (12 years), I found a great number of patients losing their teeth at an early age as a result of chewing qat and using shamma. Also, periodontal diseases are quite common among people who chew qat. Almost all qat chewers drink a sweet drink which makes the matter worse or compounds the problem. In view of the problems I mentioned previously, I started writing in newspapers and taking part in TV programs in order to give proper advice to everyone in the society. It is an extended service.

Q: How developed is dentistry in Yemen?

A: Before the revolution of September, 1962, there were no dentists in Yemen. After the revolution, a number of students were sent to study dentistry in other Arab countries. In the 1970s there were only three or four dentists in this country. The number rose to 12 in the 1980s. There are now about 250 Yemeni dentists. There is a lot of cooperation between them and other Arab countries in this field. There are now five dentistry schools in Yemen.

Q: What are the other causes of dental cavities?

A: Some bacteria, found naturally in the mouth, secrete an acid that dissolves the teeth enamel. Some people have high acidity in their mouths (pH higher than 7.5), causing caries despite their cleaning their teeth regularly. Oral hygiene comes with the increasing of public awareness. Water fluoridation is also very important, especially at schools and urban centers in general.

Q: How do you advise readers to take better care of their teeth?

A: Brushing and cleaning the teeth daily is a must. I also call on the authorities to combat qat planting and consumption. More research should be done to evaluate the risks of this bad habit - qat chewing.

'While' is a conjunction; it links two clauses. Its primary meaning is "during the time that...". An example is:

"The days were too hot while we were on vacation".

Look at the following example taken from this unit:

"While in other governorates, fluoride is extremely high"

Did you notice? The meaning of "while" in the above sentence is "whereas".

Work in pairs

1. *List out the disadvantages of chewing qat mentioned in the interview.*

2. *Can you think of 3 more questions you would want to ask a Yemeni dentist about dentistry in Yemen? Ask your partner these questions.*

> To list anything, you can use numbers as 1, 2, 3, etc or letters as (a), (b), (c), etc.

Post – class task

1. *Gather some more information from other sources about the disadvantages of chewing qat and make a powerpoint presentation to your classmates about the topic in the next class.*

Tips for effective Powerpoint Presentations:

❖ Do not make the audience merely stare at images. Remember that you are creating slides to support a spoken presentation.

❖ The most effective Powerpoint presentation is simple – charts that are easy to understand, and graphics that highlight what the speaker is saying.

❖ Use no more than five words per line and no more than five lines per individual slide.

❖ Don't mimic what's on the screen.

❖ A striking contrast between words, graphics and the background can be very effective in conveying both a message and emotion.

❖ When you finish drafting your Powerpoint slides, assume you're just one of the persons listening to your remarks as you review them.

Task 2

Two of your friends are going to make presentations. Listen to them carefully and do the tasks that follow.

Presentation A

Humans are diphyodont, meaning that they develop two sets of teeth. The first sets of 20 deciduous teeth are also called the milk, primary, temporary, falling-off, or baby teeth. They begin to develop before birth and begin to fall out when a child is around 6 years old. They're replaced by a set of 32 permanent teeth, which are also called secondary or adult teeth.

Around the 8th week after conception, oval-shaped tooth buds consisting of cells form in the embryo. These buds begin to harden about the 16th week. Although teeth aren't visible at birth, both the primary and permanent teeth are forming below the gums. The crown, or the hard enamel-covered part that's visible in the mouth, develops first. When the crown is fully grown, the root begins to develop.

Between the ages of 6 months and 1 year, the deciduous teeth begin to push through the gums. This process is called eruption or teething. At this point, the crown is complete and the root is almost fully formed. By the time a child is 3 years old, he or she has a set of 20 deciduous teeth, 10 in the lower and 10 in the upper jaw. Each jaw has four incisors, two canines, and four molars. The molars' purpose is to grind food, and the incisors and canine teeth are used to bite into and tear food.

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The primary teeth help the permanent teeth erupt in their normal positions; most of the permanent teeth form close to the roots of the primary teeth. When a primary tooth is preparing to fall out, its root begins to dissolve. This root has completely dissolved by the time the permanent tooth below it is ready to erupt.

Children start to lose their primary teeth, or baby teeth, at about 6 years old. This begins a phase of permanent tooth development that lasts over the next 15 years, as the jaw steadily grows into its adult form. From ages 6 to 9, the incisors and first molars start to come in. Between ages 10 and 12, the first and second premolars, as well as the canines, erupt. From 12 to 13, the second molars come in. The wisdom teeth (third molars) erupt between the ages of 17 and 21. Sometimes there isn't room in a person's mouth for all the permanent teeth. If this happens, the wisdom teeth may not come through at all. Overcrowding of the teeth is one of the reasons people get braces during their teenage years.

The first step of digestion involves the mouth and teeth. Food enters the mouth and is immediately broken down into smaller pieces by our teeth. Each type of tooth serves a different function in the chewing process. Incisors cut foods when you bite into them. The sharper and longer canines tear food. The premolars, which are flatter than the canines, grind and mash food. Molars, with their points and grooves, are responsible for the most vigorous chewing. All the while, the tongue helps to push the food up against our teeth.

As we chew, salivary glands in the walls and floor of the mouth secrete saliva, which moistens the food and helps break it down even more. Saliva makes it easier to chew and swallow foods (especially dry foods), and it contains enzymes that aid in the digestion of carbohydrates.

Once food has been converted into a soft, moist mass, it's pushed into the throat (or pharynx) at the back of the mouth and is swallowed. When we swallow, the soft palate closes off the nasal passages from the throat to prevent food from entering the nose.

Proper dental care - including a good diet, frequent cleaning of the teeth after eating, and regular dental checkups - is essential to maintaining healthy teeth and avoiding tooth decay and gum disease. Some common mouth and dental diseases and conditions - some of which can be prevented, some of which cannot - are listed below.

- ❖ Aphthous stomatitis (canker sores). A common form of mouth ulcer, canker sores occur in women more often than in men. Although their cause isn't completely understood, mouth injuries, stress, dietary deficiencies, hormonal changes (such as the menstrual cycle), or food allergies can trigger them. They usually appear on the inner surface of the cheeks, lips, tongue, soft palate, or the base of the gums, and begin with a tingling or burning sensation followed by a painful sore called an ulcer. Pain subsides in 7 to 10 days, with complete healing in 1 to 3 weeks.

- ❖ Cleft lip and cleft palate are birth defects in which the tissues of the mouth and/or lip don't form properly during fetal development. Children born with these disorders may have trouble feeding immediately after birth. Reconstructive surgery in infancy and sometimes later can repair the anatomical defects, and can prevent or lessen the severity of speech problems later on.

- ❖ Enteroviral stomatitis is a common childhood infection caused by a family of viruses called the enteroviruses. An important member of this family is coxsackie virus, which causes hand, foot, and mouth disease. Enteroviral

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stomatitis is marked by small, painful ulcers in the mouth that may decrease a child's desire to eat and drink and put him or her at risk for dehydration.

❖ Herpetic stomatitis (oral herpes). Children can get a mouth infection with the herpes simplex virus from an adult or another child who has it. The resulting painful, clustered vesicles, or blisters, can make it difficult to drink or eat, which can lead to dehydration, especially in a young child.

❖ Periodontal disease. The gums and bones supporting the teeth are subject to disease. A common periodontal disease is gingivitis - inflammation of the gums characterized by redness, swelling, and sometimes bleeding. The accumulation of tartar (a hardened film of food particles and bacteria that builds up on teeth) usually causes this condition, and it's almost always the result of inadequate brushing and flossing. When gingivitis isn't treated, it can lead to periodontitis, in which the gums loosen around the teeth and pockets of bacteria and pus form, sometimes damaging the supporting bone and causing tooth loss.

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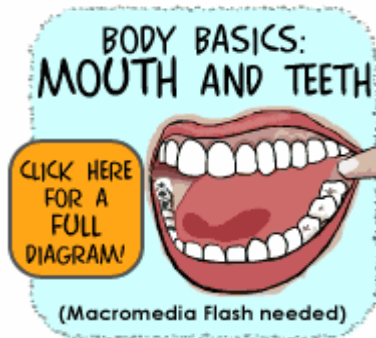
Presentation B

Good morning, ladies and gentlemen. I am here today to talk to you about the development of the mouth and teeth. My presentation will last for twenty minutes. But before I come to that, I want to tell you something. If you have any questions, please keep them till the presentation is over. I will then be glad to try to answer them.

To begin with, humans are diphyodont, That is, they develop two sets of teeth. The first sets of 20 deciduous teeth are also called the milk, primary, temporary, falling-off, or baby teeth. They begin to develop before birth and begin to fall out when a child is around 6 years old. They're replaced by a set of 32 permanent teeth, which are also called secondary or adult teeth.

Around the 8th week after conception, oval-shaped tooth buds consisting of cells form in the embryo. These buds begin to harden about the 16th week. Although teeth aren't visible at birth, both the primary and permanent teeth are forming below the gums. The crown, or the hard enamel-covered part that's visible in the mouth, develops first. When the crown is fully grown, the root begins to develop.

Between the ages of 6 months and 1 year, the deciduous teeth begin to push through the gums. This process is called eruption or teething. At this point, the crown is complete and the root is almost fully formed. By the time a child is 3 years old, he or she has a set of 20 deciduous teeth, 10 in the lower and 10 in the upper jaw. Each jaw has four incisors, two canines, and four molars. The molars' purpose is to grind food, and the incisors and canine teeth are used to bite into and tear food.

The primary teeth help the permanent teeth erupt in their normal positions; most of the permanent teeth form close to the roots of the primary teeth. When a primary tooth is preparing to fall out, its root begins to dissolve. This root has completely dissolved by the time the permanent tooth below it is ready to erupt.

Children start to lose their primary teeth, or baby teeth, at about 6 years old. This begins a phase of permanent tooth development that lasts over the next 15 years, as the jaw steadily grows into its adult form. From ages 6 to 9, the incisors and first molars start to come in. Between ages 10 and 12, the first and second premolars, as well as the canines, erupt. From 12 to 13, the second molars come in. The wisdom teeth (third molars) erupt between the ages of 17 and 21. Sometimes there isn't room in a person's mouth for all the permanent teeth. If this happens, the wisdom teeth may not come through at all. Overcrowding of the teeth is one of the reasons people get braces during their teenage years.

Now let's look at the functions that the mouth and teeth perform. The first step of digestion involves the mouth and teeth. Food enters the mouth and is immediately broken down into smaller pieces by our teeth. Each type of tooth serves a different function in the chewing process. Incisors cut foods when you bite into them. The sharper and longer canines tear food. The premolars, which are flatter than the canines, grind and mash food. Molars, with their points and grooves, are responsible for the most vigorous chewing. All the while, the tongue helps to push the food up against our teeth.

As we chew, salivary glands in the walls and floor of the mouth secrete saliva, which moistens the food and helps break it down even more. Saliva makes it easier to chew and swallow foods (especially dry foods), and it contains enzymes that aid in the digestion of carbohydrates.

Once food has been converted into a soft, moist mass, it's pushed into the throat (or pharynx) at the back of the mouth and is swallowed. When we swallow, the soft palate closes off the nasal passages from the throat to prevent food from entering the nose.

Next, I want to discuss the things that can go wrong with the mouth and teeth. Proper dental care - including a good diet, frequent cleaning of the teeth after eating, and regular dental checkups - is essential to maintaining healthy teeth and avoiding tooth decay and gum disease. Some common mouth and dental diseases and conditions - some of which can be prevented, some of which cannot - are listed below.

Disorders of the Mouth:

- **Aphthous stomatitis (canker sores).** A common form of mouth ulcer, canker sores occur in women more often than in men. Although their cause isn't completely understood, mouth injuries, stress, dietary deficiencies, hormonal changes (such as the menstrual cycle), or food allergies can trigger them. They usually appear on the inner surface of the cheeks, lips, tongue, soft palate, or the base of the gums, and begin with a tingling or burning sensation followed by a painful sore called an ulcer. Pain subsides in 7 to 10 days, with complete healing in 1 to 3 weeks.

- Cleft lip and cleft palate are birth defects in which the tissues of the mouth and/or lip don't form properly during fetal development. Children born with these disorders may have trouble feeding immediately after birth. Reconstructive surgery in infancy and sometimes later can repair the anatomical defects, and can prevent or lessen the severity of speech problems later on.

- **Enteroviral stomatitis** is a common childhood infection caused by a family of viruses called the enteroviruses. An important member of this family is

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coxsackie virus, which causes hand, foot, and mouth disease. Enteroviral stomatitis is marked by small, painful ulcers in the mouth that may decrease a child's desire to eat and drink and put him or her at risk for dehydration.

❖ **Herpetic stomatitis (oral herpes).** Children can get a mouth infection with the herpes simplex virus from an adult or another child who has it. The resulting painful, clustered vesicles, or blisters, can make it difficult to drink or eat, which can lead to dehydration, especially in a young child.

Finally, let me say a few words about the Periodontal disease. The gums and bones supporting the teeth are subject to disease. A common periodontal disease is gingivitis - inflammation of the gums characterized by redness, swelling, and sometimes bleeding. The accumulation of tartar (a hardened film of food particles and bacteria that builds up on teeth) usually causes this condition, and it's almost always the result of inadequate brushing and flossing. When gingivitis isn't treated, it can lead to periodontitis, in which the gums loosen around the teeth and pockets of bacteria and pus form, sometimes damaging the supporting bone and causing tooth loss.

Pair work

❖ Which one of the two presentations is better?

❖ What, in your opinion, makes it better?

❖ What are these presentations trying to tell us?

Tips for making effective presentations

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- Divide your presentation into four parts i.e. <u>introduction, main body, conclusion and a question – answer session.</u>
- Do not read out your presentation from a prepared manuscript. It might take away the spontaneity of the delivery. An effective presentation is extemporaneous and is most effective when you speak making complete eye contact with the audience.
- Use positive gestures and hand movements.
- Maintain a positive posture.
- Be enthusiastic about what you say. Only then the audience will be able to share the enthusiasm with you and enjoy your talk.
- Modulate your voice appropriately; neither be too feeble nor too loud.
- Be well prepared. Rehearse your presentation with someone who can give sound feedback. If you can, make a video recording of your presentation and watch it yourself, it will help you reflect on your own performance.

Below are the different parts of a presentation as well as useful phrases for completing the tasks in each part.

Greet the audience	Good morning/ afternoon/ evening, ladies and gentlemen/ everyone.
Introduce your self	I'm … / My name is ….
Announce the topic	I'm going to talk to you about …
Explain the purpose	The reason why I'm…
	What I want to do this morning/ afternoon is…
Length of the talk	My presentation will take about 20 minutes.
	I'll take about 20 minutes of your time.
Questions	I'll be happy to try and answer any questions at the end of the presentation.
	Please feel free to interrupt me, if you have any questions.
Presentation outline	I've divided my presentation into four parts – in the first part ….Secondly…next…finally…
Ending the introduction	That's all for the introduction…
Beginning the main body	So, to begin with…
	So, first of all….
	Now, to take up the first point…
Ending parts within the main body	So that's all then, that's about…
Beginning a new part	Let's move on to….
	So, now we come to the question of….
Summing up	So, to sum up….

<u>Task 3</u>

   In groups of five, read though the article below and make notes of it. Then compare your notes with the other groups.

PERIODONTAL Disease (PD) is commonly referred to as "Gum Disease". "Periodontal" means surrounding the tooth. PD is the disease of the surrounding structures of the tooth — the bone, gums and fibres that attach the tooth to the bone. There are different kinds and may affect one or multiple teeth. It can be broadly classified into the following stages.

Gingivitis: This is the first stage in which only the gums are affected. The gums become red, puffy and tend to bleed easily. This is a reversible stage and can be cured with simple procedures.

Early Periodontitis: Gingivitis, if untreated, progresses into Early Periodontitis when plaque and calculus burrow in to the gums and the teeth creating a pocket. This weakens the support and makes the tooth loose. This stage generally requires more advanced forms of treatment, which may also be surgical.

Advanced Periodontitis: This is the most severe form that sees a lot of bone damage. The teeth become very shaky. This stage is quite difficult to treat and requires very advanced treatment methods.

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Causes

The prime cause of these diseases is plaque, a sticky film composed of bacteria and its by-products that are constantly formed around the teeth. If not regularly removed it turns into a hard calcified substance called calculus, which can only be removed with special instruments. The bacteria in plaque produce toxins, which cause differing grades of infection leading to destruction of the periodontal structures. Other factors that might aggravate PD are smoking, pregnancy and puberty, medications like Phenytoin and Nifidepine, uncontrolled diabetes and other systemic diseases.

The most common symptoms are bleeding gums, especially while brushing; red and puffy gums; persistent bad breath; gums separating from the teeth; pus-like discharge from the gums; shaky and drifting teeth with discomfort while biting.

Some people do not have any of these symptoms. Many experience almost no pain till the tooth has reached its last almost untreatable stage.

A general dentist usually treats early forms. To manage advanced stages a Periodontist or a specialist in the diagnosis, prevention and treatment of PD is required. A small measuring instrument called the periodontal probe is used and X-rays are taken to assess the destruction. The treatment varies from scaling procedures to surgical therapy. In some cases Tissue Regenerative therapy may be suggested. Scaling is the removal of all visible plaque and calculus. Contrary to popular belief, this does not harm your teeth. Patients are generally advised to get their teeth scaled once a year. Advanced treatment involves surgical correction to arrest the disease and to repair and regenerate the lost structures.

Once PD is treated, patients require Supportive Periodontal Treatment (SPT). During SPT, the periodontist evaluates periodontal health, examines and

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removes any new formation of plaque and calculus and stalls the disease process. This addresses only 50 per cent of the problem; it will arrest the disease process and possibly repair some damage. The other part is to be able to maintain the state of health in what is now slightly compromised dentition.

PD is a chronic disease and often recurs in the absence of ongoing supportive therapy. Supportive therapy involves getting a regular check up and scaling once in six months; brushing regularly twice a day; and seeing the dentist the moment any symptom appears.

Use fluoride toothpaste as fluoride makes teeth stronger and more resistant to acid attacks. This in turn helps to prevent tooth decay. Brushing the teeth combats plaque, which builds up daily. Removing plaque not only makes the teeth look clean, helps prevent bleeding from gums but also makes your breath fresher. Try to brush in the morning and at night. Brushing at night is important as it protects teeth against acid attack while you are asleep.

Tips for Note-making

- Use headings and sub-headings
- Use diagrams, table; family tree, etc.
- List items: 1, 2, and 3.
- Use a phrase or a word rather than a sentence
- Develop your own short forms or abbreviations e.g. 'doc' for 'doctor'.
- Don't write down every word. Go for the main idea.

Steps to Note-making

- Read the passage carefully and identify the key items
- Think of ways to reduce or compress the key items
- Re-present the key items in a compressed manner so that they constitute an acceptable text.

Task 4

Work in pairs. One of you is a dentist and the other is a father whose son has PERIODONTAL Disease in its initial stage that can be cured easily. The one who plays the role of the dentist has to assure the child's father, give some instructions to be followed by the child, and warn him against the things that can worsen his son's teeth condition.

Task 5

Write a summary of the following article:

Your smile, formed by your mouth at your brain's command, is often the first thing people notice when they look at you. It's the facial expression that most engages others. With the help of the teeth - which provide structural support for the face muscles - your mouth also forms your frown and lots of other expressions that show on your face.

The mouth also plays a key role in the digestive system, but it does much more than get digestion started. The mouth - especially the teeth, lips, and tongue - is essential for speech. The tongue, which allows us to taste, also enables us to form words when we speak. The lips that line the outside of the mouth both help hold food in while we chew and pronounce words when we talk.

With the lips and tongue, teeth help form words by controlling air flow out of the mouth. The tongue strikes the teeth as certain sounds are made. The *th* sound, for example, is produced by the tongue being placed against the upper row of teeth. If your tongue touches your teeth when you say words with the *s* sound, you may have a lisp.

The hardest substances in the body, the teeth are also necessary for chewing (or mastication) - the process by which we tear, cut, and grind food in preparation for swallowing. Chewing allows enzymes and lubricants released in

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the mouth to further digest, or break down, food. Without our teeth we'd have to eat nothing but soft, mashed food. Eating would not be quite as enjoyable!

Read on to find out how each aspect of the mouth and teeth plays an important role in our daily lives.

Basic Anatomy of the Mouth and Teeth

The entrance to the digestive tract, the mouth is lined with mucous membranes. The membrane-covered roof of the mouth is called the **palate**. The front part consists of a bony portion called the hard palate, with a fleshy rear part called the soft palate. The hard palate divides the mouth and the nasal passages above. The soft palate forms a curtain between the mouth and the throat, or **pharynx,** to the rear. The soft palate contains the **uvula**, the dangling flesh at the back of the mouth. The **tonsils** are located on either side of the uvula and look like twin pillars holding up the opening to the pharynx.

A bundle of muscles extends from the floor of the mouth to form the **tongue**. The upper surface of the tongue is covered with tiny bumps called papillae. These contain tiny pores that are our taste buds. Four kinds of taste buds are grouped together on certain areas of the tongue - those that sense sweet, salty, sour, and bitter tastes. Three pairs of **salivary glands** secrete saliva, which contains a digestive enzyme called amylase that starts the breakdown of carbohydrates even before food enters the stomach.

The **lips** are covered with skin on the outside and with slippery mucous membranes on the inside of the mouth. The major lip muscle, called the orbicularis oris, allows for the lips' mobility. The reddish tint of the lips comes from underlying blood vessels. The inside portion of both lips is connected to the **gums**.

There are several types of teeth. **Incisors** are the squarish, sharp-edged teeth in the front of the mouth. There are four on the bottom and four on the top. On either side of the incisors are the sharp **canines**. The upper canines are sometimes called eyeteeth. Behind the canines are the **premolars**, or bicuspids. There are two sets, or four premolars, in each jaw.

The **molars**, situated behind the premolars, have points and grooves. There are 12 molars - three sets in each jaw called the first, second, and third molars. The third molars are the **wisdom teeth**, thought by some to have evolved thousands of years ago when human diets consisted of mostly raw foods that required extra chewing power. But because they can crowd out the other teeth, sometimes a dentist will need to remove them.

Human teeth are made up of four different types of tissue: pulp, dentin, enamel, and cementum. The **pulp** is the innermost portion of the tooth and consists of connective tissue, nerves, and blood vessels, which nourish the tooth. The pulp has two parts - the pulp chamber, which lies in the crown, and the root canal, which is in the root of the tooth. Blood vessels and nerves enter the root through a small hole in its tip and extend through the canal into the pulp chamber.

Dentin surrounds the pulp. A hard yellow substance consisting mostly of mineral salts and water, it makes up most of the tooth and is as hard as bone. It's the dentin that gives teeth their yellowish tint. **Enamel**, the hardest tissue in the body, covers the dentin and forms the outermost layer of the crown. It enables the tooth to withstand the pressure of chewing and protects it from harmful bacteria and changes in temperature from hot and cold foods. Both the dentin and pulp extend into the root. A bony layer of **cementum** covers the outside of the root, under the gum line, and holds the tooth in place within the jawbone. Cementum is also as hard as bone.

Tips for summarizing a passage /text:

I.   Read the passage carefully and underline the key information.
II.   Prepare notes for each paragraph of the passage/text. You can write short sentences.
III. Using these notes, prepare a draft summary of the passage.
IV.   Edit the draft summary and make a final summary of the passage.

ə

Pronunciation

Notice how the 'i' that precedes – <u>tis</u> in medical vocabulary is pronounced. It is always pronounced as / aɪ /. For example,

Tonsillitis

Gingivitis

Periodontitis

Now look up words similar to these.

Vocabulary

Adding the suffix '-<u>ment</u>' to a word changes it into a noun.

E.g.

treat (v) + - ment ⟶ treatment (n)

govern (v) + - ment ⟶ government (n)

require (v) + - ment ⟶ requirement (n)

Now decide which of the words provided below can have-'ment' as its suffix.

appoint

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operate

prescribe

grow

amputate

Have fun!

Dentist: Could you help me? Could you give out a few of your loudest, most painful screams?

Patient: Why, Doctor? It isn't that bad this time.

Dentist: There are so many people in the waiting room right now and I don't want to miss the 8 o'clock football match.

Teeth

"Oh I wish I'd looked after my teeth"
My grandma always said,
Every time she put them
In a glass beside her bed.

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Skills: Reading and speaking

Functions: Explaining / illustrating and expressing opinions

Language focus: Gerunds

Starter:

Can you guess the disease that this patient has?

Task 1

Read the following passage and do the tasks that follow it.

There are four types of malaria, each due to an infection with different species of plasmodium – a minute parasite belonging to the animal kingdom. The disease is conveyed to man by the bites of blood – sucking mosquitoes which have themselves become infected by biting malarious patients.

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In the human body the malarial parasites pass through several stages of development. After entering the blood they soon pass to the liver, where they multiply. Then, returning to the blood again, they invade red corpuscles within which they again increase their number. This stage complete, they escape from the red blood cells, destroying them as they leave. Some of the parasites now invade new red cells to undergo further multiplication, while others, specially adapted for the purpose, remain free in the blood stream waiting to infect any mosquito, the malarial parasites begin another cycle of development which ends when they settle in the salivary glands near the insect's 'mouth' ready to enter human tissues when the insect next draws blood.

While the parasites are developing within him the human patient suffers from recurrent fever, and because of the repeated destruction of his red blood cells he becomes anemic and debilitated. Death may occur during a single attack of the disease or after prolonged illness due to continuing or recurrent infection.

The several species of mosquito which spread malaria are known as *anopheles* mosquitoes. These insects lay their young develop just beneath the surface of the water. The adult mosquitoes, of which only the females transmit malaria, usually bite at night when they enter human habitations; and by day they either remain hidden within the dwellings or return outdoors.

Malaria is a difficult disease to eradicate from a country. It is a chronic infection, that is, it lasts for weeks, months, or even years; and even when a patient has recovered completely he is liable to reinfection, for, unlike certain other diseases, one attack does not result in natural immunity thereafter. Nor is it possible to prevent the disease by 'artificial' immunisation.

It is true that all forms of malaria can eventually be cured with the aid of modern anti-malarial drugs; and these, if taken continuously for long periods, will prevent infection with some types of the disease and will suppress the

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symptoms of others. In theory, therefore, it should be possible to eradicate malaria by using anti-malarial drugs to cure all infected persons and to protect all others. And this has been done in small isolated communities and among troops fighting in highly malarial districts. But the method is quite impracticable when dealing with large scattered populations and so plays only a small part in the world campaign.

A more effective way of eradicating malaria is to destroy the mosquitoes which spread the disease. This can be done in several ways. By improving drainage and cultivation many of their breeding places can be eliminated, and those which remain can be sprayed with oil which 'smothers' the mosquito larvae, or with insecticides which poison them. These measures often reduce the mosquito population considerably, and the incidence of malaria falls as a result; but at times the effect is only slight because of the vast number of possible breeding places and the inaccessibility of many of them.

The number of mosquitoes can be reduced more surely by attacking the adult insects. This is done by spraying the walls of houses and huts with the insecticide dichlorodiphenyltrichloroethane – or DDT for short- prepared in such a way as to remain active for months. Insects settling on surfaces treated in this way are killed. The method, known as residual spraying, is simple, inexpensive and quick; and a few men can treat a large number of dwellings in a short time.

It is mainly by the use of residual spraying that many countries in which malaria was the greatest single health problem are now almost free from the disease, while others are rapidly bringing it under control. The complete mastery of malaria throughout the world is well within sight, though before victory is complete there may be some setbacks. This is because some mosquitoes have become resistant to DDT, while others, changing their habits, no longer enter human habitations to feed, but bite in the open air and so avoid contact with the insecticides sprayed on walls.

The highlighted words in the passage above show the connection between sentences, or paragraphs.

Can you find more such words from the passage?

A gerund is usually a verb to which an –<u>ing</u> is attached. It functions like a noun.

E.g. <u>Smoking</u> can be injurious to health.

I don't like <u>sleeping</u> in the afternoon.

- ❖ *From the passage find out other examples of gerunds.*
- ❖ *Can you think of the difference between gerunds and the present participle*?

Task 2

Look at the drawing provided below. Infer the process it represents and explain it to your classmates.

In explaining things, one tends to use simple words, and focus on the required terms to be explained. In the process, one needs to provide a comprehensive idea in simple vocabulary. For example, to explain 'malaria', one has to begin with the word 'disease'. This has to be followed by the symptoms of this disease like fever and shivering. The next step can focus on the cause of the disease i.e. mosquitoes, in this case.

Task 3

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Imagine that malaria has endemically pervaded your area. What steps would you take to prevent the disease from spreading? Discuss in groups of three.

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Tips for group discussion

Opening a discussion

To begin with,

We need to discuss…

      determine…

      find out…

Let's start by (V ing)

We'll start by (V ing)

The problem here is ….

      Issue

      Question

The important thing (here) is …..

The main thing we need to discuss is ….

Let's look at ….

It looks like….

It appears that ….

Asking for input

What do you think?

How about you?

How do you feel about that?

Any ideas on that?

Responding

(that sounds like a) good idea.

Sounds good.

The problem with that is…

That raises of ….

    Brings up

Interrupting

If you feel that an interruption would be appropriate, you can wait for a pause in the conversation and then say:

- Excuse me, but ……………
- Pardon me, but ………………..
- Excuse me for interrupting, but ………..
- Sorry to interrupt, but ……………….

Keeping your turn

- Excuse me, I'd just like to finish this point.
- If you could wait for a second, I'm just about to finish my point.
- Could I please just finish my point?

Continuing after an interruption

- Anyway …………… …
- As I was saying ……………
- In any case ……….. …
- Going back to what I was saying…………..
- As I was saying………………

Task 4

Read the passage given below, and do the tasks that follow it.

Sometimes people need extra blood because they have lost more than the body can make in a short time or they are not making enough red blood cells.

Doctors can give blood from one person to another.

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The blood that someone is given is 'matched' so that it won't be destroyed by their immune system.

- Type A blood can go to anyone who has type A or AB.

- Type B blood can go to anyone with B or AB.

- AB blood can only go to a person with AB blood.

- O can be given to anyone, so someone with that blood is called a 'Universal donor.'

But

- A person with type A can only take blood from someone with type A or O.

- Type B can only take blood from someone who is B or O.

- AB can receive blood from anyone. This is known as being a 'universal receiver.'

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● Type O can only receive blood from someone who is type O.

Blood

Blood is red
It runs through your head
Blood is important; if you don't have it
you're sure to die in one hit.
If you donate it, it would be great.

Better one another help than hate.

"Many people donate blood every few months. This is a good way of helping others who need help. Giving blood doesn't hurt and your body soon makes more to replace it. You need to be between 16 and 70 years old and healthy, to donate blood.

Blood is amazing. Help your blood by eating healthily so that you get all the vitamins and minerals your body needs. Some girls have very heavy periods when they start having periods, and if they do not get enough iron in their diet, they can become anaemic and feel tired much of the time. If you think you might have this problem, go to see your doctor."

A. What do we call the process of donating and receiving blood?

B. What is the term used to refer to the below average red blood cells?

C. As a lab technician, what food items would you recommend to increase a patient's red blood cells?

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D. Put the tick (✓) in the suitable boxes. No. 1 has been done as an example.

Receiver

Donor	A	B	AB	O+
A	✓	✗	✗	✓
B				
AB				
O+				
O-				

Task 5

     Name the tools given below and state which doctor these tools are most associated with. Then say in what way each one of them is useful to the doctor concerned.

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A

B

c

D

E

F

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G   H

Pronunciation

A. In words ending with-<u>ion</u>, stress is laid on the syllable that immediately precedes the suffix-<u>ion</u>

E.g.

immunization

multiplication

habitation

population

Can you think of more such examples?

Vocabulary

Adding the suffix – '<u>ous</u>' change the nouns into adjectives.

E.g.

infection ⟶ infectious

contagion ⟶ contagious

delirium ⟶ delirious

Look up the dictionary for more such examples.

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Chapter Seven

Conclusions, Limitations and Suggestions

This chapter presents the conclusions and limitations of the study; it also makes suggestions for further research. As mentioned earlier, the present study was undertaken to identify the needs of the fresh medical students of Hodeidah University, Yemen with regard to English and design a course that would considerably improve their communication skills and help them perform some essential functions related to their medical field effectively. Keeping in mind the learners' needs, materials have been produced and (included in the previous chapter). Below are the findings of the study with reference to the research hypotheses and questions.

7.1 Summary of the Findings of the Study

7.1.1 ESP (EMAP) is an orphan in Yemen

ESP in Yemen is in its infancy. Some studies have been carried out in ESP, mostly in EBP. Out of these, only four were related to EMAP. Hussain Alfadhly (2005) from Hadharmout University carried out a study on the perceptions of the medical students and faculty of his university about their academic needs. Two similar studies were carried out at Hodeidah University, one by Tariq Al Najjar (2006) and the other by Fadhl Moh'd Abdullah (2007). But they did not produce materials for the target learners. Thus it can be said that EMAP is relatively new in Yemen.

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ESP in Yemen is generally associated with English for Business Purposes (EBP). Generally each factory/ firm, etc. provides its own English language training courses with no collaboration with any training institutions. Therefore these training courses are not cost-effective and do not bring about the desired results / outcomes. Though the sudden change of medium of instruction from Arabic to English (Arabic in school and English in college) makes the need for ESP courses greater, little importance is given to these courses. That is, the Departments of English at Yemeni Universities, which are the authority for assigning teachers to teach ESP courses, hire school teachers or request them to teach voluntarily. These teachers, in most cases, have no training to teach ESP courses. They simply teach grammar, which they mistakenly think will serve the purpose. Students come to these classes with great expectations, but get frustrated when they find that teachers do not put in the expected effort to improve their communicative competence. The classes are simply a repetition of what was given to them in schools. Thus they feel that their needs, lacks and wants are not catered for.

7.1.2 An ESP teacher's job is difficult in Yemen

As stated above, the Departments of English give the hired or voluntary teachers complete freedom in choosing the materials to be taught to their respective ESP students. When I had an informal discussion with these teachers, they expressed a need for a training workshop on how to teach ESP courses. What makes their job more difficult is the learners' low proficiency

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level. The mixed–ability learners and large classes are two more factors that make matters worse. Furthermore, teachers lack the necessary medical orientation and knowledge.

7.1.3 Teachers were unaware of team – teaching

I was shocked to learn that teachers did not know that they could collaborate with content specialists to make the ESP teaching-learning process effective.

7.2 Limitations of the study

The study has some limitations. They are listed below and can be taken up for further research:

1. The study was conducted on medical undergraduate students of three Departments i.e. Nursing, Dentistry and Medical Laboratory at Hodeidah University. Therefore it is limited only to a few medical undergraduate students of one University.

2. The phonological and syntactic aspects of language were not incorporated in the materials in detail.

3. The course could not actually be taught because the researcher was in India. But teaching can be planned as a future step.

7.3 Recommendations and suggestions for further research

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1. An analysis of the needs of medical students of all Departments at Yemeni Universities would certainly give a clear picture of the learners' needs, lacks and wants.

2. A suitable methodology should be adopted for teaching the four language skills. Activities such as role-play, simulation, group discussions, etc should be made part of the course for improving the learners' Spoken English.

3. Training courses should be conducted for ESP teachers to enable teaching and learning to take place effectively. Similarly, teachers should try and develop their students' learning strategies, keeping in view their learning preferences and learning styles.

4. The English Department needs to introduce a course in ESP Materials in the final year of the B. Ed Programme for training the final year students on how to design and teach ESP materials.

5. Language teachers and content specialists in the Medical Science College should work together. In other words, there should be a high level of co-operation between language teachers and content specialists. They should work hand in hand to prepare the teaching materials before using them in the classrooms.

7.4 Course Evaluation (Feedback Questionnaire)

The purpose of this questionnaire is to find out the plus and minus points of the course. Please feel free to say what you feel about the course and answer the following questions:

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1. How would you rate the course?

Excellent ☐

Good ☐

Average ☐

Poor ☐

2. How useful was the course for your purpose? Please tick your opinion.

Very useful   Somewhat useful   Not useful

3. How satisfied were you with the following:

		Very satisfied	Satisfied	Fairly satisfied	Not satisfied
a.	Materials used				
b.	Amount of input				
c.	Methodology used				
d.	Teacher's clarity of voice				
e.	Teacher's sense of humour				
f.	Teacher's punctuality				
g.	Teaching Aids				
h.	Use of class time				
i.	Course duration				

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4. Did you want the teacher to touch upon some more topics?

Yes ☐   No ☐

If yes, please write them down:

- _____

- _____

- _____

5. Mention any two things you liked most about the course.

- _____

  _____

6. Mention any two things you did not like about the course.

- _____

- _____

7. Do you think the course will be useful to your classmates / batch- mates as well?

Yes ☐   No ☐

8. In what ways has the course been useful to you? Mention any three.

a. _____

b. _____

c. _____

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9.   What should the teacher do to improve the course?

       a. _____

       b. _____

       c. _____

10.   Did the course satisfy your expectations?

       Yes ☐   No ☐

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Education as an Indicator for Human Resource Development

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Abstract

The present research was undertaken to study the contribution of some areas of education system towards the enhancement of human resource development (HRD) in schools/colleges. Four major areas of education system were taken for the research study, which could affect the HRD in the sample region, viz., primary education, secondary education, higher education, IT education and female education.

The data were mainly collected from heads, teachers, and students. In this study 10 heads, 63 teachers and 292 students participated. An *opinionnaire* was developed as an instrument of research which comprised 48 items.

It was found that all of these areas play a significant role in the promotion of HRD. The findings of this study show that both education and HRD are significantly correlated. The results of the present study indicated a strong correlation between; each item of HRD and the selected areas of education system in the research, each item constructed in the instrument with HRD, each area of education with each component of HRD, i.e., knowledge, social development and economic development. The study recommended that IT education and female education should be introduced to make it worthwhile for HRD.

Literature Review

The term 'HRD ' was introduced to Miami conference of the American Society of Training and Development (ASTD) by Leonard Nadler held in 1969 and he subsequently provided a definition in 1970. Nadler and Nadler (1990) emphasized that there had been a significant number of people entering the HRD field and, therefore, they deserved to have a definition of the subject. At the same time he maintained that good HRD specialists see an input into most of the operational areas and therefore delimiting the field can also have adverse consequence for the profession.

HRD is a process of increasing the skills, stocks of knowledge and capacities of all human being actually available for economic and social development in the community (UNDP, 2000). The recognition that HRD is fed into most organizational areas was also noted by Galagan (1986) who described it as an omnivorous discipline, incorporating over the years almost any theory or practice that would serve the goal of learning in context of work. Like an amoeba, it has ingested and taken nourishment from whatever it deemed expedient in the social and behavioral sciences, in learning theory and business.
"HRD is the process of recruitment and retention of high quality people, who are best fitted to fulfill the objectives of organization, defining and measuring levels of performance and providing continuous opportunities for training and development" (NIPA, 2002, p. 38).
Hyder (1988, p.38) quoted some definitions of HRD as:

- "HRD is the total of skills, knowledge and capacities of all human beings actually or potentially available for economic and social development in a community." (UNDP)

- "HRD is defined as, "the total skills of population in relation to countries' development." (UNESCO)

- "The term HRD encompasses a broader field than mere skills acquisition or even training in general. It is based on an acknowledgement of the needs of the people to utilize the capacity to the full in the pursuit of gainful employment as well as job and personal satisfaction." (ILO)

HRD can be problematic particularly if an international perspective is taken because its interpretation and roles tend to vary from one country to another. There was a strong insistence that HRD does not equal training. If HRD is about learning and that learning is something, which occurs within an individual to cause development then the East, with its grace and wisdom, calls this flux "a becoming and an unfolding", the West, with its systems and structures, names it "HRD".

In fact, HRD is both an area of professional practice and an emerging interdisciplinary body of knowledge. The inter-relatedness of these two aspects makes HRD similar to the most other applied professions, most of which have emerged to meet some important social or organization

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need. As the practice is established, the need arises to honor the knowledge gained in practice into some logical structure. Such activity helps legitimize the profession and increases the reliability of practice.

Frank (1998) investigated the theoretical base of HRD in order to distinguish it from other fields and identified three assumptions on which it is based:

- HRD is based on the research and theories drawn from the field of adult education and is different from the learning that occurs in children. Learning is based on creating the appropriate circumstances, in which adults can learn and thereby change behavior.

- HRD is concerned with improved performance within the work environment; it is not concerned with improving people's health or their personal relations with their family.

- HRD utilizes the theories of change and how these relate to the organization. Change affects individuals, groups and the organization where as HRD is predominantly concerned with the change of individuals.

There would thus appear to be a professional need to define the territory of HRD no matter how limited it may be, in order that those involved with it either as deliverers or receivers can have a reasonable understanding of what it encompasses. Some of the definitions of HRD as found in the related literature are given below:

Nadler (1990) says that HRD is an organized learning experience in a definite time period to increase the possibility of improving job performance. On the other hand, Chalofsky (1992) says that HRD is the study and practice, of increasing learning capacity of individuals, groups, and organizations through the development and application of learning based interventions for the purpose of optimizing human and organizational growth and effectiveness.

McLagan and Suhadolnik (1989) described that HRD is an integrated use of training and development, career development, and organization development to improve individual and organizational effectiveness. Watkins (1989) cited that HRD is the field of study and practice, responsible for the fostering of a long-term work related learning capacity at the level of individual, group, and organizations. Further Stewart and McGoldrick (1996) described that HRD encompasses activities and processes, which have an impact on organizational and individual learning.

All the above definitions would appear to have been developed from a theoretical perspective. Human development is a development of the people, for the people and by the people. The development of the people means investing in hand capability whether in education or health or skill so that they can work productively and creatively. Development for the people means ensuring that the economic growth they generate is distributed widely and fairly.

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The UNDP's Human Development Index (HDI) has emerged as universally recognized yardstick for measuring the social progress of nation. The HDI has three indicators namely, life expectancy representing health, educational attainment representing knowledge and real GDP representing standard of living. It was further maintained that education is a nucleus to the HR. It may lead to the high productivity because the literate population can adopt modern techniques of production and highly educated population can lead to technological development. Education is a very vital plank for HRD as being repeatedly enunciated more as a platitude rather than as an accepted, practical philosophy. Education as investment particularly in the HR has been recognized recently.

Such a recognition raises various assumptions, planning dilemmas and urges the need for a clear cut analysis of various factors of educational planning for development of HR and chartering of well thought out strategies.

Education was viewed as an expensive social service rather than a means for socio economic development of a country. But, since the advent of industrial revolution and in the wake of scientific and technological era, this has died its own death. Today, when scientific knowledge and technological advancement have plunged into exploring the new horizons of the space, schooling is viewed as a special investment in HRD. It is the HR whose physical and mental capacity can alone change the socio economic and politico cultural structure of society and can contribute to an improved living of the people. HDI is based on the equal weight age of three factors:

- Purchasing power parity adjusted per capita GDP

- Literacy

- Life expectancy.

Education and training are at the center of planning for HR. The role of professional trainer as leader facilitator supported by the manager as deliverer of training is crucial to enable up-to-date experience to be passed on and for the line functions ownership of trainee to be assured. Finally, the importance of doing rather than knowing and of learning rather than teaching and the emphasis on competence based training is central to the planning of effective HR.

Role of Education in Economic Development

In the study of the relationship between education system and HRD, the role of education in economic development is highly significant and these both indicators of the economy are inter dependent. In the less developed countries including Pakistan, the expenditure on the expansion of education is quite small as compared to the other sectors of the economy. The positive relationship between education and economic development is now widely recognized.

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In fact, the education and training are regarded as strategic variables in planning for economic development. The contribution of education to economic growth takes various forms and may be different from defense stages in the evaluation of the countries' economies.

Quantitatively speaking, an elementary education for the mass of the people in a society leads to great economic gains. People can learn through the written words and transmit as well as record their ideas more exactly. It enables them to keep accounts and assess the profitableness of their business activities and alternatives ways of allocating their resources.

A literate population can be made to cooperate for beneficial economic activities more easily than an illiterate one. They can be thus more effectively under a plan as well as independently in the pursuits of their self-interest. The result is that an increase in expenditure of education sector produces very high returns.

- A sharp view in quality of education produces economic returns even when it is not possible to specify what skills and attributes would be created or precisely how they would be used. Thus a liberal education, which sharpens the intellect and broadens human sympathies, may be as productive as more narrowly specialized form of skill imparted through scientific and technological training.This points towards the danger of neglected human discipline and unduly diverting resources towards instructions in scientific and technological fields. Considering some of the middle income countries, their literacy rates will be relatively high and so will be per capita income, e.g., Malaysia and Brazil have literacy rates of 78 percent and 81 percent with per capita incomes of 2520 and 2940 dollars, respectively. The high-income countries such as, United State and Japan, have literacy rates above 95 percent with per capita income of 22240 and 26930 dollars respectively. Thus a high literacy leads to a high per capita income and the role of education in economic development becomes very significant (Saeed, 1999, p.243).

Major Issues in HRD Planning

Human Resource Planning (HRP) has been explained in a variety of ways:

HRP translates the organization's objectives into terms of the workers needed to meet these objectives.

- HRP systematically forecasts an organization's future demand for, and supply of employees.

- HRP is a little like navigation a ship (it) decides on a course and speeds toward destination, with the constant need to take further readings and make necessary adjustments in order to reach that destination.

All the above explanations contain similar features – a strategic, long-term approach; a comprehensive staffing plan, covering all HR activities from recruitment through training, development and career management, to the separation of employees by retirement and retrenchment; and a close relationship with organizational strategies and objectives.

It implies that human resource planning is a dynamic process, involving the need for frequent modifications or changes of direction, in response to changing economic, political, social and organization conditions.

Some writers have further suggested that HR plans include both 'intended' and 'unintended' aspects, and that the process involves a blend of science and art. Its overall purpose is to ensure the effective management of human resources by providing the required quantity and quality of employees where and when necessary.

HRP in practice integrates an organization's major goals, policies and action sequences into a cohesive whole. Towards this goal, HRP needs to undertake a systematic process of analyzing organizational strategies and goals; conducting both external and internal environmental analyses (environmental scanning); and subsequently, making a 'strategic choice' about the nature of HRM processes appropriate to identified organizational outcomes.

Essentially, human resource planning is concerned with matching labour demand and labour supply projections within the internal and external contexts of organizations. Increasingly, human resource planners, rather that devising their plans in isolation, are involving organizational managers, employees, customers and suppliers in the formulation of their HR plans.

Practices in Pakistan

The importance of planning of HRD and its effective utilization within the overall economic development process is well recognized. But the actual practices in Pakistan, suffer from a number of weaknesses.

Pakistan has been undertaking manpower planning and research since long focusing largely on estimation of demands and supplies of different categories of manpower. The results of manpower planning and research exercises have been used for providing indications to the educational planners and administrators for determining appropriate educational program in the country.

In the past, inconsistency existed between the manpower developmental program and structure of economy. The manpower plans were not integrated properly into the economic plans. Therefore, serious problems and frustrations have arisen from the mismatch between education and employment opportunities. There are wide spread policies and program in respect of HRD and utilization in the country.

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These developments have brought to the forefront need for comprehensive policies and program for HRP to ensure efficiency in HRD and utilization. Therefore, it is high time that issues in the area of HRDP got a pragmatic treatment.

A Two-Stage Exercise

Planning for HRD is generally viewed as a two-stage exercise, which is in vogue in Pakistan since long.

In the first stage, the focus is on employment issues, which is to analyze the scope for increasing employment opportunities through appropriate policy adjustments and detailed analysis of factors, which retard employment growth. An attempt is made to answer the question regarding sector-wise prospective employment generation and its growth during a particular time period.

In the second stage, there is manpower planning in which an exercise is carried out, which pertains to skill identification and its composition to make projections of incremental employment by different types of skilled labour. This is done mainly for those sectors of the economy where physical targets can possibly be estimated with some degree of confidence. This is then matched with the expected increase in the supply of skills to identify imbalances, and to suggest measures to reduce the imbalances.

Objectives of the Study

The general objectives of the study were:

1. To study the present day contribution of various areas of education towards the three components of HRD, namely knowledge, social development, and economic development.
2. To explore the level of significance of difference of variables namely gender, age, sector of service and qualification for the contribution of various areas of education towards the enhancement of HRD.

Research Method

The study based on public opinion survey.

Sample of Study

The sample consisted of 10 head teachers, 63 teachers and 292 students as indicated in table below:

Stratum	Sex	
	Male	Female
Heads (N=10)	4	6

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Teachers (N=63)	29	34
Students (N=292)	134	158

Instrument

A self constructed *opinionnaire* was used as an instrument of the research, which was designed in the light of the objectives of the study. It based on five points Likert scale. In this research study, 16 areas of the education system were selected to study their contribution towards HRD as already discussed in chapter one.

Three items were developed from each area of education system, focusing on the components of knowledge, social development and economic development respectively, which were the main components of the definition of HRD in the research.

In this way, 48 items (16 areas multiplied by 3 components of HRD) were prepared in the light of the objectives and hypotheses; each item was required to be responded on self-designed five points rating scale with categories reflecting the extent of agreement or disagreement with each statement. There were five options (rating scale) for all the items. The rating scales were categorized as, strongly agree, agree, neutral, disagree and strongly disagree.

Data Analysis

Non parametric statistical technique was used to analyze the data. Reliability and the validity were calculated. The statistical averages and inter-correlation were calculated between the four variables taken for the study. For observing the frequency differences between the variables and each item, the Chi-square statistical analysis was carried out. This test is used to estimate the likelihood that some factors/variables other than chance account for the observed relationship.

The Chi-square test for independence is used in situations where two categorical variables exist. In this test, the expected frequencies and observed frequencies are used for evaluating Chi-square.

The Chi-square test is appropriate when the data represent a nominal scale, and the categories may be true categories. Expected frequencies are usually the frequencies, which would be expected if the groups were equal. The Chi- square test merely evaluates the probability of observed relationship results from chance with estimated relationship. Chi-square test showed the significance level of the opinion differences between the variables and each area of education system taken for the research study.

Consistency of the instrument was determined through computation of Alpha coefficient. Alpha coefficient was calculated for all components of HRD, i.e., knowledge, social development and economic development, calculated through computer using the following formula, which is shown in Table 2:

Table 2 Reliability of HRD and Its Components

HRD and its components	No of Items	Alpha Coefficient
HRD	48	0.96
Knowledge	16	0.91
Social Development	16	0.89
Economic Development	16	0.87

Reliability and validity were determined by pilot testing on a sample of 145 (not included in the main study). The items, which showed too low correlation, i-e., $r < 0.357$ and $p > .05$, were dropped.

Table 3 Correlation among areas of Education and Components of HRD

Areas of Education	Components of HRD		
	Knowledge	Social Development	Economic Development
Primary Education	.592**	.595**	.574**
Higher Education	.794**	.782**	.758**
IT Education	.709**	.710**	.717**
Female Education	.690**	.696**	.633**

**Correlation is significant at 0.05 level.

The table revealed a significant correlation among different areas of education and components of HRD.

Table 4 Chi-Squares and p-Values among Component of HRD and Area of Education

Areas	Component of HRD		
	Knowledge	Social Development	Economic Development
	Chi-Square	Chi-Square	Chi-Square
Primary Education	8.70 (p<.07)	6.51 (ns)	6.05(ns)
Higher Education	21.07 (p<.00)	9.89 (p<.04)	2.95 (ns)
IT Education	4.92(ns)	5.09 (ns)	6.12 (ns)
Female Education	1.83(ns)	3.60 (ns)	6.74 (ns)

Table 4 shows that primary Education and higher Education correlated with knowledge component of HRD while IT education has impact on social development.

Table 5   Problems identified by the respondents (N=256)

Problems	Frequency	Percentage
outdated curriculum	209	82

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Poor HRM and HRP	205	80
Inadequate teacher training	203	79
social taboos	188	73
illiteracy	176	69
Lack of infrastructure	172	67
Defective examination system	170	66
Medium of instruction	161	59
political interference	158	62
Lack of IT facilities	138	54
High dropout rate	112	44

Table 5 shows majority of the respondents were of the view that outdated curriculum, poor HRM and HRP, inadequate teacher training, social taboos, illiteracy, lack of infrastructure, defective examination system, political interference, lack of IT facilities and high dropout rate were the major problems.

Conclusion/Recommendations

The findings of this study show that both education and HRD are significantly correlated. The findings of this research help in the overall study of the education system towards the positively changed human behaviour. The findings provide a basis for decision-making and policy formulating in the organizational environment of education system in order to enhance its production – HR. It supports to improve education materials and programs so as to speed up the process of HRD through accelerating knowledge, social development, and economic development in Pakistan.

The results of the present study indicated a strong correlation between; each item of HRD and the selected areas of education system in the research, each item constructed in the instrument with HRD, each area of education with each component of HRD, i.e., knowledge, social development and economic development.

The following specific conclusions may be drawn based on the descriptive and inferential analysis of the data and the findings of the study:

1. Areas of primary and secondary education are enhancing the components of knowledge and social development of HRD.
2. Female education shows a favorable trend in the components of social development and economic development of HRD.
3. Higher education promotes knowledge of HRD.
4. IT education is giving rise to economic development of HRD.

The study recommends that:

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1. As the area of IT education contributes positively towards economic development, therefore IT education should be introduced to make it worthwhile for HRD.
2. The area of female education contributes positively in the components of social development and economic development, it is, therefore recommended that the area of female education may be improved in the light of the current changes taking place globally.

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Representation of Malaysian Women in Politics

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The Focus of This Paper

This paper examines how the traditional and online media portray the role of women in power, whether ruling or the opposition party who are either politicians or women behind the scenes in the 2008 General Elections. The investigation of the present study is undertaken using the theoretical framework of Framing. According to Tuchman (1978) mass media actively set the frames of reference that readers or viewers use to interpret and discuss public events.

A qualitative analysis using Content Analysis ((Neuendorf, 2000) will be used to look into the issues that are discussed by the women politicians and women behind the scenes that are highlighted by the media as reflected in the news articles through out the campaign period. (24th February – 7th March 2008). A comparative study of the news articles extracted from the traditional media , *The Star* and online media *Malaysiakini* will be analysed.

Introduction

Malaysia recently concluded its 12th General Election in 2008. The ruling coalition, National Front (*Barisan National*) has been in power for the past 50 years, since

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independence in 1957. However this election proved to be a 'political tsunami' as the party lost its two – third majority in parliament as well as lost its control in five out of the thirteen states in the country to the opposition, People's Alliance (*Pakatan Rakyat*), something unprecedented in the history of political development in Malaysia.

Women in Malaysia have been involved in politics since pre independence. From the time of independence, Malaysian women have had the right to vote and to hold office. Women though active members of political parties continue to be loyal supporters of political parties. Thus the growth of women politicians and decision makers are still lagging behind in comparison to their male counterparts. In this general elections a total of 222 parliamentary seats and 405 state seats were contested whereby 130 women candidates contested for the parliamentary and state seats, out of which fewer than 50 were successful.

This is still far from the Women, Family and Community Development Ministry's proposed 30% target of women at decision making positions in the public sector levels in the 9th Malaysia Plan but it is definitely an improvement from the total of 80 women candidates that contested in the 2004 General elections.(Ministry of Women, Family and Community Development, 2008)

Media Coverage of General Elections

Media coverage of the recent 12th General elections has been extensive ranging from mainstream media to online media. The varied representations of the General elections have undoubtedly created certain impressions in the minds of the mass media audience.

This paper examines how the traditional and online media portray the role of women in power, whether ruling or the opposition party who are either politicians or women behind the scenes in the 2008 General Elections.

Online media is popularly held to have influenced the results of this election**.** While mainstream media has existed since colonial administration, online media is still rather new as it came about in the 1990's. News articles in the traditional media, such as *The Star* newspaper will be compared alongside and online media *Malaysiakini,* the country's first commercial online newspaper.

Background: Political and Legal Status of Women

The rights of Malaysian women as citizens to participate in the political and public life of the nation are recognized and guaranteed under the Federal Constitution. Article 8(1) state "all persons are equal before the law and entitled to equal protection of the law". To ensure there would be no laws that discriminate women, Article 8(2) has been reviewed and amended by the Parliament in August 2001 to include the word "gender".

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Therefore, Article 8(2) now reads: "except as expressly authorised by this Constitution, there shall be no discrimination against citizens on the ground only of religion, race, descent, or place of birth and gender in any law or in the appointment to any office or employment under a public authority or in the administration of any law relating to the acquisition, holding or disposition of any property or the establishing or carrying on of any trade, business, profession, vocation or employment".

The establishment of the Ministry of Women and Family Development in 2001 marks the culmination of efforts to assign women's development and issues to a specific ministry. It also signifies a positive move to strengthen the national machinery for women's progress. (APEC: 2004)

A Slow Upward Trend

The involvement of Malaysian women in power and decision-making positions in politics and the economy has been on a slow upward trend since independence After independence, the number of female candidates elected to Parliament has increased at a moderate rate. In the 1959 elections, only 3.1 per cent (three candidates out of 104) of the candidates elected to office in the Lower House were female.
This increased to 3.9 per cent in 1986, 7 per cent in 1995 and 10 per cent in 2000. The number of women elected to the various State Assemblies during this period also increased, rising from a mere 2.7 per cent in 1986 to 4.8 per cent and 6 per cent in 1995 and 2000 respectively.

After the 2004 general election, there are three women ministers in the Cabinet out of a total of 33 full cabinet ministers, three women Deputy Ministers out of a total of 38 and six women Parliamentary Secretaries out of a total of 22. In the Lower House (Dewan Rakyat), there are 22 women out of 219 members and 19 out of 57 members of the Upper House (Dewan Negara/Senate) are women. (APEC : 2004).

TABLE   1   :   WOMEN   CANDIDATES   IN   GENERAL   ELECTIONS

Election Year	1955	1959	1964	1969	1974	1978	1982	1986	1990	1995	1999
Total Parliamentary Seats	52	104	104	144	154	154	154	177	180	192	193
Women MPs	1	3	3	2	5	7	8	7	11	15	20
%	2.00	2.90	2.90	1.38	3.25	4.54	5.19	3.95	6.11	7.80	10.36

Source: Rashila Ramli. 2000. "Political Modernization: Gender Equality in Political Participation?" In Abdul Rahman Embong (ed.), Country, Market and Modernization. Bangi: UKM Press, pp. 198-213

Women constitute over 50 percent of Malaysia's population. (Wan Azizah: 2002). Nevertheless, the presence of women in decision making process is still far from

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satisfactory. Currently women still find themselves under-represented in Malaysia's political institutions.

Methodology

The investigation of this study is undertaken using content analysis of the traditional media *The Star* and online media *Malaysiakini.* According to Van Dijk (1988) contextual analysis focuses on the cognitive and social factors, circumstances, limitations and consequences of textual structures, as well as their economic, cultural and historical backgrounds.

As defined by Neuendorf (2002), content analysis is a research technique for making replicable and valid inferences from data to their context. For this paper a latent coding method is used (also called semantic analysis). Here the underlying implicit meaning in the content will be analysed (Babbie, 2004). The coding system is based on the issues mentioned below to guide the interpretation of the text.

This method is best used for tapping underlying meaning of communication, because people communicate meaning in many implicit ways that depend on content, and not just in specific words (Neuman, 2003).

This paper examines how the traditional and online media portray the role of women in power, whether ruling or the opposition party who are either politicians or women behind the scenes in the 2008 General Elections. So, how does the media frame women in politics? It asks whether women have improved in terms of the quantity of coverage, in relation to Tuchman's (1978) omission concept, and whether the coverage has improved in relation to condemnation and trivialization. Has the representation of women improved as they have increased political participation? Is there any evidence that as women's political power has increased, their media representation has similarly improved?

A qualitative analysis will be used to look into the issues that are discussed by the women politicians and women behind the scenes that are highlighted by the media as reflected in the news articles through out the campaign period. (24th February – 7th March 2008).

Framing theory and gender

Gitlin (1980, p 7) defines frames as 'persistent patterns of cognition, interpretation and presentation, of selections, emphasis and exclusion by which symbol handlers routinely organize discourses. Tankard (1991) defined media frame as the central organising idea for news content that supplies a context and suggests what the issue is through the use of selection, emphasis, exclusion, and elaboration.

Similarly, Gamson and Modigliani (1989) refer to frames as 'interpretative packages' that give meaning to an issue. By virtue of emphasizing some elements of a topic above

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others, a frame provides a way to understand an event or issue. According to Cappella & Jamieson, media can be said to frame events and issues in the same way as a photographer frames a photograph, choosing what aspects to highlight or draw attention to, and what parts to leave out (cited in Fountaine 2002).

Weaver (2007) emphasised that framing includes a broader range of cognitive processes such as moral evaluations, causal reasoning, appeals to principles, and recommendation for treatment of problems. Therefore, he claimed that framing is about efforts at making sense of an issue. Hence, framing theory considers how the news media cover events and issues, and in another component of the approach, how individuals make sense of these events and issues, drawing partially (but not exclusively) on media representations.

Framing theory is regarded as especially relevant to the study of media in political life (Reese, 2001). According to de Vreese, newsmakers may employ different frames in their coverage of an issue, scholars agree that this abundance in choice in how to tell and construct stories can be captured in two frames – issue specific and generic frames (cited in de Vreese 2005). Generic frames concentrate on coverage of politics, in particular elections campaigns. (Vreese, 2005).

Gender theorists have also used the approach to explore the framing of women politicians and women's issues. According to Sreberny- Mohammadi & Ross, the approach offers a new, more nuanced way of understanding gendered media representations, which partially supplants the traditional preoccupation with negative news coverage of women (cited in Fountaine 2002).

Data and Analysis

Malaysiakini

Malaysiakini was launched on November 20th, 1999. Its mission is to inform the Malaysian public of the latest and critical issues in an independent and fair manner, carrying news items often neglected or censored by the mainstream media, thereby challenging the views produced by the government-dominated mainstream media. *Malaysiakini* unlike the majority of the print and broadcast media is not owned by any political party, nor does it require annual licensing from the Home Minister.

In line with *Malaysiakini*'s aim, it is quite clear that this online media's main purpose in the 12th General Election is to fill in the gap left by the main stream media as well as to give the underdog candidates coverage which has been neglected by the main stream media, hence an unbiased view for the voters. A majority of the issues voices raised is thus pro-opposition. Access to *Malaysiakini* was offered free for the entire campaign period

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On the analysis of the articles reported in the Malaysiakini, different styles of framing were portrayed when comparing the Opposition women and Barisan women.

Opposition Women

Malaysiakini frames the Opposition women in two different perspectives

Spirited Leaders

It is apparent from the analyses of the articles in Table 2, that the Opposition women are seen as spirited credible leaders who are capable of challenge. Articles such as "Lembah Pantai: Izzah's Induction of fire' mentions how a young girl was tossed into the limelight of history, how her father's words steered her cause from college girl to region-wide symbol of change. By highlighting that Nurul had no gestation period for her entry into politics and that she was plunged headlong into the fray indicates that she is able to weather any challenge.

In "Anwar confident of daughter's victory' projects his daughter as a talented young girl who understands the election process, "Reversal of roles in Titiwangsa" discusses how most voters would imagine that BN would field a 'worldly' professional who will be able to pit his secular skills and pragmatism against a PAS' 'other-worldly' cleric who is skillful in inciting scriptures and Islamic tenants, however the fight between Aziz and Lo' Lo' suggests an aberration from the usual as the National Front had decided to go ahead with a Syariah candidate.

By implying this *Malaysiakini* attempts to highlight that the National Front has gone back against its usual policy perhaps in anticipation of Lo'Lo' stronghold and popularity thus fielding a person who is of same stance as her, hence indicating in itself that Lo'Lo was a force to reckon with.

While in 'Kok raps rival over 'sexist' posters'' depicts how the Opposition leaders have to go through the turmoil of sexist charge related problems. It is also depicted that these problems do not come from men only but also from the same gender, something totally unexpected. The article is framed in such way to urge the readers to sympathize with Kok as she is completely vindicated in the campaign style of caricature depicting her as a loose woman with sexist connotations. By highlighting this article the readers are exhorted to see the National Front women leaders as not being sensitive to their own kind. Statements from JAG (Joint Action Group for Gender Equality) further strengthens the stand that National Front demeans women and when made in relation to their work, violate their right to a safe working environment.

In "Seputeh: Lamb no match for the Lion' elaborates the mighty strength of the Opposition women leader. The continuous usage of affirmative statements frames the mind of the readers that the Opposition women leaders are strong leaders and will not be

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disheartened, hence will be able to deliver. *Malaysiakini* by highlighting the strengths of the Opposition women leaders, sets the frame to lead the readers into perceiving these leaders are credible and professional.

Table 2 – Spirited Leaders

24/2	Lembah Pantai: Izzah's Induction of fire
25/2	Anwar confident of daughter's victory
25/2	Reversal of roles in Titiwangsa
3/3	Kok raps rival over 'sexist' posters
3/3	Seputeh: Lamb no match for the lion

Positive Feedback

In analysing the articles in Table 3, it is evident that positive frames were used to illustrate the Opposition leaders. In "Match- making manifesto woos voters' the Opposition is framed as a caring leader who wants to provide benefits like match-making and reduced dowry for women in a state like Kelantan where women are the majority, thus implicating that women interest was an important part of their manifesto,

'Nurul Izzah gets celebrity greeting' articulates how Nurul Izzah looks like a like a celebrity graciously basking in a red carpet glow and how that all strata of the society were bowled over by her ability and vision for them .With a sub heading entitled 'Intelligent Arguments' and stressing that the young onlookers fawned over the winsome candidate, and wanting to touch the glamorous aura about her it was clear that *Malaysiakini* sets to conjure a positive frame of the Opposition women leader who is intellectually smart, "Lo'Lo' woos Kg Pandan Indian Settlement' express how the Indians in the area are fed up with the empty promises of government and BN officials to resolve their housing woes and now are pinning their hopes on the Opposition women leader by becoming part of her Kampung Pandan PAS supporters' club. Thus the articles by zooming on their popularity attempt to set a conclusive frame in the mind of the readers.

Table 3 – Positive Feedback

26/2	Match- making manifesto woos voters
5/3	Nurul Izzah gets celebrity greeting
2/3	Lo'Lo' woos Kg Pandan Indian Settlement

Critical/Negative of Barisan Women

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In line with Malaysiakini's stand of giving the underdogs pertinent representation, minimal articles were written to portray the Opposition in a negative manner, thus most of the articles were anti – National Front. (Table 4)

In 'Divorce Umno, Zuraida tells Malay voters' urges voters to divorce Umno as there is nothing to hope for in these new Umno Malay leaders, they should be brought down from power, because they are robbers, snatchers and plunderers, "Husband, wife? More like cats and dogs', *Malaysiakini* implies that the Indians should divorce the MIC as they have done nothing concrete for the Indians.

"Woman activists manhandled by MIC workers' expresses how unruly the MIC party workers were towards the JAG activists who were apolitical and were there to show concern for gender equality among those chosen to contest in this general election as well as to call for the removal of sexist members of parliament.

'Chew Mei Fun, which planet are you on?' reveals her lack of knowledge of what is going on in the country, in particular the New Economic Policy, "Lembah Pantai : Mud Slinging in the rain Shahrizat' stresses how Shahrizat, who had earlier claimed she would not indulge in personal attacks in her campaign, seemed to against her word, thus not being trustworthy.

By framing articles that imply the National Front as very obstinate and egoistic *Malaysiakini* attempts to coerce readers into not swaying for the National Front's attics. Thus, *Malaysiakini* uses a host of cues of frames to pressure the readers not to trust the National Front

Table 4 – Critical/Negative towards Barisan National

26/2	Divorce Umno, Zuraida tells Malay voters
27/2	'Husband, wife'? More like cats and dogs
2/3	Woman activists manhandled by MIC workers
4/3	Chew Mei Fun, which planet are you on?
7/3	Lembah Pantai : Mud Slinging in the rain.

The Star

The Star gives covered a spectrum of women issues either as frontline leaders, behind the scenes support not just for the male leaders but as strong foundation for the family, hence a very holistic unit. The articles were also framed to portray that the women were the back bone of the family unit, thus creating an image of powerful women, the leader and the family preserver.

National Front women leaders are competent, dynamic and duty bound

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Evidence can be drawn that the National Front women leaders wish to be seen as competent, dynamic and duty bound. (Table 5) The National Front women leaders are advocated as leaders that are sincere and respectful of their fellow contestants.

Articles such as 'Azalina: BN knows women are capable' indicate that National Front has confidence in its women leaders. 'BN women who make history' shows that National Front is ready for women power, hence women leaders have got the mandate to compete'.

"Ng: Good government like a good wife' mentions that women have been likened to be good wives, with a good wife you need not seek another one, instead you hold steadfast and continue to support her through thick and thin. This sexist statement that stereotypes women as home makers could have been a double edged sword that made the voters shun away from National Front.

"Chew Mei Fun not one to shy away from hard work' exhorts the readers to believe that Chew's advocacy for women stems from a personal conviction and her contribution to the women cause has been immense,

"Personal touch works wonders for Noraini' mentions meeting face-to-face is the most effective way to address the citizens concerns, Don't badmouth opponents Puteri Umno candidates told' where candidates are reminded that this is a fair election and told to be mindful of what they say.

'Shahrizat lends polls rival a helping hand' mentions how Shahrizat is so helpful that she is even willing to assist her own contender

Thus the framing by *The Star* attempts to create salience in the eyes of the readers that they should vote for the National Front women leaders as these leaders are a set of unswerving leaders who will be able to fulfill the needs of the community.

Table 5 – National Front women leaders competent, dynamic and duty bond

Dates	Headlines
25/2	Don't badmouth opponents, Puteri Umno candidates told
25/2	Shahrizat lends polls rival a helping hand
1/3	Azalina: BN knows women are capable
1/3	BN women who make history
1/3	Ng: Good government like a good wife
3/3	Chew Mei Fun not one to shy away from hard work
5/3	Personal touch works wonders for Noraini

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National Front women are caring and family orientated

From the analyses of the articles in *The Star*, it can be apparent that the National Front women wish to be seen as having strong family values. (Table 6) This can be seen in "Wives join battle' illustrate how women are the force behind the men candidates**.** 'A family affair' implies how the family and relatives unite as a unit and stand steadfast for their family member who is a candidate in the elections. "Campaigning as a family" whereby a family gets together to volunteer support for their candidate. 'Saripah stands by her hubby,' where the wife is a pillar of strength for the husband. 'Mum on campaign trail makes time for her young children' elaborates while the elections were important the National Front women leaders are one who never neglect their home base. 'Jeanne finds campaign an eye-opener' expresses how the Prime Minister's wife finds the campaign an eye opener and how she is supportive and proud of her husband. 'Awang Adek: Mum would have been proud' illustrates the candidate's love for his mother and how the role of the mother is well appreciated by a male candidates, 'Murukasvary's husband and three sons a real boon' indicates how the women candidates get utmost support from their family members.

The Barisan Nasional leaders have been framed in *The Star* as leaders who have a strong sense of family values and traditional cultural values. They have clear priorities, are resilient and committed to their job portfolio.

The Star by choosing to highlight these issues, attempts to us the power of the media in such a way to exert pressure by convincing the readers that the National Front women leaders were caring and thus would put the interest of their constituencies first if elected.

Table 6 : National Front women are caring and family orientated

Dates	Headlines
28/2	Wives join in the battle
29/2	A family affair
29/2	Campaigning as a family
29/2	Saripah stands by her hubby
4/3	Mum on campaign trail makes time for her young children
6/3	Jeanne finds campaign an eye-opener

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6/3	Awang Adek: Mum would have been proud
7/3	Murukasvary's husband and three sons a real boon

Opposition Women

Minimal coverage is given to the Opposition women. In "More accusations being hurled involving Po Kuan' elaborates on her lack of responsibility while "Grandma set to campaign" mention that at 89-year-old Maimun Yusuf made headlines as possibly the country's oldest ever election candidate.(Table 7)

Table 7: Opposition women

26/2	More accusations being hurled involving Po Kuan
26/2	Grandma set to campaign

The Star by highlighting the Opposition weakness attempts to influence the readers mindset that the Opposition women leaders were not a bunch of committed leaders.

Discussion

This paper attempts to gauge the effectiveness of two newspapers, i.e. one the traditional print media, *The Star* and the other on-line media, *Malaysiakini*. It is obvious that both the media seek to set the frame for their respective readers. *The Star* being indirectly owned by the National Front attempts to set the frame in getting its readers to believe that it is vital to vote for the National Front women leaders. On the other hand *Malaysiakini* in achieving its aim to fill in the gap left by the mainstream media reports the Opposition women leaders favourably thus framing its readers to give the Opposition parties a chance. The effectiveness of on- line media is clear as can be seen from the inroads made by the opposition parties in the 12th General Elections. The findings indicate:

Women, a subset of the elections

It is very obvious for any reader to see that neither *The Star* nor *Malaysiakini* were focusing on women issues as their main agenda in this election.

While *The Star* appeared to have given more coverage on the women's participation, it still stands firmly lagging behind in comparison to the male political leaders representation.

The Star gave the impression that the women's role 'were more behind the scenes' or the back bone and failed to mention the more significant contributions of the women.

Malaysiakini, while focusing on women Opposition leaders' strength and contribution, nevertheless had minimal articles featured in comparison with its articles on male leaders.

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However the articles had more depth with substantial issues being discussed thus creating an impact which then created a good impression of the women leaders.

Hence in comparison while the *The Star* had more articles, it was *Malaysiakini* that shone as its articles were more focused on the women leaders itself, their strength, capability and performance.

Nevertheless it can be concluded that in both the media, the women's role offers continued support for the omission aspect of "symbolic annihilation' thus indicating that on the surface while more women issues are discussed , main critical issues on women developmentalism is clearly omitted. Thus the notion of the 'glass ceiling' being a barrier indeed exist in the Malaysian media representation of women.

Leader, **Supporter or Follower?**

It is evident that *The Star* covered the women in an array of roles, from the loving mother, the ever faithful and supportive wife, the back bone of the political party, the role model, the strong leader and the indispensable icon. *The Star* portrays women as having continued the trend of providing solid support for male leaders, and have engaged themselves primarily in raising support for the parties. Women members are depicted to turn out in full force during election campaigns, and carry out routine tasks related to daily campaigning and facilitating voter participation during the election process. While women provide strong support to their parties, the majority of women seem to have remained in their role as supporters of male leaders, and have, with important exceptions, retained traditional gender roles within contemporary political life.

While *Malaysiakini* only focused on the women as leaders who championed their cause. Though the coverage of women was lesser in comparison to *The Star*, however the issues discussed are more substantial and significant. Women leaders were seen to be projected as reliable and steadfast, hence worthy to be elected as a representative.

Malaysiakini portrayed the coalition of the opposition women as a group holding a set of comprehensive principles, held fast to the name of 'rakyat' or 'the people.' Hence, a far better portrayal than *The Star* in terms of the issues discussed.

On the other hand, evidence can be drawn that *The Star* highlighted marginal issues such as the National Front's women candidates competency and commitment, how the candidates and the ruling government were doing a good job, how well they were liked and thus to ensure this the public needed to cast their votes for the National Front.

Malaysiakini also differed from *The Star* in its coverage by drawing attention to the role of the women as leaders only. Thus, it is visible that *Malaysiakini* attempted to sway the readers view. With the accessibility of the on-line media, the public who craved for a

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different style of reporting took advantage of the services provided by *Malaysiakini* and patronized it well.

Perceptions of women leaders

It is apparent that there is a certain pattern in the portrayal of the women leaders by the media, be it National Front or the Opposition. This is in terms of how the media highlights women leaders, whereby they are pitted against each other, 'the strong' against 'the weak' as seen in Yong Dai Ying versus Elizabeth Wong, 'the young' against 'the old' as seen in Nurul Izzah versus Sharizat and the service only MP's in Chew Mei Fun versus Teresa Kok.

Thus, with both *The Star* and *Malaysiakini* highlighting these issues, it illustrates that women leaders were cannibalizing themselves. Hence, even further symbolic annihilation. This tends to cloud and belittle the issues that the women leaders represent which are then not featured and highlighted.

Stereotyping of gender issues

Does the media reflect social reality? In a patriarchal society like Malaysia, the role of men are considered superior in comparison to women. This is consistent with Tuchman's (1978) suggestion that changes in society would eventually result in more equitable media coverage although a period of "cultural lag' needs to be endured. (Fountaine, 2002). Taking the cue from here it is apparent that the media in Malaysia reflect this in their reporting using gendered news frames. With men dominating most positions in the electorate system, women are seen as the back standers or the 'women behind the successful man'. (Dalton, 2008)

The stereotyping of women is well projected with images of compassion and sensitivity. The media by drawing attention to one's imagined femininity by utilizing gendered identities such as a mother or housewife may also lead to certain expectations of the public. Women are seen carrying out routine tasks related to daily campaigning and providing support for their male leaders. The use of traditional frames which are built around the dominance of men, with women portrayed as anything less than political outsiders. Hence the media reporting follows these sentiments as this is prominently seen in the reporting of the *The Star* paper. The womanhood is exemplified in motherhood/ parental, wife and family and feminine themes were clearly exploited and used as a criterion for leadership portrayal to garner support from the readers. It is evident a preoccupation with the maternal and familial status of women politicians is consistent with the concepts of trivialization and condemnation when equivalent criteria are not applied, or used to judge, the male colleagues representation.

Conclusion

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Voters see the political landscapes largely through the eyes of news media.(Kahn: 1994). In races for the parliamentary or state seats where direct contact with the politicians are rare, voters receive most of the information about the political parties and political leaders from the newspapers. As such voters do not experience politics directly. Instead the perception of political world is framed largely by the news media's representations. Thus as a result of selectivity, the news media frame rather than mirror the political landscape. This is especially potent during the general elections where voters almost exclusively rely on the media for political information. Voters' dependency on the media for political information may be problematic for women running office.

Furthermore, the news media seem more responsive to the messages sent by male candidates. The society's cultural baggage where men's views in politics are seen to carry more weight than women's adds to this problem. Thus, the media's agenda more closely resembles the agenda issued by male candidates. This is not something new as in United Kingdom , despite the apparently large numbers of stories about Margaret Thatcher, the standardized measure revealed that grey boring, John Major was the subject of more stories that the Iron Lady (Lawrence). This systematic difference in press treatment of male and female candidates may hinder women as they strife for political office.

Media not only informs, it also influences. The media is a very powerful agent and women leaders be it the National Front or Opposition should make it their business to monitor negative media images of women and influence the media to take up a courageous stand, differentiating constructive criticism from willful attacks on the powers that be. Since media is a most effective agent of change, it can either be used for social development or to reinforce prejudicial stereotypes.

It is clear that women's representation in the Malaysian media is changing to reflect their increased political status and participation as elected representatives, but the old adage that more does not mean better applies. Women form at least half the population and are infact politically more conscious and motivated. This is substantiated by the fact that more Malaysian women take the trouble to register as voters and more women then men turn out to cast their ballot.(Tan, 1999) While the visibility of women has increased, structural, systematic gendering of women in politics still takes place in the media. This gendering often takes place with the involvement of women themselves, but this involvement anticipates and feeds sexist media representation of women in politics.

Hence, Tuchman's classic work on symbolic annihilation does occur in the Malaysian media whereby there are instances of omission and trivialization despite greater political gains by women. (Fountaine, 2002) Journalism educators need to re-theorise gender in the news for the 21st century less in terms of visibility/invisibility and more in terms of the quality of media representation. The onus falls back on the industry to ensure journalists are trained in and maintain high standards generally, which will have positive implications for diversity. Gallagher (2001) discusses that not only women are ignored and stereotyped, but also that there is a tendency for reporters to practice "lazy

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journalism" in, for example, reverting to stereotypes to explain actions. Instead, one of the problems is that in the media, as in every sector, the accepted way of doing things is usually also the easiest. The challenge for the women leaders is to convince media professionals that the easiest way is not necessarily the best – in terms of the quality of their output, or its appeal to the audience (Gallagher, 2001).

Women leaders on the other hand must endeavor for a more open, just, and equitable society. Politics in Malaysia has been painted as a man's world , 'old boy's network', one in which women will not last, let alone make an impact. Women leaders need to be serious and passionate over their causes and take up a central position as pressure groups and lobbyists. Their participation has to go beyond numbers and move towards a qualitative transformation of women shaping national decision making process. This is critical as statistics by the Inter Parliamentary Union shows Malaysia's rank has dropped from the 72nd place (out of 181) to 104th (out of 188) countries in representation of women in Lower and Upper House of Parliament. The Asean average is 14.6%; Malaysia is 10.5%. Asean Countries like Indonesia, Thailand and Philippines all rank higher than Malaysia despite their lower economic standing.(Abdullah, 2008)

Thus, women must overcome the 'glass ceiling' phenomenon,' which serves as an invisible barrier and obstacles to women's progress. As part of this effort, it is necessary to establish an alternative agenda that includes enabling women to maximize their potential in contributing to their personal well-being and to the development of their society. It is necessary to create an alternative channels that goes beyond tokenism that does not just use women as an accessory of the political machinery to bring in the votes during elections. Women's rights to participatory democracy need to be redefined. While women's positions in politics are one aspect contributing to development, it is important to remember the role women play in other sectors of society. Malaysia's experience has shown that any discussion on the role of women in politics cannot be confined to only representation in formal institutions. Women in Malaysia thus need to move the wheels for a 'Political Awakening' which is in keeping with the changes taking place all over the world.

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A Modern Approach to Application of Abbreviation and Acronym Strategy for Vocabulary Learning in Second/Foreign Language Learning Procedure

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Abstract

Understanding some key notions of how vocabulary is acquired, can help the learners of the other languages to have better and easier learning, longer retention, and even help the teachers deliver more realistic and effective vocabulary teaching.

The purpose of research described in the current study to investigate on particular approach as a theoretical format of abbreviation and acronym strategy which is an easy, simple, powerful, and applicable strategy for learners of the other languages .The facility of such approach lead to make some of psycho-background in the mentality of the learners to feel the vocabulary learning procedure as an easy procedure; and learn new vocabularies easier and better, and have longer retention. Such approach on abbreviation and acronym strategy can be suggested to be applied in both learning and testing of vocabulary in the condition which is possible to have high correlation to find out the correct results. Important is that such approach can spread the positive view on the learners' vocabulary knowledge, the vocabulary learning procedure and the evaluation of vocabulary knowledge of the learners. The suggestion of such approach is based on the high correlation among many abbreviations and acronyms which was studied. The application of such approach is discussed in the present study.

Keywords: vocabulary learning, vocabulary learning strategies, vocabulary testing, abbreviation and acronym strategy

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1. Introduction

Vocabulary learning in second/foreign language procedure is an important pedagogical area which is under discussion of three circles:

a) The importance of vocabulary learning in second/foreign language learning procedure is emphasized and even focused in many studies (Bensossan, Sim, & Weiss, 1984, Bogaards, 2001,Cook, 1991, Ellis, 1995, Ellis & Beaton , 1993, Gairns & Redman, 1986 , Hu & Nation, 2000,Kojic-Sabo & Lightbrow, 1999,Lewis, 1993, McCarthy, 1986, Meara, 1980, 1987, Morgan & Rinvoluncri, 1986, Nassaj, 2006,Nation, 1993, Pulido, 2004, Schmitt & McCarthy, 1997, Stern, 1992, Swanborn & Glopper, 2002).

b) The importance of effect-degree of vocabulary learning strategies in second/foreign language procedure attracted the attention of many scholars in doing research on it (Basturkmen & Loewen, 2002, Brown, 1994, 2007,Chomat, 1993, 2004, Claxton & Murrell, 1987, Cohen, 1998, Ehraman, 1996, Ehraman, Schmitt, 2000, Ellis & Barbara, 1994, Ellis, Lawson & Hogben, 1996, Fleder & Silverman, 1988, Green & Oxford, 1995, Griffith, 2003, Gu & Johnson, 1996, Laufer, 1989, Leaver, & Oxford, 2003, Macaro, 2001, Nation, 1990, 1994, 2001, Naunan, 1991, O'Malley & Chomat, 1990, Oxford, 1990, 1992, 1996, Oxford & Crokail, 1990,Oxford & Crookall, 1989, Schemeck, 1988, Stern 1975, Wenden & Rubin, 1987, Williams, 2006).

c) The importance of reliability and validity of the test in estimating the learners' vocabulary knowledge is discussed by many scholars (Bachman, 1995, Beebe, 1998, Coady & Huckin, 1997, Cohen, 1990, Ellis, 2004, Horst, 2005, Horst & Meara, 1999, Hughes, 2003, Jiang, 2000, Koda, 2005, Mobarg, 1997, Read, 2000, Webb, 2005).

In number 'c', regarding reliability and validity of testing of learners' vocabulary knowledge in second/foreign language learning procedure, there are different formats of test which are applied to test the vocabulary knowledge based on the type of materials to be tested and the goal of examiner in testing. In this way, the examiner may apply one or more formats in order to determine the particular circle of learners' vocabulary knowledge. Such determination occurs through one of the following three styles of relations:

a) When the teacher and examiner are the same person, such a person can adjust between both formats of the materials to be taught and tested.
b) When the teacher and examiner are not the same person, the examiner must fix the format of test based on the format of teaching and the materials are taught.
c) When the teacher and examiner are not the same person, the teacher must fix the materials and the format of teaching accordingly.

The abbreviation and acronym can be applied as a strategy in correlated conditions of both teaching and testing in order to develop some code as a connection to lead to better learning, and especially longer retention on both short-term and long-term procedures. In such situations, it must be high correlation as much as possible for both types of format of teaching and testing to have correct decision about determination of the grade of the learners' vocabulary knowledge (as it will be discussed regarding abbreviation and acronym strategy in the current study).

2. Statement of nature of theoretical format of abbreviation and acronym strategy

In second/foreign language learning procedure, the concept of knowing abbreviations and acronyms includes one of the three following dominions:

a) Knowing abbreviations and acronyms includes knowing abbreviations and acronyms at the alphabetical level only (alphabetically only).

b) Knowing abbreviations and acronyms includes knowing meaning or explanation of abbreviations and acronyms without knowing what words are abbreviated.

c) Knowing abbreviations and acronyms includes either meaning aspect of abbreviations and acronyms (or explanation), and what words are abbreviated.

Putting emphasis on one of the three mentioned dominions can show the importance and even focus on application that can be applied in both teaching and testing for determined and defined purposes which can be categorized as:

a) In automated and memorizing type of learning, which is lack of process of meaningful learning, knowing abbreviations and acronyms at the alphabetical level is enough.

b) For the purpose of understanding and comprehension only, knowing meaning or explanation of abbreviations and acronyms as a key role is necessary.

c) In meaningful learning, successful and complete communication regarding different situations related to application of abbreviations and acronyms, knowing both of alphabetical level and meaning level and their connection to each others must be processed.

In the process of vocabulary learning, the procedure steps of abbreviations and acronyms can be as:

a) Step one: Knowing at the alphabetical level
b) Step two: Knowing at the meaning level
c) Step three: Knowing at the connection and use level

The first step can be beginning of the development, the second step covers the quality knowledge and the third step is as covered knowledge.

In such situations, the first step is as passive knowledge which the learner has, the second step can be analyzed as both passive and active knowledge depending on the type of consideration to its' process, but the third step is considered as active knowledge.

Therefore, in teaching, the teacher can focus on passive knowledge in the beginning of teaching the procedure of abbreviations and acronyms at the alphabetical level because such passive knowledge can

be the basis. In continuation of the procedure, the meaning and connection facility will occur. In such situations, in testing as well as teaching, the process of testing includes three steps which are testing of passive knowledge at the alphabetical level, testing of meaning level, and testing of connection of alphabetical and meaning levels together regarding the scale of application of materials, level of difficulty of test, and language proficiency level of the learners.

3. Types of abbreviations and acronyms in theoretical format of abbreviation and acronym strategy in English

In the current study, the abbreviations and acronyms are categorized as two main types.

A) Type One

The general norm of abbreviations and acronyms are available as a common aspect in dictionary type sources normally. Such type includes such following states:

a) The acronyms may come from English or non-English words.
″AD″ = ″Anno Domini″ (non-English words)
″DC″ = ″Direct Current″ (English words)

b) The acronyms can include two unrelated concepts of meaning.
″PC″ = ″Police Constable″, ″Personal Computer″

c) The application of slash, point or capital type written form of alphabet can be used regarding from what words come from and what meaning they have.
″C/O″ = ″Care Of″   <=>   ″C.O. ″ = ″Commanding Officer″
″PC ″= ″Percent″   <=>   ″PC″ = ″Personal Computer″
″dec. ″ = ″deceased″   <=>   ″Dec. ″ = ″ December″

d) The acronyms can include two or more words.
″IC″ = ″Integrated Circuit″
″ADD″ = ″Attention Deficit Disorder (s) ″

e) Acronyms can be attached to one word.
″D -Day″

f)The abbreviations can include one or more words of related meaning.
″ch. = ″chapter″
″ht″ = ″height″
″fig. ″ = ″figure″, ″figurative″
″ed. ″= ″edited″, ″edition″, ″editor″

B) Type Two

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Pedagogically assumed abbreviations and acronyms in learning and testing of vocabulary procedures can be developed in order to have easier and better learning and longer retention of meaning aspect of vocabulary learning procedure for the learners. It is assumed that through the abbreviation and acronym strategy, the teacher aims to code the meaning of one or more words by some extracted alphabets as symbol of some meaning, and through experience the learners acquire skill to decode the meaning which is wanted. Such facility can make some psycho-background in the learners to feel the vocabulary learning easier and better, especially when they are on the low level of language proficiency and the vocabularies to be learnt are on difficulty level.

In two types of abbreviations and acronyms, three situations can be considered:

a) The abbreviations and acronyms can be used from unchanged forms from dictionary type source.

b) The abbreviations and acronyms cannot be found in dictionary type source and they are teacher self-developed abbreviations and acronyms type.

c) The abbreviations and acronyms can be combined, compounded or mixed of both dictionary type source and teacher self-developed types.

The goal in type two of abbreviations and acronyms is teacher self-developed type; but the teacher can use dictionary type source as a facility to use abbreviations and acronyms from this source, or develop some model based on this source in order to develop abbreviations and acronyms. Therefore, the dictionary type source can be helpful and useful instrument to make better development of teacher self-developed type of abbreviations and acronyms.

4. Consideration types of theoretical format of abbreviation and acronym strategy

Shifting the approach can facilitate better and easier learning, and longer retention of vocabulary meaning. In learning of vocabulary, two types of consideration occur:

a) The first type of consideration

The learner should learn the form of vocabulary whether written or spoken (pronunciation) alongside knowing of the meaning of vocabulary.

b) The second type of consideration

The learner can learn the meaning of vocabulary without knowing written or spoken (pronunciation) form of vocabulary.

In later consideration (second type), the focus is on meaning as the most necessary aspect of vocabulary learning to be learnt. However, in the former consideration (first type), the focus is on both meaning aspect and form aspect (whether written or spoken). The scale of emphasis on one aspect can be equal to the other aspect or one aspect is more emphasized than the other aspect, but such emphasis cannot be significant.

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The type of campaign in vocabulary learning procedure in both considerations depends on difficulty level of vocabulary (such difficulty depends on language proficiency level of the learners), frequency use of vocabularies (the frequency is compared with the situations that learners deal with) and off list words (off list words from the point of view of the learners' vocabulary knowledge).

Such campaign can be due to difficulty or even impossibility in vocabulary learning procedure that learners face in order to learn vocabularies. In such situations, from teaching and testing point of view, the teacher and examiner can shift the type of consideration from the first type of consideration to the second type of consideration to have easier and better campaign in the vocabulary learning procedure that leads the learners to be more successful.

The level of difficulty in such campaign can be varied depending on language proficiency level of the learners, the materials to be taught and on the purpose of course design. Some other sub-factors also can interfere alongside the three mentioned factors. Naturally it is clear that the mentioned shift should help the learners to have easier and better learning, and longer retention of meaning aspect of vocabulary learning procedure. In other words, the focus on the meaning aspect of vocabulary learning through presentation by some abbreviations and acronyms as a code to present the meaning of vocabulary will help the learner to be more successful in the campaign that he has in vocabulary learning. The nature of second type of consideration is based on having high correlation as much as possible between the meaning aspect of vocabularies to be learnt as one parallel aspect and the abbreviations and acronyms of such vocabularies as a code to present the meaning of new or unknown vocabularies as another parallel aspect.

5. The reason for application of abbreviation and acronym strategy

The vocabulary items, vocabulary learning strategies, and evaluation of vocabulary knowledge are three considerable goals among the recent studies regarding vocabulary learning procedure. Not having emphasis and correct application regarding every one of them can be due to wrong effect on the results of the procedure. Researchers, teachers and examiners should find out why and how this happens. In such situations, from teaching and testing point of views, the teacher and examiner, whether he is a same person or not, must fix the type of material format to be taught and the type of format of testing in order to have correlation as much as possible. Hence, changing one of these two formats changes the other one automatically. The important point is that the type of consideration (which was discussed in part four) affect the format of testing and immediately the application of such format in testing will lead the learners to feel that they must have more focus on such type of consideration.

In vocabulary learning procedure, teaching and testing should be considered along side the following process (as five steps) in the current study.

a) Aspect one

It must focus on helpful and useful aspect of vocabulary learning strategies to be suggested to the learners.

b) Aspect two

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The suggested vocabulary learning strategies must have the facility to help the learners to become more successful regarding the vocabulary learning procedure (as it was discussed in part four).

c) Aspect three

It must be development of a special strategy or strategies regarding to help the learners to learn meaning aspect of vocabulary learning procedure (as it was discussed in part four).

d) Aspect four

Success in meaning aspect of vocabulary learning procedure must be evaluated as learning and scored as a positive point.

e) Aspect five

In testing based on teaching procedure, it must be high correlation as much as possible in both types of strategies in teaching and testing.

In this way, abbreviation and acronym strategy

a) can be useful and helpful strategy for the learners to have easier and better learning.
b) can facilitate easier and better learning, and longer retention of meaning aspect of vocabulary learning.
c) can show some positive view on vocabulary learning procedure and the learners' vocabulary knowledge regarding meaning aspect of vocabulary.

6. Pedagogical application of abbreviation and acronym strategy

Theoretical explanation can be base for practical procedure, but the application of such theoretical explanation is varied from the nature of what is supposed as theoretical explanation. Knowing and application are two connected sides of the same concept that it must focus and empirically putting attention on how to formulate needed formulation, and how to apply such formulation.

We discussed some theoretical format of abbreviation and acronym strategy. now it is time to know how to have application of such discussion empirically.
The application includes three categories which are elementary level of application, intermediate level of application and advanced level of application.

The elementary level of application includes two sub-categories:

a) Low proficiency level learners,
b) The supposed easy vocabularies to be learnt.

The intermediate level of application includes two sub-categories:

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a) Intermediate proficiency level learners,
b) The supposed intermediate vocabularies to be learnt.

The advanced level of application includes two sub-categories:

a) High proficiency level learners,
b) The supposed advanced vocabularies to be learnt.

Teaching and testing of vocabularies as both correlated sides of a particular process can show the level of application of such theoretical format. In this way, the selection of vocabularies to be abbreviated will be decided will depend on the language proficiency level of the learners and the difficulty level of the vocabularies.

Also testing should depend on the language proficiency level of the learners and the difficulty level of vocabularies. Therefore, the circle of selection of vocabulary items to be abbreviated and the type of process for developing abbreviations and acronyms are varied depending on particular factors; however, along side such factors, the teachers and examiners' approach in analysis of such theoretical format can be very useful.

In such situations, development or use of abbreviations and acronyms as a code to present meaning of one or more vocabularies can lead the learners to focus on application of such development.

Let's explain the application of abbreviation and acronym strategy through some examples. If we define that ″Vocabulary″ = ″V″, ″Learning″ = ″L″ and ″Strategy″ = ″S″, we can also show ″Vocabulary Learning Strategy″= ″VLS″. In such cases, it is claimed that ″V″ is as a code for ″Vocabulary″, ″L ″is as a code for ″Learning″, "S" is as a code for "Strategy", and "VLS" is as a code for ″Vocabulary Learning Strategies″. Such codes are presentations of particular   meaning aspect of vocabularies that must be learnt.

Learning of codes is a shortcut of vocabulary learning, and in this way it can be helpful in better and easier learning, and longer retention of vocabulary. The obtained shortcut makes the campaign in the learning of meaning aspect of vocabulary learning procedure easier.

Or let's consider from another view that a teacher asks learners to learn the meaning aspect of concept of ″Prime Minister″. Clearly the meaning aspect of concept ″Prime Minister″ can be learnt better and easier, and be retained longer through ″PM″ rather than "Prime Minister." Suppose that same learners were asked to find equal vocabularies acronym for ″DC″ in some text which is given to them. If the learners found ″Direct Current″ in the text, they can attach ″Direct Current″ to″ DC″, and learn the meaning aspect of the concept ″Direct Current″ as ″DC″. Obviously such learning can be easier. It must be mentioned that the teacher must help the learners to know how they can be successful in their finding of vocabularies to be abbreviated.

In simple words, a teacher can suggest the application of abbreviation and acronym as a strategy to be used by learners in order to develop facility of better and easier campaign in vocabulary learning procedure. In such strategy, the meaning aspect of vocabulary learning procedure is more emphasized,

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and such emphasis is shown when the results of knowing the meaning aspect is scored as a positive point when even learners do not know the correct written or spoken form of vocabularies. Therefore, the teacher can teach the learners how to code the meaning of vocabularies which are difficult and connect the obtained code with the meaning of vocabulary. Or, in testing, the examiner develops the importance in coding the meaning of vocabulary through asking the learners to decode.

Abbreviation and acronym strategy is an easy applicable strategy for learners to code the meaning of new vocabularies, especially when they find difficulty in learning them.

7. Conclusion

The current study suggests that one dominant topic in the recent studies regarding vocabulary learning is vocabulary learning strategies which include abbreviation and acronym strategy that can be helpful and useful for learners to be more successful in learning the meaning aspect of vocabulary learning procedure. Such strategy is an easy, applicable and powerful instrument for the learners to be help when they deal with difficulty of new or unknown vocabularies.

Although this study, clearly contributes to our understanding of theoretical format of abbreviation and acronym strategy in learning vocabulary in second/foreign language learning procedure, but there is limitation to consider which ones are common in the literature such as different experiments with different language proficiency level learners. Further research is needed to better determine the strength of the association among other strategies regarding such study.

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Causes of Social Acceptance of "O" and "A" Level Education System in Pakistan

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Abstract

The role of education remains the most important factor in the socio-economic development of a country. The population of the study was all O and A level schools, O and A level students, their parents and teachers in Pakistan. The sample of the study included 45 schools, 230 teachers, 450 O and A level students and their parents. The sample of the study was drawn from Islamabad, Lahore, Karachi, Rawalpindi and Peshawar.

For the collection of data, three questionnaires, one each for O and A level students, their parents and the teachers of O and A level were developed. Three structured interviews, i.e., one each for O and A level students, their parents and the teachers were designed.

Data were collected through personal visits. For the analysis of data, percentage and chi square as contingency test were used.

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It was concluded through this study that social acceptance of O and A level education system in Pakistan was due to better learning, fair examination system, advanced and better curriculum, easy admission in foreign universities, provision of quality education, better learning environment, knowledge based education system, status symbol for family, flexible scheme of studies, up-to-date, comprehensive and informative courses, international acceptance and recognition, better professional careers and dynamic future for students.

It was also found that O and A level education system was expensive in Pakistan. Majority of the students belong to elite class of society.

Key words: Performance, Curriculum, Career Counseling, Learning, Creative thinking.

Introduction

In Pakistan, the formal system of education comprises elementary, secondary and tertiary levels. At the secondary level, there are two parallel systems of education, i.e., Pakistani education system (Secondary School Certificate - SSC) and English education system (General Certificate of Education Ordinary Level-GCE O level). At higher secondary level, there are also two parallel system of education one is Higher Secondary School Certificate (HSSC) and other is A level.

The major purpose of this study was to investigate the social acceptance of "O" and "A" level education system and its implications in Pakistan. The main objectives of study were; (1) To investigate the causes of social acceptance of O and A levels, (2) To explore the academic value of O and A level, as viewed by students, parents and teachers.

Education is a vital investment for human and economic development and is influenced by environment within which it exists. Changes in technology, labour market patterns and general global environment, all require policy responses. Traditions, culture and faith all reflect upon the education system and at the same time are also affected by then. The element of continuity and change remains prepetualand it is up to the society to determine the face and direction.

Cultural values of the majority of Pakistanis are derived from Islam. Since an education system reflects and strengthens social cultural and moral values, therefore, Pakistanis' educational intervention has to be based on the core values of religion and faith (Govt. of Pakistan, 2009 a.).

Education is extensively regarded as a route to economic prosperity, being the key to scientific and technological advancement. Hence it plays a pivotal role in human

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capital formation and a necessary tool for socio-economic growth (Govt. of Pakistan 2009 b.).

The concept of education is like a diamond, which appears to be of different colours when seen from different angles (Sadiq, 1981).

Dewey defines education as a process of living through a continuous reconstruction of experiences. It is the development of all those capacities in the individual, which will enable him to control his environment and fulfill his possibilities. Education, in its limited sense, included and influences deliberately planned, chosen and employed by the community for the welfare of its coming generations. The purpose is to modify the behaviour of the child and to shape his personality in a more desirable form (Khalid, 1998).

Education is closely related to social change, because generally inventions and discoveries take place due to education. Consequently, change comes in society also. The changed society again gives direction to education according to its new form. The education and social change have a sort of action and inter-action. It is the duty (function) of society to bring progressiveness in society and make the attitude of its members liberal and wide. It is very necessary to encourage inventions, discoveries, researches, and tests etc. For bringing progress in society through education, some check on this progress is also necessary so that undesirable elements do not increase in society as a result of changes due to progress and new gains. (Kumar, 2003).

Since 1951, the General Certificate of Education (GCE) examination is being conducted at two main levels, i.e. Ordinary level (O level) and Advanced level (A level) in England. These are being offered since 1959 in Pakistan. There are many institutions in Pakistan which offer GCE O and A level courses to the pupils. An O-level is standard qualification usually taken at the age of fifteen/sixteen. In the United Kingdom the GCE-O and A level examinations are no longer available to students. However, international students outside the United Kingdom are still able to study for this qualification through two examining boards:

- University of Cambridge Local Examination Syndicate (UCLES).

- Edexcel International London Examination (EILE).

An A-level is an Advanced level GCE qualification used internationally as pre-university requirement. This examination is normally conducted after two years of A-level study and is available in a broad range of subjects covering the whole curriculum. Usually, A-level courses immediately follow an O-level course (The British Council, 1999).

In Pakistan, there are many institutions which offer O and A level courses to the students but the recognized institutions from the British Council in Pakistan are 335.

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No significant research work appears so far to find out the social acceptability of O and A level education system in Pakistan .This study was designed to probe the issue at large.

There are many reasons of rapid growth of social acceptance of O and A level in Pakistan, which are given below.

(i)   The English O and A level education system provides best education, in Pakistan, although there are many education system in the world which are claimed to be better than GCSE. But in Pakistan GCSE Education system is considered the best, because no other internationally recognized system is available in Pakistan up till now. The students of O and A levels are educated at international standards. The O and A level education system aims to provide a range of comprehensive and quality education to the students. The teachers have foreign exposure in schools. In O and A level institutions in Pakistan many teachers are foreign qualified (Younis, 2004)

The basic amenities which are available in O and A level institutions are rarely present in public schools of Pakistan. On the whole, lack of well-designed and well-equipped classrooms and laboratories hinder the proper delivery of the level of education appropriate to secondary and intermediate stages (Ahmad, 1986).

(ii)   O and A level education system Schools offer parents a unique education opportunity for their children by combining best of both the religious and modern education. Islamic studies is compulsory for Muslim students in all O and A level institutions in Pakistan. Students are given proper religious education by the Qari (a person who teaches the Holy Quran and conducts religious sessions) (Sabir, 2002).

(iii)   On completion of the O level, the students got ample knowledge to enter in next grade. Successful completion of the A level would provide the requisite basis for further education. O and A level institution in Pakistan aim to maintain sound traditional values, high academic standards and would encourage positive attitudes to work. O and A level education system provides a variety of subjects to the students, the core subjects as   English, Mathematics, Science, Geography, Pakistan studies and Islamiat.

English education system in Pakistan also expects from its students to achieve high standards of conduct, and expected from them to become mature members of the society. At O level student have to choose between 7 to 9 subjects to study by that stage, all students must adopt a serious approach to their work. GCSE would eventually lead to A Levels. The O and A level institutions follow the British national curriculum on the pattern of all schools in the England and Wales (Maryum, 1993)

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(iv)   O and A level examinations could be taken unit by unit and the obtained marks for each unit would be sent separately to the students. One of the benefits of the system is that one does not feel the burden. Secondly, if students are not pleased with their result in any particular unit, they could re-sit in the unit to improve their marks. Students do not have to wait until the end of the year 2 and could re-sit in examination. Their best result will be counted.

- There is no limit to the number of subjects a candidate can attempt.
- The O- and AS-levels exams are conducted twice a year, in January and May.
- There are no age restrictions for O and A level education (Peter, 2004).

(v)   After having passing out O level from the School, the students can apply directly with AS Level to UK, America, Arab States or else any other university in Europe (Iltaf, 2005).

(vi)   Bifurcation of students into the Cambridge and Matric Stream is carried out at the end of Class VII, keeping in mind the student's academic performance in the previous two years, their attitude towards studies and the preference of the parents. Students choosing to take up the Cambridge Stream will not be able to taken a transfer into the Matric Stream, if so desired, later (Fahim, 2000).

(vii)   O and A Level are high profile qualifications. O level has exactly the same value in admitting students to institutes of further education and employment as the UK equivalent GCSE.O level is comparable with IGCSE and the GCSE O and A Level has an excellent reputation amongst many international schools and Ministries of Education

O and A Level Programme is recognized as a reliable record of attainment which counts towards entry to universities and colleges around the world, including all British universities (Eisenhart, 2004).

(viii)   The assessment methods used in O and A level examinations consider better than other local examining boards in Pakistan. Pakistani students become able to compete on equal terms for entrance into leading academic institutions nationally and worldwide due to high standard of 'O' and 'A' level education system. Consequently, the country will evolve to a more competitive position in the global knowledge-based economy (Roehler, 1991).

(ix)   The normally perception about O and A level in Pakistan is that the students of O and A level are superior than other students studying in local education system with respect to creativity, thinking and better understanding of concepts. Elite class of

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society in Pakistan sends their children in O and A level institutions as a sign of pride and status, but poor people can not afford the O and A level education's expenditure for their children (Rana, 2004).

(x)   Private entrepreneurs have done well in providing education to high income group at high cost. O and A level education institutions earned high reputation for so called academic standard, conducive environment they maintained for their students and getting high reward in term of profit in Pakistan. They generate their own funds through high fee (Mothsan, 2004).

(xi)   All the certificates and the grades awarded by the accredited Examination Board / Authority/ Syndicate and institutions recognized by the Education Authority of the country of origin is considered for equivalence

Criticism

Educational System plays a key role in the development of the nations and their future. The class dissimilarity between the educational systems in the subcontinent is the gift of the British during their occupation in the sub continent. Presently in Pakistan, the two parallel system of education are prevailing. One is for the upper class which is also called English medium where the children of the higher class are studying. While other is the Urdu medium education system where the majority of our students are studying which are form lower of middle class.

In fact, due to the difference of the educational system, the higher class has been separated from the lower or middle class. The difference of the class has been taught at a very basic level and this is the major fault in our educational system. The future generation of ours would not be a nation but only a gathering of different classes who are living at a same country. Their ideas and notion could never match because of the ruthless flaws in the building of our character and the thoughts. At the level where there is the time to build character and thoughts they have been told that they are different than their other country men and the child of other classes (Khan, 2004)

An interesting aspect of the educational system at the school level is the Cambridge system which reflects the rather elitist and presumably qualitative aspect of schooling. It also unfolds the oft heard opinion that these are some of the manifestations of the double standards that Pakistani society has. English medium schools, with O and A levels being implemented, exorbitant tuition and other fee structures being upheld are one   face   of   education   and   society   here. The other face is the government school, Urdu medium, lower grade education, and where the fee structure is "low" (Nusrullah, 2005).

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By supporting English through a parallel system of elitist schooling, Pakistan's ruling elite acts as an ally of the forces of globalization, at least as far as the hegemony of English, which globalization promotes, is concerned. The major effect of this policy is to weaken the local languages and lower their status even in their home country. This, in turns, militates against linguistic and cultural diversity; weakens the 'have-nots' even further and increases poverty by concentrating the best-paid job in the hands of the international elite and the English-using elite of the peripheries.

Population

From three hundred thirty five (335) schools, two thousand three hundred (2,300) teachers and twenty three thousand four hundred and twelve (23,412) students of O and A levels and their parents in Pakistan constituted the population of the study.

Sample

The sample of the study was taken from45 O and A level schools, which was randomly selected from Islamabad, Lahore, Karachi, Peshawar and Rawalpindi, i.e. nine schools were randomly selected from each city i.e. Islamabad, Lahore, Karachi, Peshawar and Rawalpindi. 230 teachers were randomly selected from sample school to administer questionnaire and twenty teachers for interview schedule. Ten students and their parents were randomly selected from each sample school to administer the questionnaire and also twenty teachers, students and their parents were randomly selected from sample schools for interviews.

Research Instruments

The researcher prepared three questionnaires using five-point Likert scale after going through the related literature, consisting of books, journals, articles, reports, magazines with the help of honorable supervisor and members of supervisory committee. Their suggestions were incorporated in the questionnaires.

The following instruments were developed and used for the collection of data;

a) Questionnaire for   i)   Teachers
                             ii) Students
                             iii) Parents

b) Interview of   i)   Teachers
                             ii) Students
                             iii) Parents
                             iv)

Pilot Testing

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For the improvement and modification of research instruments the questionnaires were administered to teachers, students and their parents of the local O and A level schools of Islamabad and Rawalpindi. In the light of the respondent's suggestions questionnaires they were modified and reprinted for the administration on the whole sample.

Delimitation of the Study

The study was delimited to parents of students who were enrolled in O and A Level system of education and the opinions of parents of the students of this system were invited to know why this system was acceptable to them. The opinions of parents who did not/could not enroll their wards in O and A level education system may be left for future researcher who can manage the quantum of work with resources available to them.

Collection of Data

Data were collected through questionnaires and interviews. Questionnaires were administered and interviews were conducted. The data were conducted through personal visits by the researcher to the sample schools.

Analysis of Data

Data collected through above-mentioned instruments were tabulated, analyzed and interpreted category-wise compare responses of three groups (Parents/teachers, teachers/students and parents/students). To analyze the data, chi-square as a contingency test was applied using the following formula:

O_i	=	Frequency observed or experimental determined
E_i	=	Frequency expected
df	=	Degree of freedom
P	=	Probability of exceeding the tabulated value of X^2
	=	$O_i - E_i$
	=	$(O_i - E_i)^2$
	=	$(O_i - E_i)^2$

$$\overline{E_i}$$

$$\chi^2_{Obs} = \sum_{cells} \frac{(O-E)^2}{E}$$

(Garrett, 1997)

Chi-square as contingency test was used to compare the frequencies of parents/teachers, teachers/students and parents/students.

The method can be illustrated as follows, using fictional data:

	Responses as Frequencies						Expected Frequencies				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Totals					
Group 1	10	23	47	21	33	134	15.7	25.9	49.7	17.8	24.9
Group 2	21	28	51	14	16	130	15.3	25.1	48.3	17.2	24.1
Totals	31	51	98	35	49	264					

Chi-square = 11.8 (df4)

Here there are two samples, neither of which can be regarded as a control group. The samples need not be of the same size. The expected frequencies are found by taking the totals for each of the five choices as the best estimate of the control group and working out what proportion of each sample might be expected to make that choice. Thus, for 'strongly agree', 10 of the sample made that choice with group 1 and 21 with group 2. 31 overall made that choice. Thus, the expected frequencies are 15.7 and 15.3 (to the first decimal place). These are obtained as follows:

Group 1   Expected frequency = 31 x 134/264   = 15.7
Group 2   Expected frequency = 31 x 130/264   = 15.3

The value of the degree of freedom for any analysis is obtained from the following calculations:

$$df = (r-1) \times (c-1)$$

On the basis of the analysis and interpretation of data, conclusions were drawn and recommendations were made. **For the ease of readers all responses first taken in frequency then it is converted in to percentage.**

Compare Responses of Groups

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Table 1:

Item 1	O and A level education is perceived as worthwhile education								
	SA	**A**	**N**	**D**	**SD**	**Comparisons**	**χ2**	**df**	**P**
Parents	63	29	3	2	3	*Parents/Teachers*	39.9	2	< 0.001
Teachers	52	22	11	10	5	*Teachers/Students*	7.9	3	< 0.05
Students	53	27	11	3	6	*Parents/Students*	25.2	2	< 0.001

Parents hold a much more positive view than either teachers or students. This is consistent with the unhappiness with the O and A level system in England with teachers and students.

Table 2:

Item 2	Facilities provided by the institution is satisfactory.								
	SA	**A**	**N**	**D**	**SD**	**Comparisons**	**χ2**	**df**	**P**
Parents	45	38	2	8	7	*Parents/Teachers*	13.6	3	< 0.01
Teachers	42	30	10	10	8	*Teachers/Students*	11.1	4	< 0.05
Students	33	41	12	10	5	*Parents/Students*	27.0	3	< 0.001

The parents are most confident with the students least sure. The parents have chosen the schools for the students and will feel they have to justify their choices. However, the students are those who will benefit for the education and they are the most critical of the three groups.

Table 3:

Item 3	Merit is strictly followed by all the matter.								
	SA	**A**	**N**	**D**	**SD**	**Comparisons**	**χ2**	**df**	**P**
Parents	40	32	12	6	8	*Parents/Teachers*	13.1	4	< 0.05
Teachers	35	43	6	10	7	*Teachers/Students*	19.6	4	< 0.001
Students	45	29	12	6	8	*Parents/Students*	1.6	4	n.s.

The teachers are less sure than the other two groups. This is perhaps important in that the teachers are those with the most detailed knowledge of the way merit operates.

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Table 4:

Item 4	O and A level education system inculcate more confidence in the students.								
	SA	A	N	D	SD	Comparisons	χ2	df	P
Parents	31	44	12	8	5	*Parents/Teachers*	8.9	3	< 0.05
Teachers	42	36	10	6	7	*Teachers/Students*	7.8	4	n.s.
Students	35	33	12	11	10	*Parents/Students*	16.6	3	< 0.001

All group have positive views. While teachers are most positive with respect to others. It shows that O and A level education inculcate more confidence in the students.

Table 5:

Item 5	There is a social prestige of O and A level education system.								
	SA	A	N	D	SD	Comparisons	χ2	df	P
Parents	42	41	8	6	3	*Parents/Teachers*	24.9	3	< 0.001
Teachers	44	26	10	12	8				

Parents and teachers both have positive view which means there is social prestige of O and A level education in Pakistan. It shows parents like to send their children in O and A level education institutions.

Table 6:

Item 6	O and A level education system is more socialized than local education system.								
	SA	A	N	D	SD	Comparisons	χ2	df	P
Parents	39	41	7	8	5	*Parents/Teachers*	25.7	4	< 0.001
Teachers	59	27	4	5	6	*Teachers/Students*	40.9	3	< 0.001
Students	36	28	10	11	15	*Parents/Students*	32.2	4	< 0.001

All groups are positive but the students are less confident than parents. Perhaps the teachers are most sure that O and A level education system is more socialized than local education system.

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Table 7:

Item 7	The opportunity of Career counseling provided by the O and A level institutions in Pakistan on regular basis.								
	SA	A	N	D	SD	Comparisons	χ2	df	P
Parents	27	40	8	10	16	*Parents/Teachers*	23.7	4	< 0.001
Teachers	38	42	9	6	5	*Teachers/Students*	6.5	4	n.s.
Students	33	40	9	11	7	*Parents/Students*	17.0	4	< 0.01

All groups are positive but the students are less confident than teachers, and parents are less confident than students. Teachers are most sure that career counseling provided by the O and A levee's institutions in Pakistan on regular basis.

Table 8:

Item 8	O and A level education system prepare students for professional career.								
	SA	A	N	D	SD	Comparisons	χ2	df	P
Parents	40	37	10	6	8	*Parents/Teachers*	32.9	4	< 0.001
Teachers	60	19	7	8	7				

Parents and teachers have same positive point of view regarding professional career of the students. They believe that O and A level education system prepare students for their professional career.

Table 9:

Item 9	O and A level is consider as status symbol in Pakistan								
	SA	A	N	D	SD	Comparisons	χ2	df	P
Parents	41	40	6	10	4	*Parents/Teachers*	11.7	4	< 0.05
Teachers	34	43	10	5	7	*Teachers/Students*	49.5	4	< 0.001
Students	47	18	14	12	9	*Parents/Students*	59.9	4	< 0.001

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All respondents hold positive point of view. Both teachers and parents hold strong point of views than students. This shows that O and A level education in Pakistan is consider as a status symbol.

Table 10:

Item 10	Syllabus of O and A level is revised according to global trends.								
	SA	**A**	**N**	**D**	**SD**	**Comparisons**	**χ2**	**df**	**P**
Parents	47	33	3	10	7	*Parents/Teachers*	1.7	3	n.s.
Teachers	51	31	6	8	5				

Both parents and teachers of O and A level have strongly positive views regarding revision of syllabus. It shows that O and A level syllabus are revised according to global trends in Pakistan

Table 11:

Item 11	O and A level's institutions environment is suitable for learning .								
	SA	**A**	**N**	**D**	**SD**	**Comparisons**	**χ2**	**df**	**P**
Parents	42	42	8	4	5	*Parents/Teachers*	22.9	3	< 0.001
Teachers	58	25	5	5	7	*Teachers/Students*	21.9	3	< 0.001
Students	45	42	5	4	4	*Parents/Students*	2.3	5	n.s.

The views of all the respondents are positive. They are confident about the institution's education environment. Which shows that O and A level's institutions environment is suitable for learning.

Table 12:

Item 12	Creative thinking is encouraged in classroom.								
	SA	**A**	**N**	**D**	**SD**	**Comparisons**	**χ2**	**Df**	**P**
Teachers	49	32	6	6	7	*Teachers/Students*	7.3	3	n.s.
Students	43	41	8	4	5				

The views of both respondents are positive. They are agreed that in O and A level's class room creative thinking is encouraged. This shows that in O and A level's institutions teachers encourage creative thinking.

Table 13:

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Item 13	Teacher students ratio is appropriate.								
	SA	A	N	D	SD	Comparisons	χ2	df	P
Students	53	31	8	5	4	*Teachers/Students*	11.1	3	< 0.05
Teachers	55	23	7	7	8				

Teachers and students hold similar view. Which implies that in O and A level institution's, both teacher and students ratio is appropriate. This helps the students to get education more efficiently.

Table 14:

Item 14	The internal weekly and monthly test are necessary for the students.								
	SA	A	N	D	SD	Comparisons	χ2	df	P
Parents	44	33	12	5	5	*Parents/Teachers*	43.5	3	< 0.001
Teachers	70	16	4	5	5				

Teachers are most positive, with their parents least. Any examinations based system must encourage weekly and monthly test to improve the students understanding regarding the concepts. However, the O and A level institutions conduct weekly and monthly tests.

Table 15:

Item 15	Prizes and awards are necessary to motivate students.								
	SA	A	N	D	SD	Comparisons	χ2	Df	P
Parents	50	32	7	8	3	*Parents/Teachers*	10.0	2	< 0.01
Teachers	60	23	4	5	8	*Teachers/Students*	12.7	3	< 0.01
Students	54	35	2	3	6	*Parents/Students*	2.1	2	n.s.

Students are much more in positive in their views than parents and teachers. In general, prizes and awards enhance the student's performance. The same scenario can be seen that in O and A level institutions prizes and award motivate the students.

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Table 16:

Item 16	O and A level students is increasing day by day.								
	SA	A	N	D	SD	Comparisons	χ2	df	P
Parents	49	44	2	2	3	*Parents/Teachers*	27.6	2	< 0.001
Teachers	66	19	6	5	4	*Teachers/Students*	52.6	3	< 0.001
Students	41	47	5	4	3	*Parents/Students*	12.3	3	< 0.01

Although, all groups have highly positive views but comparatively parent have the most positive views. All groups are verifying that the students of O and A level is increasing day by day. Which show that the graph of O and A level Education in Pakistan is increasing.

Conclusions

On the basis of analysis of data and findings of the study following Conclusion were drawn.

All the respondents of study expressed their view that there was social prestige of O and A level education system in Pakistan. They also perceived O and A level education system as worth while kind of education and parents used to consider this education system as a status symbol, for their family. In the parents and teacher opinion the O and A level education programme was preferred in Pakistan due to its revision according to global trends and its emphasis on career counseling of students.

Majority of respondents of O and A level institutions was satisfied with the facilities provided by the institutions. Most of parents and teachers in Pakistan agreed that O and A level education system was knowledge based and it inculcated more confidence in students. It was also found that O and A level education system promote creativity in the students. It is because Pakistani local education system is not up to the international standard.

It was found that in O and A level education system foreign scholarships, cash prizes and awards were given to the students at regional, national and international level which motivated students more towards education. It was also analyzed that merit was strictly followed in all matter. In teacher's opinion number of students of O and A level education is increasing day by day, which reveals that O and A level education system is getting more popularity in Pakistan.

In the interview teachers and parents expressed the reasons for growing social acceptance of O and A level in Pakistan are better learning, fair examination system

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flexible scheme of studies, advanced and better curriculum, easy admission in foreign universities, provision of quality education, better learning environment, knowledge based education system, status symbol for family, flexible scheme of studies, up-to-date, comprehensive and informative courses, international acceptance and recognition, better professional careers and dynamic future for students.

Both students and teachers of O and A level expressed that in both types of institutions teacher student ratio was appropriate. Parents and teachers of both the system held that O and A level institution conducted weekly and monthly tests.

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Pronounce Foreign words the English way!

Arun K. Behera, Ph.D.

Difficulties with Pronouncing English Words

Learning English pronunciation has never been easy. This becomes all the more difficult when it comes to mastering the pronunciation patterns and accentuation relating especially to foreign words or loan words or words borrowed from some other languages. Heteronymous words in particular pose serious problems in terms of the pronunciation for the non native users of English or those for whom English is either a second or a foreign language.

Importance of Loan Words in English

English language is known for its loan words. There are thousands of words and phrases that English has borrowed from other languages and they have become a part of the English vocabulary. Some of these words use diacritics which make them more difficult for its users. Occasionally these foreign words accepted into use in English retain their diacritical marks as they are.

No Diacritics in the Script Used in English

However, as English does not make use of diacritic marks, it is generally considered acceptable to omit them. There exist then two sets of similar looking words, one set with the diacritic marks and the other without any. And interestingly, they are pronounced differently.

A List for You to Practice

I have given below two sets of words: one with diacritic marks and the other without any. This is not the exhaustive list of words but some commonly used words only for illustrative purpose.

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attachés / əˈtæʃeɪz / (Noun: a diplomatic official attached to an embassy, especially in a technical capacity).
Ex. *The Indian attachés in the US embassy met the President.*

attaches /əˈtætʃɪz / (Verb: assigns).
Ex. *He attaches a lot of importance to the family.*

exposé / ekˈspəʊzeɪ/ (Noun: a public exposure or revelation).
Ex. *Certain cheap media make a fortune out of sensational exposés.*

expose /ɪkˈspəʊz / (Verb: to lay open to danger, attack, harm etc.).
Ex. *You should not expose yourself to the rain.*

lamé / ˈlɑː meɪ/ (Noun: a fabric of cotton interwoven with gold or silver thread)
Ex. *The merchant presented his sister a lamé on her birthday.*

lame /leɪm/ (Adjective: impaired or disabled through defect or injury)
Ex. *We should help the lame person cross the road.*

maté / ˈmɑːteɪ / (Noun: a tealike South American beverage made from the dried leaves of an evergreen tree).
Ex. *When we visited their house, they offered us maté.*

mate / meɪt / (Noun: an associate or friend).
Ex. *One of my classmates won a prize for drawing.*

pâté / ˈpæteɪ/ (Noun: a paste or spread made of puréed or finely chopped liver, meat etc.).
Ex. *The chef from France put some pâté in the curry that gave it the flavour.*

pate / peɪt / (Noun: the crown or top of the head).
Ex. *The burglar hit the guard on the pate.*

resumé / ˈrezjuːmeɪ / (Noun: a brief account of personal, educational and professional qualifications and experience, prepared by an applicant for a job).
Ex. *The manager asked Satish to send his resumé by Monday.*

resume / rɪˈzjuːm/ (Verb: to continue after an interruption).
Ex. *They resumed their journey after the monsoon.*

rosé / ˈrəʊzeɪ/(Noun: a pink table wine).
Ex. *The waiter was asked to serve rosé to the delegates.*

rose / rəʊz/ (Noun: a beautiful flower).
Ex. *Rose is the symbol of love.*

Context IS the Key

It is abundantly clear from the two sets of words supplied above that the loan words or foreign words with diacritic marks are pronounced differently from the English words without any diacritic

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marks. Since there are no specific rules governing the diacritics nor are there any rules pertaining to the pronunciation of such words, the non-native speakers find it really hard. Of course, context can always help us out in finding out the meaning of a word.

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Dubhashi and the Colonial Port in Madras Presidency

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Language/s and Professions of Natives in British Ports

With no railroad yet ready to connect Indian towns, European traders had to depend on boats to receive and deliver their goods as well as to export the goods they managed to produce with the help of natives. Their language competence in local idioms was not noteworthy. But, wisely, they found a way out from this difficult communication situation.

Dubhashi is the general term that was used among south Indians to refer to the interpreters who helped European traders with their multilingual skills. *Dubhashi* is also a last name of certain castes in north India. Google search for the term *Dubhashi* actually brings out a large number of individuals with *Dubhashi* as their last or surname.

Dubhashi literally means one who possesses two languages, a bilingual. In the history of modern Tamilnadu, the name of Anandarangam Pillai (b. 1709) is mentioned with praise for his role as a *Dubhashi*, an interpreter of French and English and several Indian languages, who was consultant to Dupleix (Joseph Francois Dupleix, the Governor of Pondicherry between 1742 and 1754).

Languages around the Port

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Indian ports have always been multilingual in character. Ancient Tamil literature, written about 2000 years ago, talk about several ports in Tamilnadu, all of which received foreigners speaking a variety of languages. While there is no mention about the linguistic composition of the local populace, ancient grammars such as *Tolkaappiyam* make references to territories and boundaries that speak of languages other than Tamil. In addition, some of the goods described as commodities sold in the ports clearly reveal that these goods must have come from outside Tamilnadu.

Situation in the newly emerging port of Madras or Chenna Pattanam was no different. Moreover, Madras or Chenna Pattanam was clearly in a region that was adjacent to the Telugu speaking area.

Religious Composition

Strangely, the Europeans were more focused on the religious diversity of the population they encountered in India. Linguistic diversity of the population was noted, but not taken into account in any serious manner for political purposes. As Thirumalai points out, language diversity was recognized as an important political policy only when the British tried to avoid the partition of India during the visit of the British Cabinet Delegation in 1946 (http://www.languageinindia.com/jan2006/constituentassembly1.html). On the other hand, Christian missionaries seemed to have always taken linguistic diversity as an essential element of their missionary work, even as they were interested in religious conversion.

The largest mercantile group which resided in the town of Madrasapatnam included the Hindu merchants of coast. The Hindu merchants came from two important caste groups: Komatis and Chetties, most of them being the migrants from northern Coromandel or from the hinterland. These merchants were involved in coastal trading, wholesaling and retailing, brokerage, banking and shroffings.[1]

The Komatis belonged to the right hand caste division and dominated the textile trade mainly as brokers and suppliers of cloth from the hinterland to the port. Like in the northern coast, the Komatis of Madrasapatnam too had established direct links with the weaving villages. They were a highly mobile group and operated from the hinterland and ports and some of their individual operations extended to the whole Coromandel.

The main competition for Komatis came from another Telugu speaking caste group, the Chetties. The Chetties belonged to the left hand division and concentrated only in the northern and central coasts. Apart from Komatis and Chetties, Balijas who belonged to the right hand castes, dominated the coastal trade and oceanic trade. They were also

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[1] . S. Arasaratnam, *Merchants Companies and Commerce,* p. 215

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active in the politics of the coastal region, especially during the first half of the seventeenth century

In general, one found a mix of traditional trading castes from both Telugu and Tamil territories dominating the Indian side of port trading.

Language and Gender Distribution among the General Population

The population of Madras during the final decades of colonial rule was less male dominated and less heterogeneous than that of Bombay or Calcutta. The sex ratio in 1901 was approximately 102 males to 100 females.

Tamil, which was spoken by 63 percent of the population, was the majority language in all census divisions of the city; Telugu, accounting for 21 percent of the population, was the second language of the city. English was spoken by only 3 percent of the population. Native-born persons accounted for 68 percent of the city inhabitants in 1901; 28 percent came from other places in the province of Madras; and less than 4 percent was born elsewhere in India or abroad.[2]

English continued to be spoken by a small minority, perhaps literate to some extent, especially those who maintained the accounts books, and prepared written documents. Madras was well known for its "Butler English," a sort of pidgin that mixed Tamil and English in some interesting ways. I believe that this "English" is mentioned in the writings of several East India Company recordings, including the writings of Lord Macaulay (personal communication with Dr. M. S. Thirumalai).

Origin of Metropolitan Cities in British India- Founding of Madras

Even in the 1st century A.D., Sopatma or Su-patana ('fair town'), according to *Periplus*, was "a good port and mart commercially connected with the countries of the entire east coast and also with the Gangetic area and Chryse...".[1] The 'fair town' has been identified as modern Madras and Chryse refers to Suvarnabhumi or Sumatra. That establishes the antiquity of the port.

After that reference, we hear very little of the town till in 1639 Cogan and Day are said to have founded a trading settlement on the site of a small fishing village called Cennapatnam. It is difficult to say at this stage if Sopatma and Chennapatnam were the same or next door neighbours, or entirely different.[2]

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[2]. Meera Kosambi and John E. Brush. Three Colonial Port Cities In India, *Geographical Review*, Vol. 78, No. 1 (Jan., 1988), pp. 32-47

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Yet the origins of the three metropolitan cities – Calcutta, Bombay, and Madras – date long before 1757, the date when the British Empire was founded. These colonial port cities began as modest trading outposts of the East India Company. Madras was founded in 1640, Bombay ceded to the English by the Portuguese in 1664, and Calcutta established in 1690.[3]

Pre-European Madras

Before the coming of the British, Madrasapatam was an insignificant town on the Coromandel Coast.[4] But Madrasapatam was already a cloth producing center when the East India Company came in search of cotton goods that could be traded in Bantam, Java, for cloves, spices, and nutmeg that brought such a good price in England.[5]

The growth of Madras is a remarkable testimony to British enterprise, energy, and perseverance, and also to Indian appreciation of the newcomers and of their methods; and it is a matter of satisfaction that many illustrious Indians have played an energetic and conspicuous part in the development of the city and the promotion of its welfare.[6]

Madras City, founded in the mid-seventeenth century, was the earliest colonial port city established by the British in India. Like the other port cities of Asia which were the creation of European powers, Madras functioned primarily as a base for overseas trade.[7] However, by the middle of the century, Madras City, with its own hinterland, functioned as the capital for the whole of South India.[8]

The late nineteenth century was an important period in the history of India's colonial port cities: it was during this time that Madras, Bombay and Calcutta began to take on a visibly urban form. After 1858 when the British Government assumed full administrative control over its colony from the East India Trading Company, municipal institutions in the three Presidency capitals were granted effective powers of taxation, and for the first time were able systematically to provide urban facilities such as hospitals, burial and burning grounds, markets, housing and transport.

Madras particularly benefited from its new urban status for in the course of the nineteenth century the administrative offices of the Madras Government, and the major banking and commercial establishments of South India were located in the city, as were the principal educational institutions. Voluntary associations of a political, social and religious nature were also founded in Madras. This was a time when the city assumed a larger role as a distribution center for goods and services throughout the South; when innumerable buildings were erected to give the city a new urban image; and when plans were made for constructing a harbor, and for laying railway lines to link Madras with its hinterland and the other major cities of India.[9]

A Base for Ready-made Cloth Export

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However, Madras was established as a base for the export of ready-made cloth to a European market, and its initial settlement patterns were controlled by the British. Merchants and dubashes (interpreters) were given permission to settle on land adjacent to the Fort (St. George) and White Town, the European enclave. Their residential neighborhoods were bordered on the north by weavers and dyers of cloth, who were at a lower economic level and thus lived further away from the Europeans; towards the limits of the settlement were the food processors (the fishermen, butchers, bakers, milk suppliers, oil-mongers); and the boatmen, potters, barbers and others who serviced the European and indigenous communities.[10]

By 1688, Madras town had grown to such an extent that it was incorporated by Royal Charter of the East India Company. At this time three distinct areas of the town were recognizable: The Inner Fort, containing the Factory House; the Outer Fort, and the European Quarter or White Town; and Black Town to the north of the Fort, marked by temples, a mosque and bazaars.16 Although there are discrepancies in population figures for early Madras, the most reliable estimate places the population in 1687 at about 50,000, "and even this is an immense number to be collected in forty-seven years in connection with a trade that never at that period amounted to more than six ships per annum".[11]

Ever wondered what made the British to turn a fishing village called Chennapatnam into the metropolis of Madras? What is the reason for Chennai to be one of the four largest cities in the country? Any idea about why Chennai became the capital of Tamilnadu? The only answer for all the above questions is the sea port, which helped history to dock in.

Built on Trade

It is quite imperative that the city of Madras was built on her trade. It was a trading settlement that Francis Day founded in 1639. On the site of the little fishing village; the East India Company had no interest whatever in anything else. When in the nineteenth century her trade declined, her importance sank to nothing. As efforts were made to improve her shipping accommodation, her trade began to return and the withered beldame to revive.[12] The more the harbour grew, the more trade and prosperity returned, and for this reason the history of the Port is a vital part of the history of Madras and also the Presidency for more than three hundred and sixty years.

The success of Madraspatnam as a trading settlement soon made it the chief port of the English in India. On September 24, 1641, it became the chief factory of the English on the East Coast. Commercial success came despite the settlement not being a port.[13]

Port Activities in Madraspatnam

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Whenever a ship arrived at Madraspatnam, it caused great excitement, everybody thronging the beach to watch the ship lying at anchor in Madras Roads, a mile or more from the Fort; and in front of it was nothing but an angry surf and a narrow strip of beach that could be reached only by local rowboats called *masula*-s. The journey to shore and back was fraught with danger.[14]

The first offices of this 'harbour' and its godowns were in Fort St. George, but by the end of the 18th Century, trade had outgrown die Fort. The Governor, the second Lord Clive, in 1798 moved the Sea Customer out of the Fort, first of all to temporary huts on the beach, and then to the Paddy Godown on the northeast beach that had once been a French prison. The Custom House is even today on this site.[15]

It was the Madras Chamber of Commerce (now the Madras Chamber of Commerce and Industry), born 170 years ago (1836) on September 29, that first pressed for a harbour for Madras, though Warren Hastings did moot the thought in 1770. The earliest proposal the Chamber backed was by a French engineer in 1845, but nothing came of its endorsement. The first definite proposal for a harbour at Madras emanated from the Madras Chamber of Commerce.   In a resolution dated 31st July 1868, the Chamber requested the Government to take up actively the proposals for the construction of a harbour.[16]

A Harbour for Madras

However, in 1861, a pier was built, but storms in June 1868 and May 1872 made it inoperative.[17] The idea of a harbour for Madras was first suggested by Warren Hastings, Export Warehouse keeper and Second in Council in Madras in 1770. He wrote to his brother-in-law in Britain asking for help with his idea for a pier for Madras. But with Hastings being transferred to Calcutta - and on his way to becoming the first Governor-General of India - nothing came of these efforts.[18]

In 1771, Capt. George Baker who had retired as Master Attendant in 1762 wrote to the Court of Directors suggesting a structure that would deliver water to the ships in the Roads. Next, in 1782, Alexander Davidson, a Civil Servant and a member of the Council, revived the views of Hastings and Baker when he wrote to the Council, "The grand Object at Madras ought...to be a Pier, the building of which is said to be very practicable...A permanent Pier...if by Encouragement could be effected, Fort St. George would, undoubtedly, become the greatest Port of delivery in the East Indies". Again nothing happened.[19]

Captain William Lennon of the Madras Engineers in 1798 once again revived thinking on the subject. He offered Government a scheme, which, he stated, he would complete in three years and for which he would raise the funds.[20]

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The earliest proposal made to the Chamber after it pressed for the development of a harbour for Madras was in 1845 by M. Piron, a French engineer. It was finally resolved to carry out the plan by means of a Company which was formed with a capital of Rs.4 lakhs. In 1857 M/s. Saunders and Mitchell proposed to the court of Directors to erect an Iron screw Pile Pier at Madras at a cost of £ 95,000.

The proposal was referred to the Madras Government for consideration of a committee in which the chamber was represented. The want of such a pier was urgently felt more than ever by all parties connected with the trade and Port of Madras in consequence of the most unsatisfactory conditions of the Harbour. On 17th December, 1857 the first pile of the pier was screwed down.[21]

After 1857

But in 1857, the scenario changed. The First War of Independence (Sepoy Munity) was over. The storm of mutiny may have raised only a couple of ripples in Madras, as H.H. Dodwell pointed out, but the consequences were far-reaching for India. The Crown took over the business of governance in India from the East India Company in 1858. And the era of the Raj began.[22]

In the presidency of Madras, however, the transfer of the Government of India from the Company to the crown evoked no disturbance.

On the 16th December 1861, the construction of the pier was completed and was thrown open to traffic. In a few years this pier also was found to be inadequate for the increasing amount of cargo to be handled which rose to 3,04,000 tons valued at Rs.3 crores by 1868.[23]

On the 6th June 1868, during a storm, the French barge Saint Bernard of 359 tons fouled the central part of the pier, after heavy surf. The Piles began to give way and the surf which became very violent drove her completely through the Pier making a gap of 200-250 feet on the north side of which she sunk. The opening on the South side extended from the 48th to the 73rd Pile.[24]

This serious accident made the Government concurred on the need for a safe anchorage and appointed a committee to study the whole issue. Patrick Macfadyen of Arbuthnot & Co., later to die in disgrace, represented the Chamber.[25]

The committee recommended, on the principle of the Plymouth Harbour breakwater, a detached structure of rough stone to be placed parallel to and at a distance of 3600 feet from the beach. The length of the breakwater was to be 6000 feet and its ends were to be slightly splayed. The committee felt that this type of construction would have no effect on siltation. That it would leave a depth of about 7 fathoms at low water. Unfortunately, a

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member of the committee gave a minute of dissent, saying that a closed harbour was the only answer. Whereupon the Government of India sought expert assistance from London and an engineer from Britain, George Robertson, arrived in Madras on January 14, 1871. He examined the site and recommended in April that year that a breakwater was a better solution than an enclosed harbour.[26]

Meanwhile, the Chamber succeeded in persuading the British Government and the Indian Government to share the cost of the Hydrographic Office set up in 1871 to survey the coasts and update the charts - a work of permanent utility to the ship-owners, underwriters and navigators. More significantly, this was a harbinger of things to come, namely, the two governments contributing together, as suggested by the Chamber, to make a port a reality.[27]

The committee's report was circulated among experts and in 1872 the problem was referred to William Parkes (then busy with the construction of Karachi Harbour). Parkes was a civil engineer with earlier experience in harbour construction in London. After a detailed study of the effect of cyclones and using his experience in Karachi, he suggested that the cost of construction could be reduced by creating walls of concrete blocks that would rest vertically on a rubble mound instead of the suggestion by the committee of a rubble mound breakwater. He, however, pointed out that a closed harbour could be constructed at much less cost than recommended by the committee and was a better proposition. The plan for the closed harbour suggested by Parkes was the one later adopted, though it was constantly criticised on many counts. He suggested two breakwaters equidistant from the existing iron screw-pile pier, each starting from the coast and running parallel into the sea for 3600 feet into 7 fathoms of water. These west-east breakwaters should be 3,000 feet apart, Parkes recommended, and each would have an arm at its extremity turning to face the other. These arms would terminate centrally in pier heads 450 feet apart and about 5 feet above high water, forming the entrance to the protected anchorage. This, as it turned out, was the nucleus for the present harbour.[28]

An Unsafe Anchorage?

Shipping interests in Calcutta and London, however, thought Madras not only an unsafe anchorage but also costly and, as a consequence, recommended its abandonment. However, in March 1875, Secretary of State Salisbury sanctioned the harbour, acting on the advice of the Madras Governor, Lord Hobart. The original estimate, for a little over Rs. 5 million, was approved, the expenditure to be provided from Imperial funds and from money raised on loan. The accepted design consisted of a closed harbour, providing accommodation for 13 large ships to swing at their moorings, in addition to space for several smaller craft. The two breakwaters were to be constructed by juxtaposing packed concrete blocks, each about 27 tons in weight, on a rubble mass 4 to 20 feet in depth. The work began in the financial year 1875-76 and by the end of the year an expenditure of Rs. 341,703 had been incurred.[29]

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On December 15, 1875, a memorial stone marking the commencement of the work was installed on the east side of Beach Road, opposite the Old High Court (Bentinck's Building, now site of the Madras Collectorate) by the Prince of Wales, later King Edward VII, on the occasion of his visit to the Presidency of Madras.[30]

In January 1876, the base of the North Pier was commenced and in December the first concrete block was laid. The greater part of 1876 was taken up with constructing the block base and erecting the stationary engines, cranes, machinery and locomotive engines necessary for the construction and casting of the concrete blocks. The machinery was capable of turning out 16 concrete blocks of 27 tons weight each every day. As ill-luck would have it, in May 1876, James May, the Superintendent of Works, who was in charge of the work, under Parke's guidance, died, succumbing to the effects of the weather. His death delayed the work and the heavy surf prevailing in June-July 1876 caused further difficulties. But the work pushed ahead.[31]

In March 1877, work on the South Pier commenced, with stones brought from Pallavaram on the South Indian Railway which had opened by then and which was extended to the Beach by the Harbour Works Authorities. The elbow of the North Pier was ready in October 1879 and that of the South Pier by June 1880. Unfortunately, as the work was carried out from the coast, the sand accumulated about it to the southward so rapidly as to cause the line of the foreshore to keep pace almost with the work.[32]

In fact, as early as March 1877, divers had discovered that the rubble base foundation of the North Pier was entirely buried in sand. For several months every possible means was used to remove this sand accumulation - by dredging, by working from caissons, by jets of steam and jets of water at high pressure - but to no avail. Finally, the Superintendent of Works determined to place the concrete blocks upon the sand and allowed them to sink through to the rubble base. Owing to the problems caused by sand accumulation, the work was considerably delayed in 1877-78. In May 1877, the work was also severely affected by a cyclonic storm, but suffered no damage of any consequence. In November and December 1878, the work was again considerably interrupted by bad weather and in January and March 1879 by the breaking down of the Titan cranes and the delay in the receipt of stores from England.

Progress in Construction

There was considerable progress once these problems were solved and by the end of 1879-80, the North Pier had advanced to a length of 2745 feet, of which the last 445 feet were built on a curve of 568 feet radius. The South Pier was carried to a total length of 2146 feet during the year 1880-81. At the end of the year, the expenditure amounted to Rs. 5,352,890 and the North Pier had been extended to total length of 3635 feet from the shore. Both piers terminated' water 8 fathoms below mean sea level, and the distance

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between their ends was 890 feet, or 340 feet more than the proposed ultimate width of the harbour entrance, which it had been decided to increase to 550 feet instead of the 450 feet originally suggested by Parkes.[33]

By October 1881, both the North and the South Piers had been completed to their full length, with a 550-foot entrance on the east; 7836 lineal feet of breakwater had been constructed, 13,309 concrete blocks set in position. This completion in 1881 is considered the beginning of the modern harbour of Madras that has grown into the Port of Chennai.

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An Investigation of Davis' Translation of *SHAHNAMEH*
Rostam and Sohrab Story in Focus

Mohammad Reza Dehbashi M.A. Candidate

Abstract

Translation is a controversial subject *per se*, especially in the field of literature and poetry wherein one side it is related to feelings and emotions and, on the other side, to language rules and requirements. Therefore, rendering the message and style of poetic masterpieces like *Shahnameh* is much more complicated than other types of texts.

In this investigation there is an attempt to compare the translations of *Shahnameh* by Davis (2007) in terms of semantic features of Persian poetry to see, to what extent, semantic features of Persian poetry and specifically the story of Rostam and Sohrab are kept intact, changed, or lost in the English translation of *Shahnameh*. To this end, the data were analyzed in terms of loss of translation, gain in translation and also loss of figurative language.

The results showed that in Davis' translation %74 of selected verses were translated correctly (Gain), %2 of Loss in Davis' translation is seen and in %24 of cases the translation has been done with the Loss of figurative language. In other words, he translated them communicatively.

Shahnameh consists of about sixty thousands of couplets and translated by many scholars, so potentially provides a very wide area for those translators who are interested in research and investigation about Persian literature and epic poetry.

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Key Words

Translation, Epic Poetry, Figure of speech

1. Introduction

1.1 Introduction

Among all translated texts, literary works have been the most problematic. That is due to diversity and versatility among cultures, and variations in languages. Each geographical region of the world has its own traditions and cultural features, pursuant to its own way of communication. In other words, different languages follow different cultures and different attitudes and this discrepancy among languages causes different views toward the world in the speakers of these languages.

So, each specific language has its own influence on the thought and behaviors of its speakers. In spite of diverse cultures and languages, human beings, nations and tribes, based on their needs could not live in isolation, because all Adam's offspring have some common characteristics like human emotions, passions, impressions and peripheral perceptions and staff like these, which pave the way of communication, therefore cross-cultural communication will take place and the phenomenon of translation will loom large.

1.2 Poetry

According to *Advanced Oxford Dictionary* (2009): "A poem is a piece of writing in which the words are chosen for their sounds and images they suggest, not just for their obvious meanings," (p.972) and the poetry that comes from the Greek word *poesis* which means "making" is a form of literary art in which language is used for its aesthetic and evocative qualities in addition to or in lieu of its apparent meaning. Also epic poems refer to poems that are long and tell stories about heroic deeds.

Frost (1969) stated that poetry provides the one permissible way of saying one thing and meaning another. Based on different definitions and different methods of translation of poetry, it is seems that translation of poetry is not impossible and each poem in some aspects of poetic features is translatable.

1.3 *SHAHNAMEH*

Shahnameh is a great Persian epic, written by Feerdowsi. Shahnameh means "The Epic of Kings." This epic is full of figures of speech and purple patches. For example, in just one verse (verse:867 from Rostam and Sohrab story) of Shahnameh, there are 6-7 types figurative language like alliteration, assonance, consonance, allusion, collocation, pun, metaphor etc.

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<div dir="rtl">

گرازان و بـر گـور نـعـره زنـان

سمـنـدش جهـان وجهـان را کنـان
</div>

(Verse: 7009, p.196)

Gorazan o bar goor naare zanan   *Samandash jehano jahan ra kanaan*

    Alliteration: **g**orazan , **g**oor and **j**ahan,**j**ehan
a) Assonance: **ä** sound repeated 7 times
b) Consonance: **n** repeated 9 and **r** 5 times
c) Pun: between **j**ahan and **j**ehan
d) Allusion: direct meaning of goor refers to zebra(*goore khar*) and indirect meaning refers to tomb(*goor*)
e) Metaphor: samand for horse (asb)
f) Taxis (Mora atonnazir): Goraz, Goor and samand which mean pig, zebra and horse.

Clearly, rendering the beauty and magnificence of these two verses, with regard to formal and semantic features of Persian poetic matters, is a very hard task. Honestly, Ferdowsi (940-1020) did a great job in Persian literature as he himself points below and left the Shahnameh as a memorial for us, and forever.

<div dir="rtl">

کـه تـخم

نـمیـرم از ایـن پـس کـه مـن زنـده ام

سخن را پـراکـنده ام
</div>

 (Verse: 49593, p.1367)

Namiram azin pas ke man zende am   Ke tokhme sokhan ra paraakande
am

I will never die, afterwards;[1]
I'll be immortal all the times
The seeds of speeches, because;
I've spread in, all minds

1.4 Translation of *SHAHNAMEH*

    Translation per se is a problematic issue, especially in cultural and literary works and more specifically in the field of poetry and the world masterpieces like Shahnameh.

Ferdowsi revived the pre-Islamic history and culture of Persia in 60000 lines, so skillfully that we have no literary work after him, which was not influenced by this unique masterpiece.

Dick Davis (2007) is currently professor of Persian at Ohio State University and a Fellow of the Royal Society of Literature. He takes an unorthodox approach to the epic, transforming Ferdowsi's verse into a combination of poetry and prose.

[1] Suggested Translation

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There are many different translations of Shahnameh into many different languages with different forms of translation; some are in poetry, some in prose, and some are combinations of verse and prose, but most of them are incomplete translations which are only collections of several episodes.

2. Methodology

In classification of figures of speech, Peacham (1577) in his book," *The garden of eloquence",* enumerated 184 different figures of speech which are divided into two main categories: schemes and tropes. According to Peacham tropes are artful deviations from the ordinary or principal signification of words like anthropomorphism that means ascribing human characteristics to something that is not human, such as an animal or a god.

The present study attempted to extract 40 examples of figures of speech in the story of Rostam and Sohrab with regard to degree of frequency of each item and locate their corresponding expressions in Davis' translation, in order to compare and contrast them with the source text and also with each other to show, how the elements of the source text in this translation may be translated.

3. Data Collection and Analysis

1. Simile

Perrine (1970, p.715) in his book *literature: The elements of poetry* said: simile is a means of comparing things that are essentially unlike, the comparison is expressed by the use of some words or phrase, such as like, as, than , similar to, resembles or seems.

In Shahnameh to describe *Tahmineh (Sohrab's mother)* in verse 63 of the story of Sohrab story, Ferdowsi (1010), states:

دو ابرو کمانِ و دو گیسو کمند   به بالا به کردار سرو بلند

(Verse: 6197, p.174)

Do abroo kamaano do gisoo boland   be baalaa be kerdaare sarve boland

There is a very beautiful simile between the face beauties of Tahmineh's eyebrows and hairs against weaponry utensils like bow and lasso and also between the tallness of stature and cypress.

"This beauty's eyebrows curved like an <u>archer's bow</u>, and her ringlets hung like <u>nooses</u> to snare the unwary; in stature she was as elegant as a <u>cypress</u> tree".

(p.188)

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2. Simile

<div dir="rtl">

چو خورشید   پس پرده اندر یکی ماهروی

تابان پر از رنگ و بوی

</div>

(Verse: 6195, p.174)

Paseh parde andar yeki mahrooy   cho khorshide taban por az rang o booy

"Like a splendid sun, a paradise of tints and scents, her mistress followed her."

(p.188)

3. Simile

<div dir="rtl">

بدانست کو هم   زدش بر زمین بر به کردار شیر

نماند به زیر

</div>

(Verse: 7019, p.196)

Zadash bar zamin bar be kerdaare shir   bedanest ku ham namaanad bezir

<u>Be kerdare shir</u> means as powerful and fast as a lion.
Like a lion Rostam laid him low, but, knowing that the youth would not lie there for long.

(p.209)

4. Simile

<div dir="rtl">

که شد لاله   چنان ننگش آمد زکار هجیر

رنگش به کردار قیر

</div>

(Verse: 6330, p.177)

Chaenan angash amad ze kare hujir   ke shod laleh ranash be kerdare shir

<u>Be kerdare ghir</u> means as black as tar or pitch.

She found his behavior so shameful that her rosy cheeks became as black as pitch with rage.

(p.191)

5. Simile

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چو نه ماه بگذشت بر دخت شاه | یکی پورش آمد چو تابنده ماه

(Verse: 6242, p.175)

Cho noh mah bogzasht bar dokhte shah maah   *yeki poorash aamad cho taabandeh*

<u>Cho taabandeh maah</u> means as shining as moon.

Nine month passed, and the princess Tahmineh gave birth to a son as splendid as the shining moon.

(p.189)

6. Simile

بدو گفت <u>خوی بد</u> شهریار | <u>درختی است</u>
جنگی همیشه به بار

(Verse: 7105, p.199)

Be doo goft khooye bade shahriar   *Derakhtist jangi gamishe be baar*

Here keykavoos bad (khooye bade Sharyar) nature likened to a tree that his fruit is always war *(*Derakhtist jangi hamishe be baar).

When Gudarz heard these words, he hurried back to Rostam and said:
"This king malicious nature is a tree that grows new, bitter fruit perpetually;

(p.212)

7. Simile

خروشید وبگرفت نیزه به دست | به آوردگه رفت <u>چون</u>
<u>پیل مست</u>

(Verse: 6773, p.190)

Khorushi o begreft neyze be dast
Be avrdgah raft choon pileh mast

<u>Choon pile mast</u> means like drunken elephant.

Seething with fury, he mounted his horse, couched his lance and rode out to the battlefield like a maddened elephant.

(p.202)

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8. Simile

بـسـان یـکی سـرو   تـو گـفـتـی هـمـه تـخت سهـراب بـود شـاداب بـود

بـرش چـون بـر پـیـل   دو بـازو بـه کـردار ران هـیـون و چـهـره چـو خـون

(Verse: 6618, 6619, p.185)

To gofti hameh takht Sohrab bood   *Besane yeki sarve shadab bood*
Do bazoo be kerdare raaneh hayun   *Barash choon bare pil o chehreh cho khoon*

He was like a happy cypress (Sarve shaadaab), his two arms were like animals thighs (raaneh hayun), and his width was similar to elephants width (Barash coon bare pil), also his face was like blood in terms of color (chehre cho khoon).

Tall as a cypress, of mighty limb, and mammoth chested, Sohrab seemed to fill the throne.

(p.198)

9. Metaphor

According to Tajalli (1997, p.106), a metaphor is a figure of speech which compares the meaning or appearance of one thing to some other things imaginatively. For example in this verse Ferdowsi quoted from Sohrab that:

سـتـاره چـرا بـر   چـو روشن بـود روی خـورشیـد و مــاه فـرازد کـلاه

(Verse: 6271, p.176)

Cho roshan bovad rooyeh khorshi o maah   *Setaareh cheraa bar faraazad kolaah*

Here, the Sun (Khorshid) is a metaphor for Rostam, the moon (Maah) for Sohrab and the star (Setareh) for Afrasiab. The meaning of the verse is that despite the existence of me and my father, Afrasiab doesn't deserve to be the King.

"When the sun and the moon shine out in splendor, what should lesser stars do, boasting of their glory?"

(p.190)

10. Metaphor

به گیتی زخوبان مرا جفت نیست   چو من زیر چرخ کبود اندکی است

(Verse: 6202, p.174)

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Be giti ze khoobaan maraa joft nist　　　　　　*Cho man zire <u>charkha kabood</u> andakist*

charkhe kabood (Dark-blue wheel) is a metaphor for sky.

"The daughter of the king of Samangan, And descended from the warrior clan".

(p.188)

10. Metaphor

After the first combat, when Sohrab didn't kill Rostam and let him go, Hooman blamed him and said:

رها کردی از دام و شد کار، خام　　　　　　<u>هژبری</u> که آورده بودی به دام

(Verse: 6997, p.196)

Hezhabri ke aavarde boodi be daam　　　　　　Rahaa kardi az daam o aod kaar khaam

Hezhabr or Hezabr means lion and is a metaphorical expression to indicate braveness.

You'd trapped the tiger and let him go, which was the act of a simpleton!

(p.208)

11. Metaphor

Tahmineh says to admire Rostam says, you don't afraid of lion, giant, whale and leopard and you are such a warrior, indeed.

نترسی و هستی چنین <u>تیز چنگ</u>　　　　　　که از شیر و دیو ونهنگ و پلنگ

(Verse: 6997, p.196)

Ke az shir o div o nahang o palng　　　　　　*natarsi o hasti chenin tiz chang*

Tizchang (someone who has powerful paws) is a metaphor for powerful warrior.

"Of how you have no fear and face alone, Dragons and demons and the dark unknown,"

(p.189)

13. Metaphor

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<div dir="rtl">

چو رخساره بنمود سهراب را   ز خوشاب بگشاد عناب را

</div>

(Verse: 6373, p.179)

Cho rokhsare benmood soraab raa
Za khooshab bogshaad annaab raa

<u>Khooshab</u> literary means bright and brilliant and is a metaphor for white teeth of Gordafarid and <u>Annaaab</u> is a red fruit and also a metaphor for red lips of Gordafarid.

As she spoke, her shining teeth and bright red lips and heavenly face were like a paradise to Sohrab.

(p.192)

14. Metaphor

<div dir="rtl">

که گرگ اندر آمد میان رمه   سگ و مرد را آزمودش همه

</div>

(Verse: 6638, p.186)

Ke gorg andar aamad mian e rameh   *Sag o mard ra azmoodash hameh*

<u>Gorg</u> (wolf) is metaphor for an Iranian rapacious and <u>Rameh</u> (herd) for Turanin armies.

A wolf has attacked our flock, eluding the shepherd and his dog.

(p.198)

15. Metaphor

<div dir="rtl">

دریغ آیدم کین چنین یال و سفت   همی از پلنگان بباید نهفت

</div>

(Verses: 6396, p.179)

Drigh aayadam kin chenin yaal o soft   *Hami az palangan ebaayad nahoft*

Palangan (leopards) is metaphor for warriors.

"And neither you nor any of your men will live for long: I should be sad to see this lion destroy you here- turn now and flee,

(p.193)

16. Metonymy

Metonymy is a figure of speech in which a thing is not designated by its own name, but by the name of a thing resembling it or closely related to it. Sokhanvar (2001, p.940), For example Rostam proudly cited that:

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زمین بنده و رخش گاه من است نگین گرز و مغفر کلاه من است

(Verse: 6520, p.183)

Zamin bandevo rakhsh gaahe man ast   *Negin gorzo meghfar kolahe man ast*

Zimmern used the world in a suitable order as a metonymy for earth (*zamin*) she also did an acceptable translation for all other elements of the verse.

"My helmet is my crown, Rakhsh is my throne, and I am slave to none but God alone.

(p.196)

17. Metonymy

غمی بد دلش ساز نخچیر کرد کمر بست و ترکش پر از تیر کرد

(Verse: 6147, p.172)

<u>Delash</u> (his heart) is metonymy for Rostam, means he was upset.

Ghami bod delash sazeh nakhchir kard   *Kamar bast o tarkesh por az tir kard*

At down one day Rostam decided to go hunting, to drive away the sadness he felt in his heart.

(p.187)

18. Metonymy

سرافرازسهراب با زور دست تو گفتی سپهر بلندش ببست

(Verse: 7016, p.196)

Sar afraz Sohrab ba zoore dast   *to gofti sepehre bolandash bebast*

In this verse <u>Sepehr</u> (sky) is metonymy for destiny.

But, for all his great strength, Sohrab seemed as though he were hindered by the heavens.

(p.209)

19. Metonymy

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ترا بهتر آید که فرمان کنی   رخ نامور سوی توران کنی

(Verses: 6397, p.179)

Toraa behtar aayad ke farmaan koni   *Rokhe naamvar sooye Tooran koni*

<u>Rokhe naamvar</u> (your face) is metaphor for Sohrab; gurdafarid says to Sohrab that you had better go home.

"And neither you nor any of your men will live for long: I should be sad to see this lion destroy you here- turn now and flee,

(p.193)

20. Personification

According to Tajalli (1997, p.126), personification is a figure of speech in which a thing, quality or idea is represented as a person. Like the two following verses that Rostam said: the star is witness for whatever I did.

که با نامداران توران گروه   مرا دید در جنگ دریا و کوه
بمردی جهان زیر پای منست   چه کردم ستاره گوای منست

(Verse: 6717, 6818, p.191)

Mara did dar jangeh daryaa o kooh
Ke ba namdaran e tooran grooh
Che kardam setareh govaahe man ast
Bemardi jahaan zire paaye man ast

<u>Setareh</u> (star) plays the role of witness for Rostam deeds.

The sea and mountains know what I have wrought
Against Turan, how nobly I have fought,
The stars are witness to my chivalry,
In all the world there's none can equal me.

(p.203)

21. Personification

چو خورشید گشت از جهان ناپدید   شب تیره بر دشت لشکر کشید

(Verse: 6608, p.188)

Cho khorshid gasht az jahan napadid   *shab tireh bar dasht lashkar keshid*

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Shabeh tireh (dark night) brought his army to the field.

The sun withdrew from the world, and dark night spread her troops across the plain.

<div align="right">(p.198)</div>

22. Personification

<div align="center">کند سنگ خارا به کردار موم   هر آنگه که خشم آورد بخت شوم</div>

(Verse: 7015, p.196)

Har aan gah ke khashm avarad bakhte shoom   Conad sange khaaara be kerdaare moom

In the above verse of Shahnameh, there is a personification of <u>bakhte shoom</u> (ominous luck), means that when the ominous fortune gets angry it causes …..

"But, for all his great strength, Sohrab seemed as though he were hindered by the heavens,"

<div align="right">(p.209)</div>

23. Apostrophe

According to Tajalli (1997, p.123) apostrophe is a form of address in which things are spoken to directly as though they were persons, the dead as they were living , and absent as though they were present. For example Ferdowsi to state his surprise from predestination of Sohrab in the first combat with Rostam addresses the world and says:

<div align="right">

هم از تو شکسته هم از تو درست   جهانا شگفتی ز کردار تست

خرد دور بد مهر ننمود چهر   ازین دو یکی را نجنبید مهر

چه ماهی بدریا چه در دشت گور   همی بچّه را باز داند ستور

</div>

(Verses: 6837, 6838, 6839, p. 191)

<u>Jahaanaa</u> shegefti ze kerdaare tost
Ham az to shekasteh ham az to dorost
Az in do yeki raa najonbid mehr
Kherad door bod mehr nanmood chehr
Hami bachcheh ra baaz daanad sotoor
Cheh maahi be daryaa che dar dasht goor

<u>Jahana</u> means O world as an apostrophe in this verse.

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"How <u>strange</u> the world's ways are! All beasts will recognize their young- the fish on the sea, the wild asses on the plain- but suffering and pride will make the man unable to distinguish his son from his enemy".

<div align="right">(p.204)</div>

24. Contrast

According to Oxford advanced learner's dictionary (2008, p.269), contrast is a difference between two or more people or things that you can see clearly when they are compared or put close together

<div align="right">

اگرچه گوی سرو بـالا بـود   <u>جـوانـی</u> کـند

پــیر کـانـا بـود

</div>

(Verse: 6855, p.192)
Agarr che govi sarv baalaa bovad
Javaani konad pir kaana bovad

Javaani (youthfulness) and pir (old) have opposite meanings.

You might be cypress-tall, but an old man who acts like a youth is a fool.

<div align="right">(p.204)</div>

25. Contrast

<div align="right">

درفش مرا چون ببیند ز دور   دلش <u>ماتم</u> آرد بهنگام <u>سور</u>

</div>

(Verse: 6488, p.182)

Darafshe maraa choon bebinad ze door   *Dalash maatam aarad be hengaam e soor*

Maatam (mourning) and soor (feast) have opposite meaning.

And when this young warrior sees my banner, his heart will know his revels are all ended; he won't be in such a hurry to fight anymore.

<div align="right">(p.195)</div>

26. Hyperbole

Hyperbole, according to Abrams (1993, p.85), is bold over statement, or extravagant exaggeration of fact or of possibility; it may be used either for serious or ironic or comic effect. For instance Tahmineh, to describe Rostam for his son, Sohrab says:

سواری چو رستم نیامد پدید   جهان آفرین تا جهان آفرید

جهان آفرین تا جهان آفرید

(Verse: 6225, p.175)

Jahaan aafarin taa jahaan aafarid
Savaari cho Rostam nayaamad padid

; Since the creator made this world, there never has been such a knight as Rostam.

(p.190)

27. Hyperbole

که در چنگ او پرّ مرغی نسخت   یکی نره گوری بزد بر درخت

(Verse: 6654, p.173)

Yeki narreh goori bezad bar derakht   *Ke dar changeh oo parreh morghh*
nasakht

Next he selected a tree and spitted one of the slaughtered asses on it. The spit was as light as a feather to him.

(p.185)

28. Hyperbole

درفشان چو خورشید شد روی   رها شد ز بند زره موی اوی
اوی

(Verse: 6357, p.168)

Rahaa shod ze bande zereh mooye oo   Dorafshan cho khorshid shod rooyeh oo

; Her hair streamed out, and her face shone like a splendid sun.

(p.192)

29. Hyperbole

نباید به گیتی کسی تاجور   چو رستم پدر باشد و من پسر

(Verse: 6272, p.176)

Cho Rostam pedar baashad o man pesar   *Nabaayad be giti kasi taajvar*

If Rostam is my father and I am his son, the no one else in all the world should wear the crown;

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31. Hyperbole

کـنم دشت را همـچو دریـای آب‬   کـنـون مـن بـبخت شـه افـراسیـاب‬
(Verse: 6603, p.185)

Konoon man bebakhte shah Afrasyab
Konam dasht raa hamcho daryaaye aab

″And now in Afrasyab's name I shall make this plain a sea of blood.″

32. Proverb

Proverb is" a well-known phrase or sentence that gives advice or says something that is generally true".(Oxford, 2008, p.1020)
And in this verse opposite meaning of youthful and oldness has beautified the concept of the verse.

خورد گاو نادان ز پهلوی خویش‬   نباشی بس ایمن ببازوی خویش‬

(Verses: 6398 p.179)

Nabashi bas imen be baazooye khish   *Khorad gaave nadan ze pahlloye khish*

The second hemistich literary means, the foolish cow eats from its body, exactly the same as Davis translation.

Don't trust your strength, strength will not save your life; the fatted calf knows nothing of the knife.

4. Results

According to table 4.1 (See Appendix) the figures showed that in Davis' translations of figures of speech the most frequent procedure belongs to Gain, %80 (32 from 40), and the least procedure belongs to Loss, %2.5 (1 from 40), also % 17.5 (7 from 40) verses were translated pragmatically, L.F(loss of figurative language).
% 80 of Gain and %2.5 of Loss in Davis' translation is verification that his translation is indeed a faithful translation in terms of figurative language.

Following diagram shows the results of table, 4.1

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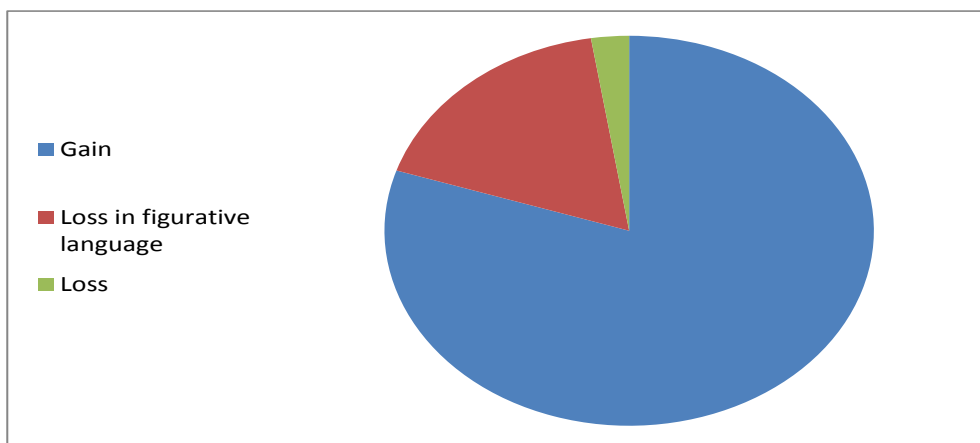
Diagram 4.1 the Comparison between three procedures in Davis' Translation.

5. Conclusion

In this investigation the acquired results of tropes, based on selected verses, showed that the translation of Davis in terms of appeal of poetic translation is an acceptable translation with regard to the process of loss and gain. As final words, translation of Shahnameh has been done by many scholars since more than two centuries ago. Each translator tried to make known and introduce a Persian masterpiece to other cultures around the world.

For this firstly we owe them a great debt of gratitude and they should be appreciated. Secondly, lack of many aesthetic features which in translations of Shahnameh are seen , are naturally due to technical problems of transferring the style , schemes and tropes of the poetic sources that sometimes are culture bound. Thirdly, majority of the translators of Shahnameh have been native speakers of target language and consequently, some aesthetic aspects of Persian poems like classical rhyme and rhythm have not been known to them and therefore have been lost. Maybe in future, the scholars who are well-educated in Persian literature will be more prepared to achieve perfection in this task.

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Appendix

Table 4.1 Davis' figurative language

NO.	Figure of speech	Loss	L.F	Gain
1	Simile			*
2	Simile			*
3	Simile			*
4	Simile			*
5	Simile			*
6	Simile			*
7	Simile			*
8	Simile			*
9	Simile			*
10	Simile			*
11	Simile		*	
12	Simile			*
13	Simile	*		
14	Metaphor			*
15	Metaphor			*

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16	Metaphor			*
17	Metaphor		*	
18	Metaphor			*
19	Metaphor		*	
20	Metaphor			*
21	Metaphor			*
22	Metaphor			*
23	Metaphor			*
24	Metaphor			*
25	Metonymy		*	
26	Metonymy			*
27	Metonymy		*	
28	Metonymy		*	
29	Personification			*
30	Personification			*
31	Personification		*	
32	Apostrophe			*
33	Contrast			*
34	Contrast			*
35	Hyperbole			*
36	Hyperbole			*
37	Hyperbole			*
38	Hyperbole			*
39	Hyperbole			*
40	Proverb			*
Total		1	7	32
Percentage		% 2.5	% 17.5	% 80

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Feminine, Female and Feminist -
A Critical Spectrum on Selected Novels by
Kamala Markandaya, Shahsi Deshpande and Arundhati Roy

Nagesvari Paramasivan, M.A.

Abstract

The Indian literature has been documenting the stories of Indian women from the classical era up until now. The male authors have naturally dominated the field of literature with their normally-stereotyped perceptions of women in their works. It must be said that there has been little truth regarding the lives of women in these male authors' works. The emergence of female authors in India has been successful in depicting new perspectives in the images of women in their writings.

Kamala Markandaya, Shahsi Deshpande and Arundhati Roy are the women authors purposefully selected for this study. They are the ones who have managed to bring out the reality of what it is really like being an Indian woman in such a patriarchal system. These authors have given a voice to the women characters that they create, to represent the contemporary Indian women who are still in the struggle to gain rights and freedom.

Markandaya, Deshpande and Roy bring to public the unheard and untold stories of women from different strata of the Indian society covering a wide range of issues that impede their growth. With the terms 'feminine', 'female' and 'feminist' under the limelight, brought about by Elaine Showalter, this study attempts to analyze the woman-protagonists in the novels of choice, written by these remarkable authors.

Introduction

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The literary works from India, those which are specifically written in English have gained a special place in the World Literature. Studies on Post-Colonial Literature, Emergent Literature, Third Word Literature and Commonwealth Literature, will not be complete without close scrutiny and study towards the literary texts from India. Male authors like the Nobel Prize winner Rabindra Nath Tagore (1913), winner of *Best of The Booker* Salman Rushidie (2008), R.K Narayan, Vikram Seth, Amitav Gosh, Khuswant Singh, Shahsi Tharoor, Amit Chaudri and Booker Prize Winner Aravind Adiga (2008), had carved their name in the international art, established for being able to introduce various universal themes into his works.

No matter how wide is the universality of the theme in the male authors' works, the significance and position given to the woman characters are very small and cast aside, and no other than being a mother, wife, maid or servant, daughter, widow (whose husband is dead), widow (a divorcee) and of a low-caste. It is very rare to see the strength, empowerment and vigour of these women in the writings of male authors from India. In this connection, Showalter observes, the woman characters constructed by these male writers have not represented what the women really experience, but instead, these writers have produced and reflected their own views and perceptions about this gender.

The portrayal of women's characteristics in these male writers' works is normally weak and passive, as pointed out by Simone de Beauvoir in her Second Sex, 'He is the Subject, he is the Absolute – she is the other' (Beauvoir,1989:19). For Beauvoir, the weakness and passivity of the women characters in the works of male authors are not reasoned by the factor of woman biology but due to the social system that has long been dominated by the power of men.

The patriarchal[1] system determines that women are weak, passive and in need of protection from their male counterparts. The pressure and domination of men towards the women have evoked such strain within them latter, especially within those who happen to receive Western education. They begin to hate the lives of 'the other', whose voices have been made silent. To evaluate and present the reality of women's position in India, women authors who are not afraid to voice up and portray these strength and power have gradually appeared in the literary scene. The world begins to hear the voices of successful Indian women who become the members of the corporate world, right to the woman beggars on the street who have their own stories to tell, to share with other people all over the world.

Strangely enough, the determination and anger to fight for the social system that tends to dominate women have initially been present in Rammohan Roy (1774-1883), a male author. He is a socialist activist who has brought about the awareness for the freedom of women by protesting against the *sati*[2] system and fight for the widows' fate to be allowed to remarry.

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[1] The rule of the father or the patriarch. It refers to a social system where the father controls all members of the family, all property and other economic resources, and makes all major decisions. Linked to this social system is the belief or the ideology that man is superior to woman, that women are and should be controlled by men, and are part of man's property (Bhasin & Khan, 1988:9).

[2] A woman whose husband is deceased will be burned together at the husband's funeral.

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The ideology about freedom and the societal position of women is then prolonged by another man, Bankim Chandra Chatterjee through his novel <u>Rajmohan's Wife</u> (1864). This novel became the pioneer for women to express and write about themselves, about womanhood and its experiences, their desires and reluctance in the world of men. They came with writings which talked about woman issues and their everyday lives. They brought out the voices of women who are typically cast aside and neglected in the writings of other male authors. The roles of women as a daughter, a wife and mother are confined to the space of life which has always been viewed as "private".

In India, the role of a woman has always been connected to men- linked to her father, brother, husband and her son. Woman authors tend to take on heavier responsibilities because it is not easy to depict a very honest story about women, in a social system that still undermines their position in the society. Other than the social system, these female writers also have to abide by, and respect the positive values instilled in the Indian women based on the teachings of Hinduism and *Manusmriti*[3]. Indian women are given little space to talk about themselves who have desires and inclinations, and needs, other than what is normally 'given' by men. More often than not, they do not tend to have other choices other than to keep silent and obey the lifestyle that has been willed by the patriarchal system.

The English medium education that are made compulsory in all schools at the time when British came into power have opened the doors for women to equally gain knowledge with men, in the name of a proper education. The English education and printed materials from the West have exposed the women to modern thinking and to their position in the Indian social system.

The early 70's has witnessed the widespread entrance of the Western feminists' ideology to Asean countries. Ideas coming from the Western thinkers about the domination of the patriarchal system and the women's development have generated certain energy and spirits amongst those who are educated. Their higher education and intelligence have sharpened their observations on the lives of other women surrounding them.

Women who are educated from the middle-class society started to adopt a modern way of thinking and voice out their dissatisfactions towards the local social system. They began to make use of literary mediums to narrate all the injustice that had happened to women in the patriarchal system. Their works represented the actual stories of Indian women, challenging the stereotypical image of women found in the writings of male authors, exploring the women's biology as a source of strength and inspiration to the female authors, assessing the position of women in the social system and at the same time, creating their own exclusive space for their writings to be published.

With that, came the works that began to destroy several concepts and rules that had stunted the growth of women. Indian women have started to accept modern elements that exist within themselves not only by their way of thinking but also by their way of presenting (and dressing) themselves. This Western feminism ideology has not fully been absorbed in the

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[3] *Manusmiriti* is a book containing rules specifically ruled out for women who practise Hinduism. Basic rules which have been uphold by these women are, a girl is protected by the father, then protected by the husband and after his death, she will spend the rest of her life with her son.

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Indian women's way of thinking as in India, the women still hold firm the religion and their age-old customs other than the fact that they still acknowledge the men's status quo in the society. Here, the talent and capability of the female writers were prominent, as they began to write about the transitions between the tradition and modernisation that dawned on the minds of the women in the early 70s'.

Among the female writers who have successfully highlighted Indian women's capabilities and have established herself at the international level like Kamala Markandaya, Anita Desai, Shahsi Deshpande, Nayantara Sanghal, Arundhati Roy, Kiran Desai, Citra Banerjee Divakaruni, Gita Mehta, Geeta Hariharan, Meera Mahadevan, Samina Ali and Anita Nair. For Showalter (1978: 12) 'The female literary tradition comes from the still evolving relationship between women writer and their society'. The female writers tend to cultivate issues which interweave the aspects of women and their surrounding community. In the social system that limits the movement of women, these female writers try to build womanly identities outside the patriarchal domain. In overcoming the competitiveness and prejudice also put forward by the male writers, these Indian woman writers are adamant in producing books or works which carry the vision of growth and freedom of the women. It is not surprising then, that the quality and the effectiveness of their works have caught the attention of the international publishers as Flamingo, Penguin Books, Picador, Signet Classic and Doubleday for published their works.

In India, the feminism principles and ideology are not static. India possesses the multi-layered feminism movements like the liberal, humanist, radical up to the post feminist. The demands and needs of the women in India also vary, for instance the demand of a woman in a rural area in Assam is dissimilar with the demand made by a model residing in Mumbai. The diverse ways of life like the religion, ethnicity, language, caste, the regional differences and the economic status have diversified the patterns and trends of the feminism movement in India.

The magazine Manushi (1975) had played a substantial role in highlighting important issues in the movements of feminism from all over the world at its early phase. This very first Indian feminists' magazine had brought out to the light the abuse that was committed to women and offered some radical solutions to the women like divorce, living independently and getting involved in business (Kirpal, 1990: 20).

Feminine, Feminist and Female

Modeling on the construction of women's way of writing by Showalter, this writing analyses the woman protagonists from several selected novels from India. Showalter, a Western feminist has divided the stages of woman writings into three phases namely the phases of feminine (1840-1880), feminist (1880-1920) and female (1920-1960).

At the first phase which is feminine (1840-1880), the female writers are still influenced by the thought patterns formulated by the male writers regarding women. The objective of these women to produce their works at this stage is to compete with their male counterparts, where the intellectual achievement is concerned (Showalter, 1979:35).

At this point, these females still assess the women according to the views made by the men, making it as a guideline in their writings. They even use pseudonyms, for fear of exposing

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their identities as female writers. The woman characters that they come up with are still stereotyped, passive, obedient, soft and humble. The characters created at this stage do not challenge the autonomous power of men and even the woman writers themselves use male pseudonyms in publishing their writings.

According to Showalter (1979:13), the women's writing at the stage of feminine is the imitation of the norm lingering around in the tradition. The daily lives of women being under the total domination of men have reflected themselves in the writings of these women – put in other words, women write and think like men to enable them to gain a place which is in equal status with their male counterparts.

The Feminist Phase

The *feminist* phase (1880-1920) sees some changes in the fight for women's freedom because it is at this time in the West, that women began to gain the rights to vote. Women started to take a step forward and rejected several ideas and things regarded as *feminine* (Showalter, 1979: 35-36). The field of literature has been made an important 'tool' to highlight the injustice committed by the men towards women. The female writers came to realise that they are gifted with their own talent to write and express themselves. They then begin to bring in the woman protagonists who question and protest the unfairness that have been acted upon them in the social and the family system. The opportunities for higher education and exposure of wide reading materials have opened a new dimension in their ways of thinking. Their thoughts and desires about themselves are transformed into writings and this is how the feminist mode of writings is produced at this phase.

The Female Phase

At the female phase (1920-1960), the female writers tend to refuse the imitation of the male thinking patterns as practised in the feminine stage and protest the writing tone which underlies the feminist stage (Showalter, 1979: 36). Female is not only used to refer to the biological meaning only, the uniqueness and the advantage of this idea is used to produce works that are different from what the male writers produce.

The female writers at this stage have the confidence to write with the experiences and ways of using the language of multiple meanings and double voiced. The Emergence of 'Female Aesthetic' pioneered by Dorothy Richardson and Virginia Woolf totally do not accept genderiess imagination. They then separate this critique from the system of the male norms. They have the opinion that there is a difference between the female and male imaginations caused by a biological aspect. They then shift to the experiences of autonomous and independent women.

For Showalter these phases indicated (1978:13):

> First, there is the prolonged phase of *imitation* of the prevailing modes of the dominant tradition, and internalization of its standards of art and its views on social roles. Second, there is a phase of *protest* against these standards and values, and advocacy of minority rights and values, including a demand for

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autonomy. Finally, there is a phase of *self-discovery*, a turning inward freed from some of the dependency of opposition, a search for identity.

Showalter's statements will be the foundation of this study with the analysis done on the invention of woman characters in the Indian social system in the years of the 50s', 80s and the 90s. The analysis which will focus on the woman protagonists in the selected novels will be based on the three phases mentioned earlier, introduced by Showalter. The first phase which is feminin*e* will be used to study the woman protagonist from the novel Nectar In A Sieve, the feminist for the novel named That Long Silence and the phase of female will be used for the book entitled The God of Small Things.

Nectar In A Sieve : A Feminine Spectrum Study

The novel Nectar In A Sieve by Kamala Markandaya revolves around the life of a woman named Ruku from her childhood until her old age. The writer expresses the reactions of Ruku who feels afraid, fascinated, nervous, sad, happy, strange, anxious, patient, disappointed and various other emotions which fabricate her life. Ruku holds the responsibilities as a daughter, wife, mother and a person who upholds her customs, culture and her dignity. She marries Nathan, who is chosen by her father, although she has never seen this man until the day the marriage takes place. For 12 years, Ruku has been under the 'custody' of her father and then she is 'bestowed' to Nathan as a wife. Her marriage is not grand as the father is not able to provide sufficient dowry. Ruku still obeys her father's choice and her husband. She has this clear vision and mission that her whole life is made for a perfect and happy life by her husband and children.

This character of Rukumani develops through four stages. The first stage is drawn up when she is still at her father's house, before she gets married. Stage two is after the marriage, with Nathan, and having given birth to a daughter Irawaddy. Then at the third stage, Rukumani as a mother to six sons and faces life in all its ups and downs influenced by their impoverished life, the weather change and their deteriorating surroundings. The fourth stage revolves around the time when Nathan passes away, and she returns to her village with an adopted son who sufferes from leprosy named Puli.

Rukumani experiences the biological changes from a child to a teenager, then to an adult woman and later as a much older woman with Nathan. Markandaya portrays Rukumani as a wife, a mother and an old woman. Rukumani becomes the ideal woman of India who serves the role as an ideal wife from the eyes of men whereby a place for a wife is at home giving birth and raising children, preparing food, taking care of the house, preserving the religion, culture and tradition. Rukumani has been able to change herself from a young girl to becoming a wife.

Markandaya's Art and Message

Markandaya brings out the emotions contained in the women of the 50s who are still shadowed behind men, anticipating that the men will help show them the directions in their lives. Rukumani only hopes for the things normally anticipated by a traditional Indian woman which is a loving husband, enough food to eat and happiness (Markandaya, 1954: 12):

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> While the sun shines on you and the fields are green and beautiful to the eye, and your husband sees beauty in you which no one has seen before, and you have a good store of grain laid away for hard times, a roof over you and a sweet stirring in your body, what more can a woman ask for? My heart sang and my feet were light as I went about my work, getting up at sunrise and going to sleep content. Peace and quiet were ours.

Rukumani is a hardworking wife. Like her husband, she also hopes to be able to elevate the status of their family. Nathan and Rukumani grow paddy and Rukumani takes a step forward growing a few more vegetables. Rukumani progresses a little by involving herself in business. When her plants grow well, Rukumani asks for Nathan's permission to sell them at the market. Here, the author has shown the readers how this village woman has the initiative to make herself involved in the world of business.

Markandaya has indirectly demonstrated how a woman who lives in a rural area progresses through the way she thinks and simply through what she does every day. She carves Rukumani as an ideal Indian woman of the 50s and yet, owns the vision and mission to better herself and her family. This image of Ruku shows us how effective it is for a woman in manipulating all her sources and opportunities that they undertake. Whenever there are chances to sell the plantations, Ruku is quick to take steps, without having the time to think of herself as a person whose supposed place is 'at a corner of the kitchen'.

Women's Strong-will

The theme of women's strong-will in this novel is reflected in Rukumani as a hardworking woman, who is good at keeping and taking care of things like rice, chilli, salt, coconut and ox oil. The normal occupations of these women which is their daily errands have been upgraded through the characterisation technique. The home-keeping efforts like cooking, keeping the rice, planting and others can be honoured as an art (Wong Soak Koan, 2002: 179). Markandaya raises the womanly characteristics that have normally been abandoned by the male writers towards their woman characters. The everyday errands that have been perceived as trivial by the male writers are given the supposed appreciation by Markandaya. She brings to the light a new perspective in evaluating the contributions of women in the cultural growth as well as the country's, simply through the experiences and the knowledge possessed by a woman.

Dignity of Indian Women

Rukumani is depicted by the author as a woman who still preserves the dignity of an Indian woman who is sensitive towards the code of conduct embedded in the man-woman relationships as well as how important it is to make easily acceptable changes, and those changes which everybody is comfortable with. Rukumani has the role of managing the hosuehold, taking care of the children and helping her husband at the paddy field. Even though Rukumani is not formally educated, she still struggles to learn to read and write. Her ability is handed down to her children. Ruku is very happy to see her children write, which simply shows here that she is a mother with a long-term vision. She strongly believes that education will be able to help her children develop themselves for the future.

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This informal education helps Ruku get an extra income for herself in town when she goes there to look for his son, Murugan. Ruku earns some money writing and reading letters-although Nathan and her surrounding neighbours belittle her efforts, with such determination Ruku continues her daily routine writing letters to the public, without having a care of the world of what other people say about her. The heroic charateristics in Rukumani are seen not only from her inner qualities persistent with her physical energy, otherwise she will not be able to work crushing rocks with Nathan in town. Her physical capabilities almost equate Nathan's.

Rukumani fully conquers Nectar In A Sieve as a mother, from a child aged 12 years transforming into a wife and a mother with her own vision. Ruku as a mother to seven biological children and another one adopted, raising her children in such a devastating state of economy. Ruku symbolises holy Hindu women like Sita and Savitri who truly love and abide by the demands and orders of the husbands. She never feels herself dominated by Nathan, even when she discovers that her husband used to have an affair with Kunthi, Ruku does not protest or determined to leave Nathan. Her husband has loved and has projected an image of a perfect husband, responsible towards his family. Ruku never questions Nathan's status as the head of the family the way it is dictated in the Indian social system.

Markandaya creates this character of Ruku with the feminine characteristics, meaning that the women of India are no longer bold enough to overcome whatever obstacles and the pre-arranged local cultures that tend to have undermined the positions of women in the society. "Rukumani the protagonist of the novel is a model Indian women who suffer everything without complain" (Ramaswamy.S, 2006:25) This imagined character of Ruku is associated with the role of a daughter, wife, mother, and a widow who is trapped in her family dilemmas. For Showalter (1988: 335), the 'culture' in this context includes all the activities that shape the lifestyles of women. The social influence of each society has a lot to do with the women's place in that particular society.

That Long Silence : A Feminist Spectrum Study

Shashi Deshpande one of the outstanding Indian women novelist has displayed her sharp writing ability in exploring, disclosing and comprehending the psychology of women, especially the middle-class Indian women in That Long Silence. Deshpande's women of her creation have to face with a variety of problems and issues related to relationships within the confines of the family and the society. She explores the family relationships in India which consent to the demands of the tradition and the patriarchal beliefs and principles. Her *reconnoitre* in the psychology of the middle-class Indian women has demonstrated the reality behind the lives of educated women, in coming to terms with several practices and rules dictated in the local patriarchal system.

That Long Silence depicts the life of a middle-class woman who serves the roles of a wife, mother, daughter, and daughter-in-law but who comes to the realisation that she fails to become herself. The protagonist named Jaya Kulkarni looks at herself and assesses her position beside her husband and family. The opportunity that arises for her to look back on her life for 17 years has opened her eyes to the fact that she has 'forgotten' herself after becoming the wife of Mohan and a mother to her two children. Her education and gifted writing talent, have been blurred by the domestic responsibilities as a wife and mother. Jaya

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Kulkarni as an epitome of a modern Indian woman who has an education finds it difficult to accept some practices and rules decided by the local system.

Jaya also serves as the image of a traditional Indian woman who experiences dilemma between the obligations of her tradition and modernisation. As a teenaged girl raised in the family of Brahmin, she is responsible in preserving her religion, customs, rules and the prohibitions dictated in her social system. At the same time, the level of education and her career as a writer demand her to think of the unexpected and of the norms which tend to accompany the typical traditional Indian women. After a long period of living in silence, Jaya embarks on a journey of introspection and redemption.

As the female writers explore the womanhood experiences in their works, Deshpande gives voice to Jaya to express herself at the time when she gives birth to her first child... 'I reminded of the process of childbirth. The only memory of it that remains with me is that of fear – a fear that I was losing control over my own body' (Deshpande,1989: 1). Jaya does not allow her third child to live, for the reason that she is in the 'middle class' which relies on the husband's income. She cannot put a stop to Mohan's power, both mentally and physically, to demonstrate her protest that she has rights towards herself, Jaya aborts her baby. She realises that if the baby is alive, she cannot afford to support the family given that she is only a home-maker '..I got married to Mohan. I have two children and I did not let a third live' (Deshpande, 1989:2). The middle-class women's lifestyle normally leans on the male's income, the first is the father's and the second is the husband's earnings.

Jaya is compelled to put aside her desires and her favourites towards the simplest things that happen in her life. As an example, her inclination to watch the commercials before the movie starts. Since Mohan does not like it, Jaya has to pretend that she too does not favour, even looks down on the advertisements shown. This is despite the fact that watching such commercials before the movie excites Jaya a little. Nonetheless, she has to follow her husband's way of thinking; her husband, who undermines such things. Mohan passes his remarks on women and children who sit on the kerb of the street demanding justice for their husbands. The women are the wives of the army who are detained for spying. Mohan does not seem to understand the extent of the women's sacrifices in crying out for justice for their men. He only sees the women as being immoral and unembarrassed to be sitting on the street as if they are beggars. He does not empathise and appreciate the women's determination in demanding freedom for their husbands. Jaya on the other hand, cannot bring herself to protest his remarks, as she realises her non-existent rights to speak up, to give comments on this issue; because only Mohan can give opinions and criticisms because he is a 'man' and the head of the family.

Jaya begins to reflect on her past life when she is alone with her husband in a small flat in Darar. Here, Jaya has the opportunity to ask again about her place in her husband's home and protest Mohan's actions who has not spoken a word for 17 years. Such a solitary opportunity has helped Jaya to go back to her youth, exploring herself who has been abandoned since becoming a wife. Jaya is aware that she has served for her husband and her two children. Mohan only thinks of himself and what he does for a living, while their children are occupied with their schooling, Jaya on the other hand always thinks of her responsibilities towards others and momentarily becomes careless (for 17 years) about her dishevelled self. After

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marriage, Jaya is tied to Mohan's domination who makes all the decisions as the head of the family, even in giving a new name to his wife as Suhashini.

Mohan's assessment on herself has brought about some tension between them. Mohan is in an investigation process as he is charged for a misconduct at the workplace. His feelings of guilt are deliberately placed on Jaya when he states that his demeanour is committed because of Jaya, not for himself- he does such a thing to provide a better life to Jaya and their children. However, he has never asked if there is ever anything that her wife Jaya needs and hopes for. The man has probably accepted bribery. But he insists on what the wife and children need. He accepts bribery for them and not for himself. It is typical of men to not admit their faults and on their misconduct, to place the blame on the women close to them.

Jaya is not a passive, traditional woman, she is educated and she has worked as a freelance writer. She is knowledgeable about problems faced by women, but as an Indian woman herself she acknowledges Mohan's status quo as the head of the family. She questions herself about her position and identity after moving back to their flat. She then begins to think about herself, about her relationship with Mohan, children and her surroundings. The husband-and-wife relationship between Jaya dan Mohan is similar to an agreement, there is no love and amicability between them, the way they live under one roof is merely based on the social demands and because of their children.

Although Jaya is a wise and knowledgeable woman, has a Degree in Communication, has the ability to write articles and speak in English fluently, all these advantages do not help Jaya to progress herself after she gets married; she remains a wife and a mother, and not more than that. Jaya feels that she fails as a writer, as she does not feel that she is capable in the writing field. She leaves writing for good and consequently, has to depend totally on Mohan's earnings. For Lillian Rubin '... since the woman is economically dependent on the man her psyche moves towards subservience' (Myles, 2006:4) It is an indirect way of looking at how women begin to lose faith and confidence towards themselves and this has further made them turn passive.

The education that she gains has become the pillar of strength for her to find her voice and question Mohan on her rights and position in the house. Jaya takes a drastic measure to leave Mohan for a while. She needs the space and her own time to re-evaluate herself. The change within Jaya's way of thinking has made her leave the place she thinks as home. She realises that she cannot live with Mohan who has invalidated her identity as a woman with education. She begins to regard herself as someone who has a heart and also her own needs and wants. She does not have to be the 'pet wife' to Mohan because she too, has the rights to live her life without anyone's control and order.

Jaya's silence is a way for her to demonstrate her protest towards Mohan. She does not nag, or confront her husband, and it is the mere silence and quietness in Jaya that has provoked the guilt in the man. In this novel, Deshpande does not take Jaya's side alone, as Mohan's opinion, way of thinking, his needs are also fairly voiced out by Deshpande. Jaya and Mohan without the *bias sexim* are given room to have their say in the novel. Jaya as a woman, a wife, a mother and a daughter-in-law, while Mohan playing his multiple roles as a man, husband, father and son-in-law talk about their inclinations, dissatisfaction as well as sufferings as the inhabitants of the patriarchal system.

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The God of Small Things: Female Spectrum

Roy focuses on the life of Ammu, a young mother and her two children Rahel and Estha who live in a fisherman's village in Kerala. Roy identifies how a woman character acts coherently towards the male domination and tries to free herself from the cocoon of the social system which has been enveloping her and the women alike. Ammu as the protagonist disobeys all the prohibition and rules dictated upon her by choosing her own path of life, automatically becoming a reflection of the term female.

In 1960s, a marriage pre-arranged by the parents is one of the many Indian families' conventions. A daughter who marries without the consent of the parents is regarded as someone undertaking an action that 'shocks' the surrounding community. Marriages based on love involving two religions or two ethnicities are even out of the question in the culture in which Ammu is raised. However, the character of Ammu in this novel has gone against the norms of the society when she marries Baba without her parents' approval, and even more shocking, Baba is a Hindu from the Bengali ethnic group. Ammu rejects all the conventions in the patriarchal system and stands her grounds as a woman. She does not want to accept the things that have been decided by men for the women because only she knows what she wants for herself as a woman.

Ammu's faith was the Syrian Christianity and her ethnicity is Malayalam. She is willing to turn her back on her father who has never shown any interest in her. At the time, she really craves for love and attention. As she grows older, Ammu realises her depravity of love from her parents and how their families tend to discriminate their love between the son and daughter. She lives in the condemnation of her father's attitude, shaping herself to be the strong woman that she is and at the same time she tries to adapt herself to the conditions of her family (Roy, 1997: 181-182);

> As she grew older, Ammu learned to live with this cold, calculating cruelty.
> She developed a lofty sense of injustice and the mulish, reckless streak that
> develops in Someone Small who has been bullied all their lives by Someone
> Big. She did exactly nothing to avoid quarrels and confrontations.

Her father also does not allow Ammu to further her education at the college level because, according to her father, higher education for a daughter is a waste. Ammu does not get to do anything other than waiting for marriage proposals and helping her mother managing the household errands. Due to the fact that her father cannot afford to provide enough dowry for her, Ammu does not receive any proposal at all. Ammu starts to give up and detests her father's attitude, and she wants to run away from Ayemenem. In such a life in Ayemenem, Ammu chooses Baba to be her life partner without her father's consent.

Woman authors at this *female* stage idolises the biological characteristics of a woman, where they feel that they are qualified to write about any womanly experiences they have gone through. Roy narrates the experience of a woman in being a mother, her experience in being in labour, giving birth, what is sought by a woman in semi-consciousness as she accepts a little baby when it is handed to her. Ammu gives birth to twins, Rahel dan Esthapen Yako.

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As a woman writer, Roy writes on how Ammu is as a mother and Baba as a father when accepting their babies (Roy, 1997: 41);

> Ammu checked them for deformities before she closed her eyes and slept. She counted four eyes, four ears, two mouths, two noses, twenty fingers and twenty perfect toe-nails. Their father, stretched out on a hard bench in the hospital corridor, was drunk.

Ammu fights with death in delivering the babies, having found just enough time to see if the children are well-delivered, with no flaws before she closes her eyes. Whereas Baba on the other hand, sits in the corridor in drinking stupor without caring for the conditions of her wife and newborn babies.

Ammu's life is unhappy with Baba, reasoned by Baba's alcoholic nature. It dawns on Ammu that she has made a big mistake in her life choosing Baba as her life partner. Ammu whose highest education is when she is at her school is able to get along with people around her. A lot of Planters' Club's members admire Ammu's beauty and her striking personality. She assimilates into the Western culture, evident in the way she dresses '.. she wore backless blouses with her saris and carried a silver lamè purse on chain. She smoked long cigarettes in a silver cigarette holder and learned to blow perfect smoke rings' (Roy, 1997: 40) Ammu, although comes from a rural village is quick to transform herself as a woman strongly influenced by the West when she is in Assam.

Ammu returns to Ayemenem with her twins Rahel dan Estha. She has heavier responsibility as the twins are under her custody. Ammu's comeback is not accepted by her parents and the one who particularly dislikes Ammu is Baby Kochamma (her father's sister). For Baby Kochamma, a daughter does not have a place at her father's home after she gets married and it is even worse for a divorcee, as she does not have a place anywhere at all (Roy, 1997:45);

> … that a married daughter had no position in her parent's home. As for a *divorced* daughter- according to Baby Kochamma, she had no position anywhere at all. And as for a *divorced* daughter from a *love* marriage, well, words could not describe Baby Kochamma's outrage. As for a *divorced* daughter from an *intercommunity love* marriage - baby Kochamma chose to remain quiveringly silent on the subject.

Baby Kochamma's perception clarifies that a woman is only honoured when she lives with a man called a husband and she should marry according to whom the family chooses. Ammu has become the victim of her social system that does not acknowledge a daughter's place at her parents' place. Although her husband is an alcoholic, she should stay by her husband to preserve the image of a loyal, obedient wife.

Ammu is able to understand her condition after some months being in Ayemenem. She simply hates sympathetic words uttered by her relatives. She controls herself from acting rudely towards those who have made sympathetic remarks on her divorce and her status as a widow. Ammu does not want to be pitied, she wants to live independently without a husband and she is confident enough to raise her children well, even without a father around. For Ammu she is both the mother and father to her children. Ammu has the opinion that Rahel and Estha do not need a father as she believes she can give them a lot more love by becoming both the mother and the father to the children... "Everybody says that children need a Baba.

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And I say no. Not *my* children*" -* Ammu does love them more as stated by the children "you're our Ammu and our baba and you love us double." (ibid: 149).,

In the culture of the Indian community, relatives of the father's side are given the priorities in determining one's hereditary, again Ammu rejects this, as she does not name her children after their father's. The full name of Estha is Esthapen Yako and Rahel is simply Rahel. For Ammu, having to choose between the father's and the husband's name does not leave a woman with much choice in her life. Ammu as a confined teenager, becomes a brave wife who is bold enough to side-step the norms of the Indian society. She does not choose to be a wife who does not stray from her husband's side. The image of an Indian woman often associated with Sita and Savitri is amended by Ammu by casting her husband aside, even not including his name in her children 's full names.

Ammu's conflicts with the men starts with the father, then spreads to Chacko, her brother. Ammu criticises Chacko who is Oxford-educated but possessing the libido of the feudals. Her mother's attitude who idolises Chacko as a man next in line to lead the family tradition contirbutes to Ammu's further conflicts with men. Ammu sees this relationship as a form of insult to women, as if women do not have their own sense of worth when women themselves look down on, and do not have faith in their own gender.

The female phase which demands the boldness and women's deviation from the passive image can be observed from this character of Ammu. She fights against social institutions like marriage. Initially, she goes against the social system arranged by her parents by choosing for herself her soon-to-be husband who is a Hindu. Once more, Ammu breaks apart her own social system when she divorces the husband she has once chosen. She is fearless of what other people may think of her. When she discovers that her husband is an alcoholic and starts to beat her and the children up, Ammu does not wait, in pointless hope that he may change someday, so she asks for a divorce and returns to Ayemenem with her children. She learns not to trust anyone. Ammu's confrontational attitude towards the marriage institution stems from her annoyance towards her past experiences when she is still a teenager and when she mistakenly chooses the man with whom she wants to be. Ammu once again drastically challenges Syarian Christian order when she fall in love with Velutha the 'untouchable'. Ammu and Velutha demolish all orthodoxies and ideologies which have outlived their relevance.

Conclusion

The female authors portray the woman characters who fight for the freedom to choose and who are not forced to become housewives, not pressured to do the 'supposed' roles that they have to do and give us a picture that they are treated with respect. The authors show us the characters who own that freedom and the opportunities to do the things they want to do and those that they are willing to do. The pressured state of women who are victimised by the social system has more often than not, become the theme and issues in most of their writings. The outcome of their inspiration has portrayed, explored and presented the stories of women prominent in their writings.

Kamala Markandaya, Shahsi Deshpande and Arundhati Roy are sensitive towards the issues and dilemma faced by the Indian women in the 1950s up to the years of the 90s. They have

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offered their vision on what the ideals and capabilities of women truly are. They have the empathy towards the character depicted because they themselves have gone through life experiences as women, particularly the women in India. Women's development and freedom have not been the main focus of these authors, but whether it is realised or not, these three novels have injected the sense of well-being and women's strength and heroism conveyed in silence by these three female writers.

Rukumani, Jaya and Ammu serve to be the small number of women in the Indian patriarchal culture who epitomise the sense of being, potential and the dignity that can ever be found in a woman.

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Four-letter Words and the Urdu Learner's Dictionaries in Pakistan

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Abstract

The paper aims to analyze the way the Urdu learner's dictionaries treat the taboo/four letter words. In the characteristic Pakistani context, most of the taboo words are related to sexual organs, acts and excretions.

In the present study, the macro- and micro-structures of the selected dictionaries have been analyzed to find out (i) whether the taboo words have been included or not (ii) whether meanings have been defined and exemplified in an appropriate manner. It was revealed that the treatment given to the taboo words in the dictionaries selected for investigation was shabby.

This is a matter of grave concern as it is tantamount to depriving the users of the much-needed information about the most important aspect of their lives – sex. It seems that these words have been treated in this way in the dictionaries under the misplaced notions of decency and modesty.

The paper concludes with the observation that the inclusion of the taboo words in the dictionary and provision of explicit and precise information on them will enhance the users' awareness of the word as well as the world.

1. Introduction

Taboo refers to such behavior as is not permissible within a given social context. For example, almost every known society imposes certain restrictions on sexual behavior. Some other major taboos include color, creed and food. Taboos are, in their true essence, social constructions. They are based on and defined by culturally sensitive social factors such as faith, food, sex, status and the like.

The scorn for taboos acts and objects is extended to the words referring to them. Society expects its members to avoid their use in public. Taboo words are considered to be 'obscene', 'offensive', 'vulgar', 'dirty', and even 'filthy' untimely.

A taboo word in society is avoided for fear of losing face by offending the sensibilities of the audience. As social beings, humans can ill afford to violate social conventions

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without suffering adverse sanctions. Individuals, therefore, censor their verbal behavior so as to avoid giving offence except when they deliberately intend to offend (McArthur 1998:35). Let us take a solid example. The English loan word in Urdu *taksi* refers to a vehicle 'taxi' which may be hired. The word is also used derisively to refer to a woman who sells her body for sex. Note the rhyme 'taksi' and 'sexy'!

One must not lose sight of the fact that for all the disparagement they may invoke, taboos are human behavior. Most of them refer to human instincts and biological functions. At times the need may arise to refer to taboos. In order to avoid public anger and to sound polite and save face, euphemistic words have been coined. For example, the lexical item 'private parts' is used to refer to 'genitalia' in English. In Urdu, the words *sharmgah* is a euphemistic term for human 'genitalia'.

2. Sex and Dictionaries

Taboo words pose a peculiar challenge to the dictionary-makers who are faced with the dilemma whether to include the taboo words in their work or not (macro-structural aspect). Neither option is easy. The inclusion of taboo words in the dictionary may hurt the feelings of the public which the dictionary-makers can ill afford as it may mar their repute and can have an adverse impact on the sale of the dictionary. The exclusion is against the dictates of their conscience since a dictionary is a repository of words, and taboo words are words after all. Interestingly enough, even if the dictionary maker dares to include the taboo words in the dictionary, the problem is far from being over. Another thorny issue crops up: how to define the taboo word (micro-structural aspect)? The lexicographer has to decide whether to define the taboo words by providing explicit and precise information about the taboo words or to use euphemistic words.

2. Urdu Learner's Dictionaries

Learner's dictionaries are very hard to come by in Pakistan as the user perspective has not been properly recognized. The blurbs of most dictionaries claim to cater for the needs of every kind of user, such as researchers, scholars, general users, students of all levels. However, the theoretical or empirical evidence needed to uphold the claim is lacking. Listed below are the dictionaries used in the study:

  a) *Jadeed Urdu Lughat- talbah kay liay* (2000) *(*henceforth the *Jadeed)*: *The Jadeed* has been compiled by Ashraf Nadeem. It has been published by the National Language Authority, Islamabad which is an autonomous body working under the Federal Ministry of Education. The dictionary has been chosen for study in view of the fact that it is targeted at learners of Urdu at the secondary level.

  b) *Darsi Urdu Lughat* (2001) (henceforth The *Darsi*): This dictionary has been compiled by two renowned educationists, Muhammsd Ishaq Jalapuri and Taj Muhammad. It has been published by the National Language Authority, Islamabad. The dictionary has been chosen for study since it is targeted at learners as well as teachers of Urdu at the secondary and higher secondary levels in Pakistan.

  c) *Feroz-ul –Lughaat Jadeeds* (2007) (henceforth The *Feroz*): The dictionary has been published by a major publishing house, *Feroz Sons (Pvt) Limited*. It is based on the new computerized edition of the *Feroz-ul –Lughaat Jaame'* (1967) which has been approved for all government departments in Pakistan, including the Education Department. Its image and popularity is very high among learners.

All three dictionaries have been published in the 21st century when information technology has brought an influx of information. It is impossible to hide any kind of information including information on sex, from individuals.

3. The Investigation

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In what follows, we shall analyze how dictionaries have treated lexicon related to sex.

3.1 First of all, lexical items relating to 'penis' were looked up in the three dictionaries. The search returned the following entries:

English equivalent	Jadeed	Darsi	Feroz
Penis	x	**uzv-i-tanaasul**: jism ka woh hissah jo nasl baRhanay ka zaree'ah hay. <u>Synonyms:</u> zakar; aalah-i-tanaasul	i. **aalt**. 1 aalah 2. jehaaz ki rassi 3. bartan 4. aalah-i-tanaasul ka mukhaffaf ii.**aalah-i-tanaasul**: 1 nasl baRhanay ka auzaar 2 mard ka uzv-i-tanaasul iii **uzv-i-tanaasul** aala-e- tanaasul; zakar iv. **zakar**:1.nar; mard 2 aalah-i-tanaasul

3.1.1 The *Jadeed* does not contain any lexical item referring to 'penis'. Judged by any standard, the exclusion is disturbing. It is not clear on what ground the compilers took the drastic decision. Perhaps they considered that the teenagers must not be exposed to the words relating to the 'penis' even in the print form. This is in sharp contrast with the science books for them which describe the whole reproduction system inside out with pictorial illustrations.

3.1.2 The only lexical item referring to 'penis' included in the *Darsi* is the Urdu word *uzv-i-tanaasul*. The entry contains its synonyms also (*zakar; aalah-i-tanaasul*) though they have not been made headwords in the dictionary for reasons known only to the compilers. The definition of the headword is very fuzzy: *jism ka woh hissah jo nasl baRhanay ka zaree'ah hay* (the part of body which is the source of reproduction). All of us know that various parts of body (internal as well as external) make up the reproduction system of males and females in men and animals. It is not clear as to which part, gender or species the definition refers. Also, this organ performs an excretory function - urination. However, the definition contains no reference to the excretory function. The correct definition would run as follows:

> *nar kay jism ka woh uzv jis say mani aur peshab kharaj hotay hain.* (Tr:
> 'the part of male body through which semen and urine are discharged').

3.1.3 The *Feroz* contains four lexical items referring to 'penis'. The first lexical item is *aalt.* The entry for *aalt* contains four meanings. It is the fourth sense which refers to 'penis'. It seems that most of the users will not wade through the text to find out the appropriate sense since most users tend to end their search with the first sense (Iqbal 1987). The definition is not satisfactory as it merely leads to another entry: *aala-e- tanaasul.* The definition of the second lexical item *aala-e- tanaasul* is misleading: *nasl baRhanay ka auzaar* ('a tool of reproduction'). There is a great difference between an *auzaar* i.e. 'tool' and an '*uzv'* i.e. 'organ' of body.

Also, there is no reference to the gender. As hinted earlier, a number of parts of body make up the reproduction system of males and females in men and animals. The third headword *uzv-i-tanaasul* contains merely synonyms, making the definition a circular one. The fourth headword *zakar* also contains two senses: *nar; mard 2 aalah-i-tanaasul*. The first meaning is the literal translation of the Arabic borrowing and is not used in Urdu. The second sense is a synonym, and not a definition. (For an appropriate definition, see 3.1.2.)

3.2 The second lexical item to be looked up was related to 'testes':

English equivalent	Jadeed	Darsi	Feroz
Testes	x	x	i **baizah**: 1. anDah 2. fautah; khusiah ii. **khayah**: khusiah; fautah iii **fautah**: khusiah; khayah

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3.2.1 The *Jadeed* contains no entry for 'testes'. The *Jadeed* seems to have pursued the policy of 'print black out' vis-à-vis the words relating to sex.

3.2.2 The *Darsi* also contain no entry for 'testes'. The exclusion is inexplicable. The target users of the dictionary are learners and their teachers at Secondary and Higher Secondary school levels. They need information about the body organs and their functions. The exclusion of the names of sex organs from the dictionary is a serious inadequacy and disservice to the language, to say the least.

3.2.3 The *Feroz* contains three lexical items referring to 'testes'. The first one is *baizah*. The definition contains only synonyms. The first sense *anDah* is the most known sense and refers to a 'fowl's egg' and is hardly used to refer to 'testes'. The second and third lexical items also contain synonyms. As the *Feroz* contains no illustrations –either verbal or pictorial illustration- the user may find serious difficulties in deciphering the precise meaning and function of the headword. An appropriate definition would read as follows:

> *nar kay zakar ka saath do baizvi ghudood jin say mani banti hay* 'two oval glands behind the penis of the male which produce semen'.

3.3. The dictionaries under study contained the following lexical items related to 'semen':

English equivalent	*Jadeed*	*Darsi*	*Feroz*
Semen	*x*	**nutfah:** *mard ka woh pani jis say hamal qrar pata hay*	i. **dhaat:** *1 woh ma'dni jauhar jis mein pighalnay ki khusoosiyat ho jaisay sona, chandi 2 peshaab kay saath khararj honay wala sfaid maadah; *mazi; mani* ii. **mani**: *dhaat; nutfah* iii.**nutfah**: *1. mani 2. aulaad*

3.3.1 The *Jadeed* does not contain any entry for 'semen'.

3.3.2 The lexical item referring to 'semen' included in the *Darsi* is the Urdu word *nutfah*. The definition is highly vague: *mard ka woh pani jis say hamal qrar pata hay* ('the water of man which causes pregnancy'). It does not state from where the water emerges which causes pregnancy. One can question whether semen is merely 'water'. In fact, it is a thick fluid. Its smell is stinking. It is produced in the testes. It is discharged through the penis at the time of intercourse or wet dream. It contains sperms. This brings us to the correct definition of the lexical item *mani*:

> *kaseef badboodar mai' jo khusion mein banta' hay aur jamaa' ya ehtlaam kay waqt zakar say kharaj hota hay. Aurat kay anDay say nutfah milnay say nya bachcha paida hota hay.* ('the ill-smelling thick fluid which is produced in the testes and is discharged through the penis at the time of intercourse or wet dream. It contains sperms which fuse with the egg of the female to form a new baby').

3.3.3. The *Feroz* contains three lexical items referring to 'semen'. The first lexical unit is *dhaat*. Its first sense *woh ma'dni jauhar jis mein pighalnay ki khusoosiyat ho jaisay sona, chandi* (the mineral extract which may melt, for example, gold, silver) is the most known sense. It does not have any sexual connotation. The second sense *peshaab kay saath khararj honay wala sfaid maadah* is not appropriate as it is believed to be a symptom of weakness of sexual potency.

The entry contains two synonyms *mazi; mani* out of which the first one has not been made a headword in the dictionary. It is a rare lexical item. How the non-native users will be able to decipher its meanings is not clear. The second lexical item *mani* contains only synonyms: *dhaat; nutfah*. As noted earlier the lexical item *dhaat* hardly has any sexual connotations.

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The entry for the *nutfah* which is the third lexical item referring to 'semen' contains the following meaning: 1. *mani* 2. *aulaad*. So the definition has become circular in the first instance and too broad in the second instance which is, in fact, figurative meaning – 'children'. The user is not expected to find much help from the dictionary!

3.4. The search for the lexical items related to 'copulation' yielded the following results:

English equivalent	Jadeed	Darsi	Feroz
Copulation	X	x	i. **jimaa'**: *mard ka aurat say suhbat karna. hambistar hona; mubashrat; mujame'at* ii. **suhbat**: *1 dosti; 2 saath. 3 mehfil 4 hambistri* iii. **mubashrat**: *hambistri; jimaa'* iv. **mujame'at** : *hambistri* v. **hambistri**: *jimaa'; mjame'at*

3.4.1 The *Jadeed* sticks to the policy of exclusion and does not contain any entry for 'copulation'.

3.4.2 There are many terms in Urdu denoting sexual intercourse (see 3.4.3). However, the *Darsi* contains none. If the compilers consider the lexical items relating to 'copulation' as obscene which must be kept away from the users, they are mistaken. The users do study about their body organs in Biology and Physical Education classes at high and higher secondary school level.

3.4.3 The *Feroz* contains three lexical items referring to 'copulation'. The first lexical unit is '*jimaa'*. The definition contains four synonyms: *mard ka aurat say suhbat karna. hambistar hona; mubashrat; mujame'at.* The second lexical item given is *suhbat.* The entry contains four synonyms: *dosti; saath; mehfil; hambistri.* The appropriate synonym happens to be the last one, making it a matter of chance for the target users to select the required sense. The third, fourth and fourth lexical items *mubashrat, mujame'at* and *hambisti* also contain synonyms. It seems that the dictionary-makers do not realize the difference between the dictionary and the thesaurus. An appropriate definition would run as follows:

> *furj mein zakar ka dalna aur furj mein mani ka kharaj hona* ('the insertion of the penis into the vagina and the ejaculation of the semen into the vagina').

3.5. The dictionaries under study contained the following lexical items related to 'vulva':

English equivalent	Jadeed	Darsi	Feroz
Vulva	X	**Sharmgah**: *aurat aur mard kay jism kay woh hissay jinhain chchupana wajib hay.* ☼ <u>*muslmanon ko hukm hay keh who apni sharmgahon ki hifazt karein*</u>	I **andaam-i-nihaani**: *aurat ki sharmgah. furj* ii **sharmgah**: *andaam-i-nihaani. baul-o-braaz ki jagah* iii **furj:** *1. shigaaf; soraakh 2. aurat ka andaam-i-nihaani*

3.5.1 The *Jadeed* does not contain any lexical item referring to 'vulva'.

3.5.2 Neither of the proper Urdu lexical items denoting 'vulva' i.e. *furj, andaam nihani* has been included in the *Darsi.* A very vague term *sharmgah* has been made the head word. It has been defined in an imprecise manner: *aurat aur mard kay jism kay woh hissay jinhain chchupana wajib hay (*'the parts of the body of a man and woman which ought to be hidden'*).* The illustrative sentence <u>*muslmanon ko hukm hay keh woh apni sharmgahon ki hifazt karein* (</u>'the Muslims have been ordained to guard their private parts') makes it amply clear that the definition relates to another lexical item *satr.* The parts of body which ought to be hidden (called *satr*) vary depending upon gender. For

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men, it is necessary to cover their body from navel to knees. As far as women are concerned, they must cover their body from head to foot save face, hands and feet, though some schools of Islamic thought maintain that they must hide even their faces, hands and feet also. The definition does not contain any reference to the excretory functions of 'vulva'. A more appropriate lexical item *furj* should have been made the headword which should have been defined as follows:

> *maadah kay jism ka woh uzv jis say haiz, bachcha aur peshab bahar nikaltay hain.* (Tr: 'the part of female body through which menses, baby and urine are discharged').

3.5.3 The *Feroz* contains three lexical items referring to 'vulva'. The first lexical unit is *andaam-i-nihaani.* The definition contains two synonyms*: aurat ki sharmgah; furj.* Interestingly enough, *furj,* in turn, contains *andaam-i-nihaani* as definition. The definition has become circular. To get precise information in the *Feroz* about the organ referred to seems very difficult for the users, most of whom happen to be non-native speakers of Urdu in Pakistan.

The second lexical item *sharmgah* is a very broad term. The definition contains merely synonyms which do not give precise information *(andaam-i-nihaani; baul-o-braaz ki jagah).* The lexical item *sharmgah* refers not only to vulva but to other body organs i.e. 'penis', 'testes' and 'anus' which are considered to be *satr* (organs which, according to the Islamic injunctions, ought to be covered from other persons). In fact, the second sense in the entry does refer to the anus as well: *baul-o-braaz ki jagah* (the place of urination and feces). The third lexical item referring to 'vulva' in the *Feroz* is *furj.* The first sense is the literal translation of the Arabic borrowing: *shigaaf* (fissure) and *soraakh* (hole). The second sense is a synonym, and not a definition.

3.6. The dictionaries under study contained the following lexical items related to 'breast':

English equivalent	*Jadeed*	*Darsi*	*Feroz*
Breast	*x*	*x*	**pistaan***: aurat ki chchati kay donon tarf kay gol ubhaar jin mein doodh hota hay*

3.6.1 The *Jadeed* contains no lexical item referring to 'breast'.

3.6.2. The *Darsi,* also, contains no lexical item referring to 'breast'. One wonders on what ground the compilers decided to banish terms referring to breast. The term *pistaan* is fairly frequent in use.

3.6.3. The lexical items referring to 'breast' in the *Feroz* is **pistaan.** The definition is, surprisingly, very precise*: aurat ki chchati kay donon tarf kay gol ubhaar jin mein doodh hota hay* ('two round projections on the breast of the woman which contain milk'). One wishes the compilers had taken pains to provide definitions and not synonyms in case of other headwords as well.

3.7. The dictionaries under study contained the following lexical items related to 'anus':

English equivalent	*Jadeed*	*Darsi*	*Feroz*
Anus	X	X	i. **dubur***: chootaR; maq'ad* ii. **maq'ad***: dubur; koon* iii. **koon***: maq'ad; * safrah*

3.7.1 The *Jadeed* contains no lexical item referring to 'anus'.

3.7.2 There are many terms in Urdu denoting 'anus' (see 3.7.3). However, the *Darsi* contains none. The exclusion is unjustified.

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3.7.3 The *Feroz* contains three lexical items referring to 'anus'. The first lexical item referring to 'anus' in the dictionary is ***dubur.*** The entry contains two synonyms as definition: *chootaR; maq'ad.* The first synonym *chootaR* has not been made headword in the dictionary. The second lexical item *maq'ad* contains two synonyms as definition: *dubur; koon.* The same things happens in the third lexical item *koon* which contains two synonym *maq'ad; safrah* out of which the latter one has not been made headword in the dictionary. A curious user will not be able to get any kind of help if s/he intends to look up what *chootaaR* and *safrah* mean.

3.8. The dictionaries under study contained the following lexical items related to 'feces':

English equivalent	*Jadeed*	*Darsi*	*Feroz*
Feces	*x*	*pakhanah: 1 peiT say kharaj honay wala fuzlah* ☼ *bachay nay pakhanay say kapRay kharaab kar liay hain* 2 *pakhanah karnay ki jagah* ☼ *ham nay ghar ki chchat par pakhanah bana rakha hay*	i. **braaz**: *paakhaanah, maila; nijaast* ii. **paakhaanah**: *gooh; gandgi; fuzlah* iii. **gooh**: *pakhanah; fuzlah; maila;* iv. **fuzlah:** *pakhanah*

3.8.1 The *Jadeed* contains no lexical item referring to 'ejaculation'.

3.8.2 The *Darsi* contains only one lexical item referring to 'feces': *paakhanah.* The entry contains two meanings. The first one is: *peiT say kharaj honay wala fuzlah* ['the waste excreted from the belly']. The entry contains one verbal illustration also: *bachay nay paakhanay say kapRay kharaab kar liay hain* ['The child spoiled his clothes with feces'] the second sense is very uncommon: *pakhanah karnay ki jagah* ['the lavatory']. The illustration *ham nay ghar ki chchat par pakhanah bana rakha hay* ['we have a lavatory upstairs'] substantiates the meaning.

3.8.3 There are four lexical items in the *Feroz* referring to 'feces'. The first one is ***braaz***. It occurs only in the compound: *baul-o-braaz* [urine and feces]. The entry contains three synonyms as definitions: *paakhaanah, maila; nijaast.* The most known meaning of *maila* is 'dirty' whereas *nijaast* is a broad term and means 'any kind of grunge'. The second lexical item in the dictionary referring to feces is *paakhaanah.* The entry contains three synonyms as definition*: gooh; gandgi; fuzlah.* The third lexical item *gooh* is an offensive word and is generally avoided. The fourth lexical item. *fuzlah* also contains just one synonym as definition: *pakhanah* making the definition a circular one and hence confusing for the users.

3.9. The dictionaries under study contained the following lexical items related to 'ejaculation':

English equivalent	*Jadeed*	*Darsi*	*Feroz*
Ejaculation	*x*	*x*	**enzaal***:1 utrna 2 mani niklna*

3.9.1 The *Jadeed* contains no lexical item referring to 'ejaculation'.

3.9.2 The *Darsi* has not included any lexical item for reasons best known to the compilers.

3.9.3 There is only one lexical item in the *Feroz* referring to 'ejaculation' i.e. ***enzaal*** . The entry contains two senses (i) *utrna* (ii) *mani niklna.* The first sense is literal and is rare. The second one is more common. The definition *mani niklna* ('the discharge of semen') does not specify the precise time when this happens. As a matter of fact, semen is discharged at the time of copulation as well as during wet dream. The first kind of ejaculation is *enzaal* ('ejaculation') whereas the second one is *ehtlaam* ('wet dream').

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3.10. The dictionaries under study contained the following lexical items related to 'wet dream':

English equivalent	*Jadeed*	*Darsi*	*Feroz*
Wet dream	*X*	*X*	**eHtlaam**: *khaab mein naapaak hona*

3.10.1 The *Jadeed* contains no lexical item referring to 'wet dream'.

3.10.2 The *Darsi* has not included any lexical item relating to 'wet dream'. At puberty, it is natural for boys to have wet dreams. They need information on the bodily function.

The exclusion of the lexical item *eHtlaam* is perplexing.

3.9.3. The lexical item included in the *Feroz* referring to 'wet dream' is *eHtlaam.* The meaning given in the entry is vague: *khaab mein naapaak hona* (to become unclean during dream). The definition is impersonal and it is not possible to figure out whether it is about the male or female gender. The entry does not explain how one becomes 'unclean during dream'. A proper definition would run like this:

> *Jinsi khaab mein bay ikhtyar mani ka nikalna*: (involuntary discharge of semen during a sexual dream).

3.11 The dictionaries under study contained the following lexical items related to 'menses':

English equivalent	*Jadeed*	*Darsi*	*Feroz*
Menses	*X*	*haiz: auraton ko jo mahwari khoon aataa hay; ayyaam-i-mahwari*	i. **haiz**: *woh khoon jo aurton ko har maheenay aataa hay. mahwaari* ii. **mahwari**: *1 wazeefah jo naukron ko maheenah guzarnay kay ba'd daitay hain 2. haiz jo aurton ko har maheenay aata hay*

3.11.1 The *Jadeed,* contains no lexical item referring to 'menses'

3.11.2 The *Darsi* contains only one headword relating to 'menses': **haiz**: *auraton ko jo mahwari khoon aataa hay; ayyaam-i-mahwari.* The definition is ambiguous. It bears no clue as to what kind of blood it is; from where it is discharged; why it is discharged. As is well known, only certain women at certain age release menses. A proper definition would run as:

> *taqreeban har chaar hafton kay ba'd baalagh ghair Haamla aurat ki bachcha dani say furj kay rastay nikalnay walay khoon aur raishay ka bahau* ('the discharge of blood and sloughed off tissue from uterus, discharged through the vagina of the adult woman, who is not pregnant, after about every 4 weeks').

3.11.3 The lexical items related to 'menses' include *haiz* and *mahwari*. The definition of the lexical item runs as *woh khoon jo aurton ko har maheenay aata hay. Mahwaari* ('the blood which women discharge every month'). The definition is vague. The definition of the second lexical item **mahwari** is even cumbersome. The first definition of the word *mahwari* is very hardly used: *wazeefah jo naukron ko maheenah guzarnay kay ba'd daitay haini* (the monthly salary of the servants'). The more frequent meaning *haiz jo aurton ko har maheenay aata hay* has been entered as the second sense and, hence, is less likely to attract the users who tend to finish their search with the first definition. The definition is insufficient.

3.12. The last lexical items to be checked were the ones related to 'Puerperal hemorrhage':

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English equivalent	*Jadeed*	*Darsi*	*Feroz*
Puerperal hemorrhage	*x*	*x*	*x*

3.12.1` The *Jadeed* contains no lexical item related to 'puerperal hemorrhage'.

3.12.2. The *Darsi,* too, contains no lexical item related to 'puerperal hemorrhage'.

3.12.3 Surprisingly enough, the *Feroz* contains no lexical item related to 'puerperal hemorrhage'.

The lexical item related to 'Puerperal hemorrhage' is '*nifaas*'. It is a very frequent word. In Pakistan, a number of girls are married in their teens. As a result, they do bear babies and discharge 'puerperal hemorrhage'. By excluding the lexical item relating to 'puerperal hemorrhage', the compilers have denied the users of their right to know about their bodies.

4. Discussion

The preceding description and analysis of lexical items related to sex in the Urdu learner's dictionaries demonstrates the dictionary-makers have excluded taboo words form learner's dictionaries, in particular the ones published by the National Language Authority. The compilers have acted against the principle of completeness of description of language as a dictionary is supposed to be the repository of the language. (Jackson 2002:162; Moyo 2005). One is reminded of Farooqi (1990) who rightly observes that

> 'Urdu presents a number of problems to the dictionary maker. Some of these are there because lexicographers have so far chosen to ignore the living reality of the language...…Yet others owe their origin to the fact that most lexicographers had but a dim idea of what a dictionary should be….. They were not clear about what kind of words should be entered. They often failed to distinguish between "definition" and "meaning", and frequently satisfied themselves with offering an equivalent or approximate translation instead of definition or meaning'.

The dictionary makers have ignored 'the living reality of language' by excluding the four-letter words. The taboo words are very much a part of language. The learners ought to know these words vis-à-vis their meanings and usage notes. Particularly, the non-native speakers must know different aspects of these words, such as, when to use and when not to use these words? An out of context use of these words may lead to loss of face and even breakdown of communication.

The treatment meted out to the taboo words in the Pakistani dictionaries is in sharp contrast to the way the taboo words have been treated in general purpose dictionaries like the *Farhang-e-Asafiyya* by Sayyad Ahmad Dehlavi (1888-1901) and *Nur-al-Lughaat* by Nayyar Kakorvi (1922-1934) in which, according to Farooqi (1990) 'the outlawed ones are so common, that one wonders if the compilers knew what they were doing'.

The treatment of the four-letter words in the learners is another demonstration of the fact that adolescents and teen-agers are 'often fed misleading and insufficient information about sex' (Malik 2004). The exclusion of the four-letter words from a dictionary cannot be justified in any way especially in view of the fact that the many of the words studied in the current investigation such as *zakar, furj, nutfah, mani, haiz, dubur, maq'ad, mubasharat* and *jimaa'* have been borrowed from the Holy Quran as well as in other religious literature including books of Ahadith (the traditions of the Holy Prophet, peace be upon him). It will not be out of place to mention that the Holy book describes even the posture of copulation of Adam and Eve as well as the process of ejaculation. Zaakir (1985) struck the right note when he observed that

> 'To me, a dictionary-make should not consider any word to be 'vulgar'.
> Every word used by the speakers is sacred to her/him. Not withstanding

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the fact that the criteria of obscenity continue to change, the duty of a dictionary-maker is to provide information on words and not to pronounce judgment as to which word is vulgar and which is not'.

5. **Conclusion**

The inadequacies pointed out above show hat the taboo words have been given a very inapt treatment in the Pakistani dictionaries. It is safe to conclude that to deprive the users of the word knowledge amounts to depriving them of the world knowledge. It is suggested that the taboo words be included in the next editions of these dictionaries. Moreover, the future compilers should also refrain from, banishing the taboo words from their dictionaries.

Note:

In English, most of the unmentionable words consist of four-letter words, for instance, 'cock', 'cunt', 'fuck', and 'shit' though other non-four-lettered-words such as, 'ass', 'bitch', 'bastard', 'bollocks', 'motherfucker', 'prick', and 'wanker' are also treated in the same manner. Also, such words may also be racially or religiously prejudiced. (Andrea Millwood-Hargrave 2000).

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Margaret Atwood's *The Blind Assassin* - A Study of the Impact of War on Historical and Economic Aspects of the Society

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Abstract

Margaret Atwood, a Canadian poet, novelist and critic, is noted for the feminism and mythological themes. Her texts derive from the traditional realist novel, where the female protagonist is victimized by gender and politics. Atwood's fiction is often symbolic and she has moved easily between satire, fantasy and suffering. In the year 2000, Atwood earned the Booker prize, Britain's top literary award for fiction through *The Blind Assassin*.

In her novels, Atwood creates women characters that are forced to reconstruct themselves in a more self reliant and courageous form as they seek to establish their relationship to the world and to the individuals around them.

This research paper throws light on the History of War and its impact on economy of Canada based on the novel *The Blind Assassin*. This study examines historical evidences by analyzing the records and survivals of the past in the novel. History and Fiction are discourse system of signification by which one can capture the essence of the past.

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Introduction

Margaret Atwood is a prolific Canadian poet, short story writer, novelist and a critic. Her first novel, *The Edible Woman*, appeared in 1969. Later she wrote *Surfacing*, *Lady Oracle, Dancing Girls, Life before Man, Alias Grace, The Blind Assassin* and *Negotiating with the Dead*. She is an international literary celebrity whose work has been translated into more than twenty languages and published in twenty five countries.

The highpoint of Atwood's literary career has been the award of the prestigious Booker prize in the year 2000 for *The Blind Assassin*. A Canadian and feminist writer, Margaret Atwood is internationally acclaimed as an accomplished novelist, poet, short story writer, and literary commentator. Her novel *The Blind Assassin* (2000) is highly regarded as a provocative work of feminist dystopian fiction that examines the cultural construction of female identity, language, and historical memory.

A Review of Research

Vanitha (2007) has studied 'Shifting balances in Margaret Atwood's *The Blind Assassin*'. Mariamma Chacko (2001) has reviewed Margaret Atwood's Novel. Subhadra Bhaskaran (2003) has narrated Intersection of history and fiction in Atwood's *The Blind Assassin* and Michael Ondaatje's *Anil's Ghost*. Joy Isabella and Sundarsingh (2010) have published a paper on Association of Self Fashioning and Circumstances in Margaret Atwood's *The Blind Assassin.*

Ideological Extremism – the Focus of *The Blind Assassin*

The Blind Assassin is primarily concerned with the problems of ideological extremism, historical interpretation, and most importantly the contribution of women in family and economic growth.

Margaret Atwood depicts life as a process, a journey into one's self which results in self-realization, self assertion and reconciliation. The broken relationship portrays the universal problem of survival of the human race which reflects the radical influence of colonization. The portrayal of women in search of an identity for their own selves as well as of their country's cultural identity is an important phenomenon in recent Canadian fiction. Atwood's vision of life centres on the Psyche, the soul and the consciousness of man. The women as portrayed by Atwood suffer from personal victimization which has its roots in the colonial pattern of destruction.

A Story of Two Sisters

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The Blind Assassin is about two sisters, one of whom, Laura Chase, dies in a car accident in 1945 under ambiguous circumstances. Iris Chase, wife of Richard Griffin, an industrialist lives alone in Port Ticonderoga. In her middle nineties, Iris' life oscillates between her uncertain present and mysteries of her past. She recollects the past and the mysterious death of her sister Laura in the novel.

Family History and National History

The family history is entangled with the national history in "The Blind Assassin". It is apt to quote "The progress of critically examining and analyzing the records, and survivals of the past is called as Historical method. The imaginative reconstruction of the process is called Historiography". Gottschalk, (p. 48).

The Chase family came to Port Ticonderoga from Pennsylvania in the 1820's and they built the town which had been burnt out during 1812 war. (P.66). Readers are exposed to the destruction of war. In the Year 1870, Benjamin, the Grandfather of Iris had built the Button factory which gave an economic progress in the region. (p.66). It is interesting to note the history of buttons. The first buttons were made from wood and bone, and the fancier ones from cow horns. (p. 66).

The War and the Economy

The population of the country was expanding at an enormous rate. He used the necessity of the people and made buttons cheaply and sold cheaply. When the war began, a sixth of the workers had been women. By the end of the war the number has increased to two thirds. This indicates that the men were old or partially crippled or they were unfit for button factory. The impact of war was greater in men and hence affected the economy of the family.

"The Chase Industries: A History", a business chronicle, was published in the year 1903. (p. 68). This indicates that during the olden days when business was established it was being known through bulletin or chronicles. These chronicles are presented to the business associates to highlight about the economy of the company. This is a type of advertisement to expose the company's status.

History reveals that Avilion – a merchant's palace, with a curved driveway leading to it, a stumpy gothic turret, and a wide semicircular spooled verandah overlooking the two rivers, where tea was served to ladies in flowered hats during the languid summer afternoons at the century's turn. (p.72). It was dedicated in the year 1889 and christened by Adelia, the grandmother of Iris Chase. Historically Avilion is not a good name, since Avilion was the place where King Arthur went to die. The name signifies that Adelia is hopeless and helpless.

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The Devastation Due to War

The war began in the month of August, 1914. All the three brothers of Chase family joined the Royal Canadian Regiment. Adelia used political influence to receive orders for the button factory to supply the troops. War was good for the button trade. So many buttons were lost in a war, and have to be replaced. (P.88). They're blown to pieces, they sank into the ground, they went up in flames. This clearly reveals that many lost their lives due to war.

In the year 1916, first week of June, Iris was born. (p. 91). In the same month Percy, brother of Norval Chase was killed in the war. In the month of July, Eddie of Chase family died. And in the month of August grandfather was affected by stroke. The continuous sufferings made Iris' mother to manage the button factories in order to sustain the family.

Aftermath of War

Armistice Day was celebrated on November 11. 1918. The war is over. The guns are silent. The men who are left alive look up at the sky, their faces grimed, their clothing sodden; they climb out of their foxholes and filthy burrows. Both sides feel they have lost. (P.93). Even though many support the war, the final ending is not a victory. But many people, the entire humanity suffered during the war.

Norval Chase, father of Iris, had been wounded at the Somme. He missed the jubilant welcome for the returning troops at Halifax. But there was a special reception at Port Ticonderoga for him. He emerged from the train. He had one good eye and one good leg. His face was gaunt, seamed, and fanatical. Farewells can be shattering, but returns are surely worse. (p. 94). The author clearly describes the aftermath of the war. The return of the hero is not joyful. Her father became an atheist. War changed the spiritual belief of Norval Chase.

In Seeking Loneliness

Chase would climb up into the stumpy turret of Avilion, saying he wished to smoke. Really it was an excuse to be alone. Up there he would talk to himself and slam against the walls, and end by drinking himself numb. (p. 97). This clearly indicates that the war affects the psychology of a person. As soon as the war was over, the women had stepped aside or else been pushed and their jobs had been filled by the returning men. But there weren't enough jobs to go around. All over the country there were shutdowns and layoffs. (p. 99).

The aftermath of the war was so pathetic. There were no jobs across the country. Severe recession prevailed in country's economy. The bank has Roman pillars, to remind us to render unto Caesar the things that are Caesar's, such as those ridiculous service charges. (P.175). Atwood symbolically reveals that the Bank was in existence over a long period but the service rendered by the bank was poor.

Emergence of Women

Two bronze statues were commissioned by Chase family. One was Colonel Parkman (1885), a veteran, who fought of the decisive battle in the American Revolution. The other one was a Weary Soldier. The sculptress was Callista Fitzsimmons. Even in those days the veterans were remembered by erecting statues. The statue designer was a woman. This shows that after the war women exhibited their professionalism. The war memorial was unveiled in the November of 1928, on Remembrance Day. "My father laid the first wreath, Laura and I watched, hand in hand; Reenie cried." (p. 181).

The war veterans were mourned by men through wreath and by women through drops of tears. In 1934 of September, Monday, Labour Day was celebrated. (P.206). Thus workers were honoured for their hard work and labour.

Comprehensive Coverage

In the year 1935, the button factory was empty, its interior charred and shattered. This shows that the economy of the button factory declines. There was a conference in the city, the subjects were economics and politics, the Depression, the situation in Europe; the worrisome advances being made by World Communism. Atwood presents her thought on History, Economics, Politics and Finance.

The downfall of button factory made the family to be economically handicapped. The flow of money became standstill. Hence Iris(18) was forced to marry Richard who is 35. This shows that if the economy of the country or family becomes worsen then people suffer a lot especially women and children. Civil war began in Spain during the spring of 1936. King Edward was abdicated in that year;

Intense Human Suffering

The intensity and aftermath of the war was so cruel. The war made the men in camouflage gear with scarves over their mouths and noses, the drifts of smoke, the gutted buildings, the broken, weeping civilians. Mothers carried their limp children and their faces were splotched with blood. Oldmen were bewildered. They cart the young men off and murder them, intending to forestall revenge, as the Greeks did at Troy. Hitler's killing of Jewish babies is reminded by the author.

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"Keep the home fires burning", was one of the old war slogans. (p. 583). The same sounded in the year 1939. The war went on and on, a relentless motor. Gasoline was rationed. (p. 587). Thus the mobility of day to day life is curtailed. Around the outskirts of towns and cities, bulldozers rampaged and trees were toppled. Great holes were scooped in the ground as if bombs had been dropped there. The streets were gravel and mud. The repercussion has the negative impacts over the region. War affected the ecology of Canada.

The Tragedy of Economics

Iris' mother Liliana died. Her father taught the principles of economics. He also discussed with Richard about economics and politics, the depression, the situation in Europe, the worrisome advances made by World communism. Richard was of the opinion that Hitler had pulled Germany together from the financial point of view. He had approached to make an investment in a new fabric, the Italians were developing. When Chase lost his button business, Richard wanted to retain the button factory and proposed to marry Iris. The marriage was fixed like business. After her marriage she felt very lonely and empty. She says, "I felt as if I'd been picked up and set down in a foreign country, where everyone spoke a different language. (p. 393).

Iris also believed "Love is giving, marriage is buying and selling".(p.518). Due to the depression, Iris lost her self-identity. The impact of war shows even people lack self-confidence and self-identity.

Conclusion

Atwood powerfully displays the impact of war on the society. The elements of war affect history and economy of the society. Through the novel *The Blind Assassin* one can understand the aftermath of the war. War changed the history of Canada. It also affected the economy of the nation. People lost faith in religion. Valuable lives had been lost. Men became invalids and the financial burden was experienced by women. War changed the personality of a man and spiritual belief of people. It also affected the ecology of entire landscape. Due to the downfall of button factory and economic situation of the family, Iris was forced to marry Richard. As a result, Iris lost her self identity.

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Was Gandhi a True *Mahatma*?

Kapil Chaudaha, Ph.D.

The Status and Meaning of *Mahatma*

One is reminded of the ending of Bernard Shaw's St Joan. If Joan returned to earth today, would she be received in a kindlier manner? Perhaps, not. The simplicity of her goodness and truthfulness might be doubted. (Shaw) So is it with Gandhi.

The debate over the title of *Mahatma* to him refuses to die down. *Mahatma* literally means a great soul [*maha* (great)+aatman (soul)]. In religious terms, it refers to a person of superior holiness. Does Gandhi deserve such a reverential status? Critics and admirers have their own arguments as to its justification. His popular image of a *mahatma* and the fact of his murder make it hard to turn this debate for or against him.

The present article encapsulates some of the most typical traits of Gandhi in order to reach an agreeable understanding of his persona.

Thrown Out of the Train

Gandhi's unique personality speaks for itself. He was a man of self-respect. A single incident of being thrown out of the train in South Africa shook him to the bone. The humiliation it caused was too much to put up with. The chilling winds of the place added to his pain. At the cold, deserted station, he sat by himself pondering what he had gone through.

In his own agony, he saw the agonies of thousands of the Indian traders and labourers living in South Africa. The life which these South African Indians were forced to live filled him with compassion. He felt he must find the cure to their suffering.

The Idea of *Satyagraha*

Interestingly, Gandhi dealt with the South African problem in his own style. He called his struggle *satyagraha* (insistence-on-truth), and drew force from it for moral values he cherished most, which were truth, non-violence, tolerance, and love for justice. He firmly believed in these values and stood by them at all events.

At first, it seemed an impractical approach to many. How could one expect to fight the tough British government with mere moral force? They asserted that *satyagraha* could not harm a single British head. They did not see any virtue in quietly tolerating every ill and torture that the British inflicted on their subjects, and wondered how it could reconcile the British to concede to their demands. But nothing could dissuade Gandhi out of his position. His conscience was all that made sense to him. Once he had self-approval, he continued his march. Soon people from all quarters joined his mission turning it into a historic event.

Amidst Insults, Ultimate Victory

What the British government had laughed off as a pipedream was giving them a hard time now. The government was unable to think of the right means to handle this situation. Use of force was a readymade choice for them. But it did not yield much. *Satyagrahis* faced the worst violence and harassment from the government, but they did not leave their ground. Gandhi had instilled into their hearts an unbeatable spirit for freedom and human rights that even the mighty British failed to tame. Thus annoyed, they took harsher measures; which brought them under international criticism. A toothless lion, the government could only roar at its prey. General Smuts, an influential army leader and administrator, admitted: "Mr. Gandhi, you have made a eunuch out of me. Me, General Smuts, the winner of many great wars, I just don't know what weapons to use against you. Any weapon I pick up strikes back at me." (Kishore, 998).

Finally, the government had to give in. Although not all the demands of the *satyagrahis* were granted, yet even their partial achievement was no short of a miracle. The *Satyagraha* Movement and its significant success in South Africa set a real life example of the victory of good over evil. In later years, Gandhi tried his *satyagraha* in Indian freedom struggle. Here, too, its impact was remarkable.

Humane and Benevolent

Gandhi was as humane and benevolent in his professional life as he was in his social and political life. In law courts, he always sided with the fair and just. He was very careful in his choice of legal cases; and once being sure of their genuineness, he devoted himself fully to defending them. His faith in truth and justice gave such force to his arguments that even the

white judges, who always denigrated him as the 'coolie barrister', often had to decide the case in his favour.

Of course, his legal knowledge also had a hand in it. But it was just an aid, he was solely driven by his moral vision of life. Further, he was particularly kind towards his poor clients from whom he did not charge any fee. Sometimes, he would dare to sue white landlords and farm owners for unfairly treating their servants. In fact, it all came naturally to him. For him, it was a part of human duties that he must carry out come what may. He had set aside his personal interests and was all set for social service.

Lincoln and Gandhi

Here we are reminded of Abraham Lincoln, the former President of the United States. He had a deep respect for humanity. Interestingly, both the leaders – Gandhi and Lincoln – shared the same profession of law and both worked with the same spirit and purpose. Often Lincoln would settle the cases of his clients outside the courts. In fact, he would himself invite the opponent parties and arrange their meetings with his clients in his own office. The two parties would fix the matter by mutual consent. Though Lincoln earned less this way, at least he was satisfied.

Early Gandhi in India

After his return from South Africa, Gandhi broadened his scope of activities. His love for freedom urged him to support the Indian independence struggle. In South Africa he was an undisputed leader whose words and actions were held in high regard. However, he needed recognition in his own country. The news of his South African campaign had travelled to India and some national leaders were aware of it; yet his role in national affairs was only limited.

Gandhi was patient enough to let things go. Meanwhile, he kept up his efforts at the personal level building links with nationalistic groups particularly the Indian National Congress. The Indian National Congress was most instrumental in advancing the cause of Indians. Gandhi knew well that it could serve as the best medium to convey his ideas to the masses. Hence, he began to develop contact with its leaders. His unbeatable spirit, self-determination, and unflinching devotion to moral values made him a prominent figure in the Indian National Congress.

Swadeshi – A Moral and Political Weapon

In fact, there was an upsurge of excitement about his ideas. A number of factors can explain the reason for the public interest in him. First and foremost, Gandhi was a mass leader in the real sense of the word. People could closely associate themselves with him. The poor and downtrodden looked upon him as a messiah. Secondly, in mind and appearance, Gandhi represented the true Indian culture, which had an easy appeal to the entire nation. He channeled this public energy to support the Swadeshi (self-sufficiency) Movement.

The movement was launched to promote the use of domestic products. Its purpose was to gain self-reliance and weaken the power by boycotting their goods. Gandhi projected home spun

khadi as a symbol of self-dignity and economic independence. His call for burning foreign clothes was well received and followed. It was purely his charisma that could arouse nationalistic fervour out of ordinary *khadi.* Above all, his unfailing adherence to Truth and non-violence compelled the British authorities to consider his demands seriously. These factors added fruitlessly to free India.

Campaign Against Untouchability – A Moral and Social Weapon

On the social front, Gandhi's views had a seminal effect. His campaign against untouchability was a major step towards securing social justice for lower castes. Untouchability was an inhuman practice that treated the underprivileged too hateful to even to touch. They were outcasts in their own community. This tendency was rooted in rigid tenacious beliefs nursed through ages. Gandhi was dead against it. It sickened his heart to see how a people had been reduced to a loathsome lot. He firmly believed that every individual had equal worth that should be respected. To restore the honour of *shudras,* he called them *harijans* (children of God). Though these measures could not uproot untouchability, they set off concrete reforms that bore fruit in time.

A Lesson on Non-violence

Gandhi's achievements are truly extraordinary as well as exemplary. He had a noble vision of life and he sincerely lived up to it. He not only liberated millions from slavery, but bequeathed a unique lesson of non-violence to the world. It fairly justifies the widespread veneration accorded to him.

Ruined Family, Failure in Personal Family Roles

However, the debate is not over. Some other aspects of Gandhi's life are pointed out questioning the stamp of *Mahatma*. His family life was one such aspect.

No matter what Gandhi was to the world, to his wife Kasturba he was an uncaring and irresponsible husband. The couple lived together very little because of Gandhi's political life. After the marriage, Gandhi went to London to study law. After his return from there, he got a one-year contract from Dada Abdullah & Co. based in South Africa. So he set off for South Africa. While working there, he got to know about the plight of the Indians living there. He felt he must do something for them. It prolonged his stay in South Africa. He got back home only after three years.

Here, too, he remained an outsider; his mind was fully occupied with the thought of the South African Indians. In order to voice their concerns to the Indian public, he toured Bombay, Pune, Madras, and Calcutta and met the top brass of Indian leadership. During his Calcutta visit, he got a telegram from South Africa. He was urgently required there. He left for it at once along with his wife and kids. Having settled the matters there, he was back to Rajkot, his hometown. Now he looked serious about his family and career. He started his practice at Rajkot itself. But again

his mood changed, and he planned to shift to Bombay for better prospects. But even Bombay was unable to keep him tied for long. After a short innings as a barrister, he again got a call from South Africa. And once more, he sailed to the old place. This time he had left his family behind. It was uncertain how long he would have to stay there. So he sent for the family. Even after his final return from South Africa, he was constantly on the move. He was too engaged in national affairs to be free to look after home and family.

Burden on *Mahatma's* Wife

Kasturba had to take the brunt of it. Gandhi's capricious change of places got on her nerves, let alone the pain of loneliness. She felt Gandhi cared least for her feelings. Once when he told her about his trip to Bombay, she blurted out, "Do as you please. Home or abroad – for me it's all the same." (Kishore, 439). What hurt her more was that she had to depend on Gandhi's elder brother Laxmidas for her family needs. She held, not unfairly, Mohandas responsible for all these troubles.

At times, Gandhi was very uncompromising, especially about the questions of self-identity. He did not even mind risking his children's future for its sake. For instance, he was against English education. During his long stay in South Africa, he could not find a proper Hindi/Gujrati school for his children; and since he considered English schools unfit for them, he did not put them in school at all. He thought he could better train them at home. But his busy routine hardly spared any time for it. The children waited on their *Bapu* for his classes, but *Bapu* did not turn up. Kasturba was agitated at this state of affairs. Her pleadings, requests, complaints went to the bin. Mohandas would not budge.

Further, Gandhi's autobiography *My Experiments with Truth* reveals how deeply he was engaged in observing *brahmacharya* (celibacy). For him, *brahmacharya* was an essential aid in discovering TRUTH. He believed that sex was for procreation not pleasure. He practiced hard self-control and tried to keep off carnal joys. Kasturba was expected to be a natural part of this experimentation as if her personal choice did not matter. Gandhi took and broke the vow of *brahmacharya* and Kasturba had to please his whims.

Touchy Moral Issues

How touchy Gandhi could be about moral issues was brought out by an incident that occurred in the Tolstoy Farm. The Farm was a place built to shelter the families of those *satyagrahis* who were in jail as a part of *satyagraha* scheme of courting arrests. All these families lived together. Gandhi saw to it that the girls and boys of the Farm played together there. He wanted to keep their minds free from any complexes about each other.

One day, a boy touched the hair of two girls to tease them. The matter was reported to Gandhi. It gave him a heavy jolt. He considered the fault too big to be forgiven. He asked the boy to leave the Farm. As if this was not enough, he thought that the girls' hair should be cut off to wash the sin off them because he believed that the girls had been defiled by the sin. In fact, he himself performed the purging ceremony of cutting their hair. Kallenbach, one of his white friends and

associates, felt so bitter that he said, "Gandhibhai, I didn't know you could be so hard-hearted when you wanted to be."(Kishore, 879).

Opposition from Indian Intelligentsia

Further, the intellectual class of India was quite critical of certain policies of Gandhi. Rabindranath Tagore, an eminent scholar and thinker of the time, had serious differences of opinions with Gandhi on several matters. For example, Tagore felt that the burning of foreign clothes in a country suffering from destitute was not a sensible act.

Likewise, he did not see any good in Gandhi's opposition to English education. In fact, Tagore felt that India could profit by western scientific knowledge. Moreover, he did not appreciate Gandhi's stress on manual labour as against the use of machines. He "feared that Gandhi's non-cooperation movement was directed not only against the British Raj, but against Western civilization itself." (Ghose, 156-7).

How Do We Evaluate Such Characteristics and Instances?

Several such instances from Gandhi's private and social lives can be found in Gandhian literature. They give the impression that he was not above common follies and weaknesses. On occasions, he was as unforgiving and dominant as any ordinary human being. Add to these his political errors that his critics charge him with: he was responsible for the partition, his soft policies prolonged the British Raj, he overlooked the value of the revolutionary groups, he did not favour the Hindu interests, so on and so forth. Does a man with so many grave faults qualify to be a *Mahatma*?

In fact, these faults and weaknesses, as they appear to be, were not inherent in his personality; they grew out of his personal dilemma relating to his duties. He was a husband, a brother, a father, a public leader, and a seeker of Truth. It was hard for him to decide which role was his priority. Often he had to act several roles at the same time, which totally perplexed him. He had to grapple with double choices.

But his inner voice always cleared his vision and led him further. His dilemma was not a flaw in his character, but a sign of the process of inner evolution. His thirst for freedom, justice and equality absorbed his entire being. He tended to rely on his impulse and would take any course they indicated. Moreover, the search for the ultimate truth was always there guiding him to his destination; it also impelled him to free himself from the bonds of attachment. Jesus has said: "He who loves father or mother more than me (Truth) is not worthy of me (Truth); and he who does not take his cross and follow me is not worthy of me (Truth)." (Mathew 10.37-38).

An Epitome of Simple Living and High Thinking

Altogether, Gandhi was an epitome of simple living and high thinking. His unflagging enthusiasm to follow the moral values raised him to sainthood. Charmed with personality,

Tagore called him a *mahatma*: "Great soul in beggar's garb." (Byrne, 56). Though, as mentioned above, Tagore differed from him at times; he always regarded him "the greatest of living men." (Ghose, 158).

The admiration and honour accorded to Gandhi is a tribute to the passion to follow the urge of the spirit which is governed by the great creative force LOVE that is not bound by any caste, colour, creed, and that is why, he will be called *Mahatma* for ages to come.

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Omani Women: Are Their Language Skills Good Enough for the Workplace?

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Abstract

His Majesty Sultan Qaboos bin Said, the king of Oman said "We call upon Omani women everywhere ….to roll up their sleeves and contribute to the process of economic and social development." (on the occasion of 20th National Day of Oman) "…of paramount importance, are interpersonal and communication skills. And this is where women can shine, because these are skills we learned from the earliest age. For Arab women today, communication skills must include mastery of the English language as the main mode of communication in the international business world". Dr Rawya Al Busaidi, Minister of Higher Education, Oman, said to the Arab International Women's Forum on 'Women as Engines of Economic Growth' at The European Parliament, Brussels, April 2005.

It is in this context that the presenter, an English Language Instructor for the last six years in Oman wishes to report the results of the survey conducted to know if the English Language Programs offered by higher colleges of education in Oman are effectual in providing the necessary language skills to women and girls in preparation for the workplace.

Key words: English language programs, global Omanis, Oman Women's Association in Muscat (OWAM), *half of Oman's potential*.

Introduction

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Oman is situated in the Southwest Asia, nestled amidst the Arabian Sea, Gulf of Oman, and Persian Gulf, bordering the Republic of Yemen, in the south, Kingdom of Saudi Arabia and in the west United Arab Emirates (UAE). It is considered one of the fifteen states that constitute the famed "Cradle of Humanity." With a land area of about 309.5 thousand square kilometers and a coastline of 1700 kilometers, it is the third largest country in the Arabian Peninsula.

A sustainable economic advantage stems from a country's resources-human, financial and natural resources. It is recognized that the country's greatest and most precious resource is its people. Therefore, their potential must be developed to enable them to build their present and prepare for the future. Consequently, the development of human resources has been a corner stone of Oman's development strategy.

Statistics of Omani women in education

Table 1 provides with an overview of Omani women in education, table 2 with numbers of men and women working and their percentages and table 3 will show the departments in which women are working.

% Distribution of Omani Population by Educational Status & Gender.

Male%	Female%	Average %	Educational Status
11.81	23.82	17.77	Illiterate
21.17	18.46	19.83	Can read and write
23.66	18.10	20.90	Primary stage of education
19.14	15.78	17.47	Preparatory stage of basic education
17.36	18.39	17.87	Secondary stage
2.77	2.29	2.53	Post secondary non-tertiary
3.50	2.73	3.12	First university degree
0.38	0.10	0.24	Master degree
0.07	0.02	0.04	PhD degree
0.14	0.31	0.22	Not stated

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Statistics of Omani Women in jobs

Table 2: Omani population and Omani Labour Force during the period 1993

Gender	Omani Population	Omani Labour Force
Men	**755,071 (51%)**	**250,404 (91%)**
Women	**725,460 (49%)**	**24,007 (9%)**
Total	**1,480,531 (100%)**	**274,411 (100%)**

Table 3: Employment Structure of Working Omani Women in 1995

Place of Employment	Population
Source: Sultanate of Oman, Development Council, 1993	
Place of Employment	**Population**
Government Sector	**17,946 (75%)**
Private Sector	**2,942 (12%)**
Self Employed (Own Business)	**3,119 (13%)**
Total	**24,007 (100%)**
Source: General Directorate for Women's and Children's Affairs, 1995.	

Encouragement provided by the government

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Since the dawn of the national renaissance in 1970, His Majesty Sultan Qaboos has repeatedly stated that Oman's crucial resource is its national human resources. This appeal does not preclude Omani women as proclaimed by His Majesty in His speech: "The education of girls is never absent from our mind, since women form half of our society." In recognition of this fact, a full fledged commitment by the government of Oman has been undertaken to educate, train and develop its national work force as a measure towards nation building and economic development.

His Majesty Sultan Qaboos has repeatedly called upon female citizens to offer their full support to the continuing development of their country, describing them as representing "*half of Oman's potential*".

The Omani women have a constant presence and active participation in various dimensions of life as they are appointed to some of the highest offices. Sultan Qaboos has continually made clear his wish that Omani women rise to a level of participation in the public and private sector commensurate with their numbers and education. In 1999, the sultan appointed the first Omani woman ambassador (to the Netherlands), in March 2004 he selected the first woman to be a minister in his cabinet, following up with a second chosen in June and later a third in October and in September 2005, he appointed a woman as ambassador to the United States and In both areas, the diplomatic service and the Council of Ministers, Oman was the first member of the Gulf Cooperation Council to appoint a woman to such a position.

When Charles O. Cecil , a retired U.S. ambassador (Niger), served as deputy chief of mission in Oman, among other posts in the Arab world., asked the sultan's special adviser for Economic Planning Affairs, Mohamed Al Zubair, how Oman was preparing itself for the time when oil exports could no longer sustain the economy, he replied that education was the foundation for Oman's future prosperity. "Knowledge of English is the key to being a 'global Omani'….Instead of training Omanis to do specific tasks in Oman," he said, "we must train them so that they can work anywhere in the world." As oil reserves decline, a skilled workforce will become Oman's most important resource.

To achieve the plan of involving Omani women in all walks of life for a robust and strong growing economy, women's education was accorded a great importance. In 1970, there were no schools for girls in the country. There are now 980 state schools providing education at primary, preparatory and secondary levels. The number of female students enrolled at the SQU (only university) for the year 2005/2006 was 50%, (Ministry of National Economy, Statistical Year Book 2006)

This is further supported by some of the reforms underlined and highlighted in education policies contained in "Vision 2020" produced in 1995 on the country's economic future (Ministry of Development, 1997) are based on statement of Ministry of Education are as follows:

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- To make secondary education more consistent with the requirements of the future society;
- To improve the teaching/learning of the English language in Basic Education;
- To improve teaching methods and education practices according to the new trends and to encourage the concept of learning by doing.

Encouragement provided by other agencies

The General Directorate for Women's and Children's Affairs, formally established in 1985 is one among the various factors that contribute to the development, advancement and participation of Omani women as equal partners in the country's socio-economic development. Indisputably, this is gigantic step taken by the government which is committed to enhancing the status and role of women in Oman's society. The Directorate, under the auspices of the Ministry of Social Affairs & Labor, has setup a network of Women's Development Centers throughout the country, catering to rural and remote villages as well.

The Directorate aims to set up programs for the care of mothers and children, the eradication of illiteracy, education, the development of traditional and modern handicraft skills, the promotion of healthy and hygienic environment, the teaching of survival skills, and the cultivation of women's minds and roles as citizens of a modern developing society. (Al-Lamki,1999).

Omani Women's Association established in 1971 is contributing hugely to the development of Omani women and has set a positive precedent prior to the inception of the Directorate. Managed as a not for profit organization, the Omani Women's Association acts in collaboration with the efforts and support of the government to carry out a great number of activities aimed at improving and enhancing the role of Omani women in society . "The **Oman Women's Association in Muscat** (OWAM) is now equipped to train women across the country in IT skills and capabilities following collaboration with Microsoft Oman. A group of Omani women are celebrating the completion of Microsoft's Unlimited Potential (UP) curriculum, which will enable them to pass on their new expertise to at least 750 members of the OWAM in the three regions of Salalah, Buraimi and Muscat.

Microsoft donated its UP Curriculum and trainers to OWAM in this first phase an amount of $52,000. Plans are in place currently to expand the programme following this first phase to the remaining 42 women associations. The OWAM was established in 1970 in order to empower women by building their knowledge and skills, and promoting their personal and professional capabilities." (Press release dated 26 February,2007)

Scenario at the workplace

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Language skills required at the workplace at a glance: The recruiters and the HR managers of the companies representing the workplace the researcher spoke to, place an overwhelming importance on the acquiring of language skills.

In addition to the general working knowledge in reading, writing, listening and speaking skills, the employers and employees vocalized their opinion as

- ❖ Almost all of the employees rank English language skills as second only to IT when it comes to appointing the right candidate.
- ❖ Literate employees are better able to solve problems for themselves and do not find it necessary to rely on others to act as intermediaries. They are better able to communicate with their colleagues and supervisors and have self confidence to address work-related issues as they arise.
- ❖ These employees are also able to use their skills to cope better with new technologies and changes in workplace requirements and conditions. In addition, the full set of workplace basic skills increase the capacity of employees to take the next steps in developing themselves. These skills gains spell tangible economic benefits for employees, whose income is closely correlated to their literacy skills attainment.
- ❖ Employee benefits translate into employer benefits because increases in skills of individuals create increased capacity for high performance on the company.
- ❖ As organizations change and come under increasing competition, many employees recognize the need to acquire or improve their core literacy skills. Adequate reading, writing and numeracy skills are seen to be a minimum for keeping their existing jobs or competing for new jobs.
- ❖ The improved ability to read and write, along with better English language skills, is at the base of many of the broader skills. They help employees be better communicators. They are better able to explain themselves and their listening skills and ability to understand others improve.

English Language Programs in

a. General and in schools

Before the 1998, education in Omani schools was General Education based. English was taught from class four. However, at the start of the academic year 1998-1999, Ministry introduced the Basic Education System in two phases: a basic education phase over 10 years and a secondary education phase for two years. English was also introduced from the first year of basic education. The new system has been introduced gradually, starting with 17 schools from different regions.

The teaching of English has assumed increasing importance in recent years, particularly with the opening of Sultan Qaboos University and other higher education colleges. In

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1987 the Ministry launched a major project to develop the teaching of English in schools with materials specially designed to suit the Omani school system. Teacher-training plays an important part in raising the standard of English in schools. Omani teachers of English are given additional programmes during their training. Coming to the colleges that the researched studied while conducting this survey, the English Language Programs and objectives, the language programs set out to achieve, are as follows.

b. English Language Programs at the colleges

The medium of instruction in primary and secondary education in Oman is Arabic. On the contrary, post secondary education is taught mainly in English. This is because of the country's reliance on programs imported from the English-speaking countries or from other countries where English is treated as almost a first language. As a result, English language proficiency is the most challenging task for the students and Omani employees. To aid the students who need to enhance their language proficiency in order to further their study in the elected field, the OAC (Oman Accreditation Council) established General Foundation Program to precede the first formal year of higher education.

Most of the colleges in Oman adopted a GFP program in the academic year 2008-2009 as stipulated by the Ministry of Higher Education. Four areas of learning have been specified in the program and they are:

   a. English Language
   b. Mathematics
   c. Computing and
   d. General Study Skills

It is interesting to note that though the English Language and General Study Skills areas are designed to help the students to orient themselves towards higher learning, they indirectly contribute to achieve most of the soft skills that are greatly required at the workplace. (Appendix 1 and 2)

In addition to the GFP, each college in accordance with the guidelines set up by the Ministry of Higher Education has other English Language Programs which orient the students towards achieving their goals of higher education. For example,

   ❖ **Scientific College of Design**: The English Language Programs that are offered in this college are

   1. Remedial English: After GFP, this course aims at providing training in all the four skills of language learning. These courses are prescribed by the Lebanese American University to which the college is affiliated.
   2. English 101: It is designed to give the students practice in listening, speaking and writing for academic and critical thinking.

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3. English 102: It is designed to help students build on the skills acquired in English 101. It focuses on research methods leading to a well-written research paper.
4. English 201: Fundamentals of Oral Communications: This course trains the students to develop strategies and critical thinking skills that help them prepare for academic achievement and employment.
5. English 202: Sophomore Rhetoric: This course equips the students with the necessary skills to express their opinions substantiating with reasons and persuade people to accept their viewpoints. These skills are part of reading and writing material selected for the course.
6. English 100: Designed for Fashion students. This course is intended to introduce the students to the vocabulary, expressions and language needed for their majors of study.

❖ **Modern College of Business and Administration**: The ESL Program comprises of the following four distinctive components of the language skills:

1. ESL 301 - Conversation & Pronunciation: to develop fluency and correctness in conversational English.
2. ESL 302 - Listening & Note-Taking: to increase listening and comprehensive skills necessary for taking down effective class notes.
3. ESL 303 - Reading & Writing: to develop writing skills, including essay development, organization, vocabulary, and editing. To develop reading skills and strategies.
4. ESL 305 - Grammar: to review grammar rules and understand the meaning and use of structures in American English. To recognize and use these structures correctly in speaking and writing.

❖ **Oman Tourism College:**
General English

This course provides students, through task based exercises, the opportunity to develop their speaking, listening, writing, and reading English skills so that they are able to function effectively in social and job-related situations, improve grammatical accuracy and pronunciation and develop independent learning skills.

English for Tourism and Hospitality (ESP)

Upon completion, students from diverse educational backgrounds should have acquired a basic overview and understanding of the language required to prepare them for the tourism and hospitality industry. It will allow them to enter into more demanding, sector specific studies delivered during the diploma and vocational programmes at OTC. Candidates will develop their listening, speaking, reading and writing skills to a level that allows them to operate effectively during their first year at OTC. Practical organization of small tasks will provide them with first-hand experience of the skills learnt.

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Methodology

To generate the needed information for this study, the researcher employed the following methods and procedures:

1. Designed questionnaires and conducted personal interviews to gather information from people in HR, working Omani women, female students in colleges.

2. Pilot studied the questionnaires on a sample of people from the above list to determine whether the questionnaire elicits the needed information.

3. Distributed the questionnaire to a sample of people in HR, Omani women in colleges, banks and other companies and students.

4. Collected and analyzed the questionnaire responses to determine the general requirements of the workplace in terms of language skills from the HR, working knowledge of Omani women in language and the students' expectations in terms of achieving language skills from the English Language Programs in colleges.

5. Interpreted the results and proposed possible conclusions and suggestion of practices and patterns for strengthening and promoting the effectiveness of English Language Programs in colleges of Oman.

Subjects for the survey

Subjects for this survey are a group of students selected from various colleges, experienced recruiters, HR managers (including the Head of Quality Assurance and Program Management of my college) other experts who satisfactorily characterize the larger picture.

Analysis of the data
The data collected using questionnaires, personal interviews and informal discussions were analyzed to spot the individual opinions and responses.

Findings of the survey

a. From the workplace

People from HR and Omani women who are working have expressed the following during the personal interviews and filling out the questionnaires:

1. English language plays an important role in forging relationships through oral and verbal communication.

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2. All the four language skills are vital to improve the efficiency of the workforce.
3. English language helps them to write reports, projects, presentations, reading and giving instructions and communication.
4. Omani women contribute a lot in terms of economic development of the companies and other workplaces.
5. People in HR feel that Omani women who they are recruiting tend to score low on the practical application of the language.
6. They are able to speak fluently and confidently but when it comes to reading, writing, they face some difficulty.
7. As the language skills required all over the world are more or less the same, Omanis should have acquired those skills to a fair extent in the colleges.
8. ELPs at the colleges can include a component of practical aspect of language learning.
9. Language is for communication and in a working context like Oman, where English is second language and where most of the business is conducted in English, employees need fairly good command over language.
10. Most of the employees acquire practical knowledge of the language after having worked for six months or so. This goes to prove the importance of inclusion of practical training in the colleges.

b. From the colleges

Majority of the students expressed satisfaction at the ELPs offered by the colleges. A few of them suggested that there should be a practical component of practical use of the language incorporated in the regular programs. The results from the personal interviews and questionnaires are as follows:

1. Students in various colleges when spoken to expressed their satisfaction at the way English Language is taught in their colleges.
2. Students are of the opinion that the ELP (English Language Programs) offered in their colleges are helpful in developing their language skills.
3. Students opine that the ELPs help them to write assignments, project reports and submit term papers that require them to do some research.
4. Students feel that their ELPs help them in achieving their goals of going for higher education.
5. All the language skills viz., reading, writing, listening and speaking are integrated while taught and thus they help in improving their overall language ability.
6. The ELPs help them more in the academic front than in preparing them for the workplace.
7. Some of the students who have been educated abroad (New Zealand, Australia or America, albeit for short periods of three months to one year) feel that the ELPs offered in the colleges of Oman are highly satisfactory and that if there is any problem with their language skills, it is only because of their lack of practice.

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8. Students feel that the ESP programs offered in colleges viz, Oman Tourism College is very practical and workplace oriented.
9. Most of them have expressed their concern on the lack of practical application of the language skills that they learn in the colleges.
10. They feel that there should be a chance for them to work in various companies or other workplaces during their summer breaks so that they have first hand knowledge of what is required in terms of language skills.

The opinions expressed by the recruiters, students and other related people are used to arrive at a general conclusion. Further research needs to be done in this area as Oman is marching grandly ahead with its ambitious plans but achievable plans of developing "global Omanis".

Conclusion

The following can be concluded from the findings of the survey.

1. The ELPs offered in colleges are academically oriented: Students in various colleges feel that the ELPs offered in their colleges are academically oriented and that they promote language skills required for academic style of language use.
2. Gap between what is learnt and what is required: Students feel that there is a gap between the academically oriented ELPs and language skills required at the workplace. Also, the students who passed out of the colleges recently vouch for this fact. They are of the opinion that the colleges not preparing the students for the workplace.
3. Need for bridging the gap: This glitch can be rectified by providing some practical component of language use in colleges.
4. Expected returns: Government and other agencies that invest in the education industry expect returns in the form of skilled personnel who in turn prove to be an asset to the industry and contribute to the growth/ development of society or economy. Therefore, it is the sacred duty of the higher education providers (HEPs) to assure an enriching and fulfilling environment in terms of ELPs offered to the students.
5. The ELPs offered by the HEPs should prepare the students for their internship/workplace placements, including programs in developing oral and written communication skills relevant to their workplace.

Suggestions

✓ Conducting market research to know the needs: It is very pertinent for the higher education provides (HEPs) that they conduct market research to know the needs of the workplace. It helps them in providing the students with the skills necessary to survive in the market.

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- ✓ Integrating workplace skills into general English programs: Once the HEPs understand the needs of the workplace, they can integrate the same set of skills with their academic courses and train their students with the skills necessary to survive in the market.
- ✓ Creating awareness among students about the various job opportunities: It is very essential for the students to be aware of the various job opportunities so that they can brace themselves for the challenges that they are likely to face in the workplace.
- ✓ Vocationalization: The ELPs should aim at providing the students with the necessary and basic life skills and improve vocational preparedness. the importance of 'dignity of labor' has to be stressed upon the students by integrating skills required for the selected vocations into the ELPS
- ✓ Forging strong relationship with alumni for knowing the pulse of the market and also to help upgrading the language programs: The students who graduate from the colleges and start working have a clear picture of what is learnt in colleges and what is useful in the workplace. Therefore, they can forge a strong bond between the theoretical aspect of learning in the college and practical aspect needed at the workplace.
- ✓ Encouraging on-campus selections for the students to know the needs of the market: This is the best way to familiarize the students, faculty and the administration of HEPs with the opportunities existing and their expected levels of language skills in the workplace.
- ✓ Conducting workshops by people who are well-versed with the needs of the market: A strong bond should be forged between the HEPs and the experts (people who are experienced in recruiting and other related jobs) from the workplace. These experts can visit the HEPs from time to time and conduct workshops in workplace-related areas and suggest a few ideas which can be implemented while teaching the language.
- ✓ Sending students for on-hands experience in close association with the banks / colleges/ offices and other agencies for a short period: It is very important for the students to have an idea about the workplace firsthand and they can have it by working in their semester breaks. These opportunities can be provided HEPs in close association with the experts from the workplace.

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Appendix 1

The General Foundation Program prescribed by the Ministry of Higher Education to be followed by higher education providers has the following learning outcome standards.

3 ENGLISH LANGUAGE

3.1 Aim of the Area

To extend the English language skills of the student to enable active participation in their postsecondary or higher education studies.

3.2 Learning Outcome Standards

Having successfully completed GFP English language a student will be able to satisfactorily:

a) Actively participate in a discussion on a topic relevant to their studies by asking questions, agreeing/disagreeing, asking for clarification, sharing information, expressing and asking for opinions.

b) Paraphrase information (orally or in writing) from a written or spoken text or from graphically presented data.

c) Prepare and deliver a talk of at least 5 minutes. Use library resources in preparing the talk, speak clearly and confidently, make eye contact and use body language to support the delivery of ideas. Respond confidently to questions.

d) Write texts of a minimum of 250 words, showing control of layout, organisation, punctuation, spelling, sentence structure, grammar and vocabulary.

e) Produce a written report of a minimum of 500 words showing evidence of research, notetaking, review and revision of work, paraphrasing, summarising, use of quotations and use of references.

f) Take notes and respond to questions about the topic, main ideas, details and opinions or arguments from an extended listening text (e.g. lecture, news broadcast).

g) Follow spoken instructions in order to carry out a task with a number of stages.

h) Listen to a conversation between two or more speakers and be able to answer questions in relation to context, relationship between speakers, register (e.g. formal or informal).

i) Read a one to two page text and identify the main idea(s) and extract specific information in a given period of time.

j) Read an extensive text broadly relevant to the student's area of study (minimum three pages) and respond to questions that require analytical skills, e.g. prediction, deduction, inference.

6 GENERAL STUDY SKILLS

6.1 Aim of the Area

To equip students with fundamental study and academic skills needed for postsecondary or higher education studies.

General Study Skills may be taught either as specific course/s, or may be embedded into each of the English, Mathematics and Computing courses. This will require careful attention to ongoing curriculum and instructional design by HEP faculty.

Students who meet the English, Computing and Mathematics standards upon entry testing are awarded the GFP certificate in full, and thereby exempt from the Study Skills standards in the

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GFP (see 2.4(c)). Therefore, it is expected that HEPS will also be able to demonstrate how they have incorporated these Study Skills standards into the first year of their diploma and degree programs.

6.2 Learning Outcome Standards
6.2.1 Managing time and accepting responsibility
a) Work in pairs or groups and participate accordingly i.e. take turns, initiate a discussion, interrupt appropriately, express an opinion.
b) Follow university policies on attendance and punctuality.
c) Bring required materials (pens, pencils, folder, etc) to class.
d) Work to imposed deadlines.
e) Show respect for teachers and others and their rights to have a difference of opinion.
f) Use a variety of study techniques.
g) Create term planners and study schedules noting key dates/events.
h) Complete homework on time.
i) Continually revise one's work.
j) Independently access and use computer labs and the internet for language learning.
k) Identify preferred study strategies based on learning styles.
l) Organise a feasible study schedule that accommodates other responsibilities.
m) Describe learning experiences, challenges, insights in a daily journal.
n) Organise and maintain a system of recording vocabulary (keep a vocabulary log).
o) Organise and maintain a portfolio of one's work.
6.2.2 Research Skills
a) List the key ideas to guide search for information.
b) Use the library system for finding, borrowing and returning library material.
c) Use an English-English dictionary for language learning.
d) Use a contents page and an index to locate information in a book.
e) Extract relevant information from a book or article using a battery of reading strategies (e.g. skimming, scanning, etc.).
f) Locate a book/journal in the library using the catalogue.
g) Find topic-related information in a book/journal in the library using the catalogue.

h) Find specific information using internet search engines and electronic resources.
i) Cite a source in accordance with academic conventions.
j) Classify and sort new information.
k) Select or reject a source based on difficulty level, relevance and currency.
l) Assess the reliability, objectivity and authenticity of a source.
m) Summarise and paraphrase information in one's own words.
6.2.3 Taking Notes
a) Recall and define main concepts.
b) Utilize abbreviations and symbols.
c) Use English rather than Arabic for notes in margins and glossing vocabulary.
d) Extract and record key information (the gist) from a written or spoken source based on own interpretation of information.
e) Adopt a note-taking strategy (e.g. Cornell system; mind mapping).
f) Support key points with relevant additional details.
g) Organise information to enable quick reference at a later date.
h) Date one's notes.
i) Use notes to create a summary.
j) Reproduce key information and supporting details from notes in one's own words.
k) Sort out information and reject irrelevant pieces.

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6.2.4 Giving Presentations
a) Outline and define main concepts.
b) Address questions from the audience.
c) Plan and conduct a presentation based on information from written material, interviews, surveys, etc.
d) Speak in a clearly audible and well paced voice.
e) Follow a presentation format.
f) Use presentation language (discourse markers etc.).
g) Achieve the key aim of informing the audience.
h) Make use of audio/visual aids when giving oral presentations.
i) Tailor content and language to the level of the audience.
j) Maintain some eye contact with audience.
k) Speak from notes in front of an audience using index cards.
l) Observe time restrictions in presentations.
m) Organise and present information in a logical order at a comprehensible speed.
n) Invite constructive feedback and self-evaluate the presentation.

Appendix 2

Dear friend,

My name is N.C. Kiranmayi and I am working in Scientific College of Design as an English Instructor. I am presenting a paper in a conference in Singapore and the topic is

"Omani Women: Are their language skills good enough for the workplace?"

and I need to collect some data regarding the level of English of the female Omani students and employees. Could you be kind enough to take some time out of your busy schedule to fill in the questionnaire, please?

It will be kept confidential and you don't have to write your name anywhere. I promise you that the data collected will be strictly used for academic purposes only.

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I.   Questionnaire to the employees.

1. How long have you been in this job?

2. What is your qualification?

3. How many years of English did you study to receive the qualification?

4. What do you feel about the language programs in your college?

5. Were the programs useful to improve your language skills for the workplace?

6. If the answer for the above questions is yes, please tell me how it is useful.

7. If the answer for the above question is no, tell me

    a.   Why?

    b.   What do you suggest to change in the English programs for better results?

Thank you very much for the time and patience.

II.   Questionnaires to the HR Managers

1. How long have you been in this recruiting business?

2. How many people approximately do you interview a month or a year?

3. How many of them are Omani women?

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4. What are the language skills that you are looking for?

5. Are the candidates' language skills up to the mark? If no, where are they lacking?

6. Do you think the institutions of higher learning can make any changes to improve the language skills of the candidates? If yes, what are they?

Thank you very much for the time and patience.

III. **Questionnaire to the students.**

1. How long have you been studying?

2. What are you going to major in? _____

3. For how many years have you been learning English?

_____

4. Why are you learning English?

5. What are you learning in the English language programs offered by your college?

6. Do you know what is English used for when you start working?

7. Do you think the English language programs are preparing you well for the jobs?

Thank you very much for your patience and time.

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Colophon

This is a revised version of the paper read in RELC, Singapore, 2010.

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Spread of English Globalisation Threatens English Language Teaching (ELT) in Pakistan

Mian Shah Bacha and Bakht Sheema Bibi

Abstract

The primary purpose of this article is to see English in its global role and to find out whether its globalisation causes any concern for ELT pedagogy in Pakistan. For this purpose, to record the perceptions of the ELTs (English Language Teachers and ELSts (English Language Students) regarding English as a Global Language and its pedagogical concerns for ELT in Pakistan, questionnaires were distributed among the students and teachers of Two Universities and one Post Graduate College. Later on, interviews were also conducted. The results showed that, quite contrary to the hypothesis, Globalisation of English would produce detrimental impact on the indigenous languages and culture and its teaching at University and Post Graduate Levels. But the respondents found it a healthy phenomenon taking exception only to inharmonious contents of the English Language (EL) in the Pakistani context.

Introduction

It is extremely difficult to decide when globalization started as we know it today and where it is now. Robertson (2003:3) says, "Globalization as a human dynamic has always been with us, even if we have been unaware of its embrace until recently." He then argues that the third phase of globalization is currently going on: "the first, after 1500,

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centred on the globalization of regional trade; the second, after 1800, gained impetus from industrialization; the third derived from the architecture of a new world order after 1945" (Robertson 2003:4). The most recent debate regarding globalization is attributable to two factors; first, the disintegration of the Soviet Union, and secondly, the use of technology enabling people to become more connected and mobile than ever before in human history.

English in the global perspective

It is now a well established fact that English has become a world language (see Graddol 1997, Jenkins 2000; McKay 2002). To understand the concept of English as a global language, it is necessary to know the definitions of *world language*, *international language*, or *global language* which have been used interchangeably in this thesis. It is also necessary to understand the abbreviation ELF.

For some, any language with a large number of native speakers is a global language (Graddol 1997, McKay 2002). If this assumption is accepted, then Mandarin (China), Spanish, and Arabic must also be considered as international languages because they are also spoken by large numbers of people. However, as McKay explains, "Unless such languages are spoken by a large number of native speakers of other languages, the language cannot serve as a language of wider communication" (McKay 2002:5). English is not only used among people from the English speaking countries but also by those whose mother tongue is not English. This is well supported by Graddol (1999, cited in McKay 2002), who states that,

> … based solely on expected population changes, the number of people using English as their second language will grow from 235 million to around 465 million during the next 50 years. This indicates that the balance between L1 and L2 speakers will critically change, with L2 speakers eventually overtaking L1 speakers. (Graddol 1999:62 cited in McKay 2002:13)

> In fact, Jenkins (2000) maintains that,

> For the first time in the history of the English language, second language speakers outnumber those for whom it is the mother tongue, and interaction in English increasingly involves no first language speakers whatsoever. (Jenkins 2000:1)

Both Graddol (1999) and Jenkins (2000) believe that the increasing popularity of English as a language of communication among the non-native speakers will certainly give them ample opportunity to determine the future of English, and to some extent, a prominent "norm-providing" status as well.

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According to Crystal (1997), another element ensuring the status of English as a global language is its prominent recognition in almost every country of the world. This particular role of the language can be achieved only by making English an official language used in government offices, law courts, and in the media and education systems of the country. This is why English is sometimes called a *second*, an *additional*, or an *auxiliary* language. In addition to English as the official language of the country, it is also given preference in foreign language teaching even if it is not the second language.

Crystal (1997) asserts that English is the most widely taught foreign language in almost 100 countries of the world. Some other scholars opine that a global language has no frontiers of usage but goes across borders and different cultures.

Widdowson (1994) defines a global language as one that serves "a whole range of different communities and their institutional purposes, and these transcend traditional, communal and cultural boundaries" (Widdowson 1994 cited in Jenkins 2000:7). Smith (1976, cited in McKay 2002), one of the first scholars to define the term *global* or *world language*, suggests that a world language is one used by people from different nations to communicate with each other. His assumptions regarding pedagogy used for learning an international language is cited in McKay (2002:12). They are as follows:

1. International learners do not need to internalize the native speakers' cultural norms,
2. the ownership of international language becomes "de-nationalized," and
3. the role of education in the learning of international language is to enable the learners for the communication of their ideas and cultures to others.

According to Pennycook (1994), the concept *global* implies not only that the language is used across nations but also within a nation. Therefore McKay (2002) suggests a modification of Smith's second assumption. McKay (2002) claims that with regard to the use of English in the outer circle countries, the ownership of English should be re-nationalized rather than de-nationalized. This means that the use of English should be embedded in local contexts of use (see Kramch 1993, Holliday 1994, Pennycook 1994, Cook 2001, and McKay 2002). Based on this concept, McKay (2002) reframes Smith's assertions as follows:

1. As a global language, English is used both in a global sense for international communication between countries and in local sense as a language of wider communication within multilingual societies.
2. As English is a global language, the use of English is no longer connected to the culture of the inner circle countries.
3. As a global language in a local sense, English becomes embedded in the culture of the country in which it is used.
4. As English is a world language in a global sense, one of its primary functions is to enable speakers to share with others their ideas and culture.

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Finally, Brutt-Griffler (2002, cited in McKay 2002) puts forward four central features characterizing the development of a world language:

1. A world language is the product of the development of a world econocultural system, which includes the development of a world market and business community, as well as the development of a global scientific, cultural, and intellectual life.
2. A world language tends to establish itself alongside local languages in multilingual contexts composed of bilingual speakers.
3. A world language, unlike an elite lingua franca, is not confined to the socioeconomic elite but is learned by various level of society.
4. A world language spreads not by speakers of that language migrating to other areas but rather by many individuals acquiring that language.

Today, no other language apart from English fulfils these parameters which are of a global language.

English and globalization are very debatable terms

Within the discussion regarding the spread and globalization of English, there exists a controversy among linguists and social scientists which has led to a polemic discussion regarding its imperialistic and hegemonic role. This debate parallels that of globalization.

It is maintained by some that the effects of both the imperialistic and hegemonic forces acting in combination with the exploitative nature of globalized English combines to create greater cultural and linguistic damage than they would independently.

The debate actually started with Philipson's book *Linguistic Imperialism* (1992) and resulted in a great amount of literature dealing with the politics of English as a global language. The author says that the global spread of English is a continuing form of imperialism, and that those involved in its spread (for example, the British Council) are motivated by colonial ambition. Further, he holds EFL as a lucrative source for this linguistic imperialism. He disapproves of both the concept of globalization and the spread of English globally. His stance regarding English as a global language, in addition to his personalized concept of linguistic imperialism, has been criticized by many scholars.

Alan Davies (1996) argues that imperialism does not equal hegemony, which is more complex and contradictory than Philipson leads his readers to believe. It has also been suggested that Philipson does not discuss the resistance periodically raised against English as a global language. Philipson's viewpoint seems to be strongly biased against English as a global language.

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Nonetheless, whatever reaction his work has caused among scholars, it has led to significant research as Robert Holland (2002:21) notes:

> To whatever extent one may disagree with Philipson's (1992) analysis…the fact remains that such work goes some way towards redressing an important imbalance. It is no longer admissible simply to accept as given the status of English as a prime international tongue: a critical appreciation of its role and a critical approach to English-language pedagogy, are indispensable.

The need of English in this globalization era

Translation has been essential within human communication systems for thousands of years. Monarchs or ambassadors needed translators for a successful exchange of ideas. Yet, this was not a permanent solution for all inter-linguistic communication and had inherent limitations. Translation is only plausible if there are two or three languages in contact. If more than three languages are involved, the situation becomes more complex and a lingua franca, or common language, is needed.

Sometimes pidgin languages were formed from the native languages as lingua franca for mutual trading. At times the indigenous language of the most powerful ethnic group emerged as a lingua franca in the area. In other cases, a language such as English or French was accepted from outside because of the political, economic or religious influence of a foreign power. When the need for a global language is required by international, academic and business interests, the adaptation of a single lingua franca is most evident. (David Crystal: 10, English as a global language, 1997)

This is a time of rapid change. We are living in an unprecedented time of personal communication and world travel. For this to keep pace with the technology we have already developed, we need a global language. If this language is English, as Crystal says, "let the fittest survive and if the fittest happens to be English then so be it.

The speakers of English in the world

The consequence of the present trend with English becoming a global language increases the number of English speakers around the world rapidly. Otto Jespersen (1968, cited in Pennycook 1994: 7) gives insightful approximations of the number of English speakers since the 15th century. In the year 1500, English speakers were estimated at 4 million, in 1600, at 6 million, in 1700, at 8.5 million, in 1800 between 20 and 30 million and in 1900 between 116 and 123 million. Today, English speakers are estimated to range between 700 million and 1 billion (Crystal 2002: 2).

However, the English language is not used equally throughout the world because its role as a lingua franca changes according to the national context in which it is used.

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According to Kachru (1985), the number of the speakers of English can be represented through three concentric circles.

The *Inner Circle* includes countries like the United Kingdom, the United States and Australia where English is the primary—and often the only language—for the majority of the population. The *Outer Circle* refers to countries such as Singapore, India and Nigeria, where English has become a part of their major institutions, and plays the role of a *second* or *additional* language alongside local languages.

The *expanding circle* consists of countries where English is only one of other foreign language. These countries fully understand the importance of English as a world language although they do not have a history of colonization by members of the Inner Circle, nor does English have any special administrative status in the society as it does in the outer circle countries (Crystal 1997: 54). Kachru (1985, cited in McArthur 1998) sees the inner circle countries as "norm-providing varieties," those in the Outer Circle as "norm-developing varieties," and those in the Expanding Circle are the "norm-dependent varieties."
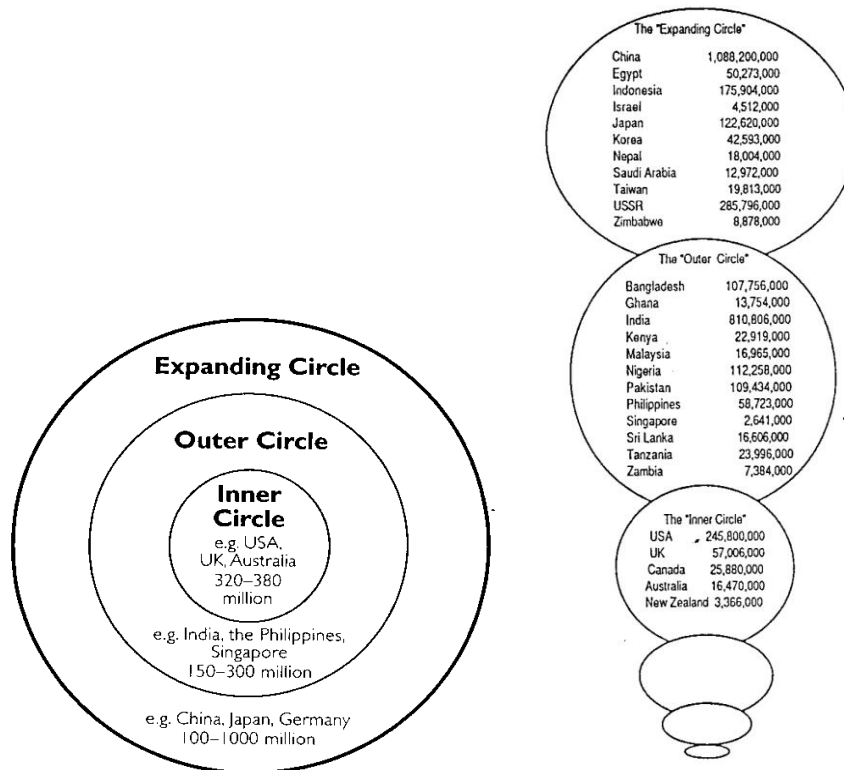
Figure 1.   Kachru's concentric circles of English

Graddol (1997) suggests a different classification of the English speakers around the world and tries to overcome the shortcomings in Kachru's three concentric circles. Like Kachru, Graddol, he too, divides English speakers into three large categories. *First*

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language speakers (L1) are those who use English as the first and, often the only, language; these speakers commonly live in countries where the dominant culture is based around English such as the United States and Australia. *Second language speakers* (L2) use English as a second or additional language. As English is present in their own communities, so their own local cultures can be represented through it, while it increasingly differs from the varieties of English spoken by first language speakers in the United Kingdom, United States, Australia, and elsewhere. The third category comprises those who learn English as a foreign language (EFL) as *foreign language speakers*.
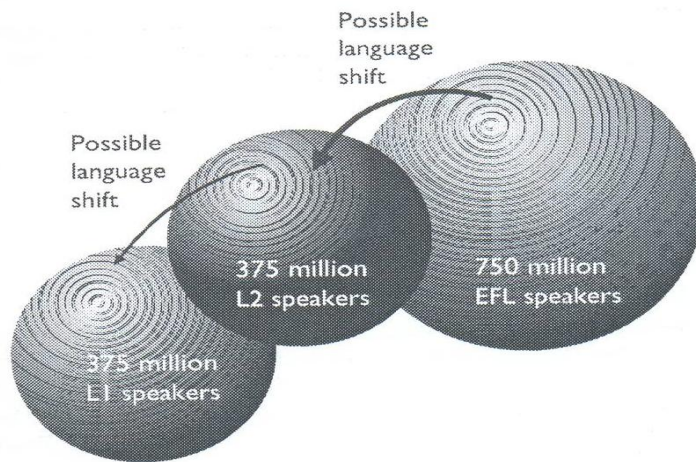
Figure 2. David Graddol's model
Source: (David Graddol 1997, *The Future of English*, P 10)

The only obvious difference between the Kachru's and Graddol's models is the difference in the number of the speakers of English they list around the globe. Graddol further suggests that L2 speakers from the expanding world will eventually outnumber L1 speakers.

A number of other scholars have proposed different models regarding the spread of English around the globe. The oldest model of the spread of English is Streven's World Map of English predating the map by Kachru. Later, in 1987, McArthur proposed his model, *Circle of World English*.

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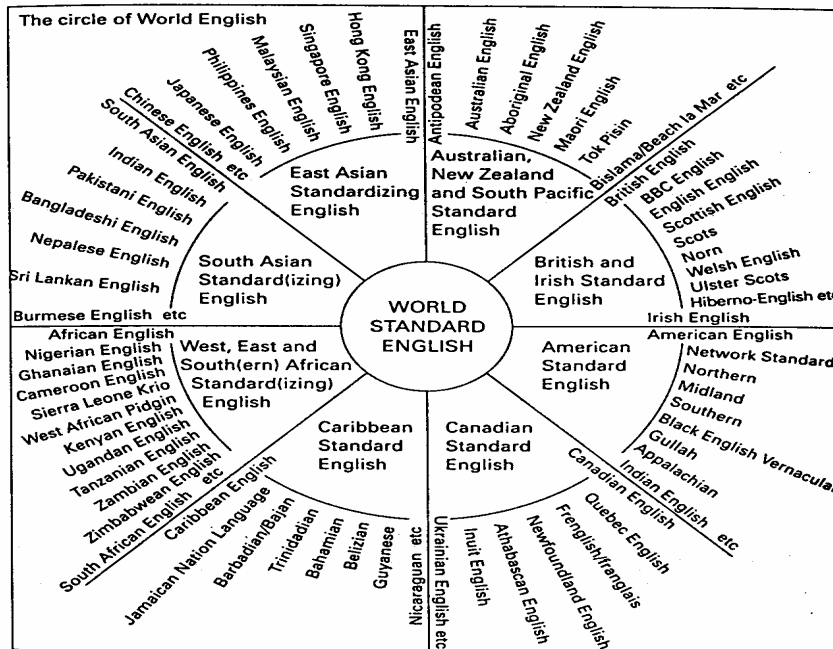
Figure 3. McArthur's model of World Standard English
(From McArthur 1987:11)

McArthur's circle has *Standard English* (SE) at its centre. Moving outwards, a band of regional varieties including both standard and standardizing forms come next. Beyond these, divided by spokes separating the world into eight regions, is what McArthur (1998:95) describes as "a crowded (even riotous) fringe of sub varieties such as Aboriginal English, Black English Vernacular (now known as *African American Vernacular English* or *Ebonics*), Gullah, Jamaican Nation language, Singapore English and Ulster Scots" (Jennifer Jenkins: 20, World Englishes, 2003).

There is another recent attempt from Modiano which accounts for the spread of English. He breaks completely with historical and geographical concerns. He bases the first of his two models, "The centripetal circles of international English," on what is mutually comprehensible to a large number of proficient English speakers. He is not concerned with whether or not they are native or non-native speakers. (Jennifer Jenkins: 20, World Englishes).

After carefully considering comments from others, he redrafted his models based on features common to all varieties of English. EIL is in the centre as a core of features understandable to a majority of native and competent non-native speakers of English. Though there are still problems with Modiano's models, they have been effective to date in demonstrating the spread of English.

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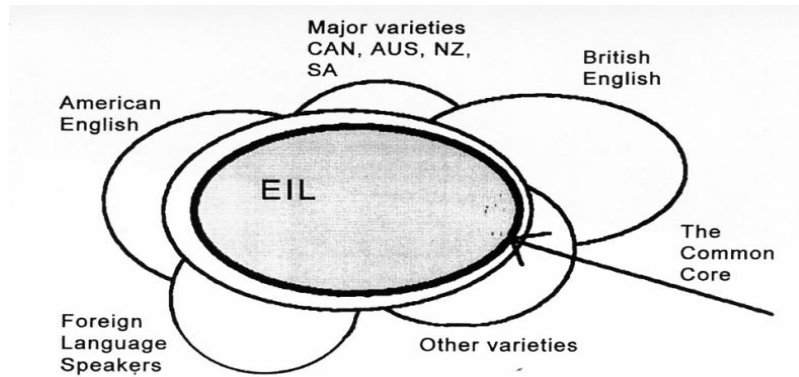
Figure 4. Modiano's model of EIL (From Modiano 1999a:10)

English as an International Language

International English can be read in short for *English as an International Language* or EIL. Though the longer term is more unwieldy, it is more precise because it suggests its international role rather than making it a distinguishable variety called *International English* (Seidlhofer, 2003). McKay (2002), in her book entitled *Teaching English as an International Language*, also makes use of the shorthand term and defines it like this: "International English is used by native speakers of English and bilingual users of English for cross-cultural communication. International English can be used both in a local sense between speakers of diverse cultures and languages within one country and in a global sense between speakers from different countries." (p. 132).

This means that English which is learnt by speakers from the Expanding Circle includes speakers of English as a native language (ENL) and those who speak English as a mother tongue (EMT) in all its dialects (Kachru's Inner Circle). It equally includes speakers of New Englishes, World Englishes, indigenized English and nativized varieties (Kachru's Outer Circle). Wherever English is chosen as the preferred option for cross cultural communication, it can be referred to as EIL. Besides EIL, other interchangeable terms which may be used include:

English as a *lingua franca* (as in Gnutzmann 2000).
English as a global language (as in Crystal 1997).
English as a world language (EWL) (as in Mair, in press).

Both English as a medium of intercultural communication (e.g. Meierkord 1996) and another term for EIL is also worth considering. This second term is *World English* (Brutt-Griffler 2002). This second term is innovative and gives greater clarity to EIL.

English is thus being used for wider communication across the world despite vigorous opposition to its label, *International English*, *World English* or *Global English*. But whatever it is called, it continues to be the lingua franca in the world today.

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The impact of globalization on English: A multitude of Englishes

This rapid spread of English is attributed to the explosive globalization following World War II and the redistribution and reintroduction of English and its expanding dimensions in the post-colonial context. This historical background is essential for understanding the new post-World War II role of English. Debates regarding the linguistic imperialism and hegemonies continue, but in the field of ELT, significant enlightenment comes through recognition of the post colonial varieties of English.

This change in the understanding of ELT has made it necessary to review several older notions regarding English terminology and its usage in the wider context. As a result, several problems have arisen causing linguists, social scientists and educators to re-evaluate the varieties of English which are to be taught. In the following section we will attempt to explain the changing perception of English and the concept of Global English with its various labels.

English and its changing perceptions

The immense global spread of English throughout the world has often been viewed as an offshoot of linguistic imperialism. In turn, this has created considerable hardship for the ELT industry. Robert Holland (2002:21), who is obviously dissatisfied with the English teaching industry, says that in the applied linguistics of the 21st century, "it is no longer admissible simply to accept the status of English as a prime international tongue; a critical appreciation of its role, and a critical approach to English-language pedagogy, are indispensable."

Holland's statement emphasizes how significantly perceptions are changing regarding English. The recognition of post colonial varieties of English has caused an applied linguistic approach encouraging multiple uses. Varieties of English are no longer seen as distant from the central English but rather as its multifaceted forms. The results of this shift in perspective can clearly be recognized in the following quotations:

> "The closing decade of the 20th century marked a major change in the worldwide perception of English" (McArthur 2001a:7).

> "The meaning of English has changed [because it is a] transnational or international medium for the great majority of users [and] its national users are the exception rather than the rule" (Bowers 1999:243).

> "There is no English language anymore…the English language that we think of as a global thing is something totally different" (Cox in an interview with Dale and Robertson 2003:16-17).

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Linguistic and academic attention was drawn to English as a global language during the decade of the 1980s. Linguistic studies evaluating countries influenced through newly acquired English helped form the notion that English was becoming a global language with global ownership (e.g.Fishman, Cooper and Conrad 1977; Platt, Weber and Ho 1984; Pride 1982). Following these writers' comments, Strevens asks, "Whose language is it anyway?" In a paper with this title, he argues that "English belongs to everyone who wants or needs it, and that it belongs exclusively to no nation, no community, no individual" (Strevens 1982:427).

Widdowson (1994) was another remarkable contributor to the emerging perception of English. In his, *The Ownership of English* he questions the L1 authority for setting traditions and standards.

He argues that it is no longer necessary to conform to the norm of the native speaker. He accepts localized English and strongly disapproves of the bias against non-native speakers in favour of native speakers. Pennycook (1994) also contributed to the emerging perception of English when he said that imperialism and hegemonies of English can only be combated by appropriating the use of English in one's own socio-cultural contexts.

Research Methodology

Questionnaires were given to the University and Post Graduate Students and Teachers to record their perceptions regarding English as a Global Language and its might be pedagogical concerns for its teaching, contents, cultural similarity and methodology. The data was both qualitatively and quantatively analyzed and for the quantitative analysis SPSS was used.

Conclusion

It was expected that globalization and English would be considered as threats to the Indigenous culture and all the languages but the data indicated otherwise with the very mixed reactions from the respondents of the research. Before the research, a fear was felt and presumed that there would be a dislike for the cultural imperialism and American language but the results showed altogether different results rather English was considered a great source of cultural enrichment rather than a threat. It was thought that an easy medium of communication necessary inside and outside the country.

Globalization is still a debatable and further research is going on its status. The preceding details assess the role of globalisation in the spread of English language. There is an abundance of literature on the uses of English across the world which has created significant confusion to such a degree that there is no agreed definition of English which can be universally applied. Therefore, there is much need for case studies which would examine the use and status of English in specific contexts.

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Application of the theoretical approaches is not enough but some further practical researches must be conducted to know the effect of the globalization phenomenon in the Pakistani context.

The results of this research show that as English language is used widely in every part of the world and therefore much linguistic awareness regarding English and its relationships with the indigenous culture and languages are to be shown in details in the future,
In response to what we have discovered, there is a great need of a corresponding shift in English pedagogy. Therefore, English Language Teaching should reflect the global diversity of the language and prepare the learners with the skills they need for successful communication in multiple contexts.

Yet, considering the diversity in the use of English, the focus should not be on a single model. Rather, the goals of ELT should stress expertise in using English as a medium of communication and not on acquiring a specific language model.

Furthermore, the content of ELT courses should extend beyond L1 dominated countries. As English is often used in a lingua franca context, university courses in English should heighten students' awareness of the different varieties of English. Students need to be exposed to a wide range of English accents in order to increase their perceptive abilities concerning L2 varieties (Brutt-Griffler and Samimy 2001; Rampton 1990).

As Jenkins (1998) suggests, the emphasis in teaching oral skills should be placed on communication, reception and accommodation. In using English globally, speakers must adjust to one another in order to understand each other. This flexibility is just as important as, if not more than, the mastering of prescribed linguistic forms. Courses in English should thus place more emphasis on the ability to communicate using the medium of English rather than on the teaching of a particular form of English. Reaching beyond teaching national models of English also implies the need to move away from teaching methodologies. As another linguist Lam says, the reality of English "necessitate[s] a turning away from the study of the *national cultures* of the metropolises and from simply using the language to describe *local* life ways" (emphasis added) (Lam 1999:391).

Limitation of the study

It was very hard to collect the data within the time period I was given, therefore, of necessity; my study was limited to just two universities and one post graduate college for data collection for convenience and early submission of research. Consequently, considering the geographical size and population of Pakistan, this study is inadequate to represent the entire country. It is therefore impossible to generalize my findings but at least a step towards   awareness of the globalization of English in the Pakistani context.

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The questionnaire may not have properly been handled by the respondents as due to their tight time schedule. Finally, this study was done as a simple research project. Its aim was to understand how the international role of English was perceived by teachers and students in Pakistan, and how that perception affected their teaching. To my knowledge, this is the first study of its nature to have been conducted in Pakistan and it is hoped that future in-depth studies will follow and many future studies would contribute to improve the concept of English as a global language.

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Multiple Intelligences, Blended Learning and the English Teacher

Prasanta Chakraborty, Ph.D.

Abstract

Taare Zameen Par is a stimulation to handle multiple intelligences in a classroom. In 1983, Dr. Howard Gardner proposed eight different intelligences asking the teaching community to take into account all the varieties of intelligences to assess the potential in the students.

Teachers should be trained to present their lessons in a wide variety of ways. The challenge is to involve many more teachers, school administrators, and others to adopt this unique teaching philosophy, to provide each child an opportunity to learn in ways best suited to his/her unique frame of mind. It may not be feasible for many teachers to handle a classroom full of students with multiple intelligences by their own but the modern communication technology, if adopted, could help them face this challenge.

Thus, blended learning can be seen also as the linkage among teachers of English, learners, and classroom located in two separate places. At times, blended learning might supplement English course readings and activities with online articles, simulations, video clips of events and other resources. Because of its flexibility, blended learning is preferred by the English teacher equipped with the know-how of modern communication technology. A teacher can introduce an English lesson on grammar in the classroom and then proceed online. The teacher's role becomes that of learning facilitator ensuring if it be a face-to-face interaction, an online course or a blended course.

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There is social pressure on English teachers to prepare students down-to-business participation in an increasingly global society and give them opportunities to be at par with financially privileged professionals. Thus a programme on Business English can be implemented through a blended learning strategy. However, with computer, Internet in the classroom, it is the language teacher with his/her experience and knowledge that will identify the resource and the facilities suited for an individual learner with his/her unique intelligence and extend them the direction needed.

Stars on Earth

Taare Zameen Par (***Like Stars on Earth***) is a film depicting the story of an eight year old child, Ishaan who suffers greatly until he is recognized by a teacher to be dyslexic. The boy hates school; he finds every subject difficult and he fails in the tests and the exams. He also finds it difficult to throw a ball in a straight line.

Rather than helping him, his teachers and classmates constantly humiliate him publicly. But the same Ishaan has his own world, a rich one with wonders that are hardly appreciated by anyone – magical lands filled with colours and animated creatures. He is an in-born artist; yet, none realises it initially. His condition at home is no better. He fails summarily to live up to his father's expectations. His mother too grows frustrated. They find him getting poor grades and skipping school. At last, they decide to send him to a boarding school. There too he suffers from a sense of depression. Happily, a new teacher joins the boarding school; his name is Ram Shankar Nikumbh, and students call him "Nikumbh Sir".

With a teaching style innovatively different from his strict predecessor, he soon becomes popular among the students. He discovers that Ishaan is unhappy and that the boy never joins the activities in the class. He begins to review Ishaan's past work and is eventually convinced that all of his "failures" are actually symptomatic of dyslexia.

As a part of his intention to solve Ishaan's problems, Nikumbh visits Ishaan's parents in their house and he is amazed by the high standard of Ishaan's paintings. Nikumbh tells Ishaan's parents that he is a bright child who processes information differently than the other children in his class do. He also informs them that Ishaan's artistic ability is amply demonstrated by his paintings and creative works-of-art.

Specifically, he points out that Ishaan has neurological problems but in no way does he possess low intelligence.

One day, Nikumbh brings up the topic of dyslexia in the class, saying that famous people like Albert Einstein, Leonardo Da Vinci, Walt Disney, Agatha Christie, Thomas Edison, Pablo Picasso, and actor Abhishek Bachchan were dyslexic too. Nikumbh intimates the Principal of the school about the problems of Ishaan and seeks permission to act as the boy's tutor.

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Initially, the Principal hesitates but he eventually gives his consent. Nikumbh starts coaching Ishaan using remedial techniques developed by specialists in dyslexia. Ishaan soon develops interest in language and mathematical skills and his grades improve. Towards the end of the year, Nikumbh organizes an art fair for both staff and students of the school. A renowned painter, Lalita Lajmi, is invited to be judge in the competition. Ishaan is declared the winner, while his teacher, Nikumbh becomes the runner-up.

The movie is an eye opener for me. In my long career as a teacher, I faced similar problems a number of times but hardly could solve any of them. Many teachers like me feel that there are students of multiple intelligences in the classroom but do not always know how to tackle their problems.

Multiple Intelligences

In this connection, let us try to understand what "multiple intelligences" mean. In 1983, Dr. Howard Gardner, professor of education at Harvard University, suggested that the traditional notion of intelligence, based on I.Q. testing, is very limited, nay handicapped, in multiple ways. He proposed eight different intelligences and asked concerned people to take into account all the varieties of intelligences to assess the potential in a broader range in children as well as in adults.

These intelligences are:

1. linguistic intelligence,
2. logical-mathematical intelligence,
3. spatial intelligence,
4. bodily-kinaesthetic intelligence,
5. musical intelligence,
6. interpersonal intelligence,
7. intrapersonal intelligence and
8. naturalist intelligence.

What Do We See and Practice in Our Schools

In our schools, the teachers are mostly fond of students with linguistic and logical-mathematical intelligence; they often fail to bestow equal attention on students whose talents come from the other intelligences. Artists, architects, musicians, naturalists, designers, dancers, entrepreneurs, etc. have always made contributions that are no less important in augmenting the world than those who have contributed their shares with their linguistic and logical-mathematical intelligence.

Results of a Survey

Gardner made a survey of autistic savants in support of his theory on multiple intelligences. On the one hand, they have serious mental disabilities leading to afflicted social skills; on the other, they possess, like Nikumbh and Ishaan, such extraordinary mental abilities as are rare in human society.

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Affected people have striking feats of memory and they are often found to be endowed with unusual abilities in a specific field of knowledge which may include skills in art or music. There is actually a disproportionate regularity with which the common chord of blindness, mental disability and musical genius occurs in the savant syndrome.

Unfortunately, children with these gifts do not receive much attention and admiration in their schools. Many of these kids even end up being labelled "learning disabled," "ADD (attention deficit disorder)" or simply underachievers, as it was initially the case with Ishaan. Their unique ways of thinking and learning aren't addressed by a heavily linguistic or logical-mathematical classroom. Therein lies the limitation of the teacher.

Suggestions from the Theory of Multiple Intelligences

The theory of multiple intelligences proposes a major transformation in the way our schools are run. It suggests that teachers should be trained to present their lessons in a wide variety of ways using music, cooperative learning, art activities, role play, multimedia, field trips, inner reflection, and much more.

The theory is also interesting in the sense that it expands our horizon of available teaching/learning tools beyond the conventional linguistic and logical methods used in most schools (e.g. lecture, textbooks, writing assignments, formulas, etc.).

Application in a Literature Class

For example, in a literature class, when an English teacher lectures on a Shakespearian play:

1. (S)he may read the play,
2. point out to students typical Shakespearean phrases and expressions used in the play (linguistic),
3. make some critical assessment of the play (logical-mathematical),
4. use video-clips or pictures of certain scenes (spatial),
5. engage the students in acting certain parts of the play so that they can observe and realize how the basic emotions expressed in the play work in the natural world (bodily-kinaesthetic and intrapersonal);
6. or encourage those students to share among themselves the human relationship found in the play,
7. ask students for role-playing or
8. ask them how they would face and solve any problem if they were in Hamlet's or Macbeth's place (interpersonal);
9. involve the interested students to locate and share the common emotions from the play prevalent in their familiar environment (naturalist) and
10. even to write or to sing (or find an existing song) that would help them communicate their emotions.

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The teacher does not have to teach all the students of the class in all eight ways. Existing possibilities could always be explored to decide on what particular pathways interest students most, or seem to be the most effective teaching or learning tools.

Growing Interest in Multiple Intelligences Theory in India

It is good that the theory of multiple intelligences has attracted the attention of many scholars, educational administrators around the countries, and hundreds of schools in several countries are currently using its philosophy to redesign their teaching materials as well as their approach, instruction and mode of delivery to educate children.

However, there are thousands of schools that still persist with their age-old tradition of monotonously dry lectures and boring workbooks and course-books that limit teaching only to those students with linguistic and logical-mathematical intelligence. The challenge is to involve many more teachers, school administrators, and others who work with children to adopt this unique teaching philosophy, so that each child gets to learn in ways that suit best to his/her unique frame of mind.

Intellectual Handicaps of Teachers

In most cases though, teachers are handicapped – in some cases, intellectually; in other cases, by the load of course curriculum and other school-related matters.

Remedial Processes

In recent years, organizations like the British Council has felt the enormity of the challenges posed on the teacher facing students of multiple intelligences and so such organizations have come up with teachers' training programme on how to effectively use stories, pictures and songs in the classroom to resolve crisis to commendable extent.

But the scope of such training programmes for the teachers continue to be limited. It may not be feasible for many teachers to handle a classroom full of students with multiple intelligences by their own but the modern communication technology, if adopted, could help them face this challenge.

Blended Learning

The mixing of different learning environments is what we may call **Blended Learning** .The phrase has many specific meanings based upon the context in which it is used. Blended learning gives learners and teachers a potential environment to learn and teach more effectively.

This approach can combine face-to-face instruction with computer-mediated instruction. Computer, cellular or smart phones, satellite television channels, video

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conferencing and other emerging electronic media can be effectively utilized for this purpose. Learners and teachers can happily work together to improve the quality of learning and teaching. The ultimate aim of blended learning is to provide realistic practical opportunities for learners and teachers to ensure a learning-friendly environment that is useful, sustainable and ever growing for all the students in a class.

The classroom teacher has now enough options to cater to the needs of each student. (S)he can tap the resource from various knowledge-sources through the Internet and choose different modes to communicate the same according to the preferences of students.

Links between Various Persons and Places

Blended learning can be seen also as the linkage among teachers, learners, and classroom located in two states, provinces, regions, countries or continents. At times, blended learning might simply supplement course readings and activities with online articles, simulations, video clips of events and other resources.

The English teacher can now either read the play himself/herself with the students or (s)he can take the help of his/her colleagues in other colleges within the state or in a different state, show video-clips from a certain play and ask some to enact some roles, develop listening skill with the help of programmes telecast in TV channels like Cartoon Network, teach them grammar through games, arrange on-line test for their own pronunciation and accent, even go for other activities that employ computer-aided technology.

Characteristics of a Mixed Ability Classroom

In this connection, it must also be kept in mind that all students in the classroom do not have the same level of comprehension-ability; their socio-economic and cultural background are not identical and as such not every student can keep up the same pace with other students in the classroom. Plus, many intelligent and serious students suffer from exam-phobia. But in the face-to-face learning system, there is no option for the teachers to treat each student individually - especially when both the number of the students in the classroom and the syllabus are sizeable.

Blended learning is a good option for the teacher, mainly because of its flexibility. Students in these programmes can learn at their own pace and, at the same time, benefit from personal instructions in the classroom. A teacher can begin a course with a well-structured introductory lesson in the classroom and then proceed with follow-up materials online.

Critical Role of the Teacher

The teacher's role becomes critical as this requires a transformation process to that of learning facilitator. He is to ensure and determine whether a course should be a

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face-to-face interaction, an online course or a blended course for which he has to depend on the analysis of the competence of himself as a teacher and the taught, the nature and location of the audience and the resources available.

But blended learning takes time for both the teacher and the learner to adapt them to a relatively new instructional concept. Some of the advantages of blended learning include cost effectiveness for both the learning institution and for the learner, as well as flexibility in scheduling and framing routine for the course-work. The disadvantages include limited access to computer and internet, limited knowledge in the use of technology, study skills, etc.

Growing Social Pressure on English Teachers

There is social pressure on English teachers to teach English more effectively. The main goal is to facilitate students' down-to-business participation in an increasingly global society and give them opportunities to avail an equal chance of success while applying for jobs — or for any such matters — to make them at par with professionals from more privileged economic sectors or those who had greater opportunities to learn foreign languages.

Core Concepts for ESL Curriculum

Some of the core concepts that help designing an ESL curriculum are multimodal L2 input exposure, enhanced input, learner-fit content delivery, interaction (human-computer, human-human, and intrapersonal) through computer supported collaborative and individual learning tasks, as well as a more human-like dimension for positive and corrective feedback.

The Business English programme in any third world country and especially in India aims at developing integrated linguistic skills, with an emphasis on listening comprehension and oral production and a focus on learning for authentic communication. It can be implemented through a blended learning (b-learning) strategy.

Features of a Model Curriculum

A model curriculum may combine

(a) learners' independent work on a dedicated platform with available *English Online* software,
(b) face-to-face ESL classes led by teachers who are also students' online tutors,
(c) online monitoring carried out by these teachers, and
(d) weekly conversation classes with native speakers of English so as to improve the oral and listening skill of the learners.

A Modular Plan

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A standard Communicative English Programme may be made up of four modules that would run for a considerable period in an academic session. At the beginning of the term, each module may have some time for system familiarization and for problem-solving evaluation and certain periods, say one week at the end of the term for final assessment. Each module will contain enough time for interactive language learning tasks depending upon the learners' needs.

Keeping this in mind, the first two modules may facilitate the learning of the use of the language by the students to meet their daily needs. Module three may be dedicated to prepare ambitious students who wish to travel to English-speaking countries to pursue further studies or careers. How to work in an English cultural environment is to be taught in the fourth Module; students get training in job interviews and learn about interpersonal relations, customs, and traditions.

Class-Teacher's Purpose

So, the class-teacher's purpose to help students with multiple intelligences communicate effectively in English may be achieved with these modules. There is no doubt that some tech-savvy learners would get more opportunities for exposure to L2 input and interaction, with the possibility of many hours of independent work at their own pace.

By doing so, students can attain two goals: learn English effectively and at the same time master Information and communication technologies.

A Combination of Task-Oriented Approaches

An effective English programme integrates a combination of task-based language-learning approaches with content-based instruction and computer-supported collaborative learning. The curriculum framers should also take care of adding a strong cultural component aiming at the development of the learners' cultural awareness both of the target language (TL) and of the source language (SL) speakers so that the learners can identify and appreciate both the cultures of the two different civilizations for an effective use of the TL.

If face to face mode and online mode work together, conversation classes may become the appropriate platform for discussing their commonalities as well as their differences. That would help encouragingly exchange information about different cultural backgrounds. It has been observed by the researchers that developing a positive attitude towards the target language culture or nurturing an integrative orientation focusing on similarities between L1 and L2 cultures facilitates language acquisition more.

Seeking Relevance for the Language Teacher

So, the question is - wherein lies the importance of a language teacher in such a highly technical classroom situation? Here, computer provides the setting and

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amenities, which a classroom with multiple intelligences demands. Internet provides the necessary resource. But who will guide the young learner? It is the language teacher with his/her experience and knowledge that will identify the resource and the facilities suited for an individual learner with his/her unique intelligence and extend them the direction needed. The teacher is also expected to be adequately equipped; in other words, (s)he needs to be 'tech-savvy' to handle the new situation.

Interestingly, the concept of blended learning and its application in a classroom with students of multiple intelligences is seldom found in countries like India and other developing nations. Only in some developed countries, blended learning primarily functions as a replacement for or extension of face to face environments. But this is not enough.

Blended environments can bring pictures, charts, graphs, animations, simulations, and video-clips that the learner can call up and manipulate. The blending of delivery mechanism, instructional approaches, technologies and learning situations will evolve to support learning which is individualised yet collaborative and interactive. Increased authenticity may occur during blended learning through real world scenarios and cases. The difference between workplace training on the use of English language and the formal education of English in schools and colleges will definitely disappear increasingly.

True, we have improved a lot in the world of information technology but in the classroom and especially in the face-to face mode, we are yet to consider the application of modern communication technology. Not that it is costlier; our conservative mind is responsible to hold back such openings. Even in the Open and Distance Learning (ODL) mode of education, Universities depend more on printed reading material.

Of course, no body is absolutely sure of the success of blended learning in a classroom of students with multiple intelligences, especially in schools. Theoretically, it is said that students with any category of intelligence can attain their heights with the help of Computer and Internet but it needs several practical tests to justify the worth of blended learning.

So, let us apply modern communication technology, may be as a pilot project, right now and help children like Ishaan to grow up both physically and mentally in order to prove their intellectual ability in the society instead of branding and excluding them as "learning disabled," or "ADD (attention deficit disorder)". This may rapidly increase the number of participants to enjoy and contribute to the fruits of knowledge.

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A Micro-Case Study of Vocabulary Acquisition among First Year Engineering Students

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Abstract

Vocabulary knowledge is very essential to be proficient in any second language. Effective use of Language lies in the way one uses its words. The second language teacher always has a question in her mind, "What should I do to enable my students acquire a good stock of words?". This paper aims at giving an answer to this Question. It is a micro-case study of I year engineering students using various teaching strategies while teaching them vocabulary. It has also evolved effective strategies that can be used by English teachers for teaching vocabulary successfully.

Little Emphasis on the Acquisition of Vocabulary

It used to be the case, in the past, in Indian schools that vocabulary and grammar were greatly focused upon. Students showed keen interest in learning, memorizing and using new vocabulary with great zeal. Interest in demonstrating this skill was widespread across all age groups. Exam papers also had some focus on vocabulary skills. This situation seems to be changing in professional colleges whose curriculum places greater emphasis on acquisition of engineering and technology content. As emphasis on

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communicating such acquired knowledge through innovative means begins to get our attention, students will begin to learn more communicative and effective vocabulary items.

In English language teaching, only the elements of grammar and the other competencies are the central focus. There has been little emphasis placed on the acquisition of vocabulary. This lack of vocabulary competence among the students affects all the four skills: LSRW namely Listening, Speaking, Reading and Writing which are essential for language proficiency.

In this paper, I present a micro case study done among I year Engineering students using various types of vocabulary learning strategies. At the end of the research, the class-room based study suggested several strategies that can be used effectively in teaching vocabulary to students.

Mastery in Vocabulary Skill Has Several Benefits

When students have vocabulary mastery, they can more effectively communicate their ideas, knowledge, and voice. Oxford defined the domain of language learning strategies as, "operations employed by the learner to aid the acquisition, storage and use of information….; specific actions taken by the learners to make learning easier, faster, more enjoyable, more self directed, more effective and more transferable to a new situation" (Oxford 8).

Vocabulary knowledge plays a significant role in people's lives and future possibilities. In fact, it is clear that a large and rich vocabulary is the characteristic of an educated individual.

According to Armbruster, Lehr, and Osborne (2003), the two ways in which vocabulary is learnt are indirect and direct vocabulary instruction. Indirect vocabulary building pertains to learning words primarily through exposure — through conversations with others, being read to, or reading on one's own. Thus, if the students participate in rich oral and reading vocabulary experiences, the greater will be their vocabulary knowledge.

To Overcome Limited Exposure

Unfortunately, many students have limited linguistic environment for vocabulary development for a variety of reasons.

Students also learn vocabulary directly through explicit instruction. Researchers have studied the effects of a wide range of explicit approaches to vocabulary instruction in the class rooms. These instructional approaches include: (a) key word (b) repeated multiple readings (c) rich contexts (d) computer-based (e) pre-instruction and (f) restructuring the

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task. Overall, they suggest that explicit vocabulary instruction methods improve vocabulary knowledge and the effects are greatest for students with low initial vocabulary knowledge levels.

Technical English and Vocabulary Acquisition

The subject *Technical English* is new to engineering students. In their school days, these students learned English through grammar and English literature. For engineering students, English is a necessary tool for getting into a good job and for a cosmopolitan business and technical outlook.

So, the aim of the subject *Technical English* is to encourage the learners to involve in learning the target language and to acquire proficiency in technical communication. Some students, out of personal interest and motivation, or even perhaps because of their family backgrounds where English may be used for interpersonal interactions, learn vocabulary through extensive reading. But many students are highly dependent on the teachers for the development of vocabulary.

The Quantum and Features of Vocabulary Needed

For those who seek to use English for specific purposes, it is indispensable to learn about 1000 to 2000 additional words related to the field of engineering.
When students want to learn the meaning of a word, they refer various sources like dictionaries, Thesauruses and other word books. Though they refer those books, they may not be sure of the usage of the word until they learn to use it appropriately.

Slow learners, if they do not take their own effort to learn, are caught in a difficult situation when they do exercises like reading comprehension, essay writing, etc.

Students realize the need for good use of vocabulary when they are stumped for the right word to use.

To develop their basic vocabulary for effective reading, speaking and writing, it was decided to teach them three words a day during the first semester.

Strategies Tried for Vocabulary Teaching

Participants Method 1 - Vocabulary Drill

Students were taught those three words by splitting into head word and derivatives, with the pronunciation, word class, meaning of the word and usage. At the end of the semester, when they were given 25 words and were instructed to write the meanings and

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their usages. Nearly half of the class was able to do about 15 words and the quarter of the class managed to write only 10 words.

There were also students who could not even attempt to write three words. Then it was realised that rote vocabulary drills would end up as a failure and they are not brain-stimulating active learning endeavours.

A list of vocabulary that does not have personal relevance can be tedious and students may not remember the meanings of those words. They may store the meanings of the words that they have learnt only for a short term, try to recall them and soon forget.

It was noted that some students had written the meaning correctly and had gone wrong in usage, especially in the use of collocation.

Method 2 - Exploring the affixes

In the next semester, to the same class, a different strategy was adopted to teach them vocabulary. Instead of teaching them three different words, only one word per day was taught by analyzing its possible affixes, and its usage in a sentence.

For example, for the word 'clean'- cleanable, unclean, cleanliness, cleanly, self-cleaning and so on:

> **Teaching of prefix**
> Word: continental
> Word Meaning: national
> Prefix: Inter
> Prefix meaning: between

When the prefix comes before the root word, it changes the meaning of the word as 'between the continents'. Besides teaching them the possible affixes, a situation can also be created to make the learning interesting.

Method 3 - Using Reading comprehension

Along with these kinds of simple words, difficult words, which are not familiar to the students, are taught to them which they could use in 'serious academic writing' using a reading comprehension. This kind of reading material is usually written with a specific vocabulary range and they prove that the learners with repeated exposure to vocabulary, syntactic structures can do better.

Prose Passage

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Taylorism is the scientific management of production, in essence its characteristics are the high division of labor. Its often related to Fordism, which is the line assembly approach to production, high standartization of the product and elimination of skilled labor. It complements taylorism because it requires a high division of labor and careful study of each job. So, from the 70s to the 90s, this classic way of organizing industry saw a decline and a new form, much more efficient started to take place. It creates a much more economically efficient way to produce things, eliminates the need for stocks eliminates a big part of the risk .This is why many eastern motor companies grew amazingly from 90s to now, a much cheaper and efficient way. And what does it all has to do with the Music Industry?

We can relate the actual way music is produced as a mass production style, highly fordist way approach. Mainly music industry is used to release tons of copies on the market and 'hope' it will sell to pay the costs/get profit. That is why the music industry is usually facing overproduction, excess of supply and when oversupply meets underconsumption, we have crisis. And if you ask me, where is the music industry going? I would be categorical: we are heading to toyotism in music industry. We are heading to get the product after we make the sale. Technology, modern logistics, easy of information and highly automatized production can easily allow this change in a short time period. In US, from the top of my head, i only see CD Baby using the "on-demand" pressing/distributing system but I'm pretty sure that must be others. In Europe I dont know of none. But it is no mistery that these type of on-demand publishers have better deals to musicians and independent labels, they transparently present their "costs of production" and we know how much we will charge to get a reasonable share of the sales. But what does it change for the factory floor of the Music Industry?

Well it changes everything. As we are talking in many threads, until `just recently Labels always entered with the risk part of the job. They fund albums hoping to sell and get the costs/profit back, a classic fordistic type of business subject to the uncertainties of the market it can't control. During its history the Music Industry, even maintaining its fordistic type of production, tried to eliminate the risks (as any other industries) and started over monopolizing the fields, to assure sales. Hence the studio /foundation period of 50-60s, the merge with distribution companies 70-80s, the merge with broadcast companies 80-90s, and more recently, advertising companies 90-00s, creating the overpowered big four controlling 80% of all the music market. The risk part of the business is the main, maybe the only, justification for the high % of shares of copyrights of the final product. And here is where everything changes for the 'fabric floor' if the risk part is eliminated, the actual album is produced after its sale, how can their copyright shares be justifiable? This is no rhetorical question. (http://www.gearslutz.com/board/music-business/511028-fordism-toyotism-real-future-music-industry.html)

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Though words are learned in different ways, they are best introduced as parts of a large meaningful unit like Reading Comprehension passages. The teacher can highlight the new words found in the comprehension and the students can look into the syntactic structure and try to guess the meaning. For example, the word 'underconsumption' can be split and understood. They can be asked to match the words with definitions:

Fordism- *It, is the line assembly approach to production, high standartization of the product and elimination of skilled labor.*

Good readers may guess the word meanings. The context can help them to infer the meanings. Drawing inferences may not be simple if there are no clues. (e.g.,) rhetoric

In fact, it is clear that a large and rich vocabulary is the hallmark of an educated individual. A large vocabulary repertoire facilitates becoming an educated person to the extent that vocabulary is strongly related to reading comprehension in particular and school achievement in general.

Developing expertise with this strategy leads to independence in reading and improved comprehension, for students learn to explore the clues authors placed in texts that enable them to clarify the meaning of new words and phrases. Students can be shown how to discover a word's meaning by exploring clues in the sentence, in sentences that come before or after the unknown word, and in illustrations, diagrams, photographs, and charts.

Model 4 Using Parts of Speech

It is generally believed that only adjectives can be used to improve descriptive writing, but one can expand word choices of nouns, verbs, and adverbs to improve writing as well. The students will be asked to write a description of a picture or their class environment, identify parts of speech and explore different word choices for the words that they chose. Then they will re-write their description or create a story using the new words they have found.

A picture may be chosen from a magazine or book. If none is available, they can look out a window or around the room they are sitting in. They can write for 5 minutes using as many words, phrases, and sentences about the picture or scene. This includes colors, textures, actions, people, animals, etc. They can be as well motivated by putting forth the following questions:

What do you see?
What are the people doing?
How do you feel?
What do they wear?
What's the weather or temperature like?

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The students can be made to read through their words/phrases/sentences and underline the nouns, circle the verbs, and put brackets around adjectives and adverbs. A list can be created as follows:

Nouns	Verbs	Adjectives	Adverbs
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

The students can choose a category to start from. They can begin exploring the word connections through some questions.

a) Does this word have connections in all the parts of speech (Nouns, Adjectives, Verbs, and Adverbs)?

b) Which parts show more connections than others? (For example, do you get lots of adjective and adverbs, but no nouns or verbs?)

What Did I Find Out?

At the end of the study, it was found that Method 1 is a failure whereas the other methods are useful and successful.

It is found that even the slow learners could remember; write the meanings of the difficult words and their usages. The exercises challenged the students and they learnt key vocabulary knowledge and reading comprehension skills. They could apply the lesson content in other areas. They responded enthusiastically to the lessons.

Apart from this kind of teaching, extensive reading and free voluntary reading can be much useful for the vocabulary learners.

The result indicates that the memory is better if they are taught through a reading material which has a vocabulary rich context. It also shows that focussing on the meaning of a word should positively affect memory for relating to the meaning of the word as opposed to the form of the word.

Strategies for Effective Teaching of Vocabulary

- Word maps help students develop complete knowledge of a word if they are to remember it for a long time.
- Students can be given a wide variety of reading materials such as newspapers, magazines, pamphlets and other literature of interest.

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- Provide context. Engage in a preview strategy through which the teacher can provide introductory material prior to reading a comprehension. It will capture the students' attention and make a connection between what they know and what they are about to read.
- Wide reading has been found to be an effective way to expand vocabulary among students. The more they read the more words they learn.
- Interact with students using rich vocabulary, reading the words in rich context of a text are more ways of teaching than correcting the students.
- A general question like, "Do you all understand that?" will not help the teacher know the real understanding of students. They may not respond as they are all confused about the meaning of certain words, if not all.
- Learning sessions can be either teacher-centred or learner-centred. In a teacher-centred classroom, teachers teach the required list of vocabulary for a particular passage and provide learners with various skill building activities that focus on vocabulary development and reading comprehension. In a learner-centred class room, learners identify the needed vocabulary for a particular passage and engage themselves in learning vocabulary and understanding the passage. Teachers have to remind the learners that learning what a word means and how it is used in context should always go together.
- Connect the form and meaning. Select a list of words to learn and create activities that provide diverse ways of practice. They can be provided with opportunities for speaking, using, reading and writing so that the words can stay with students.
- Practice vocabulary in a friendly environment since the students are scared of criticism and they are less likely to attempt practice even if they are familiar with the word.

To Conclude

Learning a foreign language is a complex process that benefits greatly the learners who take pro active steps to regulate their own learning. This can be done among other learners by seeking out opportunities for output.

The present study is only a small step towards doing justice to this topic. This study may help future researchers investigate these issues with a larger group in more depth and with more connection to current strategies of teaching vocabulary.

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Imagery of Wilderness in Margaret Hollingsworth's *Islands*

S. Gunasekaran, Ph.D.

Emotional Realities in Margaret Hollingworh's Creative Work

Among the women writers in Canada, Margaret Hollingsworth is the most popular modern Canadian writer. According to her "I object to being called a feminist writer as much as I object to being dubbed a woman playwright. My beliefs and attitudes will naturally inform what I write; that should be enough" (p.112). The reality of her immigrant status shaped Hollingsworth's perspective and permeated her work.

All her plays reveal her ongoing desire to present emotional realities, not simply the external ones, and to give the audience access to the inner world of her complicated characters. Her affinity is for unsetting psychic events or circumstances as experienced by female characters trying to make sense of the situation in which they find themselves. In all her plays she pictured the women characters in a very effective and powerful manner, and portrayed how they are carrying out her self-identity by the way of escaping from patriarchal tradition and reaching to colonial.

Sense of Isolation

Women's sense of isolation and the need for self-recognition relate to both the national struggle for identity in the post-colonial age and female struggle for identity in the tradition of patriarchy. This paper discusses how Margaret Hollingsworth explores the association of national identity

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and female identity on many levels. The portrayal of the immigrant is used to further emphasize the female sense of isolation and marginality.

Wilderness Imagery

In the play Islands, the quest for female consciousness finds its expression in the imagery of wilderness. The protagonist's anxiety, her fear of non-being, forces her to confront and overcome the dangers inherent in the physical environment. The wilderness in Islands offers the opportunity for female self-actualization, unhampered by the constraints imposed by patriarchal urban society.

The wilderness in Islands, then, sets the stage on which Muriel projects her inner world. By confronting the uncertainty of coping alone on a secluded island in British Columbia, Muriel is able to rejects the trappings of social conventions. This escape from established structures offers the route toward self-discovery and is highly prevalent in Canadian literature. Margaret Atwood's Surfacing and Ringwood's play The Lodge, for example, both deal with the theme of escape to the wilds as a means of self-revelation. The "northern utopia", the unspoilt wilderness, untainted by the corruption of 'southern' civilization, becomes the means of deliverance.

> …the northern wilderness is a place where men and women in flight from what they feel are the decadent and sterile values of the 'South' may seek a heightened self-awareness-perhaps even perceptions so transcendental as to be termed 'salvation' (P.17).

Retreat from Civilization

In Islands, Hollingsworth expresses the retreat from civilization through Muriel's flight northward to a secluded island in British Columbia, abandoning the stifling values of her mother's conventional world.

The escape to the wilderness in order to live the pioneer life is traditionally associated with male experience, whereas the role of women alone in the wilderness has often been that of victim. "Traditionally women have survived on the frontier as either wives or prostitutes—and therefore as followers, certainly not as trail-blazers" (P.96). By fleeing from the corruption of civilization, Muriel repudiated the demands of patriarchal society, and finds the courage to define herself in a situation outside social roles and expectations.

In Islands, Hollignsworth expands her dramatic vision of the wilderness myth by associating the idea of female escape from patriarchal tradition with the potential for new definitions offered in a natural setting.

Domestic Oppression and Fragmented Consciousness

The play Islands is a continuation of the play Alli Alli Oh, in which the relationship between Muriel and Alli, a woman Muriel rescues from a mental institution, is explored. While Alli Alli

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<u>Oh</u> focuses on the domestic oppression which leads to Alli's fragmented state of consciousness, <u>Islands</u> deals with Muriel's attempt to rid herself of social obligations, which includes the demands of Alli. In Alli Alli Oh, Alli is shown to share in Muriel's search for identity, whereas in <u>Islands</u>, Muriel begins to reject Alli in an attempt to achieve her own autonomy.

The island emblemizes Muriel's attainment of a separate identity and her disconnection from the demands of others. By metaphorically representing the island as a sanctuary, Hollingsworth espoused Margaret Atwood's concept of "The Island". This implies the "island-as-body, self contained, a Body Politic, evolving organically, with a hierarchical structure..." (P. 32) and is, in Atwood's view, the British symbol of refuge and security. To this Hollingsworth adds the Canadian myth of wilderness, implicit in which are the notions of escape and survival. Muriel's decision to live on the island symbolizes both the Canadian "spiritual survival" metaphor, and the British metaphor of island as haven and stronghold. By interiorizing her struggle for survival against the external elements of the wilderness, Muriel takes on the responsibility for her own process of development and salvation.

The opening scene of the play shows Muriel absorbed at her drawing board where she designs experimental techniques for her farm. Through Muriel's efforts to be self-sufficient in organizing her new life, Hollingsworth suggests the correlation between the protagonist's building of her own farm and acquiring recognition of her own powers. Like the protagonist in <u>The Tomorrow Box</u>, by Anne Chislett, Muriel's farm gives her life meaning. On an individual level, in both plays, the women reject human relationships in an attempt to define their own selfhood in relation to the farm they manage.

Expression of Female Interior Space

The wilderness in <u>Islands</u> is an expression of female interior space which the protagonist tries to map out. On the secluded island , Muriel seeks to create a self-contained reality. Uncertain about her identity within society and her family, Muriel finds the untamed island a stimulating setting in which she can project her inner self.

In her social realm on the mainland of British Columbia, Muriel had no clear definition of self. In solitude on the island , Muriel is able to explore and penetrate her inner psyche without intrusion. Muriel's new understanding of self is expressed in the shaping of her external reality and the defining of her female sense of place.

> I looked around here…tried to take stock of the old place. I began to see… how…how unfocused I'd allowed myself to get. I'd started clearing a couple of spots, got a few head of stock, couple of hens, weather proofed part of the barn, made a half-assed attempt at rewiring. Nothing carried through. I'd let myself get sloppy. I took too much notice of other people.(P.126-127)

Produced in 1977, Islands embodies the feminist quest for alternatives to women's traditional position according to patriarchal doctrine. Muriel exudes the feminist rejection of the stereotypical role of women, one that "assigns domestic service and attendance upon infants to

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the female, the rest of human achievement, interest, and ambition to the male" (P.26). Representative of sex role stereotypes within conventional society is Rose, Muriel's mother. When Rose comes to visit Muriel for the first time in five years, she is a reminder of the conformity from which Muriel has tried to escape.

Muriel sees her mother's relationship with Chuck as part of the corruption of society from which she has fled. Muriel believes Chuck, as a banker, was instrumental in exploiting the farmers and destroying their connection with the land. To Muriel, Rose's reality is one that is disconnected from the natural world.

Rose is portrayed as the traditional mother who sacrifices her own individuality for the sake of the family. Her unquestioning acceptance of her role creates an illusion of harmony, concealing the truth behind a mask of assumed moral values.

In the natural setting of the wilderness, stimulated by the wild landscape far from the confines of established society, Rose begins to reflect upon her role as a mother and wife. She reveals to Muriel for the first time that she knew about the illicit activities of Muriel's father. Both Muriel and Rose attain a new level of intimacy, by expressing feelings they previously concealed. Rose reveals the hypocrisies of her position as the peace-keeping wife and mother, and finally admits she knew about the cockfights and her husband's affairs. However, when she thinks of her relationship with Chuck, she quickly returns to her former orthodox approach. Afraid of the powerful feelings evoked by her confessions to Muriel, Rose tries to bring the level of discussion back to the boundaries of surface reality.

Rose seems most concerned that Chuck's expectations be upheld, again by concealing the truth, and clings tenaciously to the moral values Chuck represents. Rose's hypocrisy is apparent when she must keep an air of respectability by not sharing a bed with Chuck when he comes nor does she find it suitable to share a bed with Muriel.

Muriel's sense of betrayal indicates the ambivalent relationship between herself and her mother. She feels protective of her mother's helplessness, but at the same time blames her mother for being weak and complacent. In response to Muriel's anger, Rose defends her position by saying: "If you marry a wild man you take the consequences". (P.126) Jean Baker Miller writes about the position of motherhood in patriarchy and its effect on mother-daughter relationships:

Devalued Mothers

Mothers have been deprived and devalued and conscripted as agents of a system that diminished all women. Daughters have felt the confusing repercussions of all of these forces. Further, it is impossible to analyze the mother-daughter relationship without an analysis of the actions of the father, more accurately an analysis of the overall context which defines the family structure (P.139-140).

Through her quest for identity, Muriel finds that even in the wilderness she can be stifled by the intrusion of others. Prior to her mother's visit, as depicted in Alli Alli Oh, Muriel had been living

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with Alli in a lesbian relationship, perceiving lesbianism as an escape from patriarchal domination. Miller expresses this concept of lesbianism as a diversion from gender power structures. "…lesbian women by their very existence challenge the fundamental structure of women's dependence on men" (P.13).

Alternatives to Limited Upbringing

In her quest for an alternative to her limited upbringing, Muriel discovers that her lesbian relationship with Alli is not a solution to the traditional female role, as Muriel finds that even with Alli her individuality is threatened. The fact that Muriel cannot tell Rose about her lesbian affair shows Muriel is still controlled by the values and expectations of her mother's world. Muriel's involvement with Alli represents the exploration of a love relationship outside the conventional realm defined by her mother—an involvement she had hoped would not restrict her human growth.

Muriel's venture beyond the borders of prevailing sexual behaviour shows an interesting parallel with her exploration of new, revolutionary farming methods, particularly "hydroponics", by which plants are grown without soil, itself symbolic of Muriel's search for self-sufficiency. Experimenting with her environment by producing plants through hydroponics can be seen as Muriel's attempt to gain control over her environment, thus shaping it to her own design. Muriel's plan to use science and technology to make plants grow without soil is a manipulation of the natural world, one that changes the life process. To Muriel, this becomes the creative ordering of her physical environment. As Miller points out the connection between personal change and the transformation of reality:

> For women to act and react out of their own beings it to fly in the face of their appointed definition and their prescribed way of living. To move toward authenticity, then, also involves creation, in an immediate and pressing personal way. The whole fabric of one's life begins to change, and one sees it in a new light (P.150-151)

Rose on the other hand, does not see Muriel's activities in terms of individual growth, but as unnatural. She reminds Muriel of the traditional perception of women in relation to men. In perceiving women as helpless, Rose attempts to undermine Muriel's efforts to obtain control over her own life.

Rose's intrusion in Muriel's life signifies the difficulty Muriel has in shaking the restrictions of her social realm. By announcing that she would like to come and live on the island with Chuck, Rose and the patriarchal society she represents, become a threat to Muriel's private world. Both Muriel's inner world and her external world, the island, are threatened by the invasion of society and its expectations from which she has tried to escape. She tries to discourage her mother from moving to the island.

Fulfilling the Traditional Female Role

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By expecting Muriel to fulfill the traditional female role, Rose, as a mother, is shown to be instrumental in perpetuating the dichotomy of gender identity. Stacey and Price believe women, by not trying to change the accepted norms, have been "architects of the reproduction of their oppression" (P.20)

Alli, who arrives without warning, is the antithesis of the conforming woman. Mentally ill and bisexual, she live on the periphery of conventional society. Nevertheless, Alli tries to identify with Rose, telling Rose that she herself is a mother and was married for eighteen years. Alli discusses her children with Rose: "Yes. Mine are called Denny and Christine. Christine's just had her seventeenth birthday. She's an Aries". (P.132). Alli eventually turns the level of reality away from trivialities toward the darker world of psychological fragmentation. By telling Rose about her experience in "the nut house" (P.133) Alli draws Rose into an unknown world. Her presence is shown to confront and disrupt Rose's established values. Where Rose sees the need to conceal and pretend in order to keep the harmony, Alli is overtly direct in her emotional and psychological expression.

Rose is the voice of the conventional woman who stifles the truth for the sake of appearances. By contrast, Alli is portrayed as mentally ill, thus allowing her depart from society's customary perception of women. As she is also a lesbian, Alli defies the traditional voice of female sexuality, and is seen as a threat to the moral fibre of her community. Muriel, on the other hand, does not believe that Alli is mentally ill, and explains Alli's repetition of phrases as a mantra, telling Rose, 'I always thought of it as meditating". (p.134) While Muriel tries to justify Alli's behavious to Rose, Alli asserts that she has been "cured" and adds, "I really don't have to talk to myself" (P.134).

Both Rose and Alli epitomize different extremes: Rose denies her individuality in order to gain social acceptance; Alli rejects her role as mother and wife, as well as the prevailing feminine characteristics. Rose embodies the complete acceptance of convention and Alli exemplifies the total rejection of it. Where Rose is passive and inscrutable, Alli is aggressive and often cruel in her honesty. Muriel is caught between the two extremes: surrendering to conventional ubiquity, as Rose does; or, like Alli, forsaking entirely the norms of society. Muriel's task is to find her own identity through the confrontation of both extremes. Although Muriel rejects her mother's position, Muriel shares her dislike of Alli's insensitive probing and disruption of social order; her destructive honesty.

Display of Inner Feelings

Alli and Rose are left to talk alone, and Rose is brought further into Alli's world of psychological flux. Alli makes Rose deal with a side of female experience she has never acknowledged before. Alli describes her inner psyche, her intimate feelings. She tells Rose how her personal life was probed by the doctors in the hospital, and how she had been labeled a paranoid schizophrenic.

Rose is unsure how to respond to Alli's display of inner feelings and emotional turmoil. When Alli tells her there are questions walking "all over town", (P.143) Rose tries to bring the statement into the context of light conversation. "I don't know the town. I only came to the coast

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once before". (P.143) Then Alli attempts to force Rose into a frank reaction, asking her how it feels, "knowing your daughter's a dyke". (P.143) Rose finally admits her true feelings: "You disgust me". (P.144) Alli replies eagerly, "Do I? Do I really?" (P.144) Alli has achieved the emotional reaction from Rose she had been waiting for, she has succeeded in breaking Rose's polite façade. After admitting her real feelings, Rose immediately feels sorry for what she said, realizing that Alli "can't help it". (P.144) By saying Alli "can't help it", Rose displays how she associated lesbianism with mental sickenss and abnormality. Consequently, she is able to pity Alli and perceive her behaviour as less threatening.

Although their opposing realities clash with one another, Rose and Alli are forced into each other's inner worlds. Both must accept the different levels of female experience the other represents. Rose is made to acknowledge Alli's rejection of conventional values, and Alli is confronted with Rose's position within the patriarchal model. Rose begins to confide in Alli and expresses her feeling of failure as a 'good' mother.

At this stage Chuck calls, rescuing Rose from this threatening and chaotic setting bringing her back to her familiar world. Rose wants to keep Chuck separate from all this, as he symbolizes Rose's sense of security within the old patriarchal tradition, where Rose's position as a woman is clearly defined. Within the confines of her respectable social framework, Rose has found a limited kind of order and integration: an integration, however, that excludes the search for individuality outside the dictates of assigned roles. Thus Rose's inner world, the exploration of her inner female consciousness, is left untouched.

Both Rose and Alli leave for the mainland. As Alli prepares to leave, she picks up the money Rose gave her and put it in her pocket. Muriel finds herself alone again. She places the quilt made by Alli on the bed and sits on it, as if contemplating her involvement with Alli. Muriel then gets up from the bed and returns to her desk, choosing to focus her attention on the development of her farm. She must continue her search for self identity in the light of her newly defined relationship with both her mother and Alli.

Rose and her conventional world, and Alli and her disordered world, have both disrupted Muriel's search for self-definition. Her relationship with Alli and Rose is still tenuous, as is her connection with the wilderness in which she must struggle to construct her own sense of place.

What remains constant is Muriel's relation to the farm and the satisfaction her work brings when she is liberated from the demands of others. The last image focuses on Muriel alone, a common technique in women's plays, like Kelly Rebar's Checkin Out, where the final frame of the heroine alone reflects her autonomy and self-actualization.

In Islands Hollingsworth's' exploration of female identity concerns the female characters' relation to their physical environment. Muriel's place in the wilderness is connected with her search for individuality and the liberation from the patriarchal mold.

Muriel is shown to break away from a restrictive social realm and withdraws from the urban, public world to the seclusion of nature.

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By becoming a farmer, a traditionally male vocation, Muriel's separation from urban mainstream society offers her power over her environment rather than isolation. However, Muriel's independence is not without a price. By protecting herself from the demands of others, Muriel chooses the safety of solitude and in the process limits the potential for self-enrichment through human companionship.

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The Influence of Learning Environment on Learners' Attitude in a Foreign Language Setting

Muhammad Athar Hussain, Ph.D. Scholar

Abstract

This study was conducted to investigate whether there was relationship of classroom learning environment with attitude of secondary school students, gender differences and location-wise differences in Pakistani context in which English is taught as a foreign language. Data were collected from 720 secondary school students in 06 districts of the Punjab Province. Two questionnaires were used, one for learning environment and second for measuring students attitude towards English language.

After the instruments were found to be reliable and valid, Data were analyzed statistically. Mean score of each item of the two questionnaires was calculated to find central tendency of responses. Gender differences were analyzed by using t-test and Pearson Correlation was calculated to find out relationship between learning environment and attitude towards English.

Analysis showed that significant differences were found between male and female students on classroom learning environment and attitude towards English. It is further concluded that female students were more favorable on classroom learning environment and had more positive attitude towards the learning of English.

Significant positive correlation was found between classroom learning environment and attitude towards the learning of English. Results showed that learning environment may be made

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favorable by fostering better pupil-teacher relationship in order to develop positive attitude to learn a foreign language.

Keywords: Learning Environment; Attitude; Foreign Language Learning; Classroom Settings.

Introduction

The task and challenge of foreign language teaching and learning is often associated with Classroom dynamics which involves various dimensions of classroom learning environment. The field of learning environment has become an area of interest for language teachers because what happens in the classroom affects the learner's attitude in one or the other way.

Coleman (1990) states participation in classroom activities are related with feelings of personal worth and related to greater peer approval and satisfaction with one' role. Traditional classroom requires pupils to work in the class on the same subject at the same time as instructed by the teacher and interaction between the teacher and the students usually occur in groups and in a very structured manner. On the contrary the open classroom environment is more flexible where students feel more freedom and can move around the building. This environment is individualized in which students work on their own speed. Classroom learning environment plays a vital role in determining the effectiveness and ineffectiveness of teaching and learning in English in Pakistan. English, being a foreign language is considered to be a cause of anxiety due to classroom psychosocial environmental factors among the students.

School and Classroom Environment

School environment is of a paramount importance to promote learning process. This type of atmosphere prevailing in the school is a perpetual inspiration for the children to learn more and more. The reason is that the children receive an intellectual type of frame of mind from the academic atmosphere and that type can be created by providing a separate room for the study, by providing books and journals and discussion.

Classroom environment is the total of all social, emotional, mental and physical factors that makes overall contribution to the total teaching learning process within the classroom. A **democratic** classroom might be one that is gives more sense of freedom and large degree of permissiveness to foster healthy teacher-pupil relationship and where students are allowed to work independently.

On the other hand, an **autocratic** environment may be described as controlled by the teacher in which teacher decides the goals and the learning activities to be taught. The students do not participate in the selection of learning activities. Yarrow et al (1997) conducted a study by administering College and University Classroom Environment Inventory (CUCEI) to improve the classroom learning climate of pre-service secondary teachers and ultimately of

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the students. In another study, students viewed their actual environment less favorable that the preferred environment.

Attitudes of the Learners

International discussions have concluded that language learning is closely related to the attitudes of the learners towards the language (Starks & Paltridge, 1996). Four aspects of attitude has been identified which all refer to the term attitude. They include emotions aroused in a situation, emotions associated with a stimulus, expected consequences and relationship of a situation to personal values (Hanula, 2002).

Attitude is a learned pre-disposition or tendency on the part of individual to respond positively or negatively to some objects, situations, concepts, or another person (Aiken, 1996). It is a learned pre disposition to respond in a consistently favorable or unfavorable manner to a given object. Students' attitude to specific subject depends on the surrounding environment given to them. Classroom environment determines the level of satisfaction or dissatisfaction, and feelings of joy and fear towards a particular subject.

Learning a foreign language involves many psycho-social and cultural factors which also affect the attitude of the learners in one or the other way. The learners might relate their beliefs, experiences and emotions to language learning which are directly or indirectly influenced upon by the environment of the classroom. Classroom learning activities, student-teacher relationship, support from the teacher and cooperation in the class constitute the learning dimensions of the classroom.

The other dimensions might include learners' involvement, nature of investigation and peer relationship, some other have also been discussed in various studies. The present study focused to explore some dimension of learning environment in Pakistani context and how they are correlated with the attitude of the learners.

Review of the Related Literature

Environment in an education setting refers to the atmosphere, tone, ambience or climate that prevails that particular setting. Consequently, studies in the field of classroom learning environment focused on psychosocial aspects of human behavior (Dorman, 2008).

Successful teachers monitor student behavior in the classroom. They make each student responsible for some work during the learning activity and then monitor to see that it was actually accomplished. These teachers are strong student motivation (Wood, 2001). The inside classroom environment is concerned with the feelings, experiences and perception of the students (Dunn & Harris, 1998).

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Students' achievement is interdependent on psycho-social interactions that happen in the classroom. These interactions sometime make a difference with reference to students' achievement and their academic goals (McRobbie et al., 1997).

With the growing trend and focus on the field of classroom learning environment, it became a rich area of interest for the researchers. The availability of many instruments made in easier and possible to investigate into learning environments in specific context. The student-teacher interaction and relationship were investigated, assessed and perceived in different contexts indicating interesting results (Fraser, 1998).

Lim (1993) conducted a study in secondary school environments which attempted to compare different types of learning environments and educational streams. Khoo and Fraser (1997) explored the learning environments in adult education computer education in secondary and primary classes. The whole process of teaching and learning contributed towards the psycho-social dimensions of the classroom environment.

Student-teacher relationship, classroom management, individual differences, instructional techniques have become a compulsory part of learning environment. Teacher plays a key role in the making of classroom climate. He is the agent who imparts instruction, monitors the performance and modifies the behavior. The teacher makes decisions and adjustments to enhance motivation, pupil-teacher relationship, engagement and productive work.

Participation in classroom activities is linked with the satisfaction and feelings of personal growth. Nijhuis (2005) reported that there exists a relationship between teacher's strategies and learning environment. In some of the studies, findings revealed that with positive classroom learning environment, teacher can teach better and students are able to learn better (Hansen and Childs, 1998). Favorable learning environment also improves academic and professional standard of the school and leads to higher achievements (Goddard, 2000; Heck, 2000).

Due to fast growing trend to investigate classroom environment and its effects, many related instruments were validated particularly with reference to ten dimensions i.e. relationship between classroom environment and behavioral outcomes, evaluation of educational innovations, differences between students' and teachers' perceptions about classroom, comparison of girls and boys perceptions about learning environment and influence of learning environment on attitudes of the learners in a particular subject.

Fraser et al (1996) worked on WIHI instrument to assess classroom learning environment. This added some new dimension along with some dimension from the past questionnaires on learning environment. The WIHIC included dimensions that contain recent trends and concerns in classroom learning like equity and cooperation, and promotion of comprehending rather than rote-learning.

Research Questions

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The purpose of the study was to find out the relationship of classroom learning environment with the attitude of the students towards the learning of English as a foreign language. Following research questions were designed to address the problem:

1. What are students' perceptions about their learning environment?
2. How do they feel about their foreign language class?
3. To what extent there are gender differences regarding learning environment and attitude?
4. How does classroom learning environment correlate with attitude of the students?

Methodology

It was a survey study that aimed at exploring possible relationship between classroom learning environment and students' attitude towards English as a foreign language. The context of the study was classroom environment of secondary school students in Pakistan, in English language class.

English is taught as foreign language in Pakistan and is a compulsory subject up to graduate level.

Secondary school students face highest failure ratio in English that is usually linked with subject-matter, appropriate methodology, teacher training, classroom situation, pupil-teacher relationship and psycho-social learning dimensions of the classroom. Classroom environment affects students' attitude to learn a language positively and negatively.

In order to investigate into and determine the degree of relationship between learning environment and attitude of the students, quantitative method was adopted. The sample of the study was 720 students of 10th grade from six districts of the Punjab province of Punjab. Sample was drawn by using stratified sampling technique through which male, female students were selected. Thus from 48 secondary schools, which were further divided into 12 male and 12 female schools. From each selected school, 15 students were selected randomly and thus the researcher had (180 male, 180 female) and (180 male, 180 female) and the total sample was 720 students.

The researcher used two questionnaires to collect data. The questionnaire on students' attitude was developed by the researcher and the questionnaire on classroom learning environment was adopted that was named as 'WIHIC' and developed by B. Fraser (1996). The attitude scale had two subscales and the learning environment scale had seven subscales.

Reliability of the two scales was determined through Cronbach alpha coefficient. The Cronbach alpha reliability ranged from .71 to .85 for the subscales of learning environment scale and .95 for the whole scale that indicated that the instrument is strongly reliable. For Attitude scale, it ranged from .83 to .88 for subscales and for overall scale it was .92 that showed that the instrument was reliable.

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The validity of the instruments was established in two steps. For face and content validity, subject specialists were consulted and pilot testing was conducted. For construct validity, item total correlation was calculated. Item total correlation showed that both instruments were valid and suitable for the study. The correlation coefficients range from .216 to .870 (item no. 3) with total score of the Learning environment scale as whole which indicated that each and every item had high positive correlation at .001 that established high construct validity of the scale.

For attitude scale, the analysis of item total correlation revealed that there was no item with poor item total correlation when every item of Attitude scale was correlated with the total items of the scale.

The correlation coefficients range from .341 to .817 significant at .001 level with total score of the Attitude scale as whole that established high construct validity of the Attitude Scale.

After the instruments were found to be valid and reliable, date were collected and analyzed by using SPSS. The analysis and interpretation is given below:

Analysis and Findings

Analysis was made using SPSS (Statistical Package for Social Sciences). Gender differences were determined on each subscales of learning environment scale and then on each subscale of Attitude scale. Then relationship was found between these two instruments using Pearson Product moment correlation technique. Tables given below would illustrate the data.

Analysis of Learning Environment Scale gender-wise

Table-1   Difference between males and females on subscale Student
                 Cohesiveness through Mean, Standard Deviation and t-Test.

Gender	N	Mean	SD	t-value
Male	360	29.91	6.141	
				3.036
Female	360	31.23	5.449	

df = 718; p <.01

Table-1 shows that there is significant difference between males and females about student cohesiveness. The significant difference was observed through the calculation of t-test which

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indicated that the calculated value of t= 3.036 at .01 level is greater than the tabulated value= 2.576 at .01 level that led to the conclusion that males and females had different level of student cohesiveness in their classroom.

Therefore, the null hypothesis that "there is no significant difference about student cohesiveness of males and females" is not supported. It is further concluded by this analysis that the mean scores show that the female students have higher cohesiveness, that is, they are closer to one another in their English classroom than the male students.

Table-2   Difference between males and females on subscale Teacher Support through Mean, Standard Deviation and t-Test

Gender	N	Mean	SD	t-value
Male	360	29.57	7.097	
				3.594
Female	360	31.35	6.184	

df = 718; p < .001

Table-2 illustrates that there is statistically significant difference between males and females about Teacher Support. The significant difference was found through the calculation of t-test which indicated that the calculated value of t= 3.594 at .001 level is greater than the tabulated value= 3.291 at .001 level that led to the conclusion that males and females had different level of Teacher Support in their classroom.

Therefore, the null hypothesis that "there is no statistically significant difference about Teacher support of males and females" is not supported. It is further concluded by this analysis that the mean scores show that the female students receive more teacher support than the male students. The Mean = 31.35 and SD = 6.184 of females are higher than the male students Mean = 29.57 and SD = 7.097.

Table-3   Difference between males and females on subscale Involvement through Mean, Standard Deviation and t-Test

Gender	N	Mean	SD	t-value
Male	360	29.24	6.381	
				3.289
Female	360	30.73	5.797	

df = 718; p < .01

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Table-3 explains that there is statistically significant difference between males and females regarding Involvement in the classroom. The significant difference was found through the calculation of t-test which indicated that the calculated value of t= 3.289 at .01 level is greater than the tabulated value= 2.576 at .01 level that led to the conclusion that males and females had different level of involvement in their classroom.

Therefore, the null hypothesis that "there is no statistically significant difference about involvement of males and females" is not supported. It is further concluded by the analysis that the mean scores show that the female students Mean = 30.73; SD = 5.797 get more involved in their classroom activities with one another than the male students with Mean= 29.24 and SD = 6.381.

Table-4   Difference between males and females on subscale Investigation through Mean, Standard Deviation and t-Test

Gender	N	Mean	SD	t-value
Male	360	28.47	6.480	
				4.187
Female	360	30.39	5.821	

df = 718; p < .001

Table-4 illustrates that there is statistically significant difference between males and females about Investigation. The significant difference was found through the calculation of t-test which indicated that the calculated value of t= 4.187 at .001 level is greater than the tabulated value= 3.291 at .001 level that led to the conclusion that males and females had different level of investigation in their classroom.

Therefore, the null hypothesis that "there is no statistically significant difference about investigation of males and females" is not supported. The analysis further states that the female students with Mean= 30.39 have higher investigation level than the male students with Mean= 28.47.

Table -5   Difference between males and females on subscale Task-Orientation through Mean, Standard Deviation and t-Test

Gender	N	Mean	SD	t-value
Male	360	29.05	7.976	

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				3.330
Female	360	30.91	7.012	

df = 718; p < .01

Referring to table-5 it is proved that there is statistically significant difference between males and females in respect of Task Orientation. The significant difference was found through the calculation of t-test which indicated that the calculated value of t= 3.330 at .01 level is greater than the tabulated value= 2.576 at .01 level that led to the conclusion that males and females had high difference level of task orientation in their classroom.

Therefore, the null hypothesis that "there is no statistically significant difference in respect of task orientation of males and females" is not supported. The analysis further states that the female students with Mean= 30.91 have higher task orientation level in their classroom than the male students with Mean= 29.05.

Table-6   Difference between males and females on subscale Cooperation through Mean, Standard Deviation and t-Test

Gender	**N**	**Mean**	**SD**	**t-value**
Male	360	29.13	6.329	
				4.350
Female	360	31.08	5.627	

df = 718; p < .001

Referring to table-6 it is proved that there is statistically significant difference between males and females in respect of Cooperation. The significant difference was found through the calculation of t-test which indicated that the calculated value of t= 4.350 at .001 level is greater than the tabulated value= 3.291 at .001 level that led to the conclusion that males and females had significant different level in respect of cooperation in their classroom.
Therefore, the null hypothesis that "there is no statistically significant difference in respect of cooperation of males and females" is not supported. The analysis further concludes that the female students Mean= 31.08 have higher level of cooperation in their classroom than the male students Mean= 29.13.

Table-7   Difference between males and females on subscale Equity through Mean, Standard Deviation and t-Test

Gender	**N**	**Mean**	**SD**	**t-value**

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Gender	N	Mean	SD	t-value
Male	360	30.71	5.590	
				1.00
Female	360	30.28	5.959	

df = 718; p > .05

Table-7 shows that there is statistically no significant difference between males and females in respect of equity in the classroom. The no significant difference was observed through the calculation of t-test which indicated that the calculated value of t= 1.00 at .05 level is smaller than the tabulated value= 1.960 at .05 level that led to the conclusion that males and females had equal level of equity in their classroom.

Therefore, the null hypothesis that "there is no statistically significant difference regarding equity of males and females" is supported. It is further concluded by this analysis that the male students with Mean= 30.71 have slightly high equity among themselves in their classroom than the female students Mean= 30.28.

Table-8   Difference between males and females on total Learning Environment scale through Mean, Standard Deviation and t-Test

Gender	N	Mean	SD	t-value
Male	360	206.11	41.236	
				3.383
Female	360	216.00	37.090	

df = 718; p <.01

Table-8 explains that there is statistically significant difference between males and females in respect of Learning Environment (WIHIC) scale. The significant difference was observed through the calculation of t-test which indicated that the calculated value of t= 3.383 at .01 level is greater than the tabulated value= 2.576 at .01 level that led to the conclusion that males and females had significant difference regarding 'What is happening in this classroom' scale. Hence, the null hypothesis that "there is no statistically significant difference between male and female students regarding WIHIC" is not supported. The analysis further indicates that female students with Mean= 216.00 have higher scores on WIHIC than the males with Mean= 206.11.

Analysis of Attitude Scale gender-wise

Table-9   Difference between males and females on overall attitude towards the learning of English scale through Mean, Standard Deviation and t-Test

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Gender	N	Mean	SD	t-value
Male	360	85.48	21.798	
				3.325
Female	360	90.76	20.826	

df = 718; p < .01

Table-9 illustrates that there is statistically significant difference between males and females about their attitude towards the learning of English. The significant difference was found through the calculation of t-test which indicated that the calculated value of t= 3.325 at .01 level is greater than the tabulated value= 2.576 at .01 level that led to the conclusion that males and females had significance difference in respect of attitude towards the learning of English.

Therefore, the null hypothesis that "there is no statistically significant difference about attitude of the male and female students towards the learning of English" is not supported. The data further indicates that the female students mean= 90.76 show higher score on attitude than the male students mean= 85.48.

Table-10   Difference between males and females on subscale Adoption of English language attitude of attitude scale through Mean, Standard Deviation and t-Test

Gender	N	Mean	SD	t-value
Male	360	42.11	10.925	
				3.404
Female	360	44.78	10.124	

df = 718; p < .01

Table-10 explains that there is statistically significant difference between male students and female students in respect of 'Adoption of English language attitude. The significant difference was proved through the calculation of t-test which indicated that the calculated value of t= 3.404 at .01 level is greater than the tabulated value= 2.576 at .01 level that led to the conclusion that male students and female students had significant difference regarding 'Adoption of English language attitude'.

Hence, the null hypothesis that "there is no statistically significant difference between male and female students regarding adoption of English language attitude" is not supported. The analysis further indicates that female students mean= 44.78 are positive in adopting English language learning attitude than the male students mean= 42.11.

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Table-11   Difference between males and females on subscale Enjoyment of English lessons of attitude scale through Mean, Standard Deviation and t-Test

Gender	N	Mean	SD	t-value
Male	360	43.36	11.818	
				2.988
Female	360	45.97	11.632	

df = 718; p < .01

Table-11 reveals that there is statistically significant difference between male students and female students about Enjoyment of English lessons. The significant difference was found through the calculation of t-test which indicated that the calculated value of t= 2.988 at .01 level is greater than the tabulated value= 2.576 at .01 level that led to the conclusion that male students and female students had significance difference in respect of enjoyment of English lessons.

Therefore, the null hypothesis that "there is no statistically significant difference about enjoyment of the English on the part of male and female students" is not supported. The data further indicates that the female students mean= 45.97 reflect more enjoyment of English lessons than the male students mean= 43.36.

Table-23   **Pearson Correlation for relationship between Learning Environment dimensions and Attitude towards English**

Learning Environment scale	Attitude Towards English Overall	Adoption of English language attitude	Enjoyment of English Lessons
	r	r	r
WIHIC	.939***	.897***	.903***
Student Cohesiveness	.870***	.834***	.833***
Teacher Support	.848***	.812***	.821***
Involvement	.864***	.815***	.838***
Investigation	.899***	.861***	.862***
Task Orientation	.777***	.745***	.744***
Cooperation	.888***	.850***	.852***
Equity	.724***	.686***	.701***

***p<.001 level (2-tailed)

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Table-23 shows that scores of Learning Environment scale and that of Attitude scale correlated significantly. There is found high positive correlation between the whole Learning Environment scale with Attitude scale, r = .939 at .001 level.

The Learning Environment scale is also positively correlated with subscales of Attitude scale, that is, Adoption of English language attitude (r = .897 at .001); Enjoyment of English lessons (r = .903 at .001).

This suggests that classroom learning environment exerts high influence in fostering positive attitude in a foreign language classroom. Positive correlation shows their level of enjoyment and Adoption of language attitude in the foreign language classroom. Further is that, each subscale of Learning Environment is positively correlated with the subscales of Attitude scale. The positive correlation is significant at .001 that further supports that the dimensions of classroom learning environment are significant in developing negative or positive attitude towards the learning of a foreign language.

The subscale Student Cohesiveness of Learning Environment reveals that their cohesiveness brings about positive attitude towards English as the data shows about Student Cohesiveness, r = .870 at .001 with the overall Attitude scale; with subscale Adoption of language attitude, r = .834 at .001; with Enjoyment of English lessons, r = .833 at .001 which clearly reveals that in a classroom where students know each other closely and get friendly support, they might have positive attitude towards the learning of English.

Similarly, Teacher Support subscale reveals positive correlation with Adoption of language attitude, r = .812; with Enjoyment of English lessons, r = .821 and both are significant at .001.

This suggests that with the interest of the teacher in classroom activities, there occurs positive attitude towards language learning. Then Task Orientation and Equity subscales show positive correlation; Task Orientation r = .777 with total Attitude scale; r = .745 with Adoption of language attitude and r = .744 with Enjoyment of English lessons, significant at .001 and likewise, Investigation r = .861 with Adoption of language attitude and r = .862 with Enjoyment of English class; the subscale Cooperation r = .850 with Adoption of language attitude and r = .852 with Enjoyment of English lessons. This positive correlation reveals that the students would have positive attitude when the classroom learning environment positively supports the students.

Conclusions and Discussion

The study explored the gender differences and degree of relationship on two variables. Following conclusions and discussion were made on the basis of analysis and results:

Female students are closer to each other and receive more support from one another than the male students. Females have more cohesiveness in their classroom than the male students. Female students get more teacher support in their classroom than the male students. Females mean score is 31.35 is higher than males mean score 29.57. The t-test value 3.594 indicates

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significant difference. Girls are more involved in classroom activities than the male students. Mean score of girls 30.73 is higher than mean score of boys 29.24. t-test value shows significance difference.

Girls have higher level of investigation than boys. The mean score of girls 30.39 is higher than boys 28.47. On Task Orientation, girls know more about their work and what they have to do than boys. t-test value shows significance difference and mean score of girls 30.91 is higher than boys mean score 29.05.Girls are more cooperative in their class activities than the boys. Mean score of girls is 31.08 that is higher than boys 29.13. t-test values shows significant difference between the two. Significant difference was not found between girls and boys on Equity dimension of learning environment. Both girls and boys receive equal level of equity in their class. The mean score of girls is 30.28 and of boys 30.71.

Girls are more positive in adopting language leaning attitudes. On adoption of English language learning attitudes, girls mean score 44.78 is higher than boys mean score 42.11. Boys are slower in adopting English language learning attitudes. t-test value shows significant difference at .01 level.

Dimensions of learning environment scale indicated positive correlation with attitude dimensions towards foreign language learning. Significant positive correlation was found for Student Cohesiveness, Teacher Support, Involvement, Investigation, Task Orientation, Cooperation and Equity of learning environment scale with Adoption of English language learning attitude, Enjoyment of English lessons of Attitude scale. Favorable psychosocial classroom environment fosters positive attitude towards foreign language learning.

Recommendations

The following recommendations were made in the light of findings and conclusion of the study:

1. Efforts might be made to create pleasant and favorable classroom learning environment for better teaching learning process that may focus on student cohesiveness, teacher support, cooperation and equity in the classroom.
2. Adoption of English language learning attitude and enjoyment of English lessons may increase with the development of student cohesiveness, teacher support, cooperation and equity in the classroom.
3. Favorable interpersonal interaction between teacher and the students, and students to students may be promoted through light discussion in the classroom and easy assignments for students for pleasant learning environment.
4. Students' enjoyment in English lessons might be increased by making lessons easier and interesting.
5. English language teachers might be trained to motivate students to develop positive attitude towards English language learning by familiarizing the students with English movies, programs and removing their fear of English through short sentences of daily routine life.

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Caste - Gender Ideology in Gundert's *Malayalam-English Dictionary*

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1.1 Social Variables in Dictionaries

Language, a medium for communication, represents a speech community. 'Speech community' signifies a society that shares the same language and culture. Nevertheless, linguistic variations, on the basis of region, religion and caste differences of a social group, could also be seen in a speech community.

Social structure and social mobility are the prominent factors of language hierarchy and variations. These linguistic variations reflect overtly the different social facts of a society. In short, language and society are inter-locked.

Sociolinguistics is the study of language in relation to society (Hudson, 1980). Sociolinguistic is not only to study language in its social context but also to analyze the society from the point of view of language. This study takes up the linguistic and the social variable of a specific speech community and scientifically interprets the relation of the community and its language.

The present paper takes two social variables i.e. caste and gender to examine the Sociolinguistic nature of the Dictionary with particular reference to the Kerala society. This paper aims to study

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the significance of Sociolinguistic nature of *Malayalam-English Dictionary* by Hermann Gundert (1814-1893), a German missionary. It is written according to the western logic and includes words from the social domain. This dictionary was published in 1872; hence, it represents, among other features, the social structure of nineteenth century Kerala.

1.2 The Social Nature of the Kerala Society

Social stratification is one of the determining factors for social structure. Caste is the basic factor for analyzing the social stratification of Kerala. This caste consciousness is a fundamental factor for the power sphere of the socio-political culture in Kerala. The caste system in Kerala is into two major categories such as Savarṇa jaati and avarṇa jaati. The upper castes like Nambuutiri, Kṣatṛiya, Naayaṛ and Ambalavasi like Warier, Nambiar, and Nambeessan etc are included in to Savarṇa jaati. The lower caste as Tiiya (Ezhava), Cheṛuma, Pana, Pulaya and other subaltern group etc belongs to avarṇa jatti. Avarṇa jaati had been considerd as untouchable and impure. The stratification based on caste in Kerala make the socio-political power hierarchy. This hierarchy made a specific language for communication.

1.3 Dictionary and Society

Dictionary is a book, which arranges the words in their alphabetical order with meanings, pronunciation and etymology for each of entry word or headword in same or other languages. This definition may vary according to the scientific resource. As a social production dictionary has social implications too. It means that dictionary is not merely a systematic (i.e. alphabetized) compilation of words.

Language is not a neutral and transparent means of representing social realities. Rather, it is assumed that a particular vision of social reality gets inscribed in language. The vision of reality does not serve the entire speakers equally (Ehrlich Susan and Ruth king, 1994.).These differences are created by the distinctness of social variables such as religion, caste, race, gender, age and so on. These variations reflect on the text of a dictionary.

For substantiating the sociolinguistic theory, four hypothesis are used in the analysis of the Gundert's *Malayalam-English Dictionary.*

1.   Dictionary is not only a list of words but also a record of socio-political history of a given society.

2.   Language plays a significant role in social construction. Therefore, it exhibits the social nature of a speech community.

3. Semantic meaning represents social mobility.

4.   Ideology of a speech community may be found in the Dictionary's entry words, usages, citations etc.

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5. Social change may reflect the word meaning and its distribution. Therefore, the dictionary also reflects its own history of social evolution and social context. Social change and meanings are reciprocally connected.

1.4 Methodology

According to Sociolinguistics theory, the linguistic variables is varied based on the social factors like social class, caste, gender etc. In the present study, social variables are selected from the linguistic variables like address terms, kinship terms, reference terms, dialects, castlect, usages such as citations, proverbs, example sentences etc, and loan words. This reflects the socio-political situations implicitly or explicitly. The data of the present study is collected from the *Malayalam- English Dictionary* of Gundert (1872). The Sociolinguistic methodology is used for analyzing the data.

1.5 Gender Discrimination and Dictionary

Sex is a biological category that serves as a fundamental basis for the differentiation of roles, norms, and expectations in all societies. It is these roles, norms and expectations that constitute gender,the social construction of sex. (Eckert Penelope, 1997). Gender discrimination can also be found in the Gundert's Dictionary. Here are some:

1.5.1   Gundert gives a lot of meaning for the word 'akam'(p:1).   This word generally represents the specific meaning 'inside'. 'akattə' , 'akattammamåṟ', 'akattavaṟ'(p:2)etc, some compound words are also given under the head word 'akam'. The Dictionary also gives an additional meaning, for the word 'akattə' is 'in the house', followed by a citation "purekkakattu ninnu"(at home) (TR) (1)(from within).Therefore the Dictionary carries the social attitude of so called male about women means that, women should not interact in the public sphere instead they take care of the man. The descriptive meaning given by Gundert for the compound words 'akattammamaṟ', 'akattavaṟ', 'akattaṟ'   are "Brahminichis as keeping within their house". This description signifies the restricted social space of Brahmin women confined to their own houses.

1.5.2   'Akattaaṟ', 'akattaaı' (p: 2) are the two words which have the same sense like the above reference terms. These compound words represent the man and woman respectively. Nevertheless, the meaning of the words consists of contradictory ideas. Its entry word 'akattaaṟ' refers 'master' and 'akattaaı' 'mistress of the house' (v1) (2). 'akattaaṟ' represents master of the world where as akattaı's meaning does not have such wide representation of the society. It means both words express attitude of patriarchal division of space where men occupy the possible space and woman are confined to the domestic space. It reflects the gendered perception of power ideology of Kerala society. The compound word, 'akamaṭaṅṅuka'(p:2)also expresses the same social meaning. The dictionary meaning is 'dwell retired' and the citation is "manamaryadayode akamataṅṅi irikkunna stṟii" (MR) (3) (the woman who respects the social codes of behavior and remains inside). This also gives the same thought and the reference "of a mussulman woman" in the bracket. Here the woman is expected to be inside the house and her respectability is founded on her being confined to the four walls of the house. Therefore, these

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words and the descriptions reflect the connotative interpretation of the women's social status in Kerala society.

1.5.3 The dictionary meaning of 'antaṟjanam'(p:32) as given in the dictionary is a Brahmin woman('A Brahminee').Besides dictionary gives the reference term 'akattamma'(refer 1.5.1) in the bracket. Along with these lexical presentations, the dictionary also gives the citation "nambuutiriyuṭe illattu oru antaṟjanattinu aparadham undayi" (TR) (a Brahmin woman of Nambuutiri family has committed an offence).This notion is not different from the above word construction. The subsequent headword 'antapuram', and the following usages "antapurikamaaṟ" (females of the palace), "antapuraṅṅaɩil visvasam" (Nal4) (faith in women) and the reference term "aattoɩ" (Nambuutiri's wife (explained – akathamma, akatteeyavaɩ) (p: 79) (ref1.5.1)) are consequent to the above words. According to P Baskaranunni, a married Brahmin woman's life is strictly caged and they are not allowed to speak to other men and are not allowed even to walk on the public road.

1.5.4 Here are some more example. The nature of caste prejudice is reflected in the word 'aparadham'(offence)(p:35). "Antaṟjanattinu putuccheeri muusatinṭe aparadham undu (TR) (She fell through putucheeri muusatə), "Oonnte amaratam ooɩkku" (TP) (the blame of his offence cast on her)(p:36), "aparadha strii"(a fallen woman), "antaṟjanattinu vaidhavyam vannatu aparadhikkayal"(TR) (as the Brahmin woman transgressed the rules of widowhood) are the citations of the above word. The word 'aparadham' correlates equally with man and woman. Nevertheless, the dictionary gives more importance to the compound word "aparadha strii". But the word does not have male equivalent as "aparadha puruṣan"(a fallen man).

Here the usage "aparadha strii" is also related to the chastity of woman. It also highlights the horrible life of the woman. The word 'aṟippikka'(p:35) also reflects the same meaning. The citation is "vṟatam aṟippiccu oru kanyakaye koṭuttu" (KU) (6) (dispenced a Brahmachari from his vow).These words and citations are overtly expressing the social status of men and women in the early society.

1.5.5 The word 'aṭaṅṅuka' (p: 12) (to submit, yield, be possessed, ruled) gives an example sentence "avalɩ aṭaṅṅi"(she yielded). Another word 'aṭakkam'(p:11)(self-control, modesty, chasity)(V1)also gives the citation "aṭakkamuɩɩa mangayavaril mumbundivaɩkku"(RC117) (7)(the woman most chaste). When women are chaste, they guard themselves and require no overt coercion to remain devoted to their husband to ensure their chastity; when they are errant, force can be used by kinsmen to keep women firmly within their *striidarma* as defined by men (Uma Chakravarti, 2006). 'Aṭakkam' connotes the glorified character of a woman as prescribed by the patriarchal culture.

These ideologies get reflected in the dictionary according to the selection of the entries. The word 'anucaran', 'anucari' (follower) (p: 28) gives the citations for meaning description i.e. "anucaranmarumaayi" (AR) (the man with his followers), "anuchariyayirikkuka saṟvada (KR) (follow the husband always) etc. According to these citations, the lexicographer describes the social positioning of men and women.

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1.5.6   The words 'uṭukka', 'uṭuttu' is 'to dress'. (p :25) . Citations are "oru peṇṇinu uṭuppan koṭutta naayaṟ", "uṭuppan koṭukkunnavan"(temporary husband) , "uṭuppan taraṭṭe naan"(may I marry you?).These words and citations express the marriage customs of Nairs in nineteenth century. The essential item in real marriage was not '*tali*' tying, but the giving of a dress (*pudavakoda*) by man.

1.5.7   Most of the lexical entries are not giving, women this due recognition. For example, the words   like   'atikaayan'(gigantic   figure)(p:20),   'atidayaaparan'(merciful   man)(p:20) , 'atipriitan'(man with great fondness)(p:21), 'atimanuṣan'(man with super human powers)(p:21), "atimanyan"(respectable   man)(p:21)   refer   only   to   masculine   gender.   The   word "ucitam"(suitable)(p:122)is given in the dictionary along with the example sentence "sundari ratnam laphippaan ucitan"(deserving to get a beautiful woman). It also gives another masculine gender usage 'ucitakkaran' (a man of honor) (V1) (p: 122). The words 'ujjvalikkuka'(shine brightly)(p: 123)and 'uttamam'(best)(p:128) also give the usages are "ujjvala veeryanaayi vaẕunnu" (brilliant courage) (Mud) (12)and "uttama puruṣan"(excellent man).

If we look at the description of women, we find a different usage of term, which point to women's body, physical beauty and the like. For example the word 'indu' (moon) deserves to get attention based on its following citations and usages like "indumukhimaaṟ" (simile,to refer ladies face) , "induneeṟ aananamaaṟ" (one whose face reflects like the moon), (CG) (13), "induneeṟnaṭayaḷ (Bhg) (14)(beautiful woman)etc. Along with the word "aṇi"(decoration)(p:18) give the citations like "muttaṇimulayaaḷ"(one whose breast is attractive like pearls), "aṇimalaṟkuẕhalimaaṟ"(one with scared hair) (RC) etc. As shown in the above examples projected on the physical terms whereas men are portrayed as bearers of virtue. The metaphorical usages reference to the woman focus on aesthetics. It represents the gender aesthetic consciousness of the lexicographer. It also expresses the male defined metaphorical expression. The metaphor and metonymy are also used to depict woman as an aesthetic object.

1.5.8   Now, draw your attention to another aspect of gender definition. The words 'uṭama', 'uṭayavan' etc (p: 124) gives the citations are "aa peṇṇuṅṅaluṭe uṭamakkaṟ" (TR) (owner of those women) and "aa peṇṇinṭe uṭayavan"(owner of that woman). All these connote woman are the property of man.   Besides there the above citation "aa peṇṇuṅṅaluṭe utamakaran" also give a meaning 'natural protector'. But this also have a negative impact on woman growth as if creates in the dependency on man.

1.5.9   Generally occupation oriented expressions refer only to the masculine gender. For example,   "accaṭikkaaran"(printer)(p:9),   "anjalkkaaran"(postman)(p:10), "aṭakkakkaaran"(proprietor)(p:12), "appakkaaran"(baker)(p:37), eẕuttaccan(school master)(p:164) etc.

These words testify to the fact that paid work was a field solely related to men. These entry words, usages and citations prove that profound roots of gender discrimination during the nineteenth century. Vocabulary depends on how a given society perceives the relationship of

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men and women. The words thus formed reflect the human consciousness of a period. Another factor in the dictionary making, as we analyze gender is that it is marked by caste.

1.6 Caste Consciousness and Dictionary

Generally each society has its own system of stratification.It may be class or caste. Caste system is a form of social stratification, in which individual status or position is determined by birth and is for life. In the past, Kerala society, had been stratified on the basis of caste hierarchy. There is a natural relationship between the cast-based system of power stratification and language.

1.6.1   The following session observes the relation between language and caste based stratified society.Here are some examples that carry the caste identity.

Aṭittiri   - a class Brahman preserves of the holy fire (p: 14)

Aṭiyooṭimaaṟ- a class of Naayers, especially in the Catattuvanatu (katattuvanaṭṭaṭioṭi, aṭioṭi muuttangu oru   tamburaanaayi) (po) (15) (p: 16)

Antaṟjanam – A Brahmin woman (= akathamma) (p: 32) (ref 1.5.1)

Arunnuuṟṟan – Nayers of Poṟatiri's bodyguard (KU) (p: 54)

Avaroodhananambi – title of some Half Brahmans, whose ancestors are reputed to have been Rakxapurushas (p: 61)

Aaḍhyan – title of class of Brahmans, the leaders in the old aristocracy of Malabar.(p:77)

Iṭappalli Nambiyaatiri - The chief of 36,000 armed Brahmans, residing near Parur, endowed with Parasu Ramas sword (KM) (16) (p: 102)

Eẕunnalliyeeṭattanmaaṟ - Brahman class at Talipaṟambu (p: 164)

Eṟaaṭṭumenoon – Samuri's secretary with 5000 Naayers (KU) (p: 168)

Oottanmaaṟ – Veda Brahmans, the instructors of their caste (p: 184)

These words specially refers upper caste social identity

1.6.2   The following words are represents the lower caste.

Ariyuka - teṅṅəariyuka (to tap a palm tree) .(ariuna tiiyan) (TP) (p: 49)

Alakkə - washing, veṭṭeṭeṭan alakkumaaṟṟi kaasikku poovan (proverb) (p: 55)

Uppukoṟṟan- living upon the salt manufacture, (veṭṭuvan)(so) (17) (salt merchant); a famous low caste sage.

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Uṟaɩan – a caste of rice-measures in Calicut (p: 146)

Ooṭǝ– Ooṭǝurukkiya muusariye poole (proverb),Ooṭṭupanikkaaran= musari (p:183)

The *Dictionary*, mostly, consists of address terms and reference terms as illustrative of caste hierarchy. Some address and reference terms, which represents lower castes in the dictionary refer to their caste prescribed roles, whereas those from the upper castes are described in terms of their glorified caste identity. The terms in the dictionary, also expresses the ideology of upper caste.

1.6.3 There are words in the dictionary, which uphold the elevated dignity of the upper caste. The word 'apamanam'(p:35) as in the example sentence, "deva bramanaṟkku apamanakkeṭuvarutti"(insulted). This example sentence is not to designate the importance of the word 'apamanam' but it give the magnitude on the connation 'who is insulted?'. Another example 'abhijaatyam' means 'noble birth 'and also give the pannyuuṟkuuṟṟile bramanaṟkku citation "abhijaatya kuṟavu vannu"(lack of nobility)(Anach) (18).

The word 'abhijaatyam'should also be considered as an ideological representation of the upper castes especially Brahmin. Another word 'ayudam' (p: 85) and its citation "bramanare kandaal ayudam vaẕanganam" (KU) (on seeing a Brahmin even the weapon should bend) is also included here. These words and sense descriptions express the notion of superiority of the upper caste and their nobility.

1.6.4 *Dictionary* gives other reference terms such as "aṭiyeen", "aṭiyaaṭṭi, aṭiaan', 'aṭieen', 'aṭiathi', 'aṭiaṭṭi'(p:16)etc which means 'I am your servant'. These words represent the politeness of lower caste for expressing courtesy according to their social position. This represents the vocabulary of castelect.

Castlect is one of the dynamic forms through which caste-oriented social relationship manifest. It is a process or speech variety that carries caste identity features, in specific communication contexts. These features directly or indirectly, often without any deliberate intent, revel or communicate the caste identity of the users of that variety. These also reveal the placement of the individuals, who participate in the communication process, in the social hierarchy.Castlect became an overt expression of the upper caste (Girish, 2003).Another word 'aḍhyan' (p: 77) (balaaḍyan) gives the semantic description like 'powerful', 'opulent', 'rich'etc and also give an example sentence "aḍhyan nambootirikku meelsaanti".

This reference term and the example sentence, as expressed in the dictionary, become a tool for the perpetration of power hierarchy in the society. The selection of these entries in dictionary is determined to confirm the dominant perception of the upper caste society.

1.6.5 Western education and consequent modernization are the basic factors of social change in Kerala society.   The facts that the dictionary evidence has for the social stratification and it is also carries indication of social change. For example, the word 'appsaṟ' (officer) (p: 83) and the

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corresponding citation "appasaṟum sippaayimaaṟum" (TR) represent such a change in the social structure. 'aparaadham'(p:35) and 'aṭaṅṅuka'(p:12) also give the citations , "kumbanjiyoodu eeriya aparaadam ceytu" and (TR) (against the company) and "kumbanjiyileekku aṭaṅṅanda cungam" (tax to the company)etc. These citations also explain the colonial supremacy over socio-political 'power' in nineteenth century.

1.7 Conclusion

1. Each word has a conceptual meaning/ first meaning in the Dictionary of Gundert. Apart from that, it also carries the socio-political nature of the 19th century Kerala.

2. The gender discrimination in the dictionary is an expression of the attitude of the upper cast male chauvinism.

3. Dictionary connotes the value consciousness of upper caste ideology, through linguistic terms like address and reference. These terms show the social discrimination among the people in Kerala based on caste hierarchy.

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Abbreviations

1. TR – Tellicherry Records (Chiefly A.D.1796-1799)
2. V1 - the part,Malabar (country)& Portuguese (tongue)
3. MR – Collect Ch., Malayalam Reader
4. Nal – Nalacharitam
5. TP – Tacholi Pattu
6. Ku –Keraia Utpatti
7. Rc – Rama charitam
8. AR – Adhyatma Ramayanam
9. KR – Kerala Varma Ramayanam
10. M – masculine gender
11. F – feminine gender
12. po- poetic usage
13. Mud – Mudraraxasam (Chanakya Sutram)
14. CG – Crsna Gatha
15. Bhg- Bhagavatam
16. Bhr –Mahabharatam
17. KM – Kerala Mahatmyam
18. so – South
19. Anach – Anacharam

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DEVELOPMENT OF A HINDI TO PUNJABI

MACHINE TRANSLATION SYSTEM

A

THESIS

Presented to the Faculty of Physical Sciences of the

Punjabi University

in Fulfilment of the Requirements for the

Degree of

DOCTOR OF PHILOSOPHY

IN

COMPUTER SCIENCE

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February, 2010

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CERTIFICATE

This is to certify that this thesis "Development of a Hindi to Punjabi Machine Translation System" embodies the work carried out by Vishal Goyal himself under my supervision and that it is worthy of consideration for the award of the Ph.D. degree.

(Dr. Gurpreet Singh Lehal)
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DECLARATION

I hereby affirm that the work presented in this thesis is exclusively my own and there are no collaborators. It does not contain any work for which a degree/diploma has been awarded by any other University/Institution. A part of this thesis has already been published in international & national journals and the proceedings of the IEEE International Conference.

(Vishal Goyal)

Countersigned

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Abstract

Machine Translation is a task of automatic translation a text from one natural language to another. Even after more than 60 years of research, Machine Translation is still an open problem. Work for the development of Machine Translation systems for Indian languages is still in infancy. This research work is an attempt to develop a Machine Translation system from Hindi to Punjabi language. A number of Machine Translation systems have already been developed though their accuracy needs to be improved. Machine Translation is not a trivial task by nature of translation process itself. But Machine Translation of closely related languages eases the task. We call a language pair to be closely related if the languages have the grammar that is close in structure, contain similar constructs having almost same semantics, and share a great deal of lexicon. By closely related languages, we also mean inﬂectively and morphosyntactically similar languages. Some linguist define closeness between the languages on the basis of features viz. common root, similar alphabets, similar verb patterns, structural similarity, similar grammar, similar religio-cultural and demograpohic contexts and references, a similar clearly displayed ability to blend with foreign tongues . Generally, such languages have originated from the same source and spoken in the areas in close proximity. Hindi and Punjabi belong to same sub group of the Indo European family, thus are sibling languages. It has been analysed that Hindi and Punjabi languages share all features of closely related languages. For such closely related sibling languages, effective word for word translation can

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be achieved (Hajic et al., 2000) [90]. Thus for our system, Direct Machine Translation approach which seems promising approach has been used.

The challenges in deleveloping Hindi to Punjabi Machine Translation system lie with major problems mainly related to the non-availability of lexical resources, spelling variations, word sense disambiguation, transliteration, named entity recognition and collocations.

This research work addresses the problems in the various stages of the development of a complete Hindi to Punjabi Machine Translation system and discusses potential solutions. The thesis has been divided into eight chapters.

The first chapter of the thesis introduces general concept of Machine Translation, various approaches to Machine Translation systems and key activities involved in Machine Translation. It also provides a formal description about the research question undertaken for this study. The objectives, need, and scope of the study have also been discussed. Then some of the key application areas of Machine Translation system are explored. Afterwards, the approach followed along with the reasons behind its selection to solve this research problem has been explained in brief. An overview of the design of the Machine Translation system undertaken to develop in this research work is provided later. The chapter concludes by presenting major contributions of this research work and an outline of the study.

Chapter 2 discusses the existing work in the field of Machine Translation in India and outside India. This chapter on literature survey forms the basis of our work on developing the Machine Translation system and later on helps us

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in comparing our work with the existing state of the art in Machine Translation system.

Chapter 3 explains and compares Hindi and Punjabi languages with respect to orthography, grammar, and Machine Translation.

Chapter 4 and 5 provide the design and implementation details of various activities involved in the Machine Translation system. Chapter 4 describes the system architecture and preprocessing stage. The chapter starts with the choice of approach and discusses the motivation behind its selection. Then the required resources are discussed followed by description of system architecture. The details of preprocessing phase which involves text normalization, Identifying Collocations, Identifying Proper Nouns are discussed. Then tokenization process is explained. The details of the translation system involving the identifying titles, identifying surnames, lexicon lookup, word sense disambiguation module, transliteration module and post processing modules are discussed in Chapter 5.

Chapter 6 describes the post processing stage of the system. Chapter 7 provides the evaluation of the system and its results. Chapter 8 concludes this thesis by providing a summary of the research work undertaken, contributions of this research work, limitations, and some directions in which this work could be extended in the future. In appendix A, the interface designed for text translation, website translation and email translation has been discussed. Test data set for intelligibility test and accuracy test is available in Appendix B and C respectively. The system has been rigorously evaluated and its accuracy

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has been found to be 94% on the basis of intelligibility test and 90.84% on the

basis of accuracy test.

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Chapter 1

Introduction

The goal of automatic translation (also called Machine Translation, or MT) is to translate text from one human language into other using computers. MT was one of the first envisioned applications of computers back in the 1950's. Even after more than 60 years of research, MT is still an open problem. Nowadays, the demand for MT is steadily growing. All over the world, documents have to be translated into all official languages. This multilingualism is considered a part of democracy. Also in the private sector, there is a large demand of MT: technical manuals have to be translated into several languages. An even large demand exists in the World Wide Web. Thus, MT can help to reduce the language barrier and enable easier communication. This research work is an attempt to develop a Machine Translation system from Hindi to Punjabi Language. A number of Machine Translation systems have already been developed though their accuracy needs to be improved. However, there is no Hindi to Punjabi Machine Translation system available at the present.

This chapter introduces general concept of Machine Translation, various approaches for Machine Translation systems and key activities involved in Machine Translation. It also provides a formal description about the research question undertaken for this study. The objectives, need, and scope of the

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study have also been discussed. Then some of the key application areas of Machine Translation system are explored. Afterwards, the approach followed along with the reasons behind its selection to solve this research problem has been explained in brief. An overview of the design of the Machine Translation system undertaken to develop in this research work is provided later. The chapter concludes by presenting major contributions of this research work and an outline of the study. This work is based on the Devanagari and Gurmukhi scripts. Thus, the examples given in this thesis work are in Devanagari and Gurmukhi scripts along with their transliteration. For inline examples, transliteration will be provided in italics e.g. गहना *(gahnā)*. The transliteration provided is based on transliteration software – the GTrans, which was developed in the Department of Computer Science, Punjabi University, Patiala, Punjab, India.

1.1 Machine Translation

You feed a story written in Hindi into a computer system and out comes its translation in Punjabi, Oriya, English, Tamil and other languages. It is inexpensive, immediate and simultaneous. The language barriers melt away. The richness of other literatures opens up to everyone. The world is intellectually and culturally united into one. This is the dream of people working in a fascinating area of research called Machine Translation. Thus Machine Translation system is software designed that essentially takes a text

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in one language (called the source language), and translates it into another language (called the target language). The source and target languages are natural languages such as English and Hindi, as opposed to man-made languages such as C or SQL. Translation, in its full generality, is a difficult, fascinating, and intensively human endeavor, as rich as any other area of human creativity. Machine Translation is an important sub-discipline of the wider field of artificial intelligence (AI). AI (among other things) deals with getting machines to exhibit intelligent behaviour.

Though Machine Translation has been an interesting area of research since the invention of computers, in India it is relatively young. As a discipline it dates back to the early 1950. The earliest efforts in research date back to late 80s and early 90s. The complexity of the problem was originally underestimated, and some early successful demonstrations of experimental systems led to unrealistic expectations which were hard to fulfill. This led to some skepticism, and funding on MT work almost ceased. In the early eighties, the Japanese Fifth Generation Computing Project revived interest in this work and some of the prominent works in India are the projects at IIT Kanpur, University of Hyderabad, NCST Mumbai and CDAC Pune. The Technology Development in Indian Languages (TDIL), an initiative of the Department of IT, Ministry of Communications and Information Technology, Government of India, has played an instrumental role in funding these projects. Since the mid and late 90's, a few more projects have been initiated—at IIT Bombay, IIT Hyderabad, AU-KBC Centre Chennai, Jadavpur

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University Kolkata and Punjabi University Patiala. There are also a couple of efforts from the private sector - from Super Infosoft Pvt Ltd, and more recently, the IBM India Research Lab [1,2].

Machine Translation between closely related languages is easier than between language pairs that are not related with each other. Having many parts of their grammars and vocabularies in common reduces the amount of effort needed to develop a translation system between related languages. In this thesis, we will be discussing the Machine Translation system between closely related languages- Hindi and Punjabi.

1.1.1 Background:

Warren Weaver, a director of the Rockefeller Foundation, received much credit for bringing the concept of MT to the public when he published an influential paper on using computer for translation in 1949. The early 1950s were a period of intense research in MT in both the United States and Europe. 1952 saw the first conference on MT, but it was not until 1954 that a translation system was demonstrated in New York. The reaction of public to this MT system was negative because many people thought that perfect MT was close at hand and human translators would be out of their jobs. In 1959, IBM installed an MT system for the United States Air Force, followed by Georgetown University installing systems at Erratum and the United States Atomic Energy Agency. Despite some success of early MT systems, MT research funding was on the verge of serious reduction.

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The growing dissatisfaction of research sponsors caused the United States National Academy of Sciences to set up the Automatic Language Processing Advisory Committee (ALPAC) in 1966. ALPAC, whose members were the major sponsors of current MT research projects, was to evaluate the effectiveness, costs, and potential future progress of MT. Their findings, known as the ALPAC Report, concluded that MT was not useful and sufficient goal. The research was rather unsatisfactory to justify further funding from the United States government. The effects of the report rippled to cause most private sponsors of MT projects in the United States to withdraw from future funding. ALPAC also suggested the complete discontinuation of MT research in the United States and the computer aids for translators should be developed instead. So, for several years, MT research was virtually at standstill. 1976 marked a positive turning point for MT research when the country of Canada made public their Mateo System, which translated weather forecasts. Later that year, the European Commission purchased SYSTRAN, a Russian-English system. MT interest and activity has increased ever since, and MT has been established as a legitimate field of research. In the 1980s, MT software for personal computers appeared; the 1990s showed MT implemented as an online service. The 2000s have shown even more research into MT and many new, efficient hybrid algorithms.

The advent of low-cost and more powerful computers towards the end of the 20th century brought MT to the masses, as did the availability of sites on the Internet. Much of the effort previously spent on MT research, however, has

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shifted to the development of Computer-Assisted Translation (CAT) systems, such as translation memories, which are seen to be more successful and profitable [3-18,21,22,23].

1.1.2 Approaches used for Machine Translation [19-22]:

There are a number of approaches used for MT. But mainly three approaches are used. These are discussed below:

1. Rule-Based Approaches
2. Data-Driven Approaches
3. Hybrid Approaches

1.1.2.1. Rule-Based Approaches:

The current rule-based architecture of MT can be categorized into three areas:

1. Direct MT
2. Indirect MT
3. Interlingua MT

The Machine Translation has two generations to be considered during its development. The first generation Machine Translations are those which were done in 1960s and are called Direct Machine Translation. They used the direct approach of translation which was based on word-to-word and/or

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phrase to phrase translations. Simple word-to-word translation cannot resolve the ambiguities arising in MT. A more thorough analysis of source language text is required to produce better translation. As the major problem of the first generation MT was the lack of linguistic information about source text, researchers therefore moved on to finding ways to capture this information. This gave rise to the development of the indirect MT systems which are generally regarded as second generation MT systems.

1.1.2.1.1 Direct MT System:

The direct method, also known as the "Transformer" method was the strategy adopted by the earliest MT systems. It is the most primitive method and uses a one stage process in which the systems simply translate the source language texts in to the corresponding word-to-word or phrase-to-phrase by using the bilingual lexicon. For example - direct translation from Hindi to Punjabi for राम ने श्याम को प्यार से गले लगाया । (*rām nē shyām kō pyār sē galē lagāyā*) is ਰਾਮ ਨੇ ਸ਼ਿਆਮ ਨੂੰ ਪਿਆਰ ਨਾਲ ਗਲੇ ਲਗਾਇਆ। (*rām nē shiām nūṃ piār nāl galē lagāiā).* The basic characteristic for such type of translation is that it is very simple and one needs to replace a word of source language to a word in target language using a bilingual dictionary.

They also perform some morphological analysis before looking into the bilingual lexicon for the root words. They will then perform the necessary

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reordering of the words as according to the target language sentence format. The morphological processes may improve the quality of the translation but they don't really analyze the structure of the source language. An example of the direct MT system is SYSTRAN. The Direct Machine Translation was the technique developed in 1950s where the computers were in an early stage of technical development with very less speed which resulted in long processing time. Due to these constraints the direct MT used a very straightforward and easy to implement approach. It supports the translation of source language sentences to the sentences of the target language having structures similar to the structure in the source language. As very little effort is made to disambiguate the source language, this technique can't translate highly ambiguous sentences. The main problem of the direct MT approach is that it doesn't analyze the linguistic information or the meaning of source sentences before performing the translation. Without this information the resulting MT system can't always resolve the ambiguities that arise in the source sentence and /or during the translation. As a result, the direct MT systems can't provide a quality translation of the source language text.

The disadvantage of direct method is that it is unidirectional i.e. if the target is to be translated back into the source language, a different transformer must be used. It uses n^2 translation modules for translations among n languages, thus making it exponentially large for multi-language translating. Other problems with the direct method involves are in relation to the structure of

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sentences if these are complex. It requires complex grammatical analyses, in the absence of which word ordering in the target language sentence can often be wrong. So direct translation is very inaccurate for complex text, but has been implemented successfully with a limited number of lexical entries. It is to be noted that this direct approach is most suitable choice for language pair that are closely related to each other.

1.1.2.1.2 Indirect MT System:

Owing to the fact that linguistic information helps an MT system to disambiguate source language sentences and to produce better quality target language translation, with the advance of computing technology, MT researchers started to develop methods to capture and use the linguistic information in the translation process. The indirect method occupies the level above direct translation in the MT pyramid and is also known as transfer or linguistic knowledge (LK) translation.

The transfer architecture not only translates at the lexical level, like the direct architecture, it also translates syntactically and sometimes semantically. The transfer method will first parse the sentence of the source language then will apply rules that map the grammatical segments of the source sentence to a representation in the target language. For example:

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"Children like to play cricket" will be translated in Hindi as बच्चे क्रिकेट खेलना

पसंद करते हैं (*bccē krikēṭ khēlnā pasand kartē haiṃ*)

In this example Verb Phrase 'like' is translated into पसंद करते (*pasand kartē),*

Subject 'Children' is translated to बच्चे (*bccē).*

After syntactically and semantically analyzing the sentence, we can easily translate a sentence even with different structures. In this approach word reordering is also done. Suppose in English the word order in sentence is SVO when translated into Hindi, the word order of the translated sentence will be SOV.

The transfer approach uses n^2 transfer modules, n analysis components, and n synthesis components, where n is the number of languages in the translation system. Thus, one of its downfalls is the sheer size of the rules needed for its implementation.

1.1.2.1.3 Interlingua MT System:

The Interlingua or pivot approach appears at the apex of the MT pyramid. The main idea behind it is that the analysis of any language should result in a language-independent representation. The target language is then generated from that language-neutral representation. In a pure interlingua system there

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are no transfer rules as a representation should be common to all languages used by the system.

This approach requires only one interlingual transfer model whereas the transfer approach requires n^2 transfer modules. The interlingual approach requires more analysis and is more abstract. It requires n analysis components, n Interlingua converters, n generation components where n is the number of languages in translation system.

There are few problems with the Interlingua approach. It requires an analyzer for each source language and a generator for each target language. Analysis of source text requires a deep semantic analysis that requires extensive word knowledge. Unfortunately, the true meaning of the sentence cannot always be extracted. Additionally, if a text is analyzed as deeply as is expected, then much of the source author's style will be lost.

1.1.2.2 Data-Driven Approach:

There are four approaches using data driven method:

1. Example Based MT

2. Knowledge Based MT

3. Statistics Based MT

4. Principle Based MT

1.1.2.2.1 Example Based MT:

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Example-based translation is essentially translation by analogy. An Example-Based Machine Translation (EBMT) system is given a set of sentences in the source language (from which one is translating) and their corresponding translations in the target language, and uses those examples to translate other, similar source-language sentences into the target language. The basic premise is that, if a previously translated sentence occurs again, the same translation is likely to be correct again. EBMT systems are attractive in that they require a minimum of prior knowledge and are therefore quickly adaptable to many language pairs.

A restricted form of example-based translation is available commercially, known as a translation memory. In a translation memory, as the user translates text, the translations are added to a database, and when the same sentence occurs again, the previous translation is inserted into the translated document. This saves the user the effort of re-translating that sentence, and is particularly effective when translating a new revision of a previously-translated document (especially if the revision is fairly minor).

More advanced translation memory systems will also return close but inexact matches on the assumption that editing the translation of the close match will take less time than generating a translation from scratch.

wEBMT, ALEPH , English to Turkish, English to Japanese, English to Sanskrit and PanEBMT are some of the example based MT systems.

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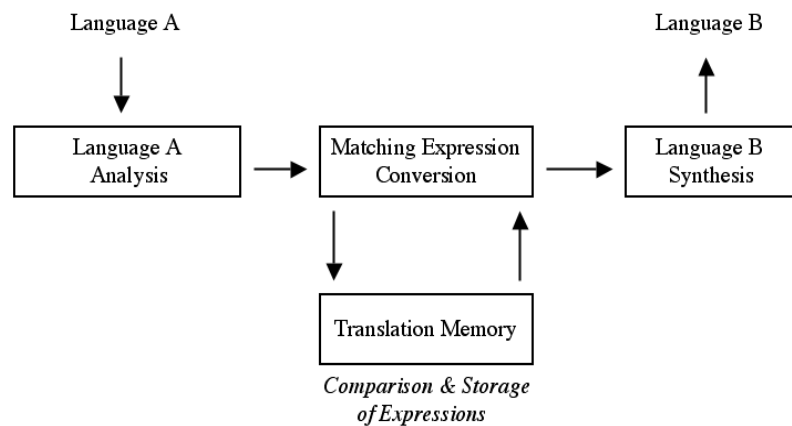
Figure 1.1: Example Based MT

1.1.2.2.2 Knowledge-Based MT:

Knowledge-Based MT (KBMT) is characterized by a heavy emphasis on functionally complete understanding of the source text prior to the translation to the target text. KBMT does not require total understanding, but assumes that an interpretation engine can achieve successful translation into several languages. KBMT is implemented on the Interlingua architecture; it differs from other interlingual techniques by the depth with which it analyzes the source language and its reliance on explicit knowledge of the world.

KBMT must be supported by world knowledge and by linguistic semantic knowledge about meanings of words and their combinations. Thus, a specific language is needed to represent the meaning of languages. Once the source language is analyzed, it will run through the augmenter. It is the Knowledge

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base that converts the source representation into an appropriate target representation before synthesising into the target sentence.

KBMT systems provide high quality translations. However, they are quite expensive to produce due to the large amount of knowledge needed to accurately represent sentences in different languages.

English-Vientnamese Machine Translation system is one of the examples of KBMTS.

1.1.2.2.3 Statistics Based MT:

By the turn of the century, this newer approach based on statistical models – where in a word or phrase is translated to one of a number of possibilities based on the probability that it would occur in the current context - had achieved marked success. The best examples substantially outperform rule-based systems. Statistics-based Machine Translation (SMT) also may prove easier and less expensive to expand, if the system can be taught new knowledge domains or languages by giving it large samples of existing human-translated texts.

A string of source language, ε, can be translated into a string of target language in many different ways. Often, knowing the broader context in which ε occurs may serve to winnow the field of acceptable target language translations, but even so, many acceptable translations will remain; the choice among them is largely a matter of taste. In statistical translation, the view is

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taken that every target language string, ζ, is a possible translation of ε. Every pair of strings is assigned (ε~ ζ) a number Pr(ζ | ε), which then is interpreted as the probability that a translator, when presented with ε, will produce ζ as his translation. Further the view is taken that when a native speaker of target language produces a string of target language words, he has actually conceived of a string of source language words, which he translated mentally. Given a target language string ζ, the job of the translation system is to find the string ε that the native speaker had in mind when he produced ζ. Thus the chances of error are minimized by choosing that source language string for which Pr(ε | ζ) is greatest:

$$\hat{e} = \text{argmax } \Pr(\varepsilon \mid \zeta) \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots..(1)$$

The argmax operation denotes the search problem, i.e. the generation of the output sentence in the target language. The term Pr(ε | ζ) is termed as true probability distribution that target language sentence ε is translation of source language sentence ζ.

Bayes' theorem is used:

$$\Pr(\varepsilon \mid \zeta) = \frac{\Pr(\varepsilon)\,\Pr(\zeta \mid \varepsilon)}{\Pr(\zeta)} \qquad \ldots\ldots\ldots\ldots\ldots.\ldots\ldots(2)$$

Since the denominator here is independent of ε, finding ê is the same as finding ε so as to make the product Pr(ε) Pr(ζ | ε) as large as possible. Thus, at the Fundamental Equation of Machine Translation is arrived at:

$$\hat{e} = \text{argmax } \Pr(\varepsilon)\,\Pr(\zeta \mid \varepsilon) \qquad \ldots\ldots\ldots\ldots\ldots.\ldots(3)$$
$$\varepsilon$$

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Equation (3) summarizes the three computational challenges presented by the practice of statistical translation: estimating the *language model probability,* Pr(ε); estimating the *translation model probability,* Pr(ζ | ε); and devising an effective and efficient suboptimal search for the input string that maximizes their product. These are known as the language modeling problem, the translation modeling problem, and the search problem.

Statistical translation systems works in two stages viz. training and translation. In training it "learns" how various languages work. Before translation, the system must be trained. Training is done by feeding the system with source language documents and their high-quality human translations in target language. With its resources, the system tries to guess at documents' meanings. Then an application compares the guesses to the human translations and returns the results to improve the system's performance. The whole process is carried out by dividing sentences into *N-gram*s. While training, statistical systems track common *N-gram*s, translations most frequently used are learnt and those meanings when finding the phrases in the future are applied. They also statistically analyze the position of *N-gram*s in relation to one another within sentences, as well as words' grammatical forms, to determine correct syntax. After their training, the systems are used to process actual phrases and produce the translation from what ever it has learnt in training phase.

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Despite some success, however, severe problems still exist: outputs are often ungrammatical and the quality and accuracy of translation falls well below that of a human linguist - and well below demands of all but highly specialized commercial markets.

Moses, CASIA, Chinese-to-English, Google translate, LDV-COMBO and MARIE are some of the examples for statistical approach based MT systems.

1.1.2.2.4 Principle-Based MT:

Principle-Based MT (PBMT) Systems employ parsing methods based on the Principles & Parameters Theory of Chomsky's Generative Grammar. The parser generates a detailed syntactic structure that contains lexical, phrasal, grammatical, and thematic information. It also focuses on robustness, language-neutral representations, and deep linguistic analyses.

In the PBMT, the grammar is thought of as a set of language-independent, interactive well-formed principles and a set of language-dependent parameters. Thus, for a system that uses n languages, n parameter modules and one principles module are needed. Thus, it is well suited for use with the interlingual architecture.

PBMT parsing methods differ from the rule-based approaches. Although efficient in many circumstances, they have the drawback of language-dependence and increase exponentially in rules if one is using a multilingual translation system. It provides broad coverage of many linguistic phenomena,

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but lacks the deep knowledge about the translation domain that KBMT and EBMT systems employ. Another drawback of current PBMT systems is the lack of the most efficient method for applying the different principles.

UNITRAN is one of the examples of Principle based Machine Translation system.

1.1.2.3 Hybrid Approaches:

Hybrid approaches to MT are becoming increasingly popular research subjects. The general idea behind hybrid approaches is to use a linguistic method to parse the source text, and a non-linguistic method, such as statistical-based or example-based, to assist with finding the proper interpretation.

1.1.2.3.1 Example-Based MT and Statistical-Based MT

EBMT works very well translating sentences that are already represented in its translation memory. SBMT can generate sentences with good accuracy, but is generally not successful when it handles idioms, collocations, and long-distance dependencies very well. By combining these two methods, a hybrid EBMT and SBMT system can first query the translation memory for matching sentences. If no close match is found, then a statistical analysis and interpretation of the sentence will be used.

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TransEasy is one of the examples for Machine Translation based on Hybrid Approach. It uses Example and Statistical based approaches.

1.1.3 Key Activities [19-23]

Based on the above discussion of the Machine Translation techniques, it is evident that there are some common and key activities, which formulate a typical Machine Translation system.

An overview of such activities is provided below. These activities are usually executed in a sequence. However, depending upon the technique being followed, one or more of these activities may be omitted.

- **Pre-processing:** This module tokenizes the input text into words based on the list of word boundaries. Another major task performed in this phase is filtering. Filtering means detecting and marking certain special expressions like abbreviations, collocations, Named Entities, surnames, titles etc., in the input text. Text Spelling Standardization is another task in Pre-processing in which the words having spelling variations are replaced with the standard spelling words. This task helps in increasing the accuracy of the system. Filtering can be useful as the words or word sequences marked by the filter may not be required to go through the next two stages, namely, morphological analysis and part-of-speech tagging.

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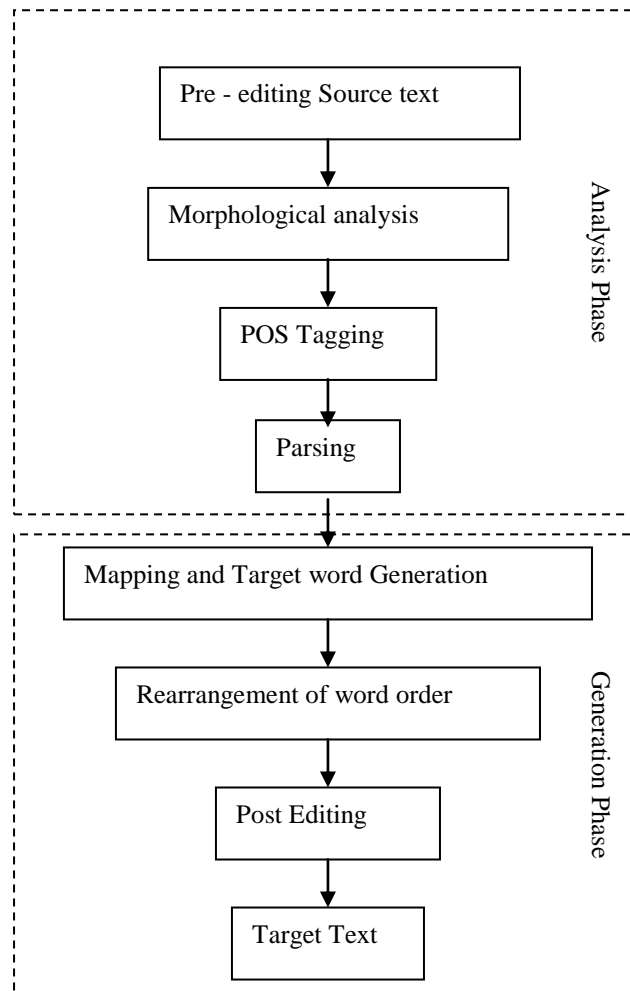
Fig 1.2 MT System General Architechture

- **Morphological analysis:** In this stage, morphological analyzer processes every unmarked token in the input text. The purpose of a morphological analyzer is to return root word and grammatical information about all the possible word classes (parts of speech) for a given word. Morphological analysis is essential for Hindi because it has a fairly rich system of inflectional morphology like other Indian languages. Morphological generator does exactly the reverse of

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morphological analyzer. Given a root word and its grammatical information (including word class), a typical morphological generator will generate the word form or surface form for that root word.

- **Part-of-speech tagging:** The output of a morphological analyzer is usually ambiguous as it may return more than one POS (part-of-speech) tag for a single word. The reason being that in sentences, same word can be used as a noun or a verb, as a verb or a postposition etc. The job of a part-of-speech tagger is to disambiguate that ambiguous input by making use of the context information in which the word is being used. A part-of-speech tagger is also known as morphological disambiguator or simply a tagger.

- **Phrase chunking:** It is situated between POS tagging and a full-blown grammatical analysis, i.e. parsing. Whereas POS tagging works only on the word level and the grammatical analysis is supposed to build a tree structure of the sentence, phrase chunking assigns tags to word sequences in the sentence. There is no standardization about chunk names and their meanings, like POS tags, anyone can define his/her own chunk names and assign meanings to them. As chunking requires POS tagged text, its accuracy cannot be better than that of a POS tagger used. Chunking process is also known as shallow parsing as it simplifies the task for the next phase, i.e. parsing.

- **Parsing:** A parser is supposed to perform the full syntactic analysis of the given text. For every parsed sentence it is supposed to return a

data structure (mostly a parse tree) describing its syntactic components and their relationships with each other. It outputs the analysis based on the grammar it uses. For analyzing a sentence written in a particular language, the parser needs the grammar of that language. For specifying the grammar rules of a natural language, grammar formalism is required. Grammar formalism provides guidelines for specifying the underlying language's grammar rules. The parser will then make use of that grammar formalism. There are various grammar formalisms available for use like CFG (Context Free Grammar), GPSG (Generalized Phrase Structure Grammar), and HPSG (Head Driven Phrase Structure Grammar) etc. In simple terms, grammar formalism consists of a lexicon of words associated with their grammatical category and a set of rules specifying the sentence structure or syntax of the language. If a syntax-based parser fails to parse a sentence completely, then that sentence could be marked as incorrect or ungrammatical.

- **Translation and Transliteration:** Having all the necessary information regarding the words in a sentence, the next step is to find the equivalent in the target language. An alternative term for the computation of target texts from intermediate representations is synthesis. This is done with the help of lexicon. In Direct MT technique, this stage involves just dictionary look up. Some local reordering of words is also seen as generation in such systems. Sometime

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morphological synthesizers are required to generate the word in target language. In transfer system, the generation phase is generally split into two modules, 'syntactic generation' and 'morphological generation'. In syntactic generation, the intermediate representation which is the output from analysis and transfer resembles a deep structure tree of the older type of transformational-generative grammar. It is converted by 'transformational rules' into an ordered surface structure tree, with appropriate labeling of the leaves with grammatical functions and features.

- **Rearrangement of word order:** If the source language and target language have different word order, then this step tries to reorder the words according to the grammar of target language. Any differences between languages can be dealt within the word generation and ordering stages. For example, the word order in English is Subject-Verb-Object. On the other hand, Hindi has relatively free word order. Generally a sentence in Hindi has the order Subject-Object-Verb. So to make the output according to the grammar of target language, some reordering techniques are required.

- **Post Processing:** The main factor which decides the amount of post-editing that needs to be done on a translation produced by machine is the quality of the output. Obviously enough, the difficulty of post-editing and the time required for it correlates with the quality of the raw MT output: the worse the output, the greater the post-edit effort. The post-

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editor is a corrector for ill-formed sentences. It is basically tail-end of all

the Machine Translation systems. It improves the translation quality by

making corrections in the translation generated.

As mentioned earlier, not all of the above-mentioned activities are mandatory

for a Machine Translation system. Selection of these activities depends on the

approach a Machine Translation is following.

1.2 Research Questions

It has already been said that there is no Machine Translation system for Hindi

to Punjabi presently. However, A number of Machine Translation systems

between Indian and Non Indian languages have already been developed

though their accuracy needs to be improved. Based on the brief introduction

of Machine Translation given in section 1.1.1, the problem statement for the

present research work has been formulated as below:

"To develop algorithms and lexical resources along with a software package

to translate Hindi text to Punjabi text."

In other terms, the research question is to develop an automated Hindi to

Punjabi Machine Translation System that will translate the Hindi text to

Punjabi text. In this way, the richness of Hindi literatures opens up to Punjabi

knowing people. This system will be helpful in reading the online Hindi

newspapers in Punjabi language, Thus, removing the language barrier among

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people. The users can type their email in Hindi language and the receiver can receive the email in Punjabi Language, Thus, making the communication in user's native languages possible.

1.2.1 Objectives

The objectives of this study are as follows:

1   To study Hindi and Punjabi Languages and their comparison.

2   To develop machine readable Hindi to Punjabi Dictionary for the purpose of translation.

3   To develop algorithm for generating Named Entities from the Corpus and then using this lexicon of Named Entities in translation.

4   To develop lexicon for collocations in Hindi text to be used during translation process.

5   To develop the lexicon and algorithm for handling surnames and titles in input text.

6   To adapt and use the existing lexical resources such as digital dictionary, morph etc.

7   To develop transliteration module for handling out-of-vocabulary words.

8   To develop algorithm for postprocessing tasks.

9   To develop test cases for evaluating the system critically.

1.2.2 Challenges

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There are number of challenges for developing a Machine Translation system. Some of the major challenges faced in development of Hindi to Punjabi MT system are:

1. Lack of lexical resources such as digital bilingual dictionary, morphological analyzer and generator, POS tagger etc. There is no machine readable dictionary available for Hindi to Punjabi. Morphological Analyzer for Hindi has been developed by IIIT Hyderabad but this can not be used directly into the system and lots of modifications are required for making its use in the system. This is used for handling inflectional words of a word. It is not possible to store all the words including inflected words into the lexicon.

2. Multiple translations in Punjabi for Hindi words. There are many Hindi words which have different meanings depending upon the context in which the word is present in the sentence. The program has to automatically decide the exact translation. We have used n-gram technique for disambiguating the word.

3. Identifying Named Entities present in the text like the word vishal goyal, State Bank of India, S. Parkash Singh Badal, Dr. Parkash.

4. Collection of phrases that cannot be translated word by word and these have different meaning in collection than in individual.

5. Handling grammatical errors after translation i.e. grammatical agreement corrections.

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1.2.3 Need and Scope

Machine Translation Systems are in great demand and are widely in use. For the past few years, number of Machine Translation Systems has been developed for Indian and foreign languages but their quality of translation is not up to mark for use in real projects. Thus, at present no such acceptable system is available for most of the Indian languages. The use of computers is gaining popularity in day-to-day tasks of word processing, writing reports, and printing official documents etc. All the documents are written in their regional official language. Thus for making these documents readable and useful for other regions, translation systems must be developed. Therefore, Machine Translation systems are an obvious requirement in such a situation. Recently, "Sampark: Machine Translation System among Indian Languages" has been funded by TDIL, Department of Information technology, Govt. of India, developed by Consortium of Institutions has released the Hindi to Punjabi Machine Translation System on trial basis on 13th August 2009 after spending three years. The translation is not promising and thus present system cannot be used for practical purposes. Indian languages have many features in common, so the present work could be well extendable to other Indian languages that are closely related to each other.

1.2.4 Potential Use [19-22]

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The potential application areas of automatic Machine Translation are numerous and have the limits of imagination. Some of them are enumerated in this section.

Large Scale Translation: Large scale translation using MT is cost effective – there are many large companies saving time and money with MT. Leaving literature, sociology or legal texts aside (which require high level of publishable quality) MT is a success for technical documents especially within a particular domain. Typical texts are internal reports, operational manuals, repetitive publicity and marketing documents. Operational manuals, in particular, often represent many thousands of pages to be translated, and are extremely boring for human translators, and they are often needed in many languages (English, French, German, Japanese, etc.). But companies want fairly good quality of output as well. Manuals are repetitive, there may be frequent updates; and from one edition to another there may be very few changes. Automation is the obvious answer.

As an Aid for Translators: Machine Translation has changed the way translators work. The development of electronic termbanks, the increasing need to adhere to terminology standards, the overwhelming volumes of translation, and above all the development of facilities for using previous examples of translations have meant that translators could see the practical advantages of computerization in their work. Probably the largest users of computer aids for translation are found in the field of software and web localization. Localization means the adaptation of products for a particular

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national or regional market, and the creation of documentation for those products. The incentive for computerization is the demand for the localization of publicity, promotional material, manuals for installation, maintenance and repair, etc. These must be available in the country (or countries) concerned as soon as the product itself is ready – often in a matter of days, not weeks.

Translation of Websites: A recent development is the appearance of software for translating webpages. Companies must now maintain high-profile presence on the Internet, in order to remain competitive. For multi-national companies, this also means that information on their websites must be made available in multi-languages. One solution is to refer users to online MT services but for many reasons this is unsatisfactory. Another is to engage a localization agency to translate every webpage. A third option which is increasingly adopted is to integrate one of the automatic webpage localization systems offered by many of the vendors of MT systems. Examples are ArabSite, IBM WebSphere, InterTran Website Translation Server, SDL Webflow, SystranLinks, and Worldlingo.

MT for Assimilation: Another main use of MT is assimilation, for getting the gist (essence) of the basic message of a text. The recipient does not necessarily require good quality. The main requirement is immediate use. However, the output must be readable; it must be reasonably intelligible for someone knowing the subject background. The wide availability of free translation of webpages makes it possible for companies and organizations to reach potential clients and customers who are unfamiliar with the language of

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their websites; and many organizations provide links to such services for users to obtain translations of their websites.

MT as a Cross Language Information retrieval Tool: Closely related to the use of MT for translating texts for assimilation purposes is their use for aiding bilingual (or cross-language) communication and for searching, accessing and understanding foreign language information from databases and webpages. In the field of information retrieval there is much research at present on what is referred to as cross-language information retrieval (CLIR), i.e. information retrieval systems capable of searching databases in many different languages. Either they are systems which translate search terms from one language into other, and then do searching as a separate operation, with results presented en bloc to users; or, more ambitiously, translation of search terms or translation of output is conducted interactively with users.

MT as a Tool for Communication: It is probably true to say that one of the main applications of personal MT ('home') systems is the translation of correspondence (including personal e-mails) and the translation of web pages. Above all, there is oral communication involving translation. Although, we do not yet have speech translation, we do have systems with voice input and output, i.e. where users speak into the system, the spoken word or sentence is converted into text, the written text is translated into another text, and the system then produces spoken output.

MT for Summarization: Most people when faced with a foreign language text do not necessarily want the whole text translated, what they want is a

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translated summary. There is a clear need for the production of summaries in languages other than the source. Summarization itself is a task which is difficult to automate; but applying MT to the task as well is an obvious expansion, either by translating the text as a whole into another language and then summarizing it, or by summarizing the original text and then translating the summary. The later has usually been the approach of researchers so far.

MT as Key technology for Cyber Revolution: Machine Translation can take information technology to the grassroots level and bring about sweeping societal changes through E-governance, E-commerce and E-entertainment leading to E-empowerment of the rural population. Local language information kiosks with computers, printers, Internet and E-mail facility are being set up to connect the Government to the citizen even at the grassroots level. At these kiosks, Machine Translation is essential so that all forms, records and information on the Government web site can be translated instantly into the local language that the people can understand. Similarly, the local language input by the citizens such as E-inquiries and E-grievances, should be machine translated at the click of the mouse, into a language that the concerned bureaucrat or minister can comprehend. [5].

1.3 Approach Applied for Our Machine Translation System

There are number of approaches discussed in the literature viz. Direct based, Transformer based, Interlingua based, Statistical etc. The choice of approach depends upon the available resources and the kind of languages involved.

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Direct systems do not preclude syntactic or semantic analysis. There is a pragmatic constraint on the analysis, though, that it is subordinated to the translation task. Another difference concerns generation. A pure transfer system relies on a grammar for the target language to derive target sentences, while a direct system uses the word order of the source sentence as the point of departure for deriving a proper word order for the translation. A direct system relying on word-based analysis and transfer, will usually be able to derive some output for every input. The real issue, therefore, is empirical.

In general, if the two languages are structurally similar, in particular as regards lexical correspondences, morphology and word order, the case for abstract syntactic analysis seems less convincing. *Since the present research work deals with a pair of closely related language, so direct translation system is the obvious choice.* The overall system architecture shown in figure 1.3 is adopted for Hindi to Punjabi Machine Translation System. The system is divided into three stages: Preprocessing, Translation Engine, and Post Processing stage. Following is the description of various steps of this architecture.

1.3.1 Pre Processing

The preprocessing stage is a collection of operations that are applied on input data to make it processable by the translation engine. In our current work, we have performed following pre processing steps:

- Text Normalization
- Replacing Collocations

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- Replacing Proper Nouns

1.3.1.1 Text Normalization

It works on spelling standardization issues, thereby resulting in multiple spelling variants for the same word. The major reasons for this phenomenon can be attributed to the phonetic nature of Indian languages and multiple dialects, transliteration of proper names, words borrowed from foreign languages, and the phonetic variety in Indian language alphabet. The variety in the alphabet, different dialects and influence of foreign languages has resulted in spelling variations of the same word. Such variations sometimes can be treated as errors in writing. During this phase of Pre Processing phase , rules specific to Hindi language which can handle such variations, which could result in more precise performance have been used for making the input text normalized for better accuracy.

For example we found widely used spelling variations for the Hindi word अंग्रेजी (*aṅgrējī)* as shown below:

अँग्रेजी, अंगरेजी, अन्ग्रेजी, अँगरेजी, अंग्रेजी, अंग्रेज़ी

1.3.1.2 Replacing Collocations means finding and replacing those combinations of words in Hindi that cannot be translated word to word and such combinations of words have different word in group rather than their individual. This activity helps a lot in increasing the accuracy of the system.

For example, the collocation उत्तर प्रदेश (*uttar pradēsh)*, if translated word to

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word, will be translated as ਜਵਾਬ ਰਾਜ (*javāb rāj),* But it must be translated as

ਉੱਤਰ ਪ੍ਰਦੇਸ਼ (*uttar pradēsh).*

1.3.1.3 Replacing Proper Nouns means finding and replacing those combination of words in the input text that are acting as names of person, bank, river, ocean, days of week, months of year, university, cooperative society etc. For example: कमल गोयल (*kamal gōyal*) is a proper noun.

1.3.2 Tokenizer

The tokenizer takes the text generated by previous text as input. This module, using space, a punctuation mark, as delimiter, extracts tokens (word) from the text and gives it to Translation engine for analysis. This process is repeated for the whole text.

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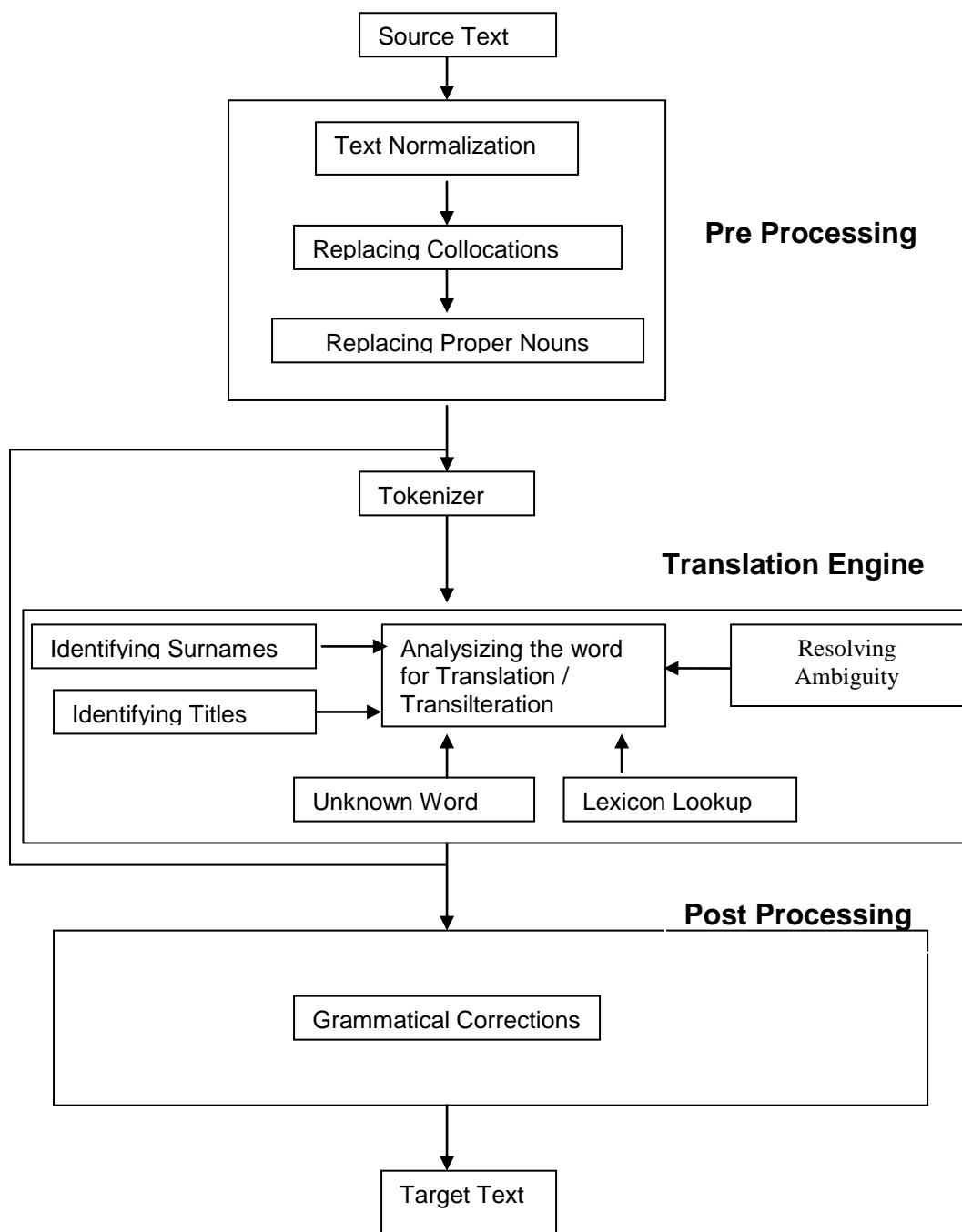
Figure 1.3: Overview of Hindi to Punjabi Machine Translation System

1.3.3 Translation Engine

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The translation engine is responsible for translation of each token obtained from the previous step. It uses various lexical resources for finding the match of a given token in target language. Following is the description of how a token is passed through various modules.

1.3.3.1 Analyzing the word for Translation /Transliteration

The token obtained in the previous stage is passed through various stages.

1.3.3.1.1 Identifying Titles:

The token is checked whether it is a title like प्रो(prō), श्रीमती(shrīmtī) etc. If the current token is found to be a title, then the token next to it, should be transliterated instead of translation.

1.3.3.1.2 Identifying Surnames:

The token is checked whether it is a surname like अग्रवाल (agrvāl), ओबेरॉय (ōbērāy) etc. If the current token is found to be a surname, then the token previous to it, should be transliterated instead of translation.

1.3.3.1.3 Lexicon Lookup:

If the token does not satisfy above two steps, then it is looked into the lexicon for a match for direct word to word translation.

1.3.3.1.4 Resolving Ambiguity:

If the token is not present in the lexicon for direct translation, it is looked into the database of ambiguous words. If this token is found to be ambiguous, then disambiguity is resolved with the help of n-gram language modeling. The

system uses bigram and trigram databases, which contains one and two words respectively in the vicinity of an ambiguous word and corresponding meaning for that particular context.

1.3.3.1.5 Unknown Words:

If all the above modules fail to analyze the token, it is considered to be foreign/unknown word. Such words first pass through the morphological analysis phase based on the rules for inflections in Hindi words. Morphological generator generates the transliterated word using the inflectional rules and then checks the generated word in the Punjabi unigrams database for its genuinity. If this new generated word is found in the Punjabi unigrams, it is considered for translation otherwise the token is sent to transliteration module for transliteration.

Transliteration Module is the major module in the system that uses various rules specifically designed from the translation point of view.

1.3.4. Post Processing

After converting all the source text to target text, there are some of the grammatical errors that need to be corrected. For this purpose, we have formulated the rules for correcting the grammatical errors. Such rules have been implemented using Regular expressions and Pattern matching. This Post Processing phase is responsible for correcting grammatical errors in the generated output.

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1.4 Thesis Outline

The study has been undertaken with the following chapter scheme:

In first chapter of this thesis, we introduce Machine Translation and provide details about various types of MT systems. The benefits, applications, and challenges of Machine Translation are described. After elaborating the various approaches used for Machine Translation and stages in a generic MT system we provide a formal description about the research question that we intend to undertake in this thesis work along with the major contribution and achievements of this research.

Chapter 2 discusses the existing work in the field of Machine Translation in India and outside India. This chapter on literature survey forms the basis of our work on developing the Machine Translation system and later on helps us in comparing our work with the existing state of the art in Machine Translation system.

Chapter 3 explains and compares the Hindi and Punjabi languages with respect to orthography, grammar, and Machine Translation.

Chapter 4 and 5 provide the design and implementation details of various activities involved in the Machine Translation system. Chapter 4 describes the system architecture and Pre processing stage. The chapter starts with the choice of approach and discusses the motivation behind its selection. Then the required resources are discussed followed by description of system architecture. The details of Pre processing phase which involves text

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normalization, Identifying Collocations, Identifying Proper Nouns are discussed. Then tokenization process is explained. The details of the translation system involving the identifying titles, identifying surnames, lexicon lookup, word sense disambiguation module, transliteration module and post processing modules are discussed in Chapter 5.

Chapter 6 describes the post processing stage of the system.

Chapter 7 provides the evaluation of the system and its results.

Chapter 8 concludes this thesis by providing a summary of the research work undertaken, contributions of this research work, limitations, and some directions in which this work could be extended in the future.

In appendix A, the interface designed for text translation, website translation and email translation has been discussed. Test data set for Intelligibility test and accuracy test are available at Appendix B and C respectively.

1.5 Summary

In this chapter, introduction to Machine Translation, key activities involved, and various approaches for developing Machine Translation have been provided. It is followed by a formal statement for this research work along with its objectives, challenges involved, need and scope, and potential application areas of this system. Further, the approach followed to develop the Hindi to Punjabi Machine Translation System has been discussed along with an overview of the design of this system. The chapter concludes with a brief

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outline of this thesis. The next chapter provides a survey of the existing

literature in the field of Machine Translation.

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Chapter 2

Survey of Literature

This chapter presents the state of the art in the field of Machine Translation. First part of this chapter discusses the Machine Translation systems for non Indian languages and second part discusses the Machine Translation systems for Indian languages.

2.1 Machine Translation Systems:

2.1.1 Machine Translation System for non Indian languages

Various Machine Translation systems have already been developed for most of the commonly used natural languages. This section briefly discusses some of the existing Machine Translation systems and the approaches that have been followed.

Georgetown Automatic Translation (GAT) System (1952), developed by Georgetown University, used direct approach for translating Russian texts (mainly from physics and organic chemistry) to English. The GAT strategy was simple word- for-word replacement, followed by a limited amount of transposition of words to result in something vaguely resembling English. There was no true linguistic theory underlying the GAT design. It had only six grammar rules and 250 items in its vocabulary. The translation was done using IBM 701 mainframe computer. Georgetown University and IBM jointly

conducted the Georgetown-IBM experiment in 1954 for more than sixty Russian sentences into English. The experiment was a great success and ushered in an era of Machine Translation research. The Georgetown MT project was terminated in the mid-60s.[8,23]

CETA (1961), included the linguistic theory unlike GAT, for translating Russian into French. It was developed at Grenoble University in France. It is based on Interlingua approach with dependency-structure analysis of each sentence at the grammatical level and transfer mapping from one language-specific meaning representation at the lexical level. During the period of 1967-71, this system was used to translate about 4,00,000 words of Russian mathematics and physics texts into French. It was found that it fails for those sentences for which complete analysis cannot be derived. In 1971, new and improved system GETA based on the limitations of CETA was developed. [24-27]

METAL (Mechanical Translation and Analysis of Languages) (1961), was developed at Linguistics Research Center, University of Texas for German into English. The system used indirect Machine Translation approach using Chomsky's transformational paradigm. Indirect translation was performed in 14 steps of global analysis, transfer, and synthesis. The performance and accuracy of the system was moderate.[28]

The Mark II (1964), a direct translation approach based Russian to English MT System for U.S. Air Force. It was developed by IBM Research Center. Translation was word by word, with occasional backtracking, Each Russian

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item (either stem or ending) in the lexicon was accompanied by its English equivalent and grammatical codes indicating the classes of stems and affixes that could occur before and after it. In addition to lexical entries, processing instructions were also intermixed in the dictionary: 'control entries' relating to grammatical processes (forward and backward skips), and also instructions relating to loading and printing routines. There were some 25,000 such 'control entries' included in the dictionary. This contained 150,000 entries at the World's Fair demonstration, and 180,000 in the USAF version. A third of the entries were phrases, and there was also an extensive system of micro glossaries. An average translation speed of 20 words per second was claimed. The examples of Russian-English translations at the World's Fair were reasonably impressive (Bowers & Fisk (1965)). The Russian-English translations produced by Mark II were often rather crude and sometimes far from satisfactory. The limitations of word by word translation are more evident in the evaluation reports submitted by Pfafflin (1965), Orr & Small (1967), ALPAC(1966). An evaluation, MT research at the IBM Research Center ceased in 1966 (Roberts & Zarechnak 1974).

As one of the first operational MT systems, the IBM Russian-English system has a firm place in the history of MT. It was installed in the USAF's Foreign Technology Division at the Wright-Patterson Air Force Base, Dayton, Ohio, where it remained in daily operation until 1970. [29]

LOGOS (1964), a direct Machine Translation system for English-Vietnamese language pair was initially developed by US Private firm Logos Corporation.

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Logos analyzes whole source sentences, considering morphology, meaning, and grammatical structure and function. The analysis determines the semantic relationships between words as well as the syntactic structure of the sentence. Parsing is only source language-specific and generation is target language-specific. Unlike other commercial systems the Logos system relies heavily on semantic analysis. This comprehensive analysis permits the Logos system to construct a complete and idiomatically correct translation in the target language. This Internet-based system allows 251 users to submit formatted documents for translation to their server and retrieve translated documents without loss of formatting. In 1971, It was used by the U.S. Air Force to translate English maintenance manuals for military equipment into Vietnamese. Eventually, LOGOS forged an agreement with the Wang computer company that allowed the implementation of the German-English system on Wang office computers. This system reached the commercial market, and has been purchased by several multi-national organizations (e.g., Nixdorf, Triumph- Adler, Hewlett-Packard). The System is also available for English-French, English-German language pairs. [30-32]

TAUM-AVIATION (1965), a transfer approach based English - French MT System for weather forecasts. It was developed at University of Montreal. After short span of time, the domain for translation shifted to translating aviation manuals by adding semantic analysis module to the system. The TAUM-AVIATION system is based on a typical second generation design (Isabelle et al. 1978, Bourbeau 1981). The translation is produced indirectly,

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by means of an analysis/transfer/synthesis scheme. The overall design of the system is based on the assumption that translation rules should not be applied directly to the input string, but rather to a formal object that represents a structural description of the content of this input. Thus, the source language (SL) text (or successive fragments of it) is mapped onto the representations of an intermediate language, (also called normalized structure) prior to the application of any target language-dependent rule. In this system, the dictionaries list only the base form of the words (roughly speaking, the entry form in a conventional dictionary). In March 1981, the source language (English) dictionary included 4054 entries; these entries represented the core vocabulary of maintenance manuals, plus a portion of the specialized vocabulary of hydraulics. Of these, 3280 had a corresponding entry in the bilingual English-French dictionary. The system was evaluated and

the low accuracy of the translation by the system forced the Canadian Government to cancel the funding and thus TAUM project in 1981. [33-34]

SYSTRAN (1968) is a direct Machine Translation system developed by Huchins and Somers. The system was originally built for English-Russian Language Pair. In 1970, SYSTRAN System installation at United States Air Force (USAF) Foreign Technology Division (FTD) at Wright-Patterson Air Force Base, Ohio, replaced IBM MARK-II MT System and is still operational. Large number of Russian scientific and technical documents were translated using this system. The quality of the translations, although only approximate, was usually adequate for understanding content. In 1974, NASA also selected

SYSTRAN to translate materials relating to the Apollo-Soyuz collaboration, and in 1976, EURATOM replaced GAT with SYSTRAN. The Commission of the European Communities (CEC) purchased an English-French version of SYSTRAN for evaluation and potential use. Unlike the FTD, NASA, and EURATOM installations, where the goal was information acquisition, the intended use by CEC was for information dissemination - meaning that the output was to be carefully edited before human consumption. The quality for this purpose was not adequate but improved after adding lexicon entries specific to CEC related translation tasks. Also in 1976, General Motors of Canada acquired SYSTRAN for translation of various manuals (for vehicle service, diesel locomotives, and highway transit coaches) from English into French on an IBM mainframe. GM's English-French dictionary had been expanded to over 1,30,000 terms by 1981 (Sereda 1982). GM purchased an English-Spanish version of SYSTRAN, and began to build the necessary [very large] dictionary. Sereda (1982) reported a speed-up of 3-4 times in the productivity of his human translators. Currently, SYSTRAN System is available for translating in 29 language pairs. [35-39]

CULT(Chinese University Language Translator)(1968), is an interactive online MT System based on direct translation strategy for translating Chinese mathematics and physics journals into English. Sentences are analyzed and translated one at a time in a series of passes. After each pass, a portion of the sentence is translated into English. The CULT includes modules like source text preparation, input via Chinese keyboard, lexical analysis, syntactic and

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semantic analysis, relative order analysis, target equivalence analysis, output and output refinement. CULT is a successful system but it appears somewhat crude in comparison to interactive systems like ALPS and Weidner. [40-44]

ALPS (1971), a direct approach based English into French, German, Portuguese and Spanish for Mormon ecclesiastical texts. It was developed at Brigham Young University. It was started with an aim to develop fully automatic MT System but later in 1973, it became Machine Aided System. It is an Interactive Translation System that performs global analysis of sentences with human assistance, and then performs indirect transfer again with human assistance. But this project was not successful and hence not operational. [45]

The METEO (1977) , is the world's only example of a truly fully automatic MT System for Canadian Meterological Centre's(CMC's) nation wide weather communication networks. METEO scans the network traffic for English weather reports, translates them directly into French, and sends the translations back out over the communications network automatically. This system is based on the TAUM technology as discussed earlier. It is probably the first MT system where translators had involved in all phases of the design, development and refinement. Rather than relying on post-editors to discover and correct errors, METEO detects its own errors and passes the offending input to human editors and output deemed correct by METEO is dispatched without human intervention. This system correctly translates 90-95%, shuttling the other 5-10% to the human CMC translators.[46-47]

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An English Japanese Machine Translation System (1982) developed by Makoto Nagao et. al. The title sentences of scientific and engineering papers are analyzed by simple parsing strategies. Title sentences of physics and mathematics of some databases in English are translated into Japanese with their keywords, author names, journal names and so on by using fundamental structures. The translation accuracy for the specific areas of physics and mathematics from INSPEC database was about 93%.[48]

RUSLAN (1985), a direct Machine Translation system between closely related languages Czech and Russian, by Hajic J, for thematic domain, the domain of operating systems of mainframes. The system used transfer based architecture. This project started in 1985 at Charles University, Prague in cooperation with Research Institute of Mathematical Machines in Prague. It was terminated in 1990 due to lack of funds. The system was rule based, implemented in Colmerauer's Q-Systems. The system had a main dictionary of about 8,000 words, accompanied by transducing dictionary covering another 2,000 words. The typical steps followed in the system are Czech morphological analysis, syntactico semantic analysis with respect to Russian sentence structure and morphological synthesis of Russian. Due to close language pair, a transfer-like translation scheme was adopted with many simplifications. Also many ambiguities are left unresolved due to the close relationship between Czech and Russian. No deep analysis of input sentences was performed. The evaluations of results of RUSLAN showed that roughly 40% of the input sentences were translated correctly, about 40% of

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input sentences with minor errors correctable by human post-editor and about 20% of the input required substantial editing or re-translation. There are two main factors that caused a deterioration of the translation. The first factor was the incompleteness of main dictionary of the system and second factor was the module of syntactic analysis of Czech. RUSLAN is a unidirectional system dealing with one pair of language Czech to Russian.[49]

PONS (1995) , an experimental interlingua system for automatic translation of unrestricted text, constructed by Helge Dyvik, Department of Linguistics and Phonetics, University of Bergen. 'PONS' is in Norwegian an acronym for "Partiell Oversettelse mellom Nærstående Språk" (Partial Translation between Closely Related Languages). PONS exploits the structural similarity between source and target language to make the shortcuts during the translation process. The system makes use of a lexicon and a set of syntactic rules. There is no morphological analysis. The lexicon consists of a list of entries for all word forms and a list of stem entries, or 'lexemes'. The source text is divided into substrings at certain punctuation marks, and the strings are parsed by a bottom-up, unification-based active chart parser. The system had been tested on translation of sentence sets and simple texts between the closely related languages Norwegian and Swedish, and between the more distantly related English and Norwegian. [50]

interNOSTRUM (1999) is a bidirectional Spanish-Catalan Machine Translation system. It was developed by Marote R.C. et al. It is a classical indirect Machine Translation system using an advanced morphological

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transfer strategy. Currently it translates ANSI, RTF (Microsoft's Rich Text Format) and HTML texts. The system has eight modules: a deformatting module which separates formatting information from text, two analysis modules (morphological analyzer and part-of-speech tagger), two transfer modules (bilingual dictionary module and pattern processing module) and two generation modules (morphological generator and post-generator), and the reformatting module which integrates the original formatting information with the text. This system achieved great speed through the use of finite-state technologies. Error rates range around 5% in Spanish-Catalan direction when newspaper text is translated and are somewhat worse in the Catalan-Spanish direction. The Catalan to Spanish is less satisfactory as to vocabulary coverage and accuracy. [51]

ISAWIKA!(1999) is a transfer-based English-to-Tagalog MT system that uses ATN (Augmented Transition Network) as the grammar formalism. It translates simple English sentences into equivalent Filipino sentences at the syntactic level. [52]

English-to-Filipino MT system (2000) is a transfer based MT System that is designed and implemented using the lexical functional grammar (LFG) as its formalism. It involves morphological and syntactical analyses, transfer and generation stages. The whole translation process involves only one sentence at a time. [53]

Tagalog-to-Cebuano Machine Translation System (T2CMT)(2000) is a uni-directional Machine Translation system from Tagalog to Cebuano. It has three

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stages: Analysis, Transfer and Generation. Each stage uses bilingual from Tagalog to Cebuano lexicon and a set of rules. The morphological analysis is based on TagSA (Tagalog Stemming Algorithm) and affix correspondence-based POS (part-of-speech) tagger. The author describes that a new method is used in the POS-tagging process but does not handle ambiguity resolution and is only limited to a one-to-one mapping of words and parts-of-speech. The syntax analyzer accepts data passed by the POS tagger according to the formal grammar defined by the system. Transfer is implemented through affix and root transfers. The rules used in morphological synthesis are reverse of the rules used in morphological analysis. T2CMT has been evaluated, with the Book of Genesis as input, using GTM (General Text Matcher), which is based on Precision and Recall. Result of the evaluation gives a score of good performance 0.8027 or 80.27% precision and 0.7992 or 79.92% recall. [54]

Turkish to English Machine Translation system(2000) is a hybrid Machine Translation system by combining two different approaches to MT. The hybrid approach transfers a Turkish sentence to all of its possible English translations, using a set of manually written transfer rules. Then, it uses a probabilistic language model to pick the most probable translation out of this set. The system is evaluated on a test set of Turkish sentences, and compared the results to reference translations. The accuracy comes out to be about 75.6%.[55]

CESILKO(2000), is a Machine Translation system for closely related Slavic language pairs, developed by HAJIC J, HRIC J K. and UBON V. It has been

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fully implemented for Czech to Slovak, the pair of two most closely related Slavic languages. The main aim of the system is localization of the texts and programs from one source language into a group of mutually related target languages. In this system, no deep analysis had been performed and word-for-word translation using stochastic disambiguation of Czech word forms has been performed. The input text is passed through different modules namely morphological analyzer, morphological disambiguation, Domain related bilingual glossaries, general bilingual dictionary, and morphological synthesis of Slovak. The dictionary covers over 7, 00,000 items and it is able to recognize more than 15 million word-forms. The system is claimed to achieve about 90% match with the results of human translation, based on relatively large test sample. Work is in progress on translation for Czech-to-Polish language pairs.[56]

Bulgarian-to-Polish Machine Translation system (2000), has been developed by S. Marinov. This system has been developed based on the approach followed by PONS discussed above. The system needs a grammar comparison before the actual translation begins so that the necessary pointers between similar rules are created and system is able to determine where it can take a shortcut. The system has three modes, where mode 1 and 2 enable system to use the source language constructions and without making a deeper semantic analysis to translate to the target language construction. Mode 3 is the escape hatch, when the Polish sentences have to

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be generated from the semantic representation of the Bulgarian sentence. The accuracy of the system has been reported to be 81.4%.[57]

Tatar (2001), a Machine Translation system between Turkish and Crimean, developed by Altintas K. et al., used finite state techniques for the translation process. It is in general disambiguated word for word translation. The system takes a Turkish sentence, analyses all the words morphologically, translates the grammatical and context dependent structures, translates the root words and finally morphologically generates the Crimean Tatar text. One-to-one translation of words is done using a bilingual dictionary between Turkish and Crimean Tatar. The system accuracy can be improved by making word sense disambiguation module more robust.[58]

Antonio M. Corbí-Bellot et. al. (2005) developed the open source shallow-transfer Machine Translation (MT) engine for the Romance languages of Spain (the main ones being Spanish, Catalan and Galician). The Machine Translation architecture uses finite-state transducers for lexical processing, hidden Markov models for part-of-speech tagging, and finite-state based chunking for structural transfer. The author claims that, for related languages such as Spanish, Catalan or Galician, a rudimentary word-for-word MT model may give an adequate translation for 75% of the text, the addition of homograph disambiguation, management of contiguous multi-word units, and local reordering and agreement rules may raise the fraction of adequately translated text above 90%. [59]

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Carme Armentano-oller et. al (2005) extended the idea of A.M.Corbi-Bellot et. al. and developed an open source Machine Translation tool box which includes (a) the open-source engine itself, a modular shallow transfer Machine Translation engine suitable for related languages (b) extensive documentation specifying the XML format of all linguistic (dictionaries, rules) and document format management files, (c) compilers converting these data into the high speed format used by the engine, and (d) pilot linguistic data for Spanish—Catalan and Spanish—Galician and format management specifications for the HTML, RTF and plain text formats. They use the XML format for linguistic data used by the system. They define five main types of formats for linguistic data i.e. dictionaries, tagger definition file, training corpora, structural transfer rule files and format management files. [60]

Apertium (2005), developed by Carme Armentano-oller et. al is an open-source shallow-transfer Machine Translation (MT) system for the [European] Portuguese ↔ Spanish language pair. This platform was developed with funding from the Spanish government and the government of Catalonia at the University of Alicante. It is a free software and released under the terms of the GNU General Public License. Apertium originated as one of the Machine Translation engines in the project OpenTrad and was originally designed to translate between closely related languages, although it has recently been expanded to treat more divergent language pairs (such as English–Catalan). Apertium uses finite-state transducers for all lexical processing operations (morphological analysis and generation, lexical transfer), hidden Markov

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models for part-of-speech tagging, and multi-stage finite-state based chunking for structural transfer. For Portuguese–Spanish language pair, promising results are obtained with the pilot open-source linguistic data released which may easily improve (down to error rates around 5%, and even lower for specialized texts), mainly through lexical contributions from the linguistic communities involved. [61]

ga2gd (2006), a robust Machine Translation system, developed by Scannell K.P., between Irish and Scottish Gaelic despite the lack of full parsing technology or pre-existing bilingual lexical resources. It includes the modules Irish standardization, POS Tagging, stemming, chunking, WSD, Syntactic transfer, lexical transfer, and Scottish post processing. The accuracy has been reported to be 92.72%. [62]

SisHiTra(2006) is a hybrid Machine Translation system from Spanish to Catalan. It was developed by Gonzalez et. al. This project tried to combine knowledge-based and corpus-based techniques to produce a Spanish-to-Catalan Machine Translation system with no semantic constraints. Spanish and Catalan are languages belonging to the Romance language family and have a lot of characteristics in common. SisHiTra makes use of their similarities to simplify the translation process. A SisHiTra future perspective is the extension to other language pairs (Portuguese, French, Italian, etc.). The system is based on finite state machines. It has following modules: preprocessing modules, generation module, disambiguation module and post-

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processing module. The word error rate is claimed to be 12.5% for SisHiTra system.[63]

2.1.2 Machine Translation Systems for Indian languages

This section will summarize the existing Machine Translation systems for Indian languages that are as follows:

ANGLABHARTI (1991), is a machine-aided translation system specifically designed for translating English to Indian languages. English is a SVO language while Indian languages are SOV and are relatively of free word-order. Instead of designing translators for English to each Indian language, Anglabharti uses a pseudo-interlingua approach. It analyses English only once and creates an intermediate structure called PLIL (Pseudo Lingua for Indian Languages). This is the basic translation process translating the English source language to PLIL with most of the disambiguation having been performed. The PLIL structure is then converted to each Indian language through a process of text-generation. The effort in analyzing the English sentences and translating into PLIL is estimated to be about 70% and the text-generation accounts for the rest of the 30%. Thus only with an additional 30% effort, a new English to Indian language translator can be built. The attempt has been made to 90% translation task to be done by machine and 10% left to the human post-editing. The project has been applied mailnly in the domain of public health. [64]

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Anusaaraka (1995) was developed at IIT Kanpur, and was later shifted to the Center for Applied Linguistics and Translation Studies (CALTS), Department of Humanities and Social Studies, University of Hyderabad. Of late, the Language Technology Research Center (LTRC) at IIIT Hyderabad is attempting an English-Hindi Anusaaraka MT System. The focus in Anusaaraka is not mainly on Machine Translation, but on Language access between Indian Languages. Using principles of Paninian Grammar (PG), and exploiting the close similarity of Indian languages, it essentially maps local word groups between the source and target languages. Where there are differences between the languages, the system introduces extra notation to preserve the information of the siurce language. The project has developed Language Accesors for Punjabi, Bengali, Telugu, Kannada and Marathi into Hindi. The output generated is understandable but not grammatically correct. For example, a Bengali to Hindi Anusaaraka can take a Bengali text and produce output in Hindi which can be understood by the user but will not be grammatically perfect. The system has mainly been applied for children's stories.[65]

Anubharati (1995), used EBMT paradigm for Hindi to English translation. The translation is obtained by matching the input sentences with the minimum distance example sentences. The system stored the examples in generalized form to contain the category/class information to a great extent. This made the example-base smaller in size and its further processing partitioning reduces

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the search space. This approach works more efficiently for similar languages such as among Indian languages. [66]

The Mantra (MAchiNe assisted TRAnslation tool) (1999) translates English text into Hindi in a specified domain of personal administration specifically gazette notifications pertaining to government appointments, office orders, office memorandums and circulars. It is based on the TAG formalism from University of Pennsylvania. In addition to translating the content, the system can also preserve the formatting of input word documents across the translation. The Mantra approach is general, but the lexicon/grammar has been limited to the language of the domain. This project has also been extended for Hindi-English and Hindi-Bengali language pairs and also existing English- Hindi translation has been extended to the domain of parliament proceeding summaries.[67]

MAT (2002), a machine assisted translation system for translating English texts into Kannada, has been developed by Dr. K. Narayana Murthy at Resource Centre for Indian Language Technology Solutions, University of Hyderabad. Their approach is based on using the Universal Clause Structure Grammar (UCSG) formalism. The input sentence is parsed by UCSG parser and outputs the number, type and inter-relationships amongst various clauses in the sentence and the word groups that take on various functional roles in clauses. Keeping this structure in mind, a suitable structure for the equivalent sentence in the target language is first developed. For each word, a suitable target language equivalent is obtained from the bilingual dictionary. The MAT

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System provides for incorporating syntactic and some simple kinds of semantic constraints in the bilingual dictionary. The MAT system includes morphological analyzer/generator for Kannada. Finally, the target language sentence is generated by placing the clauses and the word groups in appropriate linear order, according to the constraints of the target language grammar. Post Editing tool has been provided for editing the translated text. MAT System 1.0 had shown about 40-60% of fully automatic accurate translations. It has been applied to the domain of government circulars, and funded by the Karnataka government. [68]

An English–Hindi Translation System (2002) with special reference to weather narration domain has been designed and developed by Lata Gore et. al. The system is based on transfer based translation approach. MT system transfers the source sentence to the target sentence with the help of different grammatical rules and also a bilingual dictionary. The translation module consists of sub modules like Pre-processing of input sentence, English tree generator, post-processing of English tree, generation of Hindi tree, Post-processing of Hindi tree and generating output. The translation system gives domain specific translation with satisfactory results. By modifying the database it can be extended to other domains.[69]

VAASAANUBAADA (2002), an Automatic Machine Translation of Bilingual Bengali-Assamese News Texts using Example-Based Machine Translation technique, has been developed by Kommaluri Vijayanand et. al. It involves Machine Translation of bilingual texts at sentence level. In addition, it also

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includes preprocessing and post-processing tasks. The bilingual corpus has been constructed and aligned manually by feeding the real examples using pseudo code. The longer input sentence is fragmented at punctuations, which results in high quality translation. Backtracking is used when the exact match is not found at the sentence/fragment level, leading to further fragmentation of the sentence. The results when tested by authors are fascinating with quality translation. [70]

ANGLABHARTI-II (2004) addressed many of the shortcomings of the earlier architecture. It uses a generalized example-base (GEB) for hybridization besides a raw example-base (REB). During the development phase, when it is found that the modification in the rule-base is difficult and may result in unpredictable results, the example-base is grown interactively by augmenting it. At the time of actual usage, the system first attempts a match in REB and GEB before invoking the rule-base. In AnglaBharti-II, provisions were made for automated pre-editing & paraphrasing, generalized & conditional multi-word expressions, recognition of named-entities. It incorporated an error-analysis module and statistical language-model for automated post-editing. The purpose of automatic pre-editing module is to transform/paraphrase the input sentence to a form which is more easily translatable. Automated pre-editing may even fragment an input sentence if the fragments are easily translatable and positioned in the final translation. Such fragmentation may be triggered by in case of a failure of translation by the 'failure analysis' module. The failure analysis consists of heuristics on speculating what might have

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gone wrong. The entire system is pipelined with various sub-modules. All these have contributed significantly to greater accuracy and robustness to the system. [71]

The MaTra system (2004), a tool for human aided Machine Translation from English to Indian languages currently Hindi, has been developed by the Natural Language group of the Knowledge Based Computer Systems (KBCS) division at the National Centre for Software Technology (NCST), Mumbai (currently CDAC, Mumbai). The system has been applied mainly in the domain of news, annual reports and technical phrases. This system used transfer approach using a frame-like structured representation. The system used rule-bases and heuristics to resolve ambiguities to the extent possible. It has a text categorization component at the front, which determines the type of news story (political, terrorism, economic, etc.) before operating on the given story. Depending on the type of news, it uses an appropriate dictionary. It requires considerable human assistance in analyzing the input. Another novel component of the system is that given a complex English sentence, it breaks it up into simpler sentences, which are then analyzed and used to generate Hindi. The system can work in a fully automatic mode and produce rough translations for end users, but is primarily meant for translators, editors and content providers. [72]

ANUBHARTI-II (2004) has been generalized to cater to Hindi as source language for translation to any other Indian language, The system used hybrid Example-based Machine Translation approach which is a combination of

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example-based approach and traditional rule-based approach. The example-based approaches emulate human-learning process for storing knowledge from past experiences to use it in future. It also uses a shallow parsing of Hindi for chunking and phrasal analysis. The input Hindi sentence is converted into a standardization form to take care of word-order variations. The standardized Hindi sentences are matched with a top level standardized example-base. In case no match is found then a shallow chunker is used to fragment the input sentence into units that are then matched with a hierarchical example-base. The translated chunks are positioned by matching with sentence level example base. Human post-editing is performed primarily to introduce determiners that are either not present or difficult to estimate in Hindi. [71]

Shakti (2004), is a Machine Translation system from English to any Indian language currently being developed at Language Technologies Research Centre, IIIT-Hyderabad. It has already produced output from English to three different Indian languages – Hindi, Marathi, and Telugu. It combines rule based approach with statistical approach. The rules are mostly linguistic in nature and the statistical approach tries to infer or use linguistic information. Although the system accommodates multiple approaches, the backbone of the system is linguistic analysis. The system consists of 69 different modules. About 9 modules are used for analyzing the source language (English), 24 modules are used for performing bilingual tasks such as substituting target language roots and reordering etc., and the remaining modules are used for

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generating target language. The overall system architecture is kept extremely simple. All modules operate on a stream of data whose format is Shakti standard format (SSF). [73]

Shiva (2004), is an example based Machine Translation system from English to Hindi developed at IIIT Hyderabad.[73,74]

English-Telugu Machine Translation System has been developed jointly at CALTS with IIIT, Hyderabad, Telugu University, Hyderabad and Osmania University, Hyderabad. This system uses English-Telugu lexicon consisting of 42,000 words. A word form synthesizer for Telugu is developed and incorporated in the system. It handles English sentences of a variety of complexity.[74]

Telugu-Tamil Machine Translation System has also been developed at CALTS using the available resources here. This system uses the Telugu Morphological analyzer and Tamil generator developed at CALTS. The backbone of the system is Telugu-Tamil dictionary developed as part of MAT Lexica. It also used verb sense disambiguator based on verbs argument structure. [74]

ANUBAAD (2004) , an example based Machine Translation system for translating news headlines from English to Bengali, has been developed by Sivaji Bandyopadhyay at Jadavpur University Kolkata. During translation, the input headline is initially searched in the direct example base for an exact match. If a match is obtained, the Bengali headline from the example base is produced as output. If there is no match, the headline is tagged and the

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tagged headline is searched in the Generalized Tagged Example base. If a match is obtained, the output Bengali headline is to be generated after appropriate synthesis. If a match is not found, the Phrasal example base will be used to generate the target translation. If the headline still cannot be translated, the heuristic translation strategy applied is - translation of the individual words or terms in their order of appearance in the input headline will generate the translation of the input headline. Appropriate dictionaries have been consulted for translation of the news headline. [75]

Hinglish (2004) , a Machine Translation system for pure (standard) Hindi to pure English forms developed by R. Mahesh K. Sinha and Anil Thakur. It had been implemented by incorporating additional layer to the existing English to Hindi translation (AnglaBharti-II) and Hindi to English translation (AnuBharti-II) systems developed by Sinha. The system claimed to be produced satisfactory acceptable results in more than 90% of the cases. Only in case of polysemous verbs, due to a very shallow grammatical analysis used in the process, the system is unable to resolve their meaning. [76]

Tamil-Hindi Machine-Aided Translation system has been developed by Prof. C.N. Krishnan at AU-KBC Research Centre, MIT Campus, Anna University Chennai. This system is based on Anusaaraka Machine Translation System architecture. It uses a lexical level translation and has 80-85% coverage. Stand-alone, API, and Web-based on-line versions have been developed. Tamil morphological analyser and Tamil-Hindi bilingual dictionary (~ 36k) are the by products of this system. They also developed a prototype of

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English - Tamil MAT system. It includes exhaustive syntactical analysis. Currently, it has limited vocabulary (100-150) and small set of Transfer rules. [77]

AnglaHindi (2003) , a pseudo –interlingual rule-based English to Hindi Machine-Aided Translation System, developed by Sinha et. al. at IIIT, Kanpur. It is a derivative of AnglaBharti MT System for English to Indian languages. AnglaHindi besides using all the modules of AnglaBharti, also makes use of an abstracted example-base for translating frequently encountered noun phrases and verb phrasals. The system generates approximately 90% acceptable translation in case of simple, complex and compound sentences upto a length of 20 words. [78]

IBM-English-Hindi Machine Translation System has been initially developed by IBM India Research Lab at New Delhi with EBMT approach. Now, the approach has been changed to statistical Machine Translation between English and Indian languages. [79-84]

English to {Hindi, Kannada, Tamil} and Kannada to Tamil Language-Pair Example Based Machine Translation (2006) has been developed by Prashanth Balajapally. It is based on a bilingual dictionary comprising of sentence-dictionary, phrases-dictionary, words-dictionary and phonetic-dictionary and is used for the Machine Translation. Each of the above dictionaries contains parallel corpora of sentences, phrases and words, and phonetic mappings of words in their respective files. Example Based Machine Translation (EBMT) has a set of 75000 most commonly spoken sentences

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that are originally available in English. These sentences have been manually translated into three of the target Indian languages, namely Hindi, Kannada and Tamil. [79-83]

Google Translate (2007), is based on statistical Machine Translation approach, and more specifically, on research by Franz-Josef Och. Before using statistical approach, Google translate was using SYSTRAN for its translation till 2007. Currently, it is providing the facility of translation among 51 language pairs. It includes only one Indian language Hindi. The accuracy of translation is good enough to understand the translated text. [Internet Source: http://translate.google.com/]

Punjabi to Hindi Machine Translation System (2007) has been developed by Gurpreet Singh Joshan et. al. at Punjabi University Patiala. This system is based on direct word-to-word translation approach. This system consists of modules like pre-processing, word-to-word translation using Punjabi-Hindi lexicon, morphological analysis, word sense disambiguation, transliteration and post processing. The system has reported 92.8% accuracy. [84]

Sampark: Machine Translation System among Indian languages (2009), developed by the Consortium of Institutions. Consortium of institutions include IIIT Hyderabad, University of Hyderabad, CDAC(Noida,Pune), Anna University, KBC, Chennai, IIT Kharagpur, IIT Kanpur, IISc Bangalore, IIIT Alahabad, Tamil University, Jadavpur University. Currently experimental systems have been released namely {Punjabi,Urdu, Tamil, Marathi} to Hindi

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and Tamil-Hindi Machine Translation systems. The accuracy of the translation is not up to the mark.[Internet Source:http://sampark.iiit.ac.in]

Yahoo! Bable Fish (2008), developed by AltaVista, is a web-based application on Yahoo! that machine translates text or web pages from one of several languages into another. The translation technology for Babel Fish is provided by SYSTRAN. It translates among English, Simplified Chinese, Traditional Chinese, Dutch, French, German, Greek, Italian, Japanese, Korean, Portuguese, Russian, Swedish, and Spanish. [Internet Source: http://babelfish.yahoo.com/]

Microsoft Bing Translator (2009) is a service provided by Microsoft as part of its Bing services which allow users to translate texts or entire web pages into different languages. All translation pairs are powered by Microsoft Translation (previously Systran), developed by Microsoft Research, as its backend translation software. The translation service is also using statistical Machine Translation strategy to some extent [Internet Source: http://www.microsofttranslator.com/]

Bengali to Hindi Machine Translation System (2009) is a hybrid Machine Translation system, developed at IIT Kharagpur. This system uses multi-engine Machine Translation approach. It is based on the unfactored Moses SMT system with Giza++ (Josef,2000) derived phrase table as a central element. This system uses dictionary consisting of 15,000 parallel sysnets, Gazeteer list consisting of 50,000 parallel name list, monolingual corpus of 500K words both from source and target languages, suffix list of 100 Bengali

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linguistic suffixes. The BLUE score obtained during system evaluation is 0.2318. [85]

2.2 Summary

As we have seen in the above discussion the English to Japanese, GAT (English-Russian), Mark-II (Russian-English), LOGOS (English-Vietnamese), SYSTRAN (English-Russian) ,CULT (Chinese mathematics and physics journals into English), ALP (English into French, German, Portuguese and Spanish), RUSLAN (Czech and Russian), CESILKO(Czech to Slovak), English-Arabic and Punjabi to Hindi Machine Translation Systems have been developed using direct MT approach for closely related language pairs. Some of these are very successful and popular Machine Translation systems which are still operational. Thus, it is concluded that direct Machine Translation approach is the most appropriate for closely related languages.

Hindi and Punjabi is a case of closely related but distinct languages as these languages are not mutually intelligible, having distinct orthographies, independent lexica and number of important structural differences in terms of syntax. Hindi and Punjabi, being one of the closest pairs of Indo-Iranian languages, are chosen in this study as a model for translation between any pair of close languages. They have most parts of their grammar in common although morphemes and expressions may differ. The use of narration in both languages is almost the same and a narration can directly be translated. But it

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is not straightforward to translate some phrases, idioms and even some grammatical structures.

Hence, direct approach is most suitable approach for developing Hindi to Punjabi Machine Translation System. In the next chapter we will discuss about the comparative study of Hindi and Punjabi languages in detail.

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Chapter 3

Comparative Study of Hindi and Punjabi

3.1 Introduction

India is a linguistically rich country having eighteen constitutional languages, which are written in ten different scripts. Indian languages can be broadly classified into five groups according to their origin and similarity. These are Indo-Aryan family (Hindi, Bangla, Assami, Punjabi, Marathi, Oriya and Gujarati); Dravidian family (Tamil, Telugu, Kannada and Malayalam); Austro-Asian family and Tibetan-Burmese family and Andamanese (Jha, 2005). Many of them are structurally similar called sibling languages. Within each group, there is high degree of structural similarity. With some efforts effective mapping rules can be created amongst languages within the same group. Indian languages are inflectional with a rich morphology, relatively free word order, and default sentence structure as SOV (Subject Object Verb). It is believed that Machine Translation systems can be developed with less effort and using direct approach between sibling language pairs. [85]

In this chapter, we will discuss the comparative study of the language pair of our Machine Translation system i.e. Hindi and Punjabi. Our motive of comparative analysis is to sort out the closeness between Hindi and Punjabi from Machine Translation point of view and to make the base for deciding about the appropriate approach to be followed for development of our

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Machine Translation system. By analysis we mean the identification of bilingual rules for source language and target language so that the transfer of source language to target language can be performed by computers successfully. In order for MT systems to work, source and target languages must be fully analyzed. This kind of study, however, is not adequately covered by theoretical linguistics. V. Geethakumary [86] states that if the source language and the target language both have significantly similar linguistic features on all the levels of their structures then the first step to be adopted is that both languages should be analyzed independently. After the independent analysis, to sort out the different features of the two languages, comparison of the two languages is necessary. The present study has been undertaken keeping in view the Machine Translation system being developed for languages from Hindi to Punjabi. This is not a complete analysis, but rather a comparison to give some idea about Hindi and Punjabi grammar. It covers main aspects of Hindi and Punjabi languages. Details of both Hindi and Punjabi grammar can be found in Michel [87] and Singh and Singh [88] respectively. Following sections will discuss about the comparison between the Hindi and Punjabi Language on the basis of orthography and grammar. This chapter also discusses these languages from Machine Translation point of view.

3.2 Comparison between Hindi and Punjabi Language On the basis of Orthography: [87-102]

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3.2.1 Family and Status:

Hindi and Punjabi languages belong to the same subgroup of the Indo-European family i.e. Indo-Aryan family of the languages. Hindi and Punjabi are spoken by about 577 million people and 100 million people all over the world respectively. Hindi and Punjabi have been ranked 4th and 11th widely spoken language in the world respectively (Ethnologue, 2009). In India, Hindi has been accorded the status of 'official language' by the central government for use for most administrative purposes, and Punjabi being the official language of the state the Punjab and has been accorded the status of 'official language' by the Punjab government for use for most administrative purposes. Both the languages have originated from Sanskrit (Masica 1991). Punjabi language is mostly used in the region of Punjab, Haryana, Delhi, Himachal Pardesh, Jammu & Kashmir and in some areas of Pakistan namely Punjab, Sindh and Blochistan. On the other hand, Hindi is a national language of India and is spoken and used by the people all over the country. But the main regions are Haryana, Uttar Pardesh, Rajasthan, Bihar and Chattisgarh.

3.2.2 Script

3.2.2.1 Devanagari script:

Hindi Language is written in Devanagari Script. It is written Left-to-Right. The Devanagari script, used for writing Sanskrit and other Indian languages had evolved over a period of more than two thousand years. Devanagari emerged around 1200 AD out of the Siddham script, gradually replacing the earlier,

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closely related Sharada script (which remained in parallel use in Kashmir). Both are immediate descendants of the Gupta script, ultimately deriving from the Brāhmī script attested from the 3rd century BC; Nagari appeared in approx. the 8th century as an eastern variant of the Gupta script, contemporary to Sharada, its western variant. The descendants of Brahmi form the Brahmic family, including the alphabets employed for many other South and South-East Asian languages.

Nāgarī is in Sanskrit the feminine of *nāgara.* The feminine form is used because of its original application to qualify the feminine noun *lipi* "script". There were several varieties in use, one of which was distinguished by affixing *deva* "divine, deity" to form a tatpurusha compound meaning the "divine urban(e) [script]". However, the widespread use of "Devanagari" is a relatively recent phenomenon; well into the twentieth century, and even today, simply "Nagari" was (and is) also in use for this same script. The rapid spread of the usage of "Devanagari" seems also to be connected with the almost exclusive use of this script in colonial times (particularly by European scholars) to publish works in Sanskrit (held by many to be the language of the gods), even though traditionally nearly all indigenous scripts have actually been employed for this language. This has led to the establishment of such a close connection between the script and Sanskrit that it is erroneously widely regarded as "the Sanskrit script" today.

3.2.2.2 Gurmukhi Script:

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A unique feature of Punjabi is that it is written in two mutually incomprehensible scripts. In India Punjabi language is written in Gurmukhi script, while in Pakistan it is written in Shamukhi (Urdu) script. Gurmukhi script is written Left-to-Right and Shahmukhi is written right-to-left. Gurmukhi Script derived from the Sharada script and standarized by Guru Angad Dev in the 16th century, was designed to write the Punjabi Language (Gill, Gleason, 1963). The word Gurmukhi is commonly translated as "from the mouth of Guru". However, the term used for the Punjabi script has somewhat different connotations. The opinion given by traditional scholars is that as the Sikh holy writings, before they were scribed, were uttered by the Gurus, they came to be known as Gurmukhi or the "Utterence of the Guru". And consequently, the script that was used for scribing the utterence was also given the same name. However, the prevalent view among Punjabi linguists is that as in the early stages the Gurmukhi letters were primarily used by Gurmukhs, or the Sikhs devoted to the Guruy, the script came to be associated with them. Another view is that as the Gurmukhs, in accordance with the Sikh belief, used to meditate on the letter ਵ, ਹ, ਗ, ਰ which jointly forms ਵਾਹਿਗੁਰੁ or God in Sikhism, these letters were called Gurmukhi or the "Speech of the Gurmukhs". Subsequently, the whole script came to be known as Gurmukhi.

Like most of the north Indian writing systems, the Gurmukhi script is a descendent of the Brahmi script. It is believed that Gurmukhi script was invented by the second Sikh Guru, Guru Angad Dev, However, it would be correct to say that script was standarized rather than invented, by the Sikh

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Gurus. E.P. Newton (Panjabi Grammar, 1898) writes that at least 21 Gurmukhi characters are found in ancient manuscripts: 6 from 10th century, 12 from 3rd century BC and 3 from 5th century BC. Apparently, the first Sikh Guru, Guru Nanak Dev also used the Gurmukhi script for his writings. The usage of Gurmukhi letters in Guru Granth Sahib meant that the script developed its own orthographical rules. In the following epochs, Gurmukhi became the prime script applied for literary writings of the Sikhs. Later in the 20th century, the script was given the authority as the official script of the Eastern Punjabi Language. Meanwhile, in western Punjab, a form of the Urdu script, known as Shahmukhi is still in use.

3.2.3 Consonants:

3.2.3.1 Basic Consonants

There are thirty three basic consonants or consonant-like graphs in Devanagari script and thirty- five in Gurmukhi scripts which are as follows.

Table 3.1: Basic Consonants in Devanagari

क *k*	ख *kh*	ग *g*	घ *gh*	ङ *ṅ*
च *c*	छ *ch*	ज *j*	झ *jh*	ञ *ñ*
ट *ṭ*	ठ *ṭh*	ड *ḍ*	ढ *ḍh*	ण *ṇ*
त *t*	थ *th*	द *d*	ध *dh*	न *n*
प *p*	फ *ph*	ब *b*	भ *bh*	म *m*
य *y*	र *r*	ल *l*	व *v*	

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श sh	ष sh	स s	ह h	

Table 3.2: Basic Consonants in Gurmukhi

ਕ k	ਖ kh	ਗ g	ਘ gh	ਙ ṅ
ਚ c	ਛ ch	ਜ j	ਝ jh	ਞ ñ
ਟ ṭ	ਠ ṭh	ਡ ḍ	ਢ ḍh	ਣ ṇ
ਤ t	ਥ th	ਦ d	ਧ dh	ਨ n
ਪ p	ਫ ph	ਬ b	ਭ bh	ਮ m
ਯ y	ਰ r	ਲ l	ਵ v	ਸ s
ੜ ṛ	ੳ	ਅ a	ੲ	ਹ h

In addition to basic consonants, there are other consonants that are formed with some of the basic consonants supplemented with a dot diacritic. In Devanagari script these are क़ (*k)*, ख़ (*kh), ग़ (*ġ)*, ज़ (*z), फ़ (*f), ड़ (*ṛ)* and in Gurmukhi script, these are ਖ਼ (*kh)*, ਗ਼ (*ġ)*, ਜ਼ (*z), ਫ਼ (*f), ਸ਼ (*sh)*. There is one more such consonant ਲ਼ (*l)* in Gurmukhi script. But it is not much frequent in clusters. It was a proposal to distinguish consonant ਲ (*l)* □ from ਲ਼ (*l)* by adding a dot diacritic like that used to distinguish ਸ (*s)* from ਸ਼ (*sh)*. This however has met with no acceptance and is seldom if ever used.

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3.2.3.2 Dead and Live Consonants:

Devanagari employs a sign known in Sanskrit as the *virama* or vowel omission sign. In Devanagari and Gurmukhi both, it is called *hal* or *halant*, and that term is used in referring to the virama or to a consonant with its vowel suppressed by the virama. The virama sign (ॖ) nominally serves to cancel (or kill) the inherent vowel of the consonant to which it is applied. When a consonant has lost its inherent vowel by the application of virama, it is known as a *dead consonant*; in contrast, a *live consonant* is one that retains its inherent vowel or is written with an explicit dependent vowel sign.

3.2.3.3 Consonant Conjuncts:

The Indic scripts are noted for a large number of consonant conjunct forms that serve as orthographic abbreviations (ligatures) of two or more adjacent letterforms (Michael, 1986). This abbreviation takes place only in the context of a *consonant cluster*. An orthographic consonant cluster is defined as a sequence of characters that represents one or more dead consonants followed by a normal, *live* consonant letter.

In Devanagari, we have four consonant conjucts namely ज्ञ (ज् +ञ), क्ष (क् +श), श्र (श् +र), त्र(त् +र).

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In Gurmukhi, only three types of conjunct consonants are used. In all bases, a modified form of the second consonant is subjoined to the unaltered form of the first. In the first type, a form of ਹ(h) is subjoined. The following table shows the common combinations.

Table 3.3: Conjuct Consonants

Base	Form	Devanagari Equivalent	Example
ੜ (r̤)	ੜ੍ਹ (r̤h)	ढ़ (r̤)	ਪੜ੍ਹ (par̤h)
ਨ (n)	ਨ੍ਹ (nh)	न्ह nhaṃ	ਨ੍ਹੇਰ (nhēr)
ਲ (l)	ਲ੍ਹ (lh)	ल्ह (lh)	ਲ੍ਹਾ (lhā)
ਮ (m)	ਮ੍ਹ (mh)	म्ह (mh)	ਮ੍ਹੈਂਸ (mhaiṃs)

In second type of conjunct, a form of ਰ (r) is subjoined to certain consonants, most commonly stops. These occur only in tatsamas (Those words that are directly borrowed from Sanskrit with little or no phonetic alteration) like ਪ੍ਰ , ਕ੍ਰ , ਸ੍ਰ etc. In Devanagari, when र is served as the second member of a cluster, it is indicated by a small diagonal slash (going in the opposite direction from that of the virama) written under the sign for the first member of a conjunct: क्र, प्र,द्र,त्र

Similarly, in Devanagari, when र is served as the first member of a conjunct, the sound is indicated by a small hook placed on the top of the rekha for the second consonant: कं, हं, शं, मं. This hook is deferred until after any matra written to the right side of the conjunct like थीं, मों.

In third type of conjunct, a form of व is subjoined. For example: ਸ੍ਵ in Gurmukhi is written as स्व in Devanagari, Similarly ਸ੍ਵਰ (*svar)* in Gurmukhi is written as स्वर (*svar)* in Devanagari.

Several Devanagari conjuncts are so irregular as to prelude the immediate recognition of their components. The most important of these are क्त, क्ष, ज्ञ,द्द,द्ध,द्म. The consonant श has a special combining form श that is often used in place of श् in some clusters.(e.g. श्र, श्व) . Slightly irregular conjuncts exist in which ह stand as the first element (e.g. ह्न ,ह्म, ह्य ,ह्ल , ह्व).

3.2.3.4 Geminate (Doubled) Consonants:

In Gurmukhi, gemination is written by the sign ਁ (addak) above and before the consonant to be doubled. In Devanagri, doubled consonant cluster, gemination is written by writing the first component of the consonant cluster as the truncate form of the consonant (which is frequently built from the independent version of the latter consonant by the deletion of the vertical bar that appears on the right side of many Devanagri characters and the second component of the consonant cluster is, the unaltered full symbol for the second consonant. For example: पक्की (*pakkī)* (ਪੱਕੀ (*packī)* in Gurmukhi), कच्चा (*kaccā)* (ਕੱਚਾ (*kaccā)* in Gurmukhi).   Similarly, in Gurmukhi, clusters of

unaspirated stop plus homorganic aspirate stops are written by use of

ੱ(addak) before the letter for the aspirate. In Devanagari, this cluster is written with the short form of unaspirated stop plus full form of homorganic aspirate stop. For example: अच्छा (ਅੱਛਾ in Gurmukhi), पक्खी (ਪੱਖੀ in Gurmukhi).

In a small number of cases, the components of a consonant are sting out in a horizontal line (e.g. न्न) , arranged vertically or juxtaposed in some less regular manner (द्र, द्ध) . Similarly in the Gurmukhi two geminates /nn/ and /mm/ are written with /tippi/ (ੰ). For example: ਪੰਨਾ (पन्ना in Devanagari), ਪੰਮਾ (पम्मा in Devanagari). It must be noted that there are no short forms in Gurmukhi like in Devanagri for consonants. So, while transliterating the short from of Hindi consonant, it is transliterated into full form of that consonant in Gurmukhi like मग्न (*magn)* in Devanagari will be transliterated into ਮਗਨ *(magn).*

3.2.4 Vowels:

Both the Scripts possess two different forms for each of the vowels- Full form and short form.

3.2.4.1 Full form:

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In Devanagari, a full form is employed for a vowel that does not immediately follow a consonant or consonant cluster, i.e. in word-initial position or when the second of a sequence of vowels. Whereas in Gurmukhi, when a vowel is not preceded by a consonant, it is written with one of the three vowel bearers - consonant like sign – ੳ , ਅ, ੲ indicating the absence of consonant.

3.2.4.2 Short form (or *matra*):

In Devanagari, short form is used when the vowel immediately follows a consonant or consonant cluster. These short forms consist of lines, hooks or combination of both above, below or to the side of the consonantal characters. These vowels are written around (that is, below, above, to the right, and to the left) the consonant signs.

In Gurmukhi, there are 10 vowel characters, 9 vowel symbols, 2 symbols for nasal sounds and 1 symbol that duplicates the sound of a consonant (Malik 2006, Malik 2005) Whereas in Devanagari, there are 11 vowel characters, 10 vowel symbols, 2 symbols for nasal sounds.

Following table shows both the above form of vowels for both the scripts and their correspondence in the Devanagari and Gurmukhi scripts:

Table 3.4: Vowels in Devanagari and Gurmukhi

Devanagari		Gurmukhi	
Short Form	**Full Form**	**Short Form**	**Full Form**
No Sign	अ (*a*)	No Sign	ਅ(*a*)
ा (*ā*)	आ(*ā*)	ਾ(*ā*)	ਆ (*ā*)
ि(*i*)	इ (*i*)	ਿ(*i*)	ਇ (*i*)
ी(*ī*)	ई (*ī*)	ੀ (*ī*)	ਈ (*ī*)

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਼ੁ(u)	ਤ(u)	਼(u)	ੳ(u)
਼ੂ(ū)	ਊ(ū)	਼ੂ(ū)	ੳੂ(ū)
਼ੇ(ē)	ਏ(ē)	਼ੇ(ē)	ਏ(ē)
਼ੈ(ai)	ਐ(ai)	਼ੈ(ai)	ਅੈ(ai)
਼ੋ(ō)	ਓ(ō)	਼ੋ(ō)	ੳ(ō)
਼ੌ(au)	ਔ(au)	਼ੌ(au)	ਅੌ(au)
਼੍ਰ (r)	਋ (ri)	--	----
਼ੰ(ṃ)	---	਼ੰ / ਼ੰ(ṃ)	---
਼ਁ(ṃ)	---	਼ੰ / ਼ੰ(ṃ)	---
Conjunct	---	਼ੵ	---

3.2.4.3 Inherent 'a':

One vowel, 'a' has no special short form. The absence of a matra adjacent to a consonant suffices to indicate the presence of this vowel. At the end of a word, the inherent 'a' is not normally vocalized.

3.2.4.4 Nasalized vowels:

The two signs are used for nasalization. In Devanagari, *anusvara* (਼ੰ *ṃ*) and *anunasika* (਼ਁ *ṃ*) also called *candrabindu.* Indian grammarians have formulated elaborated rules describing when each of these is used.In practice, the distinction between the two notations is often not observed. The first of these, *anusvara* is always used when the vowel marking (whether short or long form) protrudes above the rekha (e.g. ई, ऐ,कों, मौं). With other vowel

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signs, both *anusvara* and *anunasika* can be used (e.g. ਮੁੰਹ (*mumh*) / ਮੂੰਹ (*mumh*), आंख (*āṅkh*) /आँख (*āṅkh*)), although some writers take care to consistently employ only anusvara in all contexts. Whereas In Gurmukhi, bindu (ੰ) is used with ਆ, ਈ, ਐ, ਔ, ਐ, ਾ, ੀ, ੋ, ੈ, ੋ, ੋ, ੳ and tippi (ੱ) is used with ੳ, ੳ, ੲ, ਅ, ੁ, ੂ, ਇ, ਿ.

3.2.5 Punctuation Marks:

Only viraama (l) or a double vertical line (ll) was used in traditional writing for marking end of sentence and the end of a verse respectively for both Devanagari and Gurmukhi scripts. In modern writings, period, comma, hyphen, semicolon, exclamation sign, question mark and dash have also been used. In the ancient Punjabi, the use of double dandi was customary at the end of the sentences but in contemporary Punjabi, only single Dandi is used.

3.2.6 Abbreviation:

Abbreviations are formed in Hindi by the use of either a small circle (०)or a dot after the first syllable of the word to be abbreviated: प्रो॰ (*prō॰*), डा॰ (*ḍā॰*), ई॰ (*ī॰*),

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पू॰ (*pū॰*) whereas in Gurmukhi Script, sign (:) is used to mark abbreviation like

ਪ੍ਰੋ: (*prō:*), ਡਾ: (*ḍā*).

3.2.7 Numerals:

Following chart shows the correspondence between the numerals of both the scripts:

Table 3.5: Numerals in Devanagari and Gurmukhi

Devanagari	Gurmukhi
੦	੦
१	੧
२	੨
३	੩
४	੪
५	੫
६	੬
७	੭
८	੮
९	੯

3.2.8 Alphabetic Order:

The alphabetic order of Devanagari is a model of logic and rational design, reflecting a keen understanding of the phonetic properties of the sounds designated by the various characters in the system. In Devanagari, vowels

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precede consonants with the latter divided up into groups containing stops and nasals, semi vowels, sibilants, and h respectively.

The full alphabetic order of Devanagari as used for Hindi is as follows:

अ आ इ ई उ ऊ ऋ ए ऐ ओ औ क (क़) ख (ख़) ग (ग़) घ ङ च छ ज झ ञ ट ठ ड ढ ण त त्र

थ द ध न प फ ब भ म य र ल व श ष स ह

The full alphabetic order of Gurmukhi as used for Punjabi is as follows:

ੳ ਅ ੲ ਸ ਹ ਕ ਖ ਗ ਘ ਙ ਚ ਛ ਜ ਝ ਞ ਟ ਠ ਡ ਢ ਣ ਤ ਥ ਦ ਧ ਨ ਪ

ਫ ਬ ਭ ਮ ਯ ਰ ਲ ਵ ੜ

In Hindi, sequence under each consonants is the letter without any symbol, then followed by vowel symbols ा, ि, ी, ु, ू, े, ै, ो, ौ

In Punjabi, Sequence under each consonants is the letter without any symbol, then followed by vowel symbols ਾ, ਿ, ੀ, ੁ, ੂ, ੇ, ੈ, ੋ, ੌ

3.3. Comparison between Hindi and Punjabi on the basis of grammar [87-102]

3.3.1 Nouns

Nouns in Hindi and Punjabi are highly inflected. Hindi and Punjabi both have two genders (masculine and feminine), two numbers (singluar and plural) whereas Hindi has three cases (direct, oblique, and vocative) and Punjabi has five cases (direct, oblique, vocative, ablative, and locative/instrumental). The

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latter two cases in Punjabi are essentially now vestigial: the ablative occurs only in the singular, in free variation with oblique case plus ablative postposition, and the locative/instrumental is confined to set adverbial expressions.

Nouns in Hindi can be further divided into declensional subtypes, Class I (marked/definite) and Class II (unmarked/indefinite), with the basic difference being that the former has characteristic terminations in the direct singular while the later does not. While Punjabi Nouns may be further divided into extended and unextended declensional subtypes, with the former characteristically consisting of masculines ending in unaccented *-ā* and feminines in *-ī*.

3.3.2 Adjectives

In Hindi and Punjabi both, adjectives are of two basic kinds, declinable/inflected and indeclinable/uninflected. Declinable adjectives agree with the nouns they modify in gender (masculine vs. feminine), number (singular vs. plural), and case (direct vs. oblique). Indeclinable adjectives possess but a single form when modifying nouns of different genders, numbers, or cases. Indeclinable adjectives are completely invariable, and can end in either consonants or vowels (including ā and ī). These adjectives do not end in any characteristics sound or series of sounds.

Table 3.6 : Declinabale and Indeclibale Hindi Adjectives

	Declinable	Indeclinable

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Hindi	काला(*kālā*), अच्छा(*acchā*), ठंडा(*ṭhaṇḍā*) etc.	सुंदर(*sundar*),खराब(*kharāb*), भारी(*bhārī*) etc.
Punjabi	ਕਾਲਾ(*kālā*), ਚੰਗਾ(*caṅgā*), ਠੰਢਾ (*ṭhaṇḍhā*) etc.	ਸੋਹਣਾ(*sōhṇā*),ਖਰਾਬ(*kharāb*), ਭਾਰੀ(*bhārī*) etc.

3.3.3 Postpositions

Postpositions denote the relation of noun, pronoun, or verb with the other components of sentence. It is the use of postpositions with a noun or verb that necessitates the noun or verb taking the oblique case. Hindi and Punjabi both have core and compound postpositions. Core postpositions are also known as one word primary postpositions. For example: Some of the core postpositions in Hindi are का, की, के, को, ने, पर, में, तक, से and in Punjabi are ਦਾ, ਦੇ, ਨੂੰ, ਨੇ, ਉੱਤੇ, ਵਿੱਚ, ਤੱਕ, ਤੋਂ. Compound postpositions are composed of the genitive primary postposition plus an adverb. These postpositions follow their oblique targets either directly or with the inflected genitive linker. For example: Some of the compound postpositions in Hindi are के लिए, के साथ, के सामने, से पहले and in Punjabi are ਦੇ ਵਿੱਚ, ਦੇ ਨਾਲ etc.

3.3.4 Pronouns

Hindi and Punjabi languages both have personal pronouns for the first and second persons, while for the third person demonstratives are used, which

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can be categorized as proximate and non-proximate. Pronouns distinguish three persons (first, second, and third), two numbers (singular and plural), and two cases (direct and oblique), though not gender.

Table 3.7: Hindi and Punjabi Pronouns

Pronouns	First Person	Second Person	Third Person (Proximate)	Third Person (non-proximate)
Hindi	मैं(*maiṃ*), हम (*ham*)	तू(*tū*), तुम *(tum)*, आप (*āp*)	यह(*yah*), ये (*yē*)	वह(*vah*), वे (*vē*)
Punjabi	ਮੈਂ(*maiṃ*), ਅਸੀਂ (*asīṃ*)	ਤੂੰ(*tūṃ*),ਤੁਸੀਂ(tusīṃ)	ਇਹ (*ih*)	ਉਹ(*uh*)

3.3.5 Verbs

In both Hindi and Punjabi, the major grammatical categories that structure the verbal system are those of aspect and tense. The term aspect is to be understood as indicating the nature of the action of a verb as to its beginning, duration, completion, or repetition, but without reference to its position in time. There are three grammatical aspects, the habitual, the progressive (or continuous), and the perfective. Verbal forms indicating one of these aspects is usually further specified for one of four tenses, i.e., the present, past, presumptive, and subjunctive. Like the nominal system, the Hindi and Punjabi

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verbs involve successive layers of (inflectional) elements to the right of the lexical base.

Compound verbs, a highly visible feature of Punjabi and Hindi grammar, consist of a verbal stem plus an auxiliary verb. The auxiliary (variously called "subsidiary", "explicator verb", and "vector") loses its own independent meaning and instead "lends a certain shade of meaning" to the main/stem verb, which "comprises the lexical core of the compound". While most verb can act as a main verb, there is a limited set of productive auxiliaries. For example, Some of verbs in Hindi are रहना(*rahnā*), होना(*hōnā*), जाना(*jānā*), देना (*dēnā*) and in Punjabi are ਰਹਿਣਾ (*rahiṇā*), ਹੋਣਾ (*hōṇā*), ਜਾਣਾ (*jāṇā*), ਦੇਣਾ(*dēṇā*) etc.

3.3.6 Sentence Structure

Hindi and Punjabi both are SOV (Subject Object Verb) and free order languages. Structurally both Hindi and Punjabi languages are same. In both languages, sentence is comprised of Subject and Predicate. In both languages, the basic elements are Kaaraka. Both have eight numbers of Kaaraka which by combining with each other create a sentence. The general sequence for transitive Sentence is Karta, Karam , Kria e.g गणेश खेत में सोता है (*gaṇēsh khēt mēṃ sōtā hai)* and for intransitive sentence is karta, kriya e.g. गणेश भागा (*gaṇēsh bhāgā)*. In both languages the relation between kaarka's

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are shown by postpositions. Total eight part-of-speeches are recognized in both Hindi and Punjabi. Beside this, both have same types of Nouns, Genders, Number, Persons, Tenses and Cases.

3.3.7 Vocabulary

Joshan and Lehal [84] carried out an experiment to find out the total number of words which use the same alphabets and vowel/vowel sounds and convey the same meaning in both languages. Results showed that about 8% of source language words come under this category. This provides an idea of the overlap of vocabulary across languages. Hence for this study, it strengthens the fact of close relationship between Hindi and Punjabi languages. Moreover, it gives boost to the idea of using transliteration of source text as last option.

3.4 Comparison of Hindi and Punjabi from Machine Translation point of view [87-102]

3.4.1 Language Structure (Syntactic Vs Analytic)

Hindi is both analytic and syntactic in nature. Thus, it is not a purely analytic in nature. It may cause a problem while translating text from Hindi to Punjabi. It can lead to an unacceptable output if left un-dealt.

3.4.2 Ambiguity

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Ambiguity is one of the major NLP problems which have been a great challenge for computational linguists. In general, people are unaware of the ambiguities in the language they use because they are very good at resolving them using context and their knowledge of the world. But computer systems do not have this knowledge, and consequently do not do a good job of making use of the context.

Something is ambiguous when it can be understood in two or more possible ways or when it has more than one meaning. If the ambiguity is in a sentence or clause, it is called structural (syntactic) ambiguity. Following example shows the structural ambiguity in Hindi:

परमोद ने खाते हुए चोर को पकड़ा (*parmōd nē khātē huē cōr kō pakṛā*)

This sentence can be interpreted in two ways viz. Parmod caught the thief while eating or Parmod caught the thief when the thief was eating.

Lexical ambiguity also known as word level ambiguity is a problem in translating Hindi to Punjabi. In Hindi, lexical ambiguity has been found in Nouns, Verbs, and Postpositions etc. The postposition से in Hindi can be translated into number of Punjabi postpositions like ਤੋਂ, ਨੂੰ, ਜਿਹੇ, ਕਰਕੇ and ਨਾਲ depending upon the usage of से in the sentence. Similarly in Verb, like जाना can be translated into ਜਾਣਾ and ਜਾਇਆ. Similarly in case of proper nouns, like प्रकाश (*prakāsh)* can be translated into ਪ੍ਰਕਾਸ਼ (*prakāsh)* or ਚਾਨਣ (*cānaṇ*).

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To illustrate more, consider the following sentence:

राम <u>आम</u> खा रहा है । (*rām ām khā rahā hai*)

In the above example, word आम in the sentence is lexically ambiguous. Its meaning can be interpreted in two ways – mango (a fruit) and usual (an adjective) as in following examples:

Usage as Noun: तोता पेड़ पर बैठकर <u>आम</u> खा रहा है *(tōtā pēḍa par baiṭhakar ām khā rahā hai)*

Usage as Adjective: ऐसे चोरों से मिलना <u>आम</u> बात है जो चोरी के ख़िलाफ़ उपदेश देते हैं (*aisē cōrōṃ sē milnā ām bāt hai jō cōrī kē khailāpha updēsh dētē haiṃ*)

3.4.3 Gender disgreement

During translation, sometimes correct gender of a word is not reflected in the translated language and it causes gender disagreement with verb/postposition in the target language. For example,If we translate the sentence उसको किताब चाहिए (*uskō kitāb cāhiē)* using direct approach, it will be translated to ਉਸਨੂੰ ਕਿਤਾਬ ਚਾਹੀਦਾ ਹੈ (*usnūṃ kitāb cāhīdā hai).* Here the word किताब (*kitāb)* is feminine in nature and thus translation of verb चाहिए (*cāhiē)* in the sentence

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must agree with the feminine nature of किताब (*kitāb)* and thus be translated

into ਚਾਹੀਦੀ ਹੈ (*cāhīdī hai).*

3.4.4 Problems in Identifying Proper Nouns

The problem arises when a word in Hindi Sentence which is used as proper name of a person, is translated by the system instead of transliterating it. Such words are required to transliterate rather than translation. For example consider following sentences

दीपक गोयल कहाँ है? (*dīpak gōyal kahāṃ hai?)*

The word दीपक (*dīpak)* can be translated to ਦੀਵਾ (*dīvā).* But in this sentence, the word दीपक (*dīpak)* has been used as a proper noun and thus, must be transliterated to ਦੀਪਕ (*dīpak)* instead of translated to ਦੀਵਾ (*dīvā).* This problem is also known as Named Entity Recognition. Thus, Named Entity Recognition(NER) problem is a subtask of information extraction that seeks to locate and classify atomic elements in text into predefined categories such as the names of persons, organizations, locations, expressions of times, quantities, monetary values, percentages, etc.

3.4.5 Problem related to Collocations

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Collocation is two or more consecutive words with a special behavior. (Choueka: 1988). Collocation means those combinations of words in Hindi that cannot be translated word to word and such combinations of words have different word in group rather than their individual. These groups of words have a special behavior. The meaning of the collocation can not be predicted from its parts, there is usually an element of meaning added to the parts of collocation. For example, the collocation उत्तर प्रदेश (*uttar pradēsh)* if translated word to word, will be translated as ਜਵਾਬ ਰਾਜ (*javāb rāj)* But it must be translated as ਉੱਤਰ ਪ੍ਰਦੇਸ਼ (*uttar pradēsh).* Thus, special attention is needed for such combinations of words in Hindi Langauge.

3.4.6 Problems related to Foreign Words

Modern Hindi includes number of foreign words that are adopted from other languages. These words do not have any meaning in Hindi language and is propagated as such to Punjabi language while translating. So, these words are treated as unknown words and must be transliterated. For example: क्रिकेट (*krikēṭ),* मैच (*maic),* जाकेट (*jākēṭ)* etc.

3.4.7 Spelling variations

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The Cambridge Dictionary defines spelling as 'forming words with the correct letters in the correct order', or the ability to do this where variation is 'difference' or 'deviation' in the structure. The existence of the variants does not make much of the difference to the common person who is using the language because it does not come on the way of proper communication of the message but it is much important in case of Machine Translation. The major reasons for spelling variations in language can be attributed to the phonetic nature of Indian languages and multiple dialects, transliteration of proper names, words borrowed from foreign languages, and the phonetic variety in Indian language alphabet. [105]

For example, Following are the possible spelling variations for the Hindi word अंग्रेजी (*aṅgrējī*):

अँग्रेजी, अंगरेजी, अन्ग्रेजी, अँगरेजी, अंग्रेजी, अंग्रेज़ी

3.5 Conclusion

In this chapter we have tried to compare Hindi and Punjabi language from the point of view of orthography, grammar and Machine Translation. This study is by no means an exhaustive one. This study was primarily aimed at knowing the closeness between both the languages and thus, to find the appropriate approach for the development of Machine Translation.

We call a language pair to be closely related if the languages have the grammar that is close in structure, contain similar constructs having almost

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same semantics, and share a great deal of lexicon. By closely related languages, we also mean in ectively and morphosyntactically similar languages. Some linguist define closeness between the languages on the basis of features viz. common root, similar alphabets, similar verb patterns, structural similarity, similar grammar, similar religio-cultural and demograpohic contexts and references, a similar clearly displayed ability to blend with foreign tongues . Generally, such languages have originated from the same source and spoken in the areas in close proximity.

Hindi and Punjabi belong to same sub group of the Indo European family, thus are sibling languages. We have also observed that Hindi and Punjabi languages share all features of closely related languages. For such closely related sibling languages, effective translation can be achieved by word-for-word translation (Hajic et al., 2000) [90]. Thus, it is concluded that direct Machine Translation approach is promising for closely related languages Hindi and Punjabi.

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Chapter 4

Pre Processing Phase

The present and the next chapter discuss the design and implementation of the algorithms and structures that formulate our Hindi to Punjabi Machine Translation system. For all the activities, the design of the databases used, if any, along with some sample entries from the databases and the approach followed for that activity have been discussed in detail. While describing the design of the databases used, only the fields or databases directly concerned with performing the activity under consideration have been provided. There may be some additional fields or databases used for proper functioning of this Machine Translation system but have virtually no impact on describing the approach, thus, description of such databases or fields have been avoided. All the activities of this Machine Translation system have been implemented in ASP.Net and their databases are in the MS-Access with Hindi and Punjabi text in Unicode format. This Machine Translation system accepts Hindi text as input and provides output in Gurmukhi script in Unicode.

This chapter provides first activity pre-processing of our Machine Translation system. The remaining activities have been detailed in the next chapters. Chapter 1 has already presented the complete design of this Machine Translation system.

4.1   Introduction

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The preprocessing stage is a collection of operations that are applied on input data to make it processable by the translation engine. In the first phase of Machine Translation system, various activities incorporated include text normalization, replacing collocations and replacing proper nouns. Figure 4.1 presents the design of this pre-processing system in more detail.
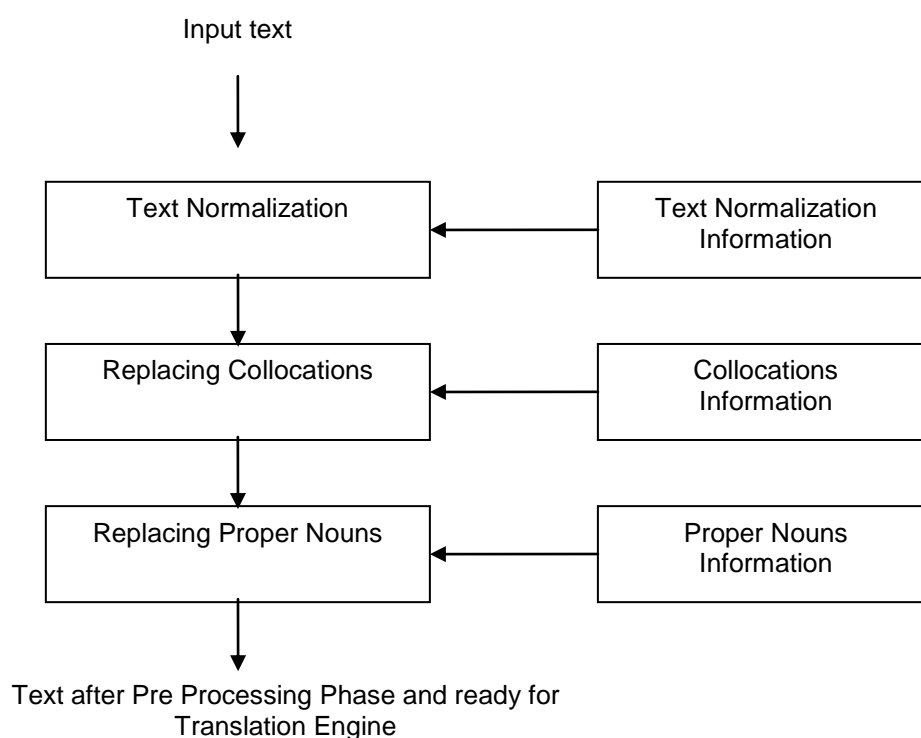
Figure 4.1: Pre-processing System Design

The four sub-activities of pre-processing system shown in Figure 4.1 are explained in the following sub-sections.

4.2 Text Normalization

Spelling conventions are an important feature of any language that is written.

The Cambridge Dictionary defines spelling as 'forming words with the correct

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letters in the correct order', or the ability to do this where variation is 'difference' or 'deviation' in the structure. The existence of the variants does not make much of the difference to the common person who is using the language because it does not come on the way of proper communication of the message but it is much important in case of Machine Translation. This sub phase works on spelling standardization issues, thereby resulting in multiple spelling variants for the same word. The major reasons for this phenomenon can be attributed to the phonetic nature of Indian languages and multiple dialects, transliteration of proper names, words borrowed from foreign languages, and the phonetic variety in Indian language alphabet. The variety in the alphabet, different dialects and influence of foreign languages has resulted in spelling variations of the same word. Such variations sometimes can be treated as errors in writing. For example, Following are the possible spelling variations for the Hindi word अंग्रेजी *(aṅgrējī)*:

अँग्रेजी, अंगरेजी, अन्ग्रेजी, अँगरेजी, अंग्रेजी, अंग्रेज़ी

But out of these above possible spelling variants, only following are found in the Hindi corpus along with their frequency of occurrence:

Table 4.1: Frequency of Occurrence for Possible Spelling Variants of

Word अंग्रेजी

| अंग्रेज़ी *(aṅgrējī)* | 87.017% |
| अंग्रेजी *(aṅgrējī)* | 8.037% |

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| अँगरेजी *(aṅgrējī)* | 4.945% |

Following rules specific to Hindi language have been framed which can handle such variations, which could result in more precise performance and for making the input text normalized for better accuracy:

Table 4.2: Text Normalization Rules

Rule No.	Rule	Example
1.	Chandrabindu (a half-moon with a dot) and bindu (a dot on top of alphabet) can be used interchangeably.	(i) अँगरेज़ *(aṅgrēja)*, अंगरेज़ *(aṅgrēja)* (ii) लाँच *(lāñc)*, लांच *(lāñc)*
2.	There are five consonant characters with nukta (a dot under consonant) viz. क़, ख़, ग़, ज़, फ़. With this rule, all consonants with nuktas and these consonants without nukta will be considered same.	(i) अंग्रेज़ *(aṅgrēja)*, अंग्रेज *(aṅgrēj)* (ii) फोटो *(phōṭō)*, फ़ोटो *(phaōṭō)* (iii) तेज *(tēj)*, तेज़ *(tēja)*
3.	Hindi and many other Indian languages face the problems of 'schwa' (the default vowel 'a' that occurs with every consonant) deletion. Lots of spelling variations occur due to 'schwa' deletion. In order to normalize such words we delete all the halanth characters in the given word to generate spelling variant.	(i) भगवान् *(bhagvān)*, भगवान *(bhagvān)* (ii) अगरज *(agaraj)*, अग्रज *(agraj)* (iii) अक्सर *(aksar)*, अकसर *(akasar)*

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		(iv)नारकोटिक (*nārkōṭik*),नार्कोटिक (*nārkōṭik*)
4.	'Bindu' and 'न्' can be used interchangeably.	(i) कन्ठ(*kanṭh*), कंठ (*kaṇṭh*)
5.	'Bindu' and 'म्' can be used interchangeably for words having 'म्' before the labial consonants like प,ब,फ,म,व in the word.	(i) अम्बु(*ambu*), अंबु (*ambu*) (ii) पम्प (*pamp*), पंप (*pamp*)
6.	There is one supplemental sound occasionally encountered in Hindi. This is the 'Visarga', noted in devanagari by the sign ('ः'). This sign appears only in tatsama vocabulary items. The words having sign ('ः') can also be written without it and is treated equivalent.	(i) अक्रमतः(*akrmat*), अक्रमत (*akrmat*) (ii) अंततः (*antat:*), अंतत (*antat*)
7.	Sometimes in place of 'ङ्'/'ण्'/ 'ञ' in the words, Chandrabindu (a half-moon with a dot) / bindu (a dot on top of alphabet) can be used and are equally correct. But it is very rare.	(i) गंङगा(*gaṅṅgā*), गंगा(*gaṅgā*) (ii) ब्राण्ड (*brāṇḍ*), ब्राँड (*brāṇḍ*) (iii) पञजा (*pañjā*),पंजा (*pañjā*)
8.	'ई' and 'यी' cane be used	(i) नई (*naī*), नयी(*nayī*)

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	interchangeably in words.	
9.	'ए' and 'ये' can be used interchangeably in words.	(i) लिए (*liē)*, लिये (*liyē)*

Analysis:

An exhaustive analysis has been done on large Hindi corpus collected from number of online resources for finding most useful rules among above mentioned rules. The Hindi Corpus used for analysis consists of about 1,00,000 words.

As it has been mentioned earlier that there can be a large number of possible spelling variations for a particular word depending upon the above rules, but in real data, among these variations, very less spelling variations are found. Only 1.492% words show the variations in their spellings. Following Table shows that out of these 1.492% words, percentage of words having one, two or three variations:

Table 4.3: % Word Occurrence with Spelling Variation Count

Number of variants	Words (%)	Example
1	99.985	जरूरत (*jarūrat)*, ज़रूरत (*jarurat)*
2	0.010	अँगरेजी (*aṅgrējī)*,अंग्रेजी (*aṅgrējī)*,अंग्रेज़ी (*aṅgrējī)*
3	0.005	फ़र्क (*phark)*, फर्क (*phark)*, फ़र्क़ (*phark)*, फ़रक (*phark)*

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Thus, above table represents that, the variations found for majority of the words is just 1 and in worst case, it can go up to 3. And no case has been found with more than three spelling variants.

Following graph represents the importance and usage of different rules during analysis:
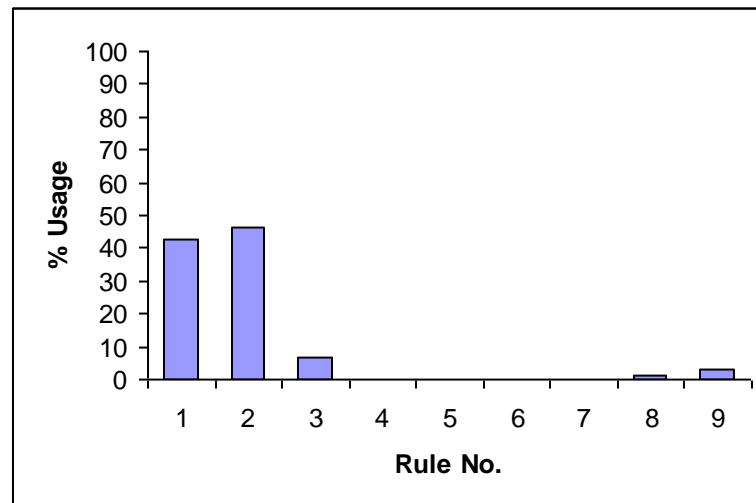
Figure 4.2: Analysis of % Usage of Various Text Normalization Rules

The above graph shows that Rule No 1 and 2 have maximum applicability and rests of the rule are seldom used. Rules other than 1 and 2 are also contributing in standardization but their role is limited.

It is found that only 7.45% text was standardized using the above rules. Following graph shows the analysis of the contribution of various rules Vs the number of words standardized:

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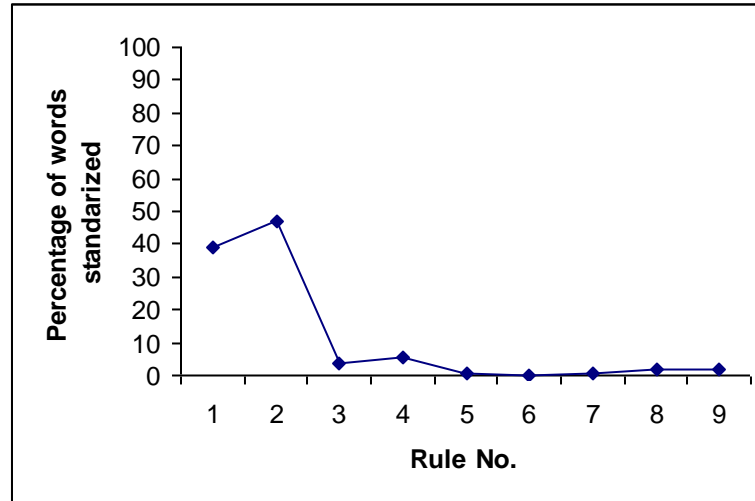
Figure 4.2: Analysis of Contribution of Text Normalization Rules

Majority of the standardization is done on the basis of the rules 1 and 2. Rest of the rules play very limited roles.

Database design:

Table 4.4 carries the design of the database used for storing information about text normalization.

Table 4.4: Text Normalization Database Design

Field Name	Description
nonstandardWord	Stores the non standard Hindi words
nswFreq	The frequency of the non standard word in the corpus analysed
standardWord	Hindi Word with standard spellings
swFreq	The frequency of the standard word in the corpus analysed

Sample database entries:

Table 4.5: Sample Entries of Text Normalization Database

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nonstandardWord	nswFreq	standardWord	swFreq
फ़िल्म (*phailm*)	104	फिल्म (*philm*)	2165
हालांकि (*hālāṅki*)	1486	हालाँकि (*hālāṅki*)	3120
हाँ (*hāṃ*)	2045	हां (*hāṃ*)	4513
मौक़ा (*maukaā*)	700	मौका (*maukā*)	1580
किराए (*kirāē*)	600	किराये (*kirāyē*)	3411
हूं (*hūṃ*)	985	हूँ (*hūṃ*)	24910
एण्ड (*ēṇḍ*)	100	एंड (*ēṇḍ*)	1853
स्थाई (*sthāī*)	6	स्थायी (*sthāyī*)	20
इंटरनेक्षल (*iṇṭranēshnal*)	2	इंटरनेशनल (*iṇṭranēshnal*)	16
रविन्द्र (*ravindr*)	1	रविंद्र (*ravindr*)	4

Our Approach: The small offline module has been developed to generate the database for standardization. The module starts applying the rules discussed above, to the Hindi corpus collected from various sources like Hindi newspaper websites, various literatures available online etc. Thus, storing standard and non standard words extracted during corpus analysis along with their frequency into database. Then, the word having the maximum frequency among its spelling variant words is considered to be standard one. In future, this standard word may also be replaced with some of its other variants if frequency of the new spelling variant exceeds the current standard one. For example: the spelling variations हालांकि (*hālāṅk*) and हालाँकि (*hālāṅk*) are equally correct. If in some input text one variation is present more number of times than other, it can become standard one and vice versa. Thus, the

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database is always in updated mode to accept changes for the existing entries also. The spelling variant(s) among non standards having frequency zero is omitted as they do not have existence in the real text. In this way, only those spelling variations are kept in the database that actually exists in Hindi Vocabulary. In this way, database is generated and presently database consists of 2,00,450 entries. Once this database is generated, during the preprocessing phase, the table lookup is done to replace the non standards words present in the database with the standard ones.

4.3 Replacing Collocations

After passing the input text through text normalization, the text passes through this Collocation replacement sub phase of Pre-processing phase. Collocation is two or more consecutive words with a special behavior. (Choueka :1988). Collocation means those combinations of words in Hindi that cannot be translated word to word and such combinations of words have different word in group rather that their individual. These groups of words have a special behavior. The meaning of the collocation can not be predicted from its parts, there is usually an element of meaning added to the parts of collocation. For example, the collocation उत्तर प्रदेश (*uttar pradēsh)* if translated word to word,

will be translated as ਜਵਾਬ ਰਾਜ (*javāb rāj)* but it must be translated as ਉੱਤਰ

ਪ੍ਰਦੇਸ਼ (*uttar pradēsh).*

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Related works:

Collocation has long been studied by lexicographers and linguists in various ways. Most collocation extraction methods are based on exploiting the various idiosyncrasies exhibited by collocations. The variation in statistical distributional characteristics has been widely employed to test for evidence of a collocation. Point wise Mutual Information is one of the earliest measures of association used for collocations [104]. Word association has also been measured using measures like Jaccard, Odds Ratio, etc [105]. Classical statistical hypothesis tests like Chisquare test, t-test, z-test, Log Likelihood Ratio [106] have also been employed to decide whether the constituents of a collocation are independent of each other. The variation in positional distribution of words in a collocation has also been used to identify significant collocations [107]. Lin [108] and Cruys et.al. [109] have used the principle of substitution to extract institutionalized collocations. They measure the difference between the distributional characteristics of the collocation and other similar collocations obtained by lexical substitution. While Lin uses PMI as the base association score, Cruys et.al. [109] use a strength of association measure motivated by the idea of selectional preference of a constituent word for another. Fazly et.al. [110] extract collocation by exploiting their syntactic fixedness. Katz [111] and Baldwin [112] use the context as a bag of words and build context vectors for representing collocations and their constituents. Comparison of the collocation and constituent vectors helps determine if the collocation is non-compositional. Moiron et.al. [113] have used the idea of

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translation ambiguity to extract non-compositional MWEs. The noncompositional collocations will have more translation candidates on account of more uncertainty in translation. This uncertainty is measured as translational entropy. Language modeling has been used to extract domain specific phrases, by comparing the distribution of collocations in a general and domain-specific corpus [114]. All the measures mentioned above have modeled the problem as a ranking problem, where the collocations more likely to be MWEs are ranked higher. If an annotated training set is available, the MWE extraction problem can be set up as a classification problem [115]. For Indian languages, automated collocation extraction work has been limited. In fact, both of the existing works [115-117] use some kind of English translation for extracting Hindi collocations. Mukerjee et.al. [116] have used parallel corpus alignment and POS tag projection with parallel English corpus to extract complex predicates. Venkatapathy et.al. [115] use a classification based approach for extracting N-V collocations for Hindi. They use identity of the verb, semantic type of the object, case marker with the object, similarity of the verb form of the object with the verb-object pair under consideration etc. as features in a MaxEnt classifier. Thus, there are number of approaches for extracting Collocations from the corpus Like Frequency Method, Mean and Variance, Hypothesis Testing, t-test, Pearson's Chi-Square Test , Likelihood Ratio and Point wise Mutual Information.

Our Approach for Extracting Collocations:

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Our focus is on extracting collocations which can be used for translation into Punjabi and above mentioned approaches are not suitable in our case. We have developed an offline module using t-test for automatically extracting the collocations from the Hindi Corpus. The steps performed for extracting the collocations using the t-test are as follows:

1. Extract all the unigrams, bigrams and trigram from the corpus along with their frequencies of their occurrence in the corpus and store into a database table tbl_Unigram, tbl_bigram, tbl_trigram respectively.

2. Combine all bigrams and their frequencies with their corresponding unigrams and their particular frequencies into the database table tbl_unibi.

3. Combine all trigrams and their frequencies with their corresponding unigrams and their particular frequencies into the database table tbl_unitri.

4. For each entry in table tbl_unibi, Expected mean (μ) is calculated using the formula P(bigram) = P(unigram1)P(unigram2). Where P(unigrami) = Frequency of unigram / total no of tokens in analyzed corpus.

5. For each entry in table tbl_unibi, Observed mean is calculated by dividing the frequency of the particular bigram with the total number of bigrams found during corpus analysis.

6. The variance (s2) is equal to the observed frequency.

7. Now Apply the formula t = (x -μ)/sqrt(s2/N). Where N is the total number of bigrams found during corpus analysis.

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8. Apply the steps 4 to 7 for trigrams.

9. After applying t-test to all bigrams and trigrams, there are many bigrams and trigrams which are not good candidates for collocations. We removed all the analyzed bigrams and trigrams whose t-value is less than 2.576 (standard value provided by t-test).

The accuracy of the results for collocation extraction using t-test is not accurate and includes number of such bigrams and trigrams that are not actually collocations. Thus, manually such entries were removed and actual collocations were further extracted. The correct corresponding Punjabi translation for each extracted collocation is stored in the collocation table of the database. The collocation table of the database consists of 5000 such entries.

Database design: Table 4.6 carries the design of the database used for storing information about collocations.

Table 4.6: Collocation Database Design

Field Name	Description
Collocation	Stores the Hindi collocation
punjabiTranslation	Stores Punjabi translation for corresponding collocation

Sample database entries:

Table 4.7: Sample Entries in Collocation Database

Collocation	punjabiTranslation
आप को *(āp kō)*	ਤੁਹਾਨੂੰ *(tuhānūṃ)*

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उत्तर प्रदेश *(uttar pradēsh)*	ਉੱਤਰ ਪ੍ਰਦੇਸ਼ *(uttar pradēsh)*
जाने जान *(jānē jān)*	ਜਾਣੇ ਜਾਣ *(jāṇē jāṇ)*
जोर-शोर *(jōr-shōr)*	ਜੋਰ-ਸ਼ੋਰ *(jōr-shōr)*
दैनिक जागरण *(dainik jāgraṇ)*	ਦੈਨਿਕ ਜਾਗਰਣ *(dainik jāgraṇ)*
नाग पंचमी *(nāg pañcmī)*	ਨਾਗ ਪੰਚਮੀ *(nāg pañcmī)*

Our approach for replacement of collocation:

In this sub phase, the normalized input text is analyzed. Each collocation in the database found in the input text will be replaced with the Punjabi translation of the corresponding collocation. This step helps a lot in increasing the translation accuracy of the system. It is found that when tested on a corpus containing about 1,00,000 words, only 0.001% collocations were found and replaced during the translation.

4.4 Replacing Proper Nouns

A great proposition of unseen words includes proper nouns like personal, days of month, days of week, country names, city names, bank names, organization names, ocean names, river names, university names etc. and if translated word to word, their meaning is changed. If the meaning is not affected, even though this step fastens the translation process. Once these words are recognized and stored into the proper noun database, there is no need to decide about their translation or transliteration every time in the case of presence of such words in input text for translation. This gazetteer makes

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the translation accurate and fast. This list is self growing during each translation. Thus, to process this sub phase, the system requires a proper noun gazetteer that has been complied offline. For this task, we have developed an offline module to extract proper nouns from the corpus based on some rules. Following sections will explain the process of preparing the proper noun gazetteer and then the use of this gazetteer in pre-processing phase.

4.4.1 Compilation of Proper Nouns Gazetteer:

The gazetteer has been prepared using two approaches. One approach is through an offline module and another is through manual collection from various sources available online. The offline module further needs two databases containing titles like श्री *(shrī)*, श्रीमती *(shrīmtī)*, प्रो *(prō)* etc. and surnames like अवस्थी *(avsthī)*, आहूजा *(āhūjā)* etc. The database design of these databases has been explained in following sections. These databases have been prepared manually by collecting the data from various resources. The offline module accepts the Hindi text, applies various rules on it, extracts the proper names, and stores it in proper noun database. Following are the rules for extraction of proper nouns through offline module:

Rule 1: It checks whether the token from input text is matched with any entry in titles database, then the token next to current one is a proper noun like

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श्रीमान कमल गोयल (*shrīmān kamal gōyal).* Here श्रीमान (*shrīmān)* is a title and thus, कमल (*kamal)* is a proper noun.

Rule 2: It checks whether the token from input text is matched with any entry in surname database, then the token previous to current one is a proper noun like कमल गोयल (*kamal gōyal).* Here, गोयल (*gōyal)* is a surname and thus, कमल (*kamal)* is a proper noun.

Using above two rules, initial proper nouns gazetteer is prepared from a large Hindi Corpus. Then manual entries are also added into this gazetteer for making it more robust for use by the translations system. After generating this gazetteer, there is need to call transliteration module (explained in the next chapter) for storing the equivalent Punjabi version of this Hindi entry. The database consists of 8000 such entries.

4.4.2 Replacing Proper Nouns:

After passing the input text through text normalization and collocation replacement sub phase of pre-processing, the output text from collocation phase becomes input text for this proper noun replacement sub phase of preprocessing. If there are any tokens in the input text that gets matched with the entries of the proper nouns database, are replaced with the corresponding equivalent Punjabi proper nouns.

Database design: Table 4.8 carries the design of the database used for storing information about proper nouns.

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Table 4.8: properNoun Database Design

Field Name	Description
hindiPropernoun	Stores the Hindi version of proper noun
punjabiProperNoun	Stores equivalent Punjabi version of the proper noun.

Sample database entries:

Table 4.9: Sample Entries of properNoun Database

hindiProperNoun	punjabiProperNoun
अमर सिंह (*amar siṃh*)	ਅਮਰ ਸਿੰਘ (*amar siṅgh*)
आजाद नगर (*ājād nagar*)	ਆਜ਼ਾਦ ਨਗਰ (*āzād nagar*)
इंग्लैंड (*iṅglaiṇḍ*)	ਇੰਗਲੈਂਡ (*iṅglaiṇḍ*)
इंदिरा गांधी (*indirā gāndhī*)	ਇੰਦਰਾ ਗਾਂਧੀ (*indrā gāndhī*)
उत्तर भारत (*uttar bhārat*)	ਉੱਤਰ ਭਾਰਤ (*uttar bhārat*)
जमना बाई स्कूल (*jamnā bāī skūl*)	ਜਮਨਾ ਬਾਈ ਸਕੂਲ (*jamnā bāī sakūl*)

4.5 Summary

In this chapter, pre-processing activity of our Machine Translation system has been provided. Design and implementation details of these activities have been discussed. Along with the database design, some excerpts from the respective databases have been provided to make the design more clear. In the next chapter, the remaining activities of our Machine Translation system, i.e. tokenizer and translation engine are discussed.

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Chapter 5

Tokenizer and Translation Engine

5.1 Tokenizer

Tokenizers (also known as lexical analyzers or word segmenters) segment a stream of characters into meaningful units called tokens. The tokenizer takes the text generated by pre processing phase as input. Individual words or tokens are extracted and processed to generate its equivalent in the target language. This module, using space, a punctuation mark, as delimiter, extracts tokens (word) one by one from the text and gives it to translation engine for analysis till the complete input text is read and processed.

5.2 Translation Engine

The translation engine is the main component of our Machine Translation system. It takes token generated by the tokenizer as input and outputs the translated token in the target language. These translated tokens are concatenated one after another along with the delimiter. Then this generated text is passed on to the postprocessing phase. Translation Engine Phase of the system involves various sub phases that are Identifying titles, Identifying surnames, word-to-word translation using lexicon lookup, Word sense disambiguation and handling out-of-vocabulary words. All the modules have equal importance in improving the accuracy of the system. In this chapter,

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these modules are described in detail followed by an example. This phase comprises of following sub phases:

1. Identifying titles
2. Identifying surnames
3. Word-to-word translation using lexicon lookup
4. Word sense disambiguation
5. Handling out-of-vocabulary words
   5 (a) Word Inflectional analysis and generation
   5 (b) Transliteration

5.2.1 Identifying Titles

Title may be defined as a formal appellation attached to the name of a person or family by virtue of office, rank, hereditary privilege, noble birth, or attainment or used as a mark of respect. Thus word next to title is usually a proper noun. And sometimes, a word used as proper name of a person has its own meaning in target language. When this word is passed through the translation engine, it is translated by the system. This cause the system failure as these proper names should be transliterated instead of translation. For example consider the Hindi sentence श्रीमान हर्ष जी हमारे यहाँ पधारे। (*shrīmān harsh jī hamārē yahāṃ padhārē).* In this sentence, हर्ष (*harsh*) has the meaning "joy". The equivalent translation of हर्ष (*harsh)* in target language is ਖ਼ੁਸ਼ੀ (*khushī).* Thus, the sentence will be translated as ਸ੍ਰੀਮਾਨ ਖ਼ੁਸ਼ੀ ਜੀ ਸਾਡੇ ਇੱਥੇ ਪਧਾਰੇ । (*shrīmān khushī jī sāḍē itthē padhārē).* But actually it must be

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translated as ਸ਼੍ਰੀਮਾਨ ਹਰਸ਼ ਜੀ ਸਾਡੇ ਇੱਥੇ ਪਧਾਰੇ । (*shrīmān harash jī sāḍē itthē*

padhārē). The reason is straightforward that in this sentence हर्ष (*harsh*) word

is acting as proper noun and it must be transliterated and not translated.

In this system, a small module has been developed for locating such proper

nouns where titles are present as their previous word like श्री (*shrī)*, श्रीमान

(*shrīmān)*, श्रीमती (*shrīmtī)* etc. There is one special character 'ः' in Devanagari

script to mark the symbols like डाः, प्रोः. If tokenizer found this symbol during

reading the text, the word containing it, will be marked as title by setting the

IsTitle Flag to true. If isTitle flag has been set to true, the next word generated

by tokenizer will be transliterated and not processed for translation. After the

word next to title will be transliterated, isTitle flag is again reset to False. The

named entities found from the text through this module are also added to the

proper nouns database automatically. It improves the systems in two ways –

one, it helps in continuously increasing the proper noun coverage, Second,

the expansion of proper noun database will increase the speed of translation.

Database design: Table 5.1 carries the design of the database used for

storing information about titles.

Table 5.1: Titles Database Design

Field Name	Description
titleInHindi	Stores the titles in Hindi
titleInPunjabi	Stores the corresponding translated titles

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Sample Database Entries:

The title database consists of 14 entries. Following table shows some of the database entries for titles database:

Table 5.2: Sample Entries of Titles Database

titleInHindi	titleInPunjabi
प्रो (*prō)*	ਪ੍ਰੋ (*prō)*
श्रीमती (*shrīmtī)*	ਸ੍ਰੀਮਡੀ (*shrīmtī)*
श्रीमान (*shrīmān)*	ਸ੍ਰੀਮਾਨ (*shrīmān)*
श्री (*shrī)*	ਸ੍ਰੀ (*shrī)*

This database can be extended at any time to allow new titles to be added.

5.2.2 Identifying Surnames

Surname may be defined as a name shared in common to identify the members of a family, as distinguished from each member's given name. It is also called family name or last name. Thus the word previous to surname is usually a proper noun. And sometimes, a word used as proper name of a person has its own meaning in target language. When this word is passed through the translation engine, it is translated by the system. This causes the system failure as these proper names should be transliterated instead of translation. For example consider the Hindi sentence प्रकाश सिंह हमारे यहाँ

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पधारे।. *(prakāsh simh hamārē yahāṃ padhārē)* In this sentence, प्रकाश *(prakāsh)* is a noun having sense "light". The equivalent in target language is ਚਾਨਣ *(cānaṇ)*. Thus, the sentence will be translated as ਚਾਨਣ ਸਿੰਘ ਸਾਡੇ ਇੱਥੇ ਪਧਾਰੇ । *(cānaṇ singh sāḍē itthē padhārē)*. But actually it must be translated as ਪ੍ਰਕਾਸ਼ ਸਿੰਘ ਸਾਡੇ ਇੱਥੇ ਪਧਾਰੇ । *(prakāsh singh sāḍē itthē padhār)ē*. The reason is straightforward that in this sentence प्रकाश *(prakāsh)* word is acting as proper noun and it must be transliterated and not translated.

A small module has been developed for locating such proper nouns where word under consideration is a surname. If it is found to be surname then the word previous to this word is transliterated. If in any case, the previous word has been translated, now it has been corrected by transliteration. This module was also tested on a large Hindi corpus and showed that about 2-5 % text of the input text depending upon its domain is proper noun. Thus, this module plays an important role in translation. But it has also been observed that there were some cases where this module fails on following examples:

(i) आप कुमार से पूछ लें । *(āp kumār sē pūch lēṃ)*.

(ii) उन्होंने सिंह परिवार से रिश्ता जोड़ा । *(unhōnnē simh parivār sē rishtā jōṛā)*.

(iii) मैंने गोयल को कहा था कि वो यहाँ ना आये । *(mainnē gōyal kō kahā thā ki vō yahāṃ nā āyē)*

(iv) राम ने सिंह की क़ुरबानी को सराहा । (*rām nē siṃh kī kurbānī kō sarāhā).*

In the above examples, before the surnames कुमार (*kumār)*, सिंह (*siṃh)*, गोयल (*gōyal)* the tokens are आप (*āp)*, उन्होंने (*unhōnnē)*, मैंने (*mainnē)* respectively.

These token were transliterated rather than translated according to this module. Now, this module has been made intelligent to differentiate between proper nouns and other tokens like pronouns, prepositions, adjectives etc and thus only proper nouns will be transliterated. List of such approx. 50 tokens has been prepared manually so that whenever these tokens are found before the surnames, these must not be transliterated and will be translated.

It is not possible to store all the possible proper nouns directly into the database. Thus, the proper nouns found from the input text through this module are automatically added to the proper nouns gazeteer. Hence, through this self learning approach, the system's accuracy and speed keep on increasing with use.

Database design: Table 5.3 carries the design of the database used for storing information about surnames.

Table 5.3: Surnames Database Design

Field Name	Description
surnameInHindi	Stores the surname in Hindi
surnameInPunjabi	Stores the corresponding transliterated surnames in Punjabi

Sample database entries:

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The surnames database consists of 654 entries. Following table shows some of the database entries for surnames database:

Table 5.4: Sample Entries of Surname Database

surnameInHindi	surnameInPunjabi
अरोड़ा *(arōṛā)*	ਅਰੋੜਾ *(arōṛā)*
कक्कड़ *(kakr)*	ਕੱਕੜ *(kakkaṛ)*
खुराना *(khurānā)*	ਖੁਰਾਨਾ *(khurānā)*
जिंदल *(jindal)*	ਜਿੰਦਲ *(jindal)*

5.2.3 Word-to-Word translation using lexicon lookup

If token is not a title or a surname, it is looked up in the HPDictionary database containing Hindi to Punjabi direct word to word translation. If it is found, it is used for translation. If no entry is found in HPDictionary database, it is sent to next sub phase for processing. For example, token is अड़तीसवाँ *(aṛtīsvāṃ)*, it is looked up in the database and the entry for it is found in the database. Then its translated version is used in the output text i.e. ਅਠੱਤੀਵਾਂ *(aṭhttīvāṃ)*. And no other phase is required for this token. Tokenizer will start generating next token for processing by the translation engine.

Database design: Table 5.5 carries the design of the database used for storing entries for Hindi words to Punjabi words direct translation.

Table 5.5: HPDictionary Database Design

Field Name	Description
hindiWord	Stores the Hindi Word

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punjabiWord	Stores the corresponding translated word in Punjabi

Sample database entries:

The HPDictionary database consists of 54,127 entries.Following table shows some of the database entries for HPDictionary database:

Table 5.6: Sample Entries of HPDictionary Database

hindiWord	punjabiWord
अथवा (*athvā)*	ਅਤੇ (*atē)*
छोड़ी (*chōḍaī)*	ਛੱਡੀ (*chaḍḍī)*
जायेंगे (*jāyēṅgē)*	ਜਾਣਗੇ (*jāṇgē)*
सीखा (*sīkhā)*	ਸਿੱਖਿਆ (*sikkhiā)*

This database can be extended at any time to allow new entries in the dictionary to be added.

5.2.4 Resolving Ambiguity

Ambiguity is one of the NLP problems which have been a great challenge for computational linguists. In general, people are unaware of the ambiguities in the language they use because they are very good at resolving them using context and their knowledge of the world. But computer systems do not have this knowledge, and consequently do not do a good job of making use of the context.

Something is ambiguous when it can be understood in two or more possible ways or when it has more than one meaning. If the ambiguity is in a

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sentence or clause, it is called structural (syntactic) ambiguity. If it is in a single word, it is called lexical ambiguity.

For the structural ambiguity, consider the sentence "The man saw the girl with the telescope". This sentence is ambiguous since it can be interpreted in two ways: The man saw the girl who possessed the telescope or, the man saw the girl with the aid of the telescope. However, the sentence "The man saw the girl with a red hat" is not ambiguous for a human reader (people have the knowledge that a hat cannot be used to see), while it has the same ambiguity as the previous example for a computer.

In a Machine Translation application, different senses of a word may be represented with different words in the target language. Consider the following sentence :

राम <u>आम</u> खा रहा है । *(rām ām khā rahā hai)*

In the above example, word आम in the sentence is lexically ambiguous. Its meaning can be interpreted in two ways – mango (a fruit) and usual (an adjective) as in following examples:

Usage as Noun: तोता पेड़ पर बैठकर <u>आम</u> खा रहा है *(tōtā pēḍa par baiṭhakar ām khā rahā hai)*

Usage as Adjective: ऐसे चोरों से मिलना <u>आम</u> बात है जो चोरी के ख़िलाफ़ उपदेश देते हैं *(aisē cōrōṃ sē milnā ām bāt hai jō cōrī kē khailāpha updēsh dētē haiṃ)*

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In order to correctly translate a text in one language to another, firstly we have to know the senses of the words and then find the best translation equivalent in the target language.

Lexical ambiguity can refer to both homonymy and polysemy. Homonyms are words that are written the same way, but are (historically or conceptually) really two different words with different meanings which seem unrelated. Examples are *suit* ("lawsuit" and "set of garments") and *bank* ("river bank" and "financial institution"). If a word's meanings are related, it is called a polyseme. The word *party* is polysemous because its senses can be generalized as "group of people", that is they are related.

Now let us consider the meaning of the noun *party* in the following sentence:

Mr. Smith's party took 38% of the votes in the last election.

It is clear to a human reader that the noun *party* is in the sense "an organization to gain political power" in the above sentence. Most people are not even aware of the ambiguity contained in the sentence. Humans are so skilled at resolving potential ambiguities that they do not realize they are doing it. There has been research on how people resolve ambiguities; however we still do not know exactly how humans do lexical disambiguation. Therefore, it is a difficult task to teach a computer to do the same thing. The most prominent way to disambiguate a word is examining its context. The context

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can be considered as the words surrounding the ambiguous word, which is the noun *party* in our case. Words as *vote* and *election* might be a good clue for the sense of the noun *party*. But context is not the only information available for disambiguation. Syntactic classes of the words in the ambiguous word's context (whether they are noun, verb or adjective, etc.), whether the ambiguous word plays the role of object or subject in the syntactic structure of the sentence may also be used in the disambiguation process.

In our research problem, we have determined the correct meaning of an ambiguous word which comes across during translation process, namely Word Sense Disambiguation using the context information.

WSD algorithms can be divided into two based on the corpora used for training. These approaches are:

i.   Supervised Word Sense Disambiguation

ii.   Unsupervised Word Sense Disambiguation

In supervised WSD the training data is sense-tagged whereas in unsupervised WSD the training data is raw corpora which have not been semantically disambiguated. In the following sections these approaches will be explained in detail.

Supervised Disambiguation

Supervised disambiguation is an application of the supervised learning approach for creating a classifier. A disambiguated corpus where each occurrence of an ambiguous word is annotated with a contextually appropriate

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sense is available for training. The aim in supervised disambiguation is to build a classifier which correctly classifies new cases based on their context of use.

Machine learning algorithms such as Bayesian classifiers [118], decision lists [119], decision trees [120], k-nearest neighbor and neural networks [121] are examples of supervised learning algorithms.

An example of probabilistic algorithms is Naïve Bayes [122] which has been frequently applied in WSD with good results [123]. Gale, Church and Yarowsky [124,125] uses a variant of Bayes ratio on six ambiguous nouns, namely *drug*, *duty*, *land*, *language*, *position*, and *sentence*, and reports 90% accuracy in discriminating between two senses of these words. Mooney [126] reports that Naïve Bayes and neural networks achieved the highest performance with an accuracy of 73% in assigning the correct senses to a corpus of examples of word *line* which has six senses. The other algorithms in Mooney's survey were 3-nearest neighbors, perceptron, decision tree, decision list and logic programming variants. Combining various classifiers has also been tested. Florian et al. [127] combined four classifiers namely feature-enhanced Naïve Bayes, Cosine, bag-of-words Naïve Bayes and non-hierarchical decision lists.

Decision lists search for discriminatory features in the training corpus and build a set of rules for disambiguation. Yarowsky [128] makes use of hierarchical decision lists and achieves top performance in the SENSEVAL-1 framework on the 36 test words for which tagged training data was available.

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Agirre and Martinez [129] reports that decision lists provide state-of-the-art results with simple and very fast means. This approach is reported to learn with low amounts of data.

Decision lists and Bayesian classifiers are the most popular algorithms in supervised disambiguation. For neural networks Towell and Voorhees [130], for decision trees Black [131] and Pedersen [132], for k-nearest neighbor Ng and Lee [133] and for information-theoretic approaches Brown et al. [134] are some examples of the work done on WSD.

A major problem with supervised approaches is the need for a large sense-tagged training set. Despite the availability of large corpora, manually sense-tagging of a corpus is very difficult and very few sense-tagged data are available now.

The two largest corpora that are available are the SemCor corpus [135] and the SENSEVAL corpus [136-138]. The SemCor corpus, created by the Princeton University, is a subset of the English Brown corpus containing almost 700,000 running words. In SemCor, all the words are tagged by part of speech and more than 200,000 content words are also lemmatized and sense-tagged according to Princeton WordNet 1.6 (mappings for later versions of WordNet are also available). SENSEVAL corpus is derived from the HECTOR corpus and dictionary project. It is a joint Oxford University Press and Digital project which took place in the early 1990s. Another sense-tagged corpus available is the DSO Corpus of Sense-Tagged English (Ng and Lee, 1996) [133]. This corpus contains sense-tagged word occurrences for

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121 nouns and 70 verbs which are among the most frequently occurring and ambiguous words in English. These occurrences are provided in about 192,800 sentences taken from the Brown Corpus and the Wall Street Journal and have been hand tagged by students at the Linguistics Program of the National University of Singapore. WordNet 1.5 sense definitions of these nouns and verbs were used to identify a word sense for each occurrence of each word.

There have been several efforts for finding a way to avoid the use of hand-tagged data. Bootstrapping is the most frequently used method for this purpose. Bootstrapping relies on a small number of instances of each sense for each lexeme of interest. These sense-tagged instances are used as seeds to train an initial classifier. This initial classifier is then used to extract a larger training set from the remaining untagged corpus. With each iteration of this process, the training corpus grows and the untagged corpus shrinks.

Hearst [139] generates a seed set by simply hand-tagging a small set of examples from the untagged corpus. However, during the training phase each occurrence of a set of nouns to be disambiguated is manually sense-tagged in several occurrences. Schütze [140-141] proposes a method that avoids tagging each occurrence in the training corpus. Yarowsky [142] proposes an alternative technique by using two constraints named as "One sense per collocation" and "One sense per discourse" and reports an accuracy of 96% on twelve words. "One sense per collocation" argues that nearby words provide strong and consistent clues to the sense of a target word, conditional

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on relative distance, order and syntactic relationship. Also, "One sense per discourse" constraint argues that the sense of a target word is highly consistent within any given document. Different bootstrapping techniques are also presented in Mihalcea and Moldovan [143] and Mihalcea [144]. Mihalcea [144] makes a comparison between the results when training is performed on hand-tagged data and the results when training is done using the generated corpus by bootstrapping. She reports that the precision achieved with the generated corpus is comparable, and sometimes better than the precision achieved with hand-tagged corpora.

Another method for avoiding hand-tagged data is using parallel corpora [145]. In this method, bilingual corpora are used since different senses of some words translate differently in another language. By using a parallel aligned corpus, the translation of each occurrence of such words can be used to determine their correct senses automatically. In Dagan and Itai [146], Ide et al. [147] and Ng et al. [148], various uses of parallel corpora for WSD and its disadvantages can be found.

The main problem that supervised disambiguation methods face with is data sparseness. Since the sense-tagged training corpus is finite and very small for WSD, some senses of polysemous words are very likely to be missing and most of them have few examples. For a supervised algorithm to be successful, the training data must ensure that all senses of a polysemous word are covered. Smoothing is used to solve the data sparseness problem. The task of reevaluating some of the zero-probabilities or low-probabilities

and assigning them non-zero values is called smoothing. Some of the smoothing methods are add-one smoothing, Witten-Bell smoothing [149], and Good-Turing smoothing [150]. Gale [151], presented a Good-Turing method for estimating the probabilities of seen and unseen objects in linguistic applications named as Simple Good-Turing method.

Unsupervised Disambiguation

In machine learning the distinction between supervised and unsupervised algorithms rests on whether a set of classifications exists. In unsupervised word sense disambiguation, information is gathered from raw corpora which have not been semantically disambiguated.

Yarowsky [152] proposed an approach for marking words with their categories from a thesaurus. He used Roget's Thesaurus [153]. Training was carried out on an untagged corpus of 10 million words obtained from the electronic version of the Grollier's Encyclopedia. The important aspect of the approach was that he used a context of 50 words either side so that 100 words were considered in the training examples for each ambiguous word. This method was tested on 12 ambiguous words and reported to achieve 92% accuracy. Yarowsky notes that this method is best for extracting topical information, most successful for nouns. The algorithm presented in Yarowsky [142] is also an unsupervised algorithm making use of a bootstrapping procedure.

McCarthy et al. [154], presents an algorithm that makes use of a thesaurus acquired from raw textual corpora and the WordNet similarity package to find predominant noun senses automatically. The acquired predominant senses

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gave a precision of 64% on the nouns of the SENSEVAL-2 all-words task which is a promising result regarding that no hand-tagged data is used.

Some of the unsupervised methods correspond to clustering tasks rather than sense tagging tasks because they do not label words to predefined senses. These algorithms do not make use of an outside source of knowledge to define senses. This is called *Word Sense Discrimination* rather than disambiguation. They divide the occurrences of a word into a number of classes by determining for any two occurrences whether they belong to the same sense or not [155-157]. Schütze's [155] results indicate that for coarse binary distinctions, unsupervised techniques can achieve results approaching those of supervised and bootstrapping methods. Purandere and Pedersen [156] present a systematic comparison of discrimination techniques proposed by Pedersen and Bruce [156,158,159] and by Schütze [157].

Knowledge Bases for WSD

In this section, different kinds of knowledge bases are presented. These knowledge bases can be used in any WSD system, whether it is supervised or unsupervised.

Machine Readable Dictionaries

Machine readable dictionaries (MRD) provide a ready-made information source of word senses. The first attempt to use MRD's came from Lesk (1986)[160]. He starts from the simple idea that a word's dictionary definitions are likely to be good indicators of the senses they define. By using Oxford Advanced Learner's Dictionary (OALD), he counts overlapping content words

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in the sense definitions of the ambiguous word and in the definitions of context words occurring nearby and selects the sense that achieves the maximum number of overlaps. The accuracy of the method is reported to be 50-70% on short samples of the Jane Austen novel Pride and Prejudice and an Associated Press news story based on very brief experimentation with the program.

Cowie et al. [161] tried to improve Lesk's approach by optimizing the overlap of all words in a single sentence simultaneously. However, it was found computationally very expensive. Therefore, Cowie et al. [161] used simulated annealing[162] for the first time in natural language processing. They evaluated this approach using a corpus consisting of 50 example sentences taken from Longman Dictionary of Contemporary English (LDOCE) which were disambiguated by hand. 47% of the words were reported to be correctly disambiguated to sense level and 72% to more rough grained senses.

Stevenson and Wilks [163] computed the overlap by normalizing the contribution of a word to the overlap count. Pedersen and Banerjee [164] described a different version of the Lesk's algorithm by employing glosses contained in WordNet [165]. Because of the fact that dictionaries are created for human use, not for computers, there are some inconsistencies [166-168]. Although they provide detailed information at the lexical level, they lack pragmatic information used for sense determination. For instance, the relation between *ash* and *tobacco*, *cigarette* or *tray* is very indirect in a dictionary

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whereas the word *ash* co-occurs very frequently with these words in a corpus [169].

Thesauri

Thesauri provide information about relationships among words. Thesaurus based disambiguation makes use of the semantic categorization provided by a thesaurus or a dictionary with subject categories. The most frequently used thesaurus in WSD is Roget's International Thesaurus (Roget, 1946) which was put into machine-tractable form in 1950's [153].

Walker [170] proposed an algorithm as follows: each word is assigned to one or more subject categories in the Thesaurus. If the word is assigned to several subjects, then it is assumed that they correspond to different senses of the word.

Similar to machine readable dictionaries, a Thesaurus is a resource for humans, so there is not enough information about word relations.

Computational Lexicons

The usefulness of lexical relations in linguistic, psycholinguistic and computational research has led to a number of efforts to create large electronic databases of such relations. Beginning from the mid-1980's, construction of semantic lexicons by hand has emerged. Some examples of these lexicons are WordNet [164], CyC [171], ACQUILEX [172], and COMLEX [173]. Each of these lexicons contains different kinds of information.

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WordNet

WordNet is an online lexical reference system which was developed at Princeton University under the direction of Professor George A. Miller. It combines many features used for WSD in one system. It includes definitions of word senses as in a dictionary; it defines "synsets" of synonymous words representing a single lexical concept; and it includes word-to-word relations.

WordNet consists of three databases: noun database, verb database and one database for adjectives and adverbs. Each database consists of lexical entries corresponding to unique orthographic forms.

The earliest attempts to use WordNet in WSD were in information retrieval field. Voorhees [174] and Richardson and Smeaton [175] created knowledge bases using WordNet's hierarchy. Li et al. [176] proposed a WordNet-based algorithm for WSD. Disambiguation was done by semantic similarity between words and heuristic rules. Heuristic rules were based on the semantic similarity and the WordNet hierarchy. Leacock et al. [177] used WordNet to counter data sparseness problem. Hawkins [178] built up a WSD system that works with frequency and contextual information that is based on WordNet. Fellbaum et al. [179] proposed a system that made use of syntactic clustering and semantic distinctions extracted from WordNet.

WordNet is mostly used to determine semantic similarity between senses. Resnik [180] computed information content of words which is a measure of the specificity of the concept that subsumes the words in the WordNet hypernym hierarchy. Agirre and Rigau [181] employ WordNet to determine the

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conceptual distance among concepts whereas Mihalcea and Moldovan [182] exploit semantic density and WordNet glosses in an all words word sense disambiguation. Lin [183-185] described a semantic similarity measure where similarity between two objects is defined to be the amount of information contained in the commonality between the objects divided by the amount of information in the description of the objects.

Other approaches using WordNet are Jiang [186], Agirre and Agirre et al. [187], Haynes [188] and Banerjee et al. [189]. A combination of MRDs and WordNet has also been tried with some success [190-192].

WSD in Indian Languages

Robust Standalone Systems for word sense disambiguation in Indian language are very few. WSD is mostly tackled at the POS tagging and Morphological analysis phase and what ever left is handled with the help of rules. Recently some standalone algorithms have also been developed for WSD in Indian languages.

Anusaaraka is one of the oldest MT systems available in India. It is more a language accessor rather than an MT system [65]. It is based on the assumption that most Indian languages have same origin so most of the words in source language have one meaning in target language. Based on this, it just provides the glosses of source language in the target language. There are cases where the meaning is too general or too specific. Such cases are handled by introducing some special notation to either narrow down or

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widen the meaning. An attempt is made to find the underlying thread that connects different senses of the polysemous word. A kind of formula is then evolved that faithfully and unambiguously represents the connection between these different senses. For the English – Hindi system, the current version of Anusaaraka uses a dictionary called Shabdanjali. POS tagger and wasp workbench are used for developing word sense disambiguation rules semi-automatically.

Similarly in AnglaBharati approach a rule base is used for picking up the correct sense of each word in the source language to the extent feasible using interleaved semantic interpreter [65]. Further disambiguation and choice of right construct and lexical preference are generated by the target language text generator module. Many a time, multiple rules may get invoked leading to the multiple interpretation of the input sentence. The rules are ordered in terms of their preference and an upper limit is put on the number of alternatives produced. Most of the disambiguation rules are in the form of syntacto-semantic constraints. Semantics are used to resolve most of the intra-sentence anaphora/pronoun references. Alternative meanings for the unresolved ambiguities are retained in the pseudo target language. The lexical database is hierarchically organized to allow domain specific meanings and also prioritize meanings as per user requirement.

In the example based approach developed by [66] and known as ANUBHARTI, ambiguities in the meaning of the verb phrasal are also resolved using an appropriate distance function in the example base. The

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alternate translations are being ranked with respect to the ordering of the rule base.

In ANUBAAD system, sense disambiguation is carried out at various levels [75]. It starts with POS of a word. Some semantic categories are associated with words to identify the inflections to be attached with corresponding words in Indian languages as well as to identify the context in the sentence. Context identification is also done by the recognition of idiomatic expression and using context templates for each word. The context templates have been designed on the basis that meaning of the word may be independent of the context, may depend upon the occurrence of a sequence of words or words with certain semantic categories or may depend on the occurrence of certain keywords or keyword with certain semantic category.

In Matra, rule bases and heuristic approaches are used for word sense disambiguation. A method has been described by Durgesh Rao et. al.[1] for mapping prepositions from English to Hindi. Similarly in Saarthak, emphasis is on sentence-level word sense disambiguation, which makes it different from general statistical techniques that use contextual information for the same. At AU-KBC research centre, S. Baskaran [193] presents an approach in which all the occurrences of the ambiguous words are classified into different clusters in such a way that all the occurrences are in the same sense within a cluster. Development of a Prototype of a Frame-based System for the Understanding of Malayalam Language has been carried out by Sumam M. Idicula and David Peter S [194]. In this system, three types of information are

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used for word sense disambiguation. They are local word grouping (grouping of words which can collectively perform a syntactic role in a sentence), syntactic information and semantic tags. Prabhakar Pandey et. al. [195] makes use of the Wordnet for Hindi developed at IIT Bombay, for WSD. The accuracy values are reported to be in range from about 40% to about 70%. The system currently deals with only nouns. Ganesh Ramakrishnan [196] introduces the notion of soft word sense disambiguation which states that given a word, the sense disambiguation system should not commit to a particular sense, but rather, to a set of senses which are not necessarily orthogonal or mutually exclusive.

Information Sources for WSD

There are various information sources or feature types used in WSD regardless of the type of the approach. To disambiguate a word, various kinds of information, including syntactic tags, word frequencies, collocations, semantic context, role-related expectations, and syntactic restrictions can be considered.

In Agirre and Martinez [197], a comparison of WSD systems has been made based on the information source they used. Some of these sources are as follows:

Frequency of Senses: Frequency information is used to measure the likelihood of each possible sense appearing in the text. Therefore this information is generally used in statistical approaches and it is generally

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learned from hand-tagged data such as SemCor corpus. Interestingly very few WSD approaches outperform the "most frequent sense" heuristic. WordNet senses are ordered according to the frequencies of the senses in the SemCor corpus.

Part of Speech (POS): Part of speech tagging is regarded as the first step of the disambiguation process if the lemmas have the same orthographic forms but different syntactic classes. It is useful because it reduces the number of possible senses a word can belong to. An orthographic form may even be unambiguous in one syntactic class whereas it has more than one sense in another. For instance, in WordNet 2.0 *handle* has 5 senses as a verb, but only one sense as a noun. The impact of knowledge resources on WSD in examined in Gaustad [198]. The results show that accurate POS information is beneficial for WSD and that including the POS of the ambiguous word itself as well as POS of the context increases the disambiguation accuracy.

Morphology: It is defined as the relation between derived words and their roots. For instance, the noun *agreement* has 6 senses, its verbal root *agree* 7. A stemmer tries to reduce various forms of a word to a single stem. Since English is a language with little inflectional morphology, it is not certain that using morphology will lead to significant improvements in WSD. With other languages, such as German or Italian, morphology is of greater influence.

Collocations: Collocation is the relationship among any group of words that tend to co-occur in a predictable configuration. Disambiguation relies heavily on collocational information. For example, the noun *match* has 9

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senses. However, it has only one possible sense in "*football match*". It is observed that collocations are strong indicators if they are learned from hand-tagged corpora. Although they are strong, they should be used with other sources. They should not be treated as rules for sense-filtering alone [199,200].

Semantic word associations: These can be classified as follows:

i. *Taxonomial organization:* This refers to the classification of words in a hierarchy and the lexical-semantic relationships holding between words such as a *dog* is a kind of *animal*. This kind of information can be extracted from ontologies like WordNet.

ii. *Situation and Topic:* Information about the situation or topic enables a WSD system to see the ambiguous word in a broader context. For example, if the word *mouse* is used in an office situation and the topic is computer use, the most probable sense of the word *mouse* will be "computer tool", not "animal". Semantic word associations around topic and situation are powerful when learned from hand-tagged corpora. Associations learned from MRDs can also be useful.

iii. *Argument-head relations:* These relations provide important clues for disambiguation such as the relationship between *dog* and *bite* in the sentence "the dog bit the man."

Subcategorization information: Subcategorization refers to certain kinds of relations between words and phrases. For example the verb *want* can be

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followed by an infinitive, as in *"I want to fly to Istanbul"*, or a noun phrase, as in *"I want a flight to Istanbul"*. But the verb find cannot be followed by an infinitive. For example *"I found to fly to Istanbul."* is not a correct sentence. Verbs have several possible patterns of arguments. A particular set of arguments that a verb can appear with is referred to a subcategorization frame. Subcategorization frames capture syntactic regularities about complements.

Agirre and Martinez [187] made a comparison between the contributions of the above resources to WSD. According to their observations, if learned from hand-tagged corpora, collocations and semantic word associations are the most important knowledge types for WSD, but they also mentioned that syntactic cues are equally reliable. On the other hand, taxonomical information was found to be very weak.

Our Approach

While dealing with related languages like Hindi and Punjabi, structural ambiguity is not a problem at all because the ambiguity in the source sentence is transferred to the target sentence without affecting the underlying meaning. We are not claiming that there is no structural ambiguity in the Hindi language that do not carry over as such in Punjabi language, but we did not come across with any. So, structural ambiguity has not been touched in this research work. To start with, all we have is a raw corpus of Hindi text. So the N-Gram statistical approach is the obvious choice for our purpose. The

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following section provides the theory of N-Gram approach and our approach for WSD.

N-Gram Approach:

An *n-gram* is simply a sequence of successive n words along with their count i.e. number of occurrences in training data [201,202]. An *n-gram* of size 2 is a bigram; size 3 is a trigram; and size 4 or more is simply called an *n-gram* or ($n − 1$)-order Markov model. An *n-gram* model models sequences of natural languages using the statistical properties of *n-gram*s. More concisely, an *n-gram* model predicts x_i based on x_{i-1}, x_{i-2}, ..., x_{i-n}. *n-gram*s models are widely used in statistical natural language processing.

The number of words in the local context of ambiguous word makes a window. The size of this window i.e. the value of N depends on various factors.

a) Larger the value of n, higher is the probability of getting correct word sense i.e. for the general domain; more training data will always improve the result. But on the other hand most of the higher order *n-gram*s do not occur in training data. This is the problem of sparseness of data.

b) As training data size increases, the size of model also increases which can lead to models that are too large for practical use. The total number of potential *n-gram*s scales exponentially with n. Computer up to present could not calculate for a large n because it requires huge amount of memory space and time.

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c) Does the model get much better if we use a longer word history for modeling an *n-gram*?

d) Do we have enough data to estimate the probabilities for the longer history?

Claude E. Shannon [203] established the information theory for finding the value of n in 1951. This theory included the concept that a language could be approximated by an nth order Markov model by n to be extended to infinity. Shannon computed the per letter entropy rather than per word entropy. He gives entropy of English text as 1.3 bits per letter. Since his proposal there were many trials to calculate *n-gram*s for a big text data of a language. Brown et. al.[204] performs a test on much larger text and give an upper bound of 1.75 bits per character for English language by using trigram model. Iyer et al. [205] investigate the prediction of speech recognition performance for language model in the switchboard domain, for trigram model built on different amounts of in domain and out of domain training data. Over the ten models they constructed, they find that perplexity predicts word error rate well when only in domain training data is used, but poorly when out of domain text is added. They find that trigram coverage or the fraction of trigram in the test data present in training data is a better predictor of word error rate than perplexity.

Chen et al. [206] investigate their language model for speech recognition performance in the Broadcast news domain and concluded that perplexity

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correlates with word error rate remarkably well when only considering *n-gram* model trained on in domain data.

Manin [207] performs a study on predictability of word in context and found that unpredictability of a word depends upon the word length. Marti et. al. [208] tested different vocabulary size and concluded that language models become more powerful in recognition tasks with larger vocabulary size. Resnik et. al. [209-210] made several observations about the state of the art in automatic word sense disambiguation and offer several specific proposals to the community regarding improved evaluation criteria, common training and testing resources, and the definitions of sense inventories.

While Kaplan [211] Choueka and Lusignan [212], based on the observation that people don't seem to need very much context, claims that only 5 words to the left and 5 words to the right of the polysemous word are sufficient for WSD but William A. Gale et. al. [213] use a very wide context, 100-words surrounding the polysemous word in question. They find that there are often very useful clues even quite far away from the polysemous word in question. They demonstrated that information is *measurable* out to 10,000 words away from the polysemous word. They also observed that although contextual clues are measurable at surprisingly large distances, much of this information might not be very useful. In particular, it might have been possible to find the same information at smaller distances. In their words:

"The contribution is largest, not surprisingly, for smaller *d,* but nevertheless, the contribution continues to grow out to at least twenty words,

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perhaps fifty words, well beyond the ±6 word contexts typically found in many disambiguation studies. Increasing the context from ±6 words to ±50 words improves performance from 86% to 90%."

Among number of approaches for disambiguation, the most appropriate approach to determine the correct meaning of a Hindi word in a particular usage for our Machine Translation system is to examine its context using N-gram approach. After analyzing the past experiences of various authors explained above, we have chosen the value of n to be 3 and 2 i.e. trigram and bigram approaches respectively for our system. Trigrams are further categorized into three different types. First category of trigram consists of context one word previous to and one word next to the ambiguous word. Second category of trigram consists of context of two adjacent previous words to the ambiguous word. Third category of the trigram consists of context of two adjacent next words to the ambiguous word. Bigrams are also categorized into two categories. First category of the bigrams consists of context of one previous word to ambiguous word and second category of the bigrams consists of one context word next to ambiguous word. The disambiguation algorithm starts with the look up in the trigrams databases. All the three trigrams databases are looked up for the some entry corresponding to ambiguous word. If the entry is matched in more than one trigrams databases, the entry of the database with maximum frequency will be considered to be the best match. If the entry is matched only in any one of the three trigrams databases, then that entry is used regardless of the frequency.

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If in case, no trigrams database is able to disambiguate the word, then bigram databases are used for disambiguation. Entry is looked up in both of the bigrams databases and if found in both the databases, the entry with maximum frequency will be considered. If the entry is found only in any one of the bigram databases, then that entry is used for disambiguation. In the worst case, if no entry is matched from any of entries in both trigrams and bigrams databases, then this word is assumed to be unknown and out-of-vocabulary module will handle such words. For this purpose, the Hindi corpus consisting of about 2 million words was collected from different sources like online newspaper daily news, blogs, Prem Chand stories, Yashwant jain stories, articles etc. The most common list of ambiguous words was found. We have found a list of 75 ambiguous words out of which the most frequent are से *sē* and और *aur*. Following table shows a summary of different lexical categories for these ambiguous words:

Table 5.7: Lexical Category % distribution of ambiguous words

S.No.	Lexical Category	Ambiguos Words
1.	Noun	38%
2.	Verb	13.5%
3.	Adjective	6.5%
4.	Adverb	1.38%
5.	Postposition	1.38%
6.	Noun and Verb	8.17%

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7.	Noun and Adjective	21.39%
8.	Adjective and Conjunction	1.38%
9.	Adjective and Verb	2.76%
10.	Noun,Postposition and Conjuction	1.38%
11.	Noun,adjective and adverb	4.16%

Through Corpus analysis and taking this ambiguous word list as base, above mentioned three types of trigrams databases (one word to the left and one word to the right of the ambiguous word, two consecutive words to the left of the ambiguous word, two consecutive words to right of the ambiguous words) and bigrams (one word previous to the ambiguous word, one word to the right of the ambiguous word) were generated from the corpus along with their frequency in the corpus and stored into the databases trigramsMiddle, trigramsLeft, trigramsRight, bigramsLeft and bigramsRight respectively. On analysis, it has been found that in Hindi language, most common words that are ambiguous are post positions like से (*sē),* पर (*par)* etc and the conjunction

और (*aur).*

Consider the postposition 'से' that can be translated most commonly into ਤੋਂ , ਨੂੰ ,

ਜਿਹੇ , ਕਰਕੇ and ਨਾਲ . Let us take the example:

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मैंने राम से पूछा आप कहाँ जा रहे हो । (*mainnē rām sē puchā āp kahāṃ jā rahē hō)*

It is the task of word sense disambiguator module to find the appropriate meaning/sense for the ambiguous word 'से'. The algorithm starts with collecting the words surrounding the ambiguous word 'से' in the sentence. Thus, it forms following three context bags with window size 3 in which Context Bag 1 contains two context words previous to the ambiguous word से *sē*, Context Bag 2 contains one context word previous to and one context word next to the ambiguous word से and Context Bag 3 contains two context words next to the ambiguous word से *sē*.

Context Bag 1: (मैंने) (राम) से

Context Bag 2: (राम) से (पूछा)

Context Bag 3: से (पूछा) (आप)

Then the algorithm searches the entry match for Context Bag1, Context Bag2 and Context Bag3 in trigrams databases - trigramsRight, trigramsMiddle,and trigramsLeft respectively. The entries are found in different trigrams databases as shown below:

Table 5.8: Example demonstrating the ambiguity resolution

Database	Context Bag	PunjabiMeaning	Frequency

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trigramsMiddle	(राम) से (पूछा)	ਨੂੰ	1209
trigramsRight	(मैंने) (राम) से	ਨਾਲ	845
trigramsLeft	से (पूछा) (आप)	ਤੋਂ	286

Above table shows that, the Punjabi meanings for all the three entries differ, hence the entry of the database with maximum frequency among three, will be used for disambiguation i.e. the entry with frequency 1209 will be used. Reason for using the entry with maximum frequency among these is to further find the most appropriate meaning for that ambiguous word.

Finally, the translated text in target language will be

ਮੈਂ ਰਾਮ ਨੂੰ ਪੁੱਛਿਆ ਤੁਸੀ ਕਿੱਥੇ ਜਾ ਰਹੇ ਹੋ । (*maiṃ rām nūṃ pucchiā tusī kitthē jā rahē hō*)

Database design: Table 5.9, Table 5.10, Table 5.11, Table 5.12 and Table 5.13 carries the design of the database used for storing entries for word sense disambiguation.

Table 5.9: triGramsMiddle Database Design

Field Name	Description
ambHindiWord	Stores ambiguous word in Hindi
previousWord1	Stores possible word previous to ambiguous word in text
nextWord1	Stores possible word next to ambiguous word in text
punjabiWord	Stores the correct translation for this ambiguous word for this instance
Freq	Stores the frequency of this trigram in the analyzed corpus

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Table 5.10: triGramLeft Database Design

Field Name	Description
ambHindiWord	Stores ambiguous word in Hindi
previous1Word	Stores possible word previous to ambiguous word in text
previous2Word	Stores possible word previous to previous1Word mentioned above in the text
punjabiWord	Stores the correct translation for this ambiguous word for this instance
Freq	Stores the frequency of this trigram in the analyzed corpus

Table 5.11: triGramsRight Database Design

Field Name	Description
ambHindiWord	Stores ambiguous word in Hindi
next1Word	Stores possible word next to ambiguous word in text
next2Word	Stores possible word next to next1Word mentioned above in the text
punjabiWord	Stores the correct translation for this ambiguous word for this instance
Freq	Stores the frequency of this trigram in the analyzed corpus

Table 5.12: biGramsLeft Database Design

Field Name	Description
ambHindiWord	Stores ambiguous word in Hindi
previousWord	Stores possible word previous to ambiguous word in text
punjabiWord	Stores the correct translation for this ambiguous word for this instance
Freq	Stores the frequency of this bigram in the analyzed corpus

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Table 5.13: biGramsRight Database Design

Field Name	Description
ambHindiWord	Stores ambiguous word in Hindi
nextWord	Stores possible word next to ambiguous word in text
punjabiWord	Stores the correct translation for this ambiguous word for this instance
Freq	Stores the frequency of this bigram in the analyzed corpus

Sample database entries:

There is no Hindi-Punjabi parallel corpus available and even no machine readable Hindi-Punjabi dictionary is available. Thus, there is no way to generate the data for word sense disambiguation databases automatically. For this purpose, we have developed a small module for finding the bigrams and trigrams for the ambiguous words from the Hindi Corpus. But the corresponding equivalent meaning in Punjabi for the ambiguous word based on its context is found manually and stored into the database for each entry. It is very time consuming and tedious task. The triGramMiddle database consists of 48,285 entries. The triGramLeft database consists of 46,735 entries. The triGramRight database consists of 49,217 entries. The biGramLeft database consists of 52,456 entries. The biGramLeft database consists of 51,129 entries.

Following tables show some of the database entries for fiveGrams, trigrams and biGrams databases:

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Table 5.14: Sample Entries of triGramsMiddle Database

previous1Word	ambHindiWord	next1Word	punjabiWord	Freq
तरह (*tarah*)	से (*sē*)	समझा (*samjhā*)	ਨਾਲ (*nāl*)	5291
आराम (*ārām*)	से (*sē*)	कट (*kaṭ*)	ਨਾਲ (*nāl*)	1683
देर (*dēr*)	से (*sē*)	आना (*ānā*)	ਨਾਲ (*nāl*)	4720
कम (*kam*)	से (*sē*)	कम (*kam*)	ਤੋਂ (*tōṃ*)	3825
रखने (*rakhnē*)	से (*sē*)	उन्हें (*unhēṃ*)	ਨਾਲ (*nāl*)	853

Table 5.15: Sample Entries of triGramsLeft Database

previous1Word	previous2Word	ambHindiWord	punjabiWord	Freq
मोह (*mōh*)	माया (*māyā*)	और (*aur*)	ਅਤੇ (*atē*)	4138
अलावा (*alāvā*)	कोई (*kōī*)	और (*aur*)	ਹੋਰ (*hōr*)	2960
अंदर (*andar*)	ही (*hī*)	से (*sē*)	ਤੋਂ (*tōṃ*)	2105
टूट (*ṭūṭ*)	गया (*gayā*)	और (*aur*)	ਅਤੇ (*atē*)	3198

Table 5.16: Sample Entries of triGramsRight Database

ambHindiWord	next1Word	next2Word	punjabiWord	Freq
और (*aur*)	मोह (*mōh*)	माया (*māyā*)	ਅਤੇ (*atē*)	2418
से (*sē*)	समर्थन (*samrthan*)	वापस (*vāpas*)	ਤੋਂ (*tōṃ*)	3185
से (*sē*)	मुलाक़ात (*mulākāt*)	की (*kī*)	ਨਾਲ (*nāl*)	4190
कर (*kar*)	अंकित (*aṅkit*)	अपनी (*apnī*)	ਕਰ (*kar*)	964

Table 5.17: Sample Entries of biGramsLeft Database

previousWord	ambHindiWord	punjabiWord	Freq

			1684
मोह (mōh)	और (aur)	ਅਤੇ (atē)	1684
अलावा (alāvā)	और (aur)	ਹੋਰ (hōr)	1590
अंदर (andar)	से (sē)	ਤੋਂ (tōṃ)	3753

Table 5.18: Sample Entries of biGramsRight Database

ambHindiWord	nextWord	punjabiWord	Freq
से (sē)	एक (ē)k	ਤੋਂ (tōṃ)	1785
और (aur)	पुलिस (pulis)	ਹੋਰ (hōr)	1049
से (sē)	मुलाक़ात (mulākāt)	ਤੋਂ (tōṃ)	2916
और (aur)	अब (ab)	ਅਤੇ (atē)	2008

This database can be extended at any time to allow new entries in the dictionary to be added.

Analysis:

The analysis was done on a document of 100 pages consisting of 3,58,874 words. It was found that about 8.4% words were ambiguous among these. Out of these 8.4%, approximately 70% words were correctly disambiguated. Following table shows the contributions of various bigrams and trigrams databases mentioned above in disambiguating these words:

Table 5.19: Contribuation of various N-Grams in resolving ambiguity

S.No.	Table Name	Contribution
1.	bigramsRight	28.15%
2.	bigramsLeft	38.95%

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3.	TrigramsMiddle	4.52%
4.	TrigramsRight	14.52%
5.	TrigramsLeft	13.86%

Thus, it is clear from above table that context of next two words for an ambiguous word helps the most in disambiguating the sense of the word.

5.2.5 Handling Unknown Words

5.2.5.1 Word Inflectional Analysis and generation

In linguistics, a suffix (also sometimes called a *postfix* or *ending*) is an affix which is placed after the stem of a word. Common examples are case endings, which indicate the grammatical case of nouns or adjectives, and verb endings. Hindi is a (relatively) free word-order and highly inflectional language. Following table shows the Hindi Suffix List:

Table 5.20: Inflections in Hindi

आ	आएं	अता	आने	एगा
इ	आओं	अती	ऊंगा	एगी
ई	इयां	ईं	ऊँगी	आएगा
उ	इयों	अतिं	आऊंगा	आएगी
ऊ	आइयां	अते	आऊंगी	आया
ए	आइयों	आता	एंगे	आए
ओ	आँ	आती	एंगी	आई
एं	इयाँ	आतीं	आएंगे	आई
ओं	आइयाँ	आते	आएंगी7	इए
आं	अताएं	अना	ओगे	आओ
उआं	अताओं	अनी	ओगी	आइए

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उएं	अनाएं	अने	आओगे	अकर
उओं	अनाओं	आना	आओगी	आकर

A detailed analysis of noun, adjective, and verb inflections that were used to create this list can be found in McGregor [214] and Rao[215]. A few examples of each type are given below:

Noun Inflections: Nouns in Hindi are inflected based on the case (direct or oblique), the number (singular or plural), and the gender (masculine or feminine3). For example, लड़का (*laḍkā*) becomes लड़के (*laḍkē)* when in oblique case, and the plural लड़के (*laḍkē)* becomes लड़कों (*laṛkōṃ)*. The feminine noun लड़की (*laḍkī)* is inflected as लड़कियां (*laḍkiyāṃ)* and लड़कियों (*laḍkiyōṃ)*, but it remains uninflected in the singular direct case.

Adjective Inflections: Adjectives which end in आ (*ā)* or आं (*āṃ)* in their direct singular masculine form agree with the noun in gender, number, and case. For example, the singular direct अच्छा(*acchā)* is inflected as अच्छे(*acchē)* in all other masculine forms, and as अच्छी (*acchē)* in all feminine forms. Other adjectives are not inflected.

Verb Inflections: Hindi verbs are inflected based on gender, number, person, tense, aspect, modality, formality, and voice. Rao [215] provides a complete list of verb inflection rules.

Because of same origin, both languages have very similar structure and grammar. The difference is only in words and in pronunciation e.g. in Hindi it is लड़का (*laḍkā)* and in Punjabi the word for boy is ਮੁੰਡਾ (*muṇḍā)* and even sometimes that is also not there like घर (*ghar)* and ਘਰ (*ghar).* The inflection forms of both these words in Hindi and Punjabi are also similar. In this activity, inflectional analysis without using morphology has been performed for all those tokens that are not processed in the previous activities of pre -processing and translation engine phases. Thus, for performing inflectional analysis, rule based approach has been followed. For this purpose, inflectional rules are also derived from the morphological analysis developed by IIIT, Hyderabad. This morphological analyzer works for Linux platform. First it was converted to work on Windows platform and then inflection rules were extracted from it for Hindi language. These rules were used for writing the rules for equivalent Punjabi inflections. These inflection rules resulted for Hindi to Punjabi translation purpose are implemented using regular expressions. The suffix separation module is based on the Hindi stemmer presented in Ananthakrishnan and Rao [216], and works by separating from each word the longest possible suffix Hindi Suffix List. When the token is passed to this sub phase for inflectional analysis, If any pattern of the regular expression (inflection rule) matches with this token, that rule is applied on the token and its equivalent translation in Punjabi is generated based on the matched rule(s). There is also a check on the generated word

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for its correctness. We are using correct Punjabi words database for testing the correctness of the generated word. This generated Punjabi word is matched with some entry in punjabiUnigrams database. The database punjabiUnigrams is a collection of about 2,00,000 Punjabi words from large Punjabi corpus analysis. Punjabi corpus has been collected from various resources like online Punjabi newspapers, blogs, articles etc. If there is a match, the generated Punjabi word is considered a valid Punjabi word. If there is no match, this input token is forwarded to the transliteration activity.

The advantage of using punjabiUnigrams database is that ingenuine Punjabi words will not become the part of translation. If the wrong words are generated by inflectional analysis module, it will not be passed to translation rather it will be treated as out-of vocabulary and will be transliterated.

It has been analyzed that when this module was tested on the Hindi corpus of about 50,000 words, approx. 10,000 distinct words passed through this phase. And out of these 10,000 words, approx. 7,000 words were correctly generated and even accepted by Punjabi unigrams database. But rest was either generated wrong and was simply transliterated. Following table shows the correct accepted words generated by the inflectional analysis:

Table 5.21: List of Correct accepted words in translation after inflectional analysis and generation

रिवाजों (*rivājōṃ*)	ਰਿਵਾਜਾਂ (*rivājāṃ*)
समाजवादियों (*samājvādiyōṃ*)	ਸਮਾਜਵਾਦੀਆਂ (*samājvādīāṃ*)

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धमकियाँ (*dhamkiyāṃ*)	ਧਮਕੀਆਂ (*dhamkīāṃ*)
उपलब्धियां (*uplabdhiyāṃ*)	ਉਪਲਬਧੀਆਂ (*uplabdhīāṃ*)
ताकतें (*tāktēṃ*)	ਤਾਕਤਾਂ (*tāktāṃ*)
जाओगी (*jāōgī*)	ਜਾਏਂਗੀ (*jāēṅgī*)
निकलेंगे (*niklēṅgē*)	ਨਿਕਲਣਗੇ (*niklaṇgē*)
सीमाओं (*sīmāōṃ*)	ਸੀਮਾਵਾਂ (*sīmāvāṃ*)
उठाएँ (*uṭhāēṃ*)	ਉਠਾਵਾਂ (*uṭhāvāṃ*)
बचाता (*bacātā*)	ਬਚਾਂਦਾ (*bacāndā*)
पहुँचते (*pahuñctē*)	ਪਹੁੰਚਦੇ (*pahuñcdē*)
दिखाइए (*dikhāiē*)	ਦਿਖਾਓ (*dikhāō*)
प्रतियोगियों (*pratiyōgiyōṃ*)	ਪ੍ਰਤੀਯੋਗੀਆਂ (*pratīyōgīāṃ*)
जाऊँगी (*jāūṅgī*)	ਜਾਵਾਂਗੀ (*jāvāṅgī*)
नवाजा (*navājā*)	ਨਵਾਜਿਆ (*navājiā*)
जलाकर (*jalākar*)	ਜਲਾਕੇ (*jalākē*)
धुआँ (*dhuāṃ*)	ਧੁਆਂ (*dhuāṃ*)
टटोलने (*ṭaṭōlnē*)	ਟਟੋਲਣ (*ṭaṭōlaṇ*)
आँका (*āṅkā*)	ਆਂਕਿਆ (*āṅkiā*)

Following table shows the failure cases through inflectional analysis:

Table 5.22: Failure cases during inflectional analysis and generation

Input Token	Translation generated

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	by inflectional analysis
लडकियां (*laḍkiyāṃ*)	ਲਡਕਿਆਂ (*laḍkiāṃ*)
तारेगना (*tārēgnā*)	ਤਾਰੇਗਨਿਆ (*tārēgniā*)
शुजा (*shujā*)	ਸ਼ੁਜਿਆ (*shujiā*)
मुग्धा (*mugdhā*)	ਮੁਗਧਿਆ (*mugdhiā*)
किराना (*kirānā*)	ਕਿਰਾਨਿਆ (*kirāniā*)
उतरवा (*utravā*)	ਉਤਰਵਿਆ (*utraviā*)
तरेगना (*tarēgnā*)	ਤਰੇਗਨਿਆ (*tarēgniā*)
पटाखा (*paṭākhā*)	ਪਟਾਖਿਆ (*paṭākhiā*)

The above Punjabi words are not correct and are not present in the Punjabi language vocabulary. Thus, these words have not been passed by punjabiUnigrams database and thus rejected. This step helps in improving the accuracy of the translation system.

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Following flow chart presents its working:
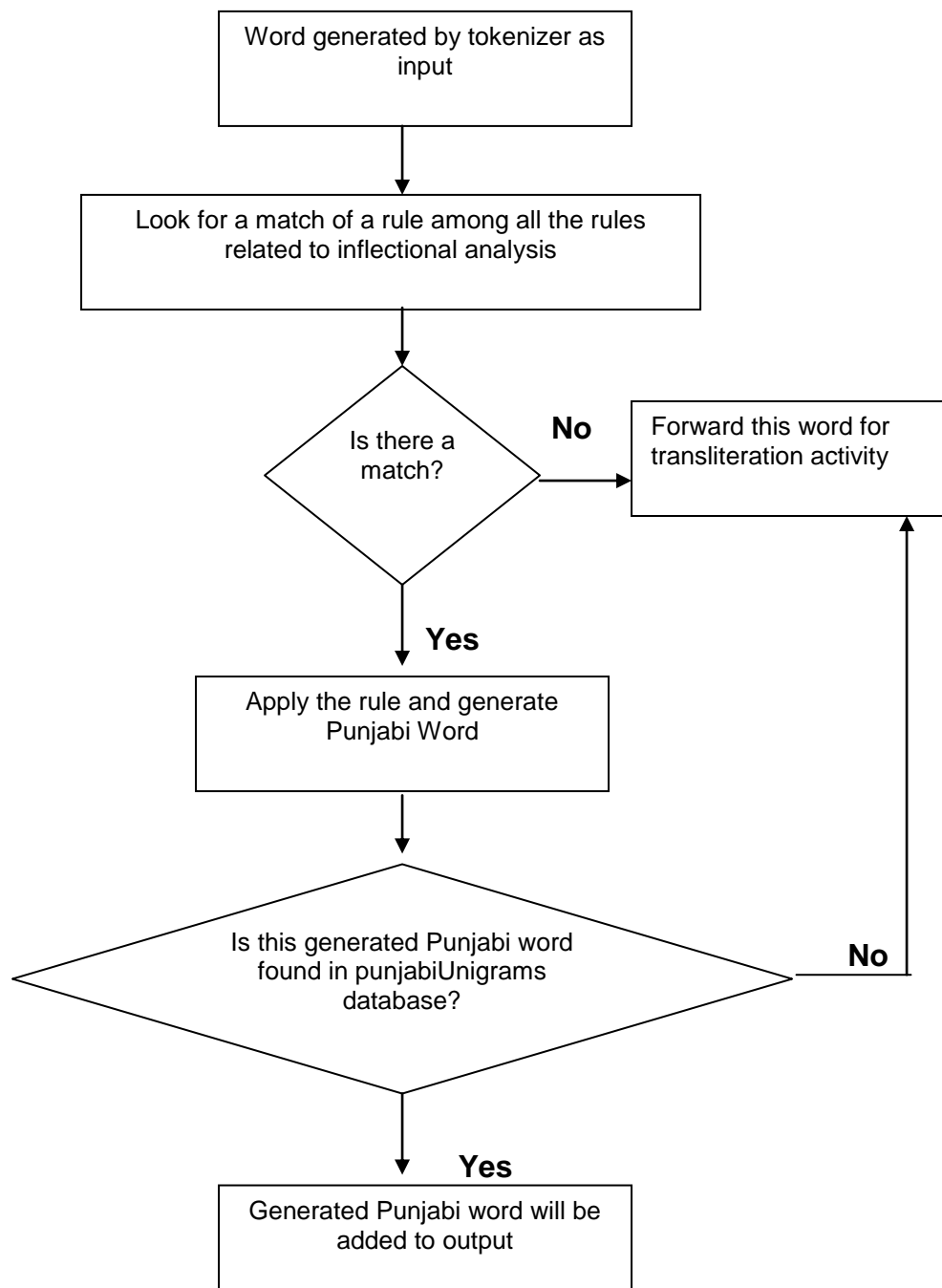
Figure 5.1: Flow Chart for Word Inflectional Analysis and generation

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Following table shows various inflectional rules, each illustrated with example:

Table 5.23: Inflection Rules

Rule No.	Substring at the end of Hindi Word	Hindi Example	String to be replaced	Punjabi Example
1.	िय़ूँगा (*iyūṅgā*)	पियूँगा (*piyūṅgā*)	ੀਵਾਂਗਾ (*īvāṅgā*)	ਪੀਵਾਂਗਾ (*pīvāṅgā*)
2.	िय़ूँगी (*iyūṅgī*)	पियूँगी (*piyūṅgī*)	ੀਵਾਂਗੀ (*īvāṅgī*)	ਪੀਵਾਂਗੀ (*pīvāṅgī*)
3.	ीय़ूँगा (*īyūṅgā*)	जीयूँगा (*jīyūṅgā*)	ੀਵਾਂਗਾ (*īvāṅgā*)	ਜੀਵਾਂਗਾ (*jīvāṅgā*)
4.	ीय़ूँगी (*īyūṅgī*)	जीयूँगी (*jīyūṅgī*)	ੀਵਾਂਗੀ (*īvāṅgī*)	ਜੀਵਾਂਗੀ (*jīvāṅgī*)
5.	ीयूंगा (*īyūṅgā*)	जीयूंगा (*jīyūṅgā*)	ੀਵਾਂਗਾ (*īvāṅgā*)	ਜੀਵਾਂਗਾ (*jīvāṅgā*)
6.	ीयूंगी (*īyūṅgī*)	जीयूंगी (*jīyūṅgī*)	ੀਵਾਂਗੀ (*īvāṅgī*)	ਜੀਵਾਂਗੀ (*jīvāṅgī*)
7.	ीयेंगी (*īyēṅgī*)	जीयेंगी (*jīyēṅgī*)	ੀਣਗੀਆਂ (*īṇgīāṃ*)	ਜੀਣਗੀਆਂ (*jīṇgīāṃ*)
8.	ीयेंगे (*īyēṅgē*)	जीयेंगे (*jīyēṅgē*)	ੀਣਗੇ (*īṇgē*)	ਜੀਣਗੇ (*jīṇgē*)
9.	िय़ूंगा (*iyūṅgā*)	पियूंगा (*piyūṅgā*)	ੀਵਾਂਗਾ (*īvāṅgā*)	ਪੀਵਾਂਗਾ (*pīvāṅgā*)
10.	िय़ूंगी (*iyūṅgī*)	पियूंगी (*piyūṅgī*)	ੀਵਾਂਗੀ (*īvāṅgī*)	ਪੀਵਾਂਗੀ (*pīvāṅgī*)
11.	ियेंगी (*iyēṅgī*)	पियेंगी (*piyēṅgī*)	ੀਣਗੀਆਂ (*īṇgīāṃ*)	ਪੀਣਗੀਆਂ (*pīṇgīāṃ*)
12.	ियेंगे (*iyēṅgē*)	पियेंगे (*piyēṅgē*)	ੀਣਗੇ (*īṇgē*)	ਪੀਣਗੇ *pīṇgē*
13.	ाऐंगीं (*āaiṅgīṃ*)	पाऐंगीं (*pāaiṅgīṃ*)	ਾਵਾਂਗੀਆਂ (*āvāṅgīāṃ*)	ਪਾਵਾਂਗੀਆਂ (*pāvāṅgīāṃ*)
14.	ायेगा (*āyēgā*)	पायेगा (*pāyēgā*)	ਾਵੇਗਾ (*āvēgā*)	ਪਾਵੇਗਾ (*pāvēgā*)
15.	ायेगी (*āyēgī*)	पायेगी (*pāyēgī*)	ਾਵੇਗੀ (*āvēgī*)	ਪਾਵੇਗੀ (*pāvēgī*)
16.	ईयेगा (*īyēgā*)	पाईयेगा (*pāīyēgā*)	ਓਗੇ (*ōgē*)	ਪਾਓਗੇ (*pāōgē*)
17.	इयेगा (*iyēgā*)	पाइयेगा (*pāiyēgā*)	ਓਗੇ (*ōgē*)	ਪਾਓਗੇ (*pāōgē*)
18.	येंगे (*yēṅgē*)	पायेंगे (*pāyēṅgē*)	ਓਗੇ (*ōgē*)	ਪਾਓਗੇ (*pāōgē*)

19.	जिएगा (jiēgā)	दीजिएगा (dījiēgā)	ਓ (ō)	ਦਿਓ (diō)
20.	जीएगा (jīēgā)	दीजीएगा (dījīēgā)	ਓ (ō)	ਦਿਓ (diō)
21.	जियेगा (jiyēgā)	दीजियेगा (dījiyēgā)	ਓ (ō)	ਦਿਓ (diō)
22.	येंगी (yēṅgī)	जीयेंगी (jīyēṅgī)	ਓਗੇ (ōgē)	ਜੀਓਗੇ (jīōgē)
23.	येंगे (yēṅgē)	जीयेंगे (jīyēṅgē)	ਓਗੇ (ōgē)	ਜੀਓਗੇ (jīōgē)
24.	ਿ◌ੂੰਗਾ (iūṅgā)	पिऊंगा (piūṅgā)	◌ੀਵਾਂਗਾ (īvāṅgā)	ਪੀਵਾਂਗਾ(pīvāṅgā)
25.	ਿ◌ੂੰਗਾ (iūṅgā)	पिऊंगा (piūṅgā)	◌ੀਵਾਂਗਾ (īvāṅgā)	ਪੀਵਾਂਗਾ (pīvāṅgā)
26.	◌ੀਊੰਗਾ (īūṅgā)	पिऊंगा (piūṅgā)	◌ੀਵਾਂਗਾ (īvāṅgā)	ਪੀਵਾਂਗਾ (pīvāṅgā)
27.	ਿ◌ੂੰਗੀ (iūṅgī)	पिऊंगी (piūṅgī)	◌ੀਵਾਂਗੀ (īvāṅgī)	ਪੀਵਾਂਗੀ (pīvāṅgī)
28.	◌ੀਊੰਗੀ (īūṅgī)	पिऊंगी (piūṅgī)	◌ੀਵਾਂਗੀ (īvāṅgī)	ਪੀਵਾਂਗੀ (pīvāṅgī)
29.	◌ੀਊੰਗੀ (īūṅgī)	पिऊंगी (piūṅgī)	◌ੀਵਾਂਗੀ (īvāṅgī)	ਪੀਵਾਂਗੀ (pīvāṅgī)
30.	◌ੀਜਿਯੇ (ījiyē)	दीजिये (dījiyē)	ਓ (ō)	ਦਿਓ (diō)
31.	◌ੀਏਁਗੀ (īēṅgī)	जीएँगी (jīēṅgī)	◌ੀਣਗੀਆਂ (īṇgīāṃ)	ਜੀਣਗੀਆਂ (jīṇgīāṃ)
32.	◌ੀਏਂਗੀ (īēṅgī)	जीएंगी (jīēṅgī)	◌ੀਣਗੀਆਂ (īṇgīāṃ)	ਜੀਣਗੀਆਂ (jīṇgīāṃ)
33.	◌ੀਏਁਗੇ (īēṅgē)	जीएँगे (jīēṅgē)	◌ੀਣਗੇ (īṇgē)	ਜੀਣਗੇ (jīṇgē)
34.	◌ਉੰਗਾ (āuṅgā)	पाउंगा (pāuṅgā)	◌ਵਾਂਗਾ (āvāṅgā)	ਪਾਵਾਂਗਾ (pāvāṅgā)
35.	◌ਏਁਗੀ (āaiṅgī)	पाएँगी (pāaiṅgī)	◌ਉਣਗੀਆਂ (āuṇgīāṃ)	ਪਾਉਣਗੀਆਂ (pāuṇgīāṃ)
36.	◌ਏਁਗੇ (āaiṅgē)	पाएँगे (pāaiṅgē)	◌ਵਾਂਗੇ (āvāṅgē)	ਪਾਵਾਂਗੇ (pāvāṅgē)
37.	येंगी (yēṅgī)	पायेंगी (pāyēṅgī)	ਓਗੇ (ōgē)	ਪਾਓਗੇ (pāōgē)
38.	◌ੂੰਗਾਂ (ūgāṃ)	पहनूंगां (pahnūgāṃ)	◌ਗਾਂ (āgāṃ)	ਪਹਿਨਾਗਾਂ (pahināgāṃ)

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39.	वाना (vānā)	पकवाना (pakvānā)	ਵਾਉਣਾ (vāuṇā)	ਪਕਵਾਉਣਾ (pakvāuṇā)
40.	◌ाएगा (āēgā)	पकाएगा (pakāēgā)	◌ਾਏਗਾ (āēgā)	ਪਕਾਏਗਾ (pakāēgā)
41.	◌ाऐगा (āaigā)	पकाएगा (pakāēgā)	◌ਾਵੇਗਾ (āvēgā)	ਪਕਾਵੇਗਾ (pakāvēgā)
42.	◌ाऐगी (āaigī)	पकाएगा (pakāēgā)	◌ਾਵੇਗੀ (āvēgī)	ਪਕਾਵੇਗੀ (pakāvēgī)
43.	◌ाओगी (āōgī)	पकाएगा (pakāēgā)	◌ਾਏਂਗੀ (āēṅgī)	ਪਕਾਏਂਗੀ (pakāēṅgī)
44.	◌ाओगे (āōgē)	पकाएगा (pakāēgā)	◌ਾਓਗੇ (āōgē)	ਪਕਾਓਗੇ (pakāōgē)
45.	◌ातीं (ātīṃ)	पकाएगा) (pakāēgā)	◌ਾਉਂਦੀਆਂ) (āundīāṃ	ਪਕਾਉਂਦੀਆਂ (pakāundīāṃ)
46.	◌ानीं (ānīṃ)	पकानीं (pakānīṃ)	◌ਾਉਣੀਆਂ (āuṇīāṃ)	ਪਕਾਉਣੀਆਂ (pakāuṇīāṃ)
47.	◌ूंगा (ūṅgā)	मारूंगा (mārūṅgā)	◌ਾਂਗਾ (āṅgā)	ਮਾਰਾਂਗਾ (mārāṅgā)
48.	◌ूंगी (ūṅgī)	मारूंगी (mārūṅgī)	◌ਾਂਗੀ (āṅgī)	ਮਾਰਾਂਗੀ (mārāṅgī)
49.	◌ेंगी (ēṅgī)	मारेंगी (mārēṅgī)	ਣਗੀਆਂ (ṇagīāṃ)	ਮਾਰਣਗੀਆਂ (mārṇagīāṃ)
50.	◌ेंगे (ēṅgē)	मारेंगे (mārēṅgē)	ਣਗੇ (ṇagē)	ਮਾਰਣਗੇ (mārṇagē)
51.	हरों (harōṃ)	परिहरों (parihrōṃ)	ਹਿਰਾਂ (hirāṃ)	ਪਰਿਹਿਰਾਂ (parihirāṃ)
52.	भाओं (bhāōṃ)	प्रतिभाओं (pratibhāōṃ)	ਭਾਵਾਂ (bhāvāṃ)	ਪ੍ਰਤਿਭਾਵਾਂ (pratibhāvāṃ)
53.	◌ूंगा (ūṅgā)	मारूंगा (mārūṅgā)	◌ਾਂਗਾ (āṅgā)	ਮਾਰਾਂਗਾ (mārāṅgā)
54.	◌ेंगे (ēṅgē)	मारेंगे (mārēṅgē)	ਣਗੇ (ṇagē)	ਮਾਰਣਗੇ (mārṇagē)
55.	◌ांगे (āṅgē)	मारांगे (mārāṅgē)	◌ਂਗੇ (ṅgē)	ਮਾਰਾਂਗੇ (mārāṅgē)

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56.	ਇਏਗਾ (*iēgā*)	ਪਾਇਏਗਾ(*pāiēgā*)	ਓਗੇ (*ōgē*)	ਪਾਓਗੇ (*pāōgē*)
57.	ਊਂਗਾ (*ūṅgā*)	ਪਾਊਂਗਾ (*pāūṅgā*)	ਵਾਂਗਾ (*vāṅgā*)	ਪਾਵਾਂਗਾ (*pāvāṅgā*)
58.	ਊਂਗੀ (*ūṅgī*)	ਪਾਊਂਗੀ (*pāūṅgī*)	ਵਾਂਗੀ (*vāṅgī*)	ਪਾਵਾਂਗੀ (*pāvāṅgī*)
59.	ਊਂਗਾ (*ūṅgā*)	ਪਾਊਂਗਾ (*pāūṅgā*)	ਵਾਂਗਾ (*vāṅgā*)	ਪਾਵਾਂਗਾ (*pāvāṅgā*)
60.	ਊਂਗੀ (*ūṅgī*)	ਪਾਊਂਗੀ (*pāūṅgī*)	ਵਾਂਗੀ (*vāṅgī*)	ਪਾਵਾਂਗੀ (*pāvāṅgī*)
61.	ਏਂਗੀ (*ēṅgī*)	ਪਾਏਂਗੀ (*pāēṅgī*)	ਓਗੇ (*ōgē*)	ਪਾਓਗੇ (*pāōgē*)
62.	ਏਂਗੀ (*ēṅgī*)	ਪਾਏਂਗੀ (*pāēṅgī*)	ਓਗੇ (*ōgē*)	ਪਾਓਗੇ (*pāōgē*)
63.	ਏਂਗੇ (*ēṅgē*)	ਪਾਏਂਗੇ (*pāēṅgē*)	ਓਗੇ (*ōgē*)	ਪਾਓਗੇ (*pāōgē*)
64.	ਏਂਗੇ (*ēṅgē*)	ਪਾਏਂਗੇ (*pāēṅgē*)	ਓਗੇ (*ōgē*)	ਪਾਓਗੇ (*pāōgē*)
65.	ਊਂਗੀ (*ūṅgī*)	ਪਾਊਂਗੀ (*pāūṅg)ī*	ਵਾਂਗੀ (*vāṅgī*)	ਪਾਵਾਂਗੀ(*pāvāṅgī*)
66.	ਯੇਗਾ (*yēgā*)	ਪਾਯੇਗਾ (*pāyēgā*)	ਵੇਗਾ (*vēgā*)	ਪਾਵੇਗਾ (*pāvēgā*)

Database Design for punjabiUnigrams:

Following table shows the database design for punjabiUnigrams:

Table 5.24: punjabiUnigram Database Design

punjabiUnigram	Stores the Punjabi word
Frequency	Stores the frequency of this word in the analyzed Punjabi corpus.

Sample Entries for punjabiUnigrams database:

Following table shows the sample entries for punjabiUnigrams database:

Table 5.25: Sample Entries for punjabiUnigram database

punjabiUnigram	Frequency
ਅਤੇ (*atē*)	81897

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ਪੁਲਿਸ (*pulis*)	5112
ਬਚਾਉਣ (*bacāuṇ*)	518
ਇਲੈਕਟ੍ਰੀਸ਼ੀਅਨ (*ilaikṭrīsaīan*)	3
ਪ੍ਰੋਵੀਜ਼ਨਲ (*prauvījnal*)	1

5.1.5.2 Transliteration

With the advent of new technology and the food of information through the Web, it has become increasingly common to adopt foreign words into one's language. This usually entails adjusting the adopted word's original pronunciation to follow the phonological rules of the target language, along with modification of its orthographical form. This phonetic "translation" of foreign words is called *transliteration*. Transliteration is a process that takes a character string in a source language and generates equivalent mapped character string in the target language. One of the most frequent problems translators must deal with is translating proper names and technical terms. Such terms are not translated rather are transliterated. Transliteration maps the letters of source script to letters of pronounced similarly in target script. Transliteration is particularly used to translate proper names and technical terms from languages. For example the word विशाल (*vishā)l* is transliterated

as ਵਿਸ਼ਾਲ (*vishāl*) whereas translated as ਵੱਡਾ (*vaḍḍ)ā*. There must be some

method in every Machine Translation system for words like technical terms and proper names of persons, places, objects etc. that cannot be found in

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translation resources such as Hindi-Punjabi bilingual dictionary, surnames database, titles database etc and transliteration is an obvious choice for such words. It is the process of converting characters in one alphabet into another alphabet.

Principles for Transliteration

Following are some of the principles for a transliteration system:

- **Partial Reversibility:** Two segments of text in the target script, arising from the same source script, are to be the same if, and only if, the segments in the source script are either identical or use alternative orthography.

- **Uniformity:** Two segments of text in the target script, arising from different source scripts, are to be the same if, and only if, the two segments in the source scripts correspond precisely, according to comparative linguistics.

- **Compromise:** One symbol may have different meanings if its interpretation is never in doubt. Compromise is also necessary whenever two of these principles conflict.

- **Readability:** Even if the text is meant for computer processing, it needs to be read easily.

- **Economy:** This will also improve readability.

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- **Approximation:** The symbol used should remind one of sound, and of the transliteration scheme used for printing.

Transliteration Guidelines

The following lists the general guidelines for transliterations:

Complete: Every well-formed sequence of characters in the source script should transliterate to a sequence of characters from the target script.

Predictable: The letters themselves (without any knowledge of the languages written in that script) should be sufficient for the transliteration, based on a relatively small number of rules. This allows the transliteration to be performed mechanically.

Pronounceable: Transliteration is not as useful if the process simply maps the characters without any regard to their pronunciation. Simply mapping by alphabetic order could yield strings that might be complete and unambiguous, but the pronunciation would be completely unexpected.

Unambiguous: It is possible to recover the text in the source script from the transliteration in the target script. That is, someone that knows the transliteration rules would be able to recover the precise spelling of the original source text.

Partial Reversibility: In script transliteration, there are cases where all characters in the source script may not have one-to-one mapping for transliteration in the target script. To preserve pronunciation these characters

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may mapped to some character or sequence of characters that may produce a similar sound. In such cases reversibility will be incomplete.

History of Transliteration

- 1885 — The American Library Association [ALA] creates a system for representing Cyrillic characters. No diacritics are used. (e.g. zh, kh, tch, sh, shtch, ye [for jat], yu, ya) Reverse transliteration is not considered.

- 1898 — The Prussian Instructions (Preussische Instruktionen [PI]) are created, which use a system of transliteration based on the Croatian model (with diacritics).

- 1909 — The ALA and British Library Association [BLA] allow for two systems, the ALA system and one based on Croatian.

- 1905 — Library of Congress creates their system, which is virtually identical to what is used today.

- 1917— The British Academy creates its own system. Like many other systems. It does not take into account reverse transliteration.

- 1930s— Central European and Scandinavian countries adopt the Prussian Instructions [PI]. This system was based on the Croatian model. Exceptions were made for German speaking countries, where "ch" was used instead of "h" for Cyrillic "x"

- In France the Bibliotheque Nationale adopts a purely phonetic rendering following French spelling conventions (transcription rather than transliteration).

- 1953 — The British Royal Society [BRS] creates another system,

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covering Russian, Serbian & Bulgarian (but not Ukrainian, Macedonian or Belorusian).

- 1954 — The International Organization for Standardization [ISO] creates IS0/R9. Based on Croatian, this transliteration system is very close to the PI system.

- 1959 — The British Standards Institution [BS/BSI] rejects ISO/R9 (because of its reliance on multiple diacritics) and comes up with its own system: BS 2979. Very close to the British Royal Society system. (This system is used by Chemical Abstracts).

- 1976 — The American National Standards Institute [ANSI] publishes their system, nearly identical to the BSI system.

- 1968 — ISO/R9:1968 is relaxed to allow for the ANSI and BS 2979 systems (in certain countries).

- 1995 — ISO/R9:1995 reverts to to its initial standards, doing away with allowing "ch" or "kh" for Cyrillic "x."

Transliteration Models:

Four machine transliteration models have been proposed by several researchers: grapheme-based transliteration model (Ψ_G), phoneme-based transliteration model (Ψ_P), hybrid transliteration model (Ψ_H) and correspondence-based transliteration model (Ψ_C). These models are classified in terms of the units to be transliterated. The Ψ_G is sometimes referred to as the *direct method* because it directly transforms source language graphemes into target language graphemes without any phonetic

knowledge of the source language words. The Ψ_P is sometimes referred to as the *pivot method* because it uses source language phonemes as a pivot when it produces target language graphemes from source language graphemes.

The Ψ_H and Ψ_C make use of both source language graphemes and source language phonemes when producing target language transliterations. Hereafter, we refer to a source language grapheme as a *source grapheme*, a source language phoneme as a *source phoneme*, and a target language grapheme as a *target grapheme*.

The transliterations produced by the four models usually differ because the models use different information. Generally, transliteration is a phonetic process, as in Ψ_P , rather than an orthographic one, as in Ψ_G. However, standard transliterations are not restricted to phoneme-based transliterations.

A review of the archives of Indian language documents on the Internet reveals several other schemes of Transliteration and fonts. The Indology site in England has electronic texts of Sanskrit Documents prepared in CSX format, a special input method recommended in 1990 for Sanskrit data entry using a DOS feature called Code page switching. ITRANS which is more recent offers conversion facilities to convert from CSX to the ITRANS format. The Tamil archives of the Institute of Indology and Tamil Studies in Germany (IITS) has an archive of texts of Tamil Sangam literature and many Sanskrit documents. These archives are based on the transliteration scheme recommended by the University of Madras, a fairly well known and accepted standard.

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Transliteration among Indian scripts is easily achieved using ISCII (Indian Script Code for Information Interchange). ISCII has been designed using the phonetic property of Indian scripts and caters to the superset of all Indian scripts. By attaching an appropriate script rendering mechanism to ISCII, transliteration from one Indian script to another is achieved in a natural way. Transliteration schemes have to face the problem of letters present in one language and not in the other. Thus, unless a superset of letters from all the Indian Languages is formed, uniform transliteration is ruled out. Ram Viswanadha [217] has the view that when characters do not have any appropriate transliteration they should be consumed and not replaced with any other character. This results in partial loss of reversibility.

Our Approach

Although Hindi and Punjabi are closely related languages and for except few cases all alphabets of Devanagri script are present in Gurmukhi script, the task of transliteration from Hindi to Punjabi is not trivial. The Unicode encoding has eased the problem to some extent. In our system besides direct character mappings from alphabet in one script to another, rule based transliteration useful for a translation system is also employed to improve its accuracy. Using only direct character mapping, it shows that this word is out--of-vocabulary for our system and has been displayed in the output by changing the script and is unknown to our system. Both direct character

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mapping and complex rules employed for transliteration are explained in the following sections.

Direct Character Mappings:

Both Hindi and Punjabi languages are phonetic languages and their scripts represent the phonetic repository of their respective languages. These phonetic sounds are used to determine the relations between the characters of two scripts. On the basis of this idea, character mappings are determined. With this system every alphabet can be uniquely mapped to the corresponding alphabet as shown in following table. Taking into account the similarity of both the scripts, letter to letter mapping is the obvious choice for baseline. Following table 5.26 shows the direct mapping of Hindi to Punjabi alphabets:

Table 5.26: Direct Hindi to Punjabi Character Mapping

Hindi Character	Decimal Code	Punjabi Character	Decimal Code
ऀ	2305	ੰ or ੱ	2562 or 2672
ं	2306	ੰ or ੱ	2562 or 2672
ः	2307	:	58
अ	2309	ਅ	2565
आ	2310	ਆ	2566
इ	2311	ਇ	2567
ई	2312	ਈ	2568

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उ	2313	ਉ	2569
ऊ	2314	ਉੂ	2570
ऋ	2315	ਰਿ	2608+2623
ऍ	2317	ਏ	2575
ऎ	2318	ਏ	2575
ए	2319	ਏ	2575
ऐ	2320	ਐ	2575
ऑ	2321	ਆ	2566
ऒ	2322	ਔ	2580
ओ	2323	ਓ	2579
औ	2324	ਔ	2580
क	2325	ਕ	2581
ख	2326	ਖ	2582
ग	2327	ਗ	2583
घ	2328	ਘ	2584
ङ	2329	ਙ	2585
च	2330	ਚ	2586
छ	2331	ਛ	2587
ज	2332	ਜ	2588
झ	2333	ਝ	2589
ञ	2334	ਞ	2590

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ट	2335	ਟ	2591
ठ	2336	ਠ	2592
ड	2337	ਡ	2593
ढ	2338	ਢ	2594
ण	2339	ਣ	2595
त	2340	ਤ	2596
थ	2341	ਥ	2597
द	2342	ਦ	2598
ध	2343	ਧ	2599
न	2344	ਨ	2600
ऩ	2345	ਨ	2600
प	2346	ਪ	2602
फ	2347	ਫ	2603
ब	2348	ਬ	2604
भ	2349	ਭ	2605
म	2350	ਮ	2606
य	2351	ਯ	2607
र	2352	ਰ	2608
ऱ	2353	ਰ	2608
ल	2354	ਲ	2610
ळ	2355	ਲ਼	2611

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ळ	2356	ਲ਼	2611
व	2357	ਵ	2613
श	2358	ਸ਼	2614
ष	2359	ਸ਼	2614
स	2360	ਸ	2616
ह	2361	ਹ	2617
◌ं	2364	◌ਂ	2620
◌ा	2366	◌ਾ	2622
ि◌	2367	ਿ◌	2623
◌ी	2368	◌ੀ	2624
◌ु	2369	◌ੁ	2625
◌ू	2370	◌ੂ	2626
◌े	2375	◌ੇ	2631
◌ै	2376	◌ੈ	2632
◌ॉ	2377	◌ਾ	2622
◌ो	2378	◌ੋ	2635
◌ॊ	2379	◌ੋ	2635
◌ौ	2380	◌ੌ	2636
◌्	2381	◌੍	2637
ॐ	2384	ੴ	2579+2606
ऋ	2392	ਰ	2581

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ख़	2393	ध	2649
ग़	2394	ग	2650
ज़	2395	ਜ	2651
ड़	2396	ੜ	2652
ढ़	2397	ੜ੍ਹ	2652+2637+2617
फ़	2398	ਢ	2654
य़	2399	ਜ	2607

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Following flowchart explains the working of the transliteration phase:

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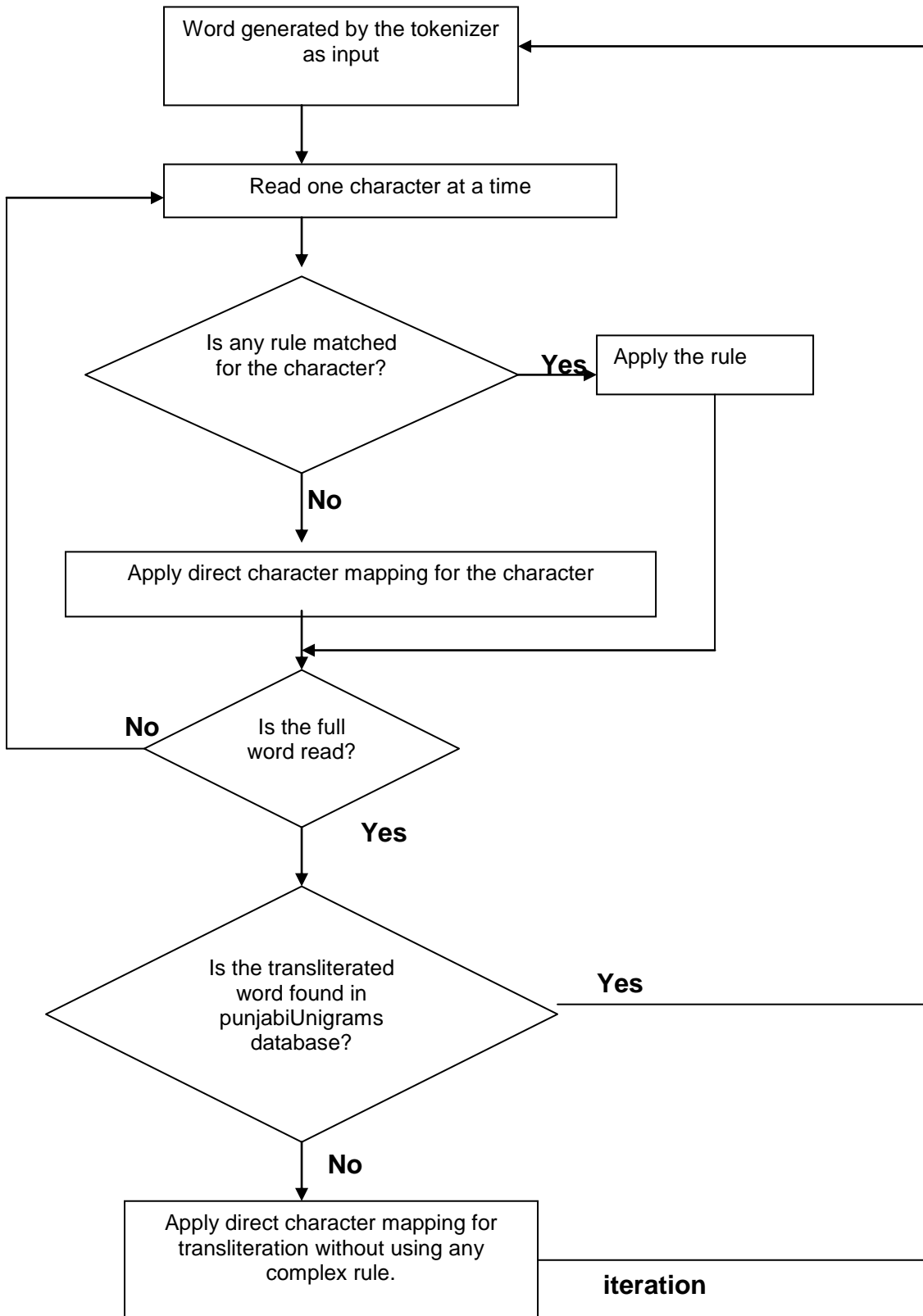
Figure 5.2: Flow Chart for Transliteration Module

Rule Based Mapping:

Although direct character mapping can produce successfully the transliterated output in Punjabi which can represent the source word in target language, but we can improve the results by making them nearer to target language in term of spellings and choice of alphabets by using some set of rules. A quite reasonable improvement can be achieved by small amount of dependency or contextual rules. Following are the rules for alleviating some of the problems not solved by direct character mapping.

1. या at the end of the words of length greater than 3 will be transliterated

   into ਆ. For example: विकिपीडिया (*vikipīḍiyā*) : ਵਿਕੀਪੀਡਿਆ (*vikīpīḍiā*),

   वेबदुनिया (*vēbduniyā*): ਵੇਬਦੂਨਿਆ(*vēbduniā*)

2. Substring आया in the word of length greater than 3 will be transliterated

   to ਆਯਾ. For example: आयाम (*āyām*): ਆਯਾਮ(*āyām*), आयातित(*āyātit*):

   ਆਯਾਤਿਤ(*āyātit*) .

3. यी at the end of the words will be transliterated into ਈ. For example:

   वाजपेयी (vājpēyī): ਵਾਜਪੇਈ (vājpēī), एंप्लॉयी (ēmplāyī):ਅੰਪਲਾਈ (amplāī).

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4. य at the end of the word will be transliterated into ਏ. For example: अक्षय

(*akshay)* : ਅਕਸ਼ਏ (*akshaē),* समुद्रपारीय (*samudrpārīy)* : ਸਮੁਦਰਪਾਰੀਏ

(*samudrapārīē).*

5. या preceded by consonant or halant in the word, will be transliterated

to ਿ + ਅ + ਾ. For example: प्यास (*pyās)* : ਪਿਆਸ(*piās), ब्यास(byās):*

ਬਿਆਸ(*biās).*

6. यू preceded by consonant or halant in the word, will be transliterated

into ਿ + ਉ.   For example: अभिमन्यू (*abhimnyū):* ਅਭਿਮਨਿਉ(*abhimniū),*

एविन्यू (*ēvinyū)* : ਏਵਿਨਿਉ(*ēviniū).*

7. यु preceded by consonant or halant in the word, will be transliterated

into ਿ + ਉ. For example: इम्म्युनोलॉजी(*immyunōlājī)* : ਇੰਮਿਉਨੋਲਾਜੀ

(*immiunōlājī),* मैक्युलम(*maikyulam*) : ਮੈਕਿਉਲਮ(*maikiulam).*

8. ये preceded by consonant or halant in the word, there is a consonant,

will be transliterated to ਿ + ਏ. For example: क्रियेटिव(*kriyēṭiv)* : ਕਰਿਏਟੀਵ

(*kariēṭiv),* एनडीब्येर(*ēnḍībyēr):* ਏਨਡੀਬਿਏਰ(*ēnḍībiēr).*

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9. यै preceded by consonant or halant in the word, will be transliterated

into ਿ + ਐ. For example: कहिल्यै(*kahilyai*): ਕਹਿਲਿਐ(*kahiliai*), मोदगप्यै

(*mōdgapyai*): ਮੋਦਗਾਪਿਐ(*mōdgapiai).*

10. ये within the words of length greater than 2 and not at the beginning of

the word, will be transliterated into ਏ. For example: थुयेर (*thuyēr*):

ਥੁਏਰ(*thuēr).*

11. यू within the words and not at the beginning of the word, will be

transliterated into ਿ and ਊ. For example: बयूरा (*bayūrā*): ਬਿਉਰਾ(*biūrā),*

कंप्यूटर(*kampyūṭar*) : ਕੰਪਿਊਟਰ(*kampiūṭar).*

12. य preceded by matra ਾ and followed by consonant, will be

transliterated into ਇ. For example: रसायनिक (*rasāynik*): ਰਸਾਇਨਿਕ

(*rasāiṇik),* डायबिटीज(*ḍāybiṭīj*):ਡਾਇਬਿਟੀਜ(*ḍāibiṭīj).*

13. ाया at the end of the word will be transliterated into ਾਇਆ. For

example: समझाया (*samjhāyā*): ਸਮਝਾਇਆ(*samjhāiā),* ठहराया(*ṭhahrāyā*):

ਠਹਰਾਇਆ(*ṭhahrāiā).*

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14. ◌या within the word and not at the end ◌ਯਾ. For example: सजायाफ्ता

(*sajāyāphtā*)**:** ਸਜਾਯਾਫਾਤਾ (*sajāyāphātā*), नायाब(*nāyāb*)**:**ਨਾਯਾਬ(*nāyāb*).

15. य preceded by the matra ਿ◌ and followed by consonant in the word, will

be transliterated ਅ. For example: कैलिशयम (*kailshiyam*)**:** ਕੈਲਸ਼ਿਅਮ

(*kailshiam*), स्टेडियम (*sṭēḍiyam*)**:**ਸਟੇਡਿਅਮ(*saṭēḍiam*).

16. य preceded by the matra ◌ੈ and followed by the matra ◌ा in the word,

will be transliterated into ਿ◌ + ਆ. For example: मुथैया (*muthaiyā*) :

ਮੁਥਿਆ(*muthiā*), फैयाज़ (*phaiyāja*): ਫਿਆਜ਼(*phiāj*).

17. Dead Consonant क (क्) followed by live consonant ख in the word, will

be transliterated into ◌ੱ. For example: मक्खन(*makkhan*): ਮੱਖਣ

(*makkhaṇ*), मधुमक्खी(*madhumkkhī*): ਮਧੁਮੱਖੀ(*madhumkkhī*).

18. Dead Consonant च(च्) followed by live consonant छ in the word, will be

transliterated into ◌ੱ.For example: इच्छा (*icchā*): ਇੱਛਾ(*icchā*),

अकच्छ(*akacch*): ਅਕੱਛ(*akacch*).

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19. Dead consonant ट(ट्) followed by live consonant ठ, will be transliterated

into ੱ. For example: मट्ठी(*maṭṭhī*) : ਮੱਠੀ(*maṭṭhī*),भट्ठा(*bhaṭṭhā*):

ਭੱਠਾ(*bhaṭṭhā*).

20. Dead consonant ग(ग्) followed by live consonant घ in the word, will be

transliterated into ੱ. For example: मग्घर (*magghar*) : ਮੱਘਰ(*magghar*),

लक्कड़बग्घा(*lakkṛabgghā*): ਲੱਕੜਬੱਘਾ(*lakkṛabgghā*).

21. Dead consonant ज(ज्) followed by live consonant झ in the word, will be

transliterated into ੱ. निज्झर (*nijjhar*) : ਨਿੱਝਰ(*nijjhar*), उज्झड़ (*ujjhaṛ*) :

ਉੱਜੜ(*ujjaṛ*).

22. Dead consonant त (त्) followed by live consonant थ in the word, will be

transliterated into ੱ. For example: पत्थर (*patthar*):ਪੱਥਰ *(patthar)*, कत्था

(*katthā*):ਕੱਥਾ(*katthā*).

23. Dead consonant द(द्) followed by live consonant ध in the word, will be

transliterated into ੱ. For example: सिद्धार्थ (*siddhārth*): ਸਿੱਧਾਰਥ

(*siddhārath*), अनिरुद्ध(*Aniruddh*) : ਅਨਿਰੁੱਧ(*aniruddh*).

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24. Dead consonant ड(ड़) followed by live consonant ढ in the word, will be transliterated into ੱ. For example: गड्ढा (*gaḍḍhā*): ਗੱਢਾ(*gaḍḍhā),

बुड्ढा(*buḍḍhā*) : ਬੁੱਢਾ(*buḍḍhā).

25. Conjuct consonant ज्ञ in the word will be transliterated in Gurmukhi into ਿ +ਗ + ਅ. For example:खगोलवैज्ञानिक (*khagōlvaigiānik*) :

ਖਗੋਲਵੈਗਿਆਨੀਕ(*khagōlvaigiānīk*), मनोविज्ञानी(*manōvigiānī*): ਮਨੋਵਿਗਿਆਨੀ

(*manōvigiānī*).

26. Dead consonant म (म्) followed by any labial consonant (प,ब,फ,म,व), will be transliterated into ੰ. पम्मी (*pammī*): ਪੰਮੀ(*pammī*), पम्प(*pamp*):

ਪੰਪ(*pamp*).

27. Dead Consonant followed by the live consonant of its preceding dead consonant in the word, will be transliterated to ੱ. This rule is not applicable for consonants म and न. For example: दिग्गज(*diggaj*) :

ਦਿੱਗਜ(*diggaj*), छज्जा(*chajjā*): ਛੱਜਾ(*chajjā).

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28. Dead Consonant न (ਨ) followed by live consonant ਨ in the word,will be

transliterated to ੰ. For example: पन्ना(*pannā)* : ਪੰਨਾ(*pannā),* अन्नामलाई(

*annāmlāī(annāmlāī),*ਅੰਨਾਮਲਾਈ (*annāmlāī).*

29. ੍ੵ or (੍ਰ) preceded by consonant क in the word will be transliterated

੍ਰਿ. For Example: क्रिकेट(*krikēṭ):* ਕ੍ਰਿਕੇਟ(*krikēṭ),*संस्कृत(*saṃskrit)* :

ਸੰਸਕ੍ਰਿਤ(*saṃskrit).*

30. (੍ਰ) preceded by consonant प in the word will be transliterated ੍ਰ. For

Example: प्रयोगशाला(*prayōgshālā):* ਪ੍ਰੋਗਸ਼ਾਲਾ(*prayōgshālā),* प्रिंटिंग

(*priṇṭiṅg) :*ਪ੍ਰਿੰਟਿੰਗ(*priṇṭiṅg).*

31. Conjuct consonant क्ष in the word will be transliterated to ਕਸ਼. For

example: क्षेमेन्द्र राव(kshēmēndr rāv): ਕਸ਼ੇਮੇਂਦਰ ਰਾਵ (kashēmēndar *rāv),*

कुरुक्षेत्र(*kurukshētr),*ਕੁਰੁਕਸ਼ੇਤਰ(*kurukshētar).*

32. Conjuct consonant त्र in the word will be transliterated to ਤਰ. For

example: त्रिफला(*triphlā):* ਤ੍ਰਿਫਲਾ(*triphlā),* तंत्रिका(*tantrikā):*ਤੰਤਰਿਕਾ(*tantrikā).*

33. Conjuct consonant श्र in the word will be transliterated to ਸ਼ਰ. For

example: श्रवण(*shravaṇ*) : ਸ਼ਰਵਣ(*sharvaṇ),* श्रीलंकाई(*shrīlṅkāī*) : ਸ਼ਰੀਲੰਕਾਈ

(*sharīlṅkāī).*

34. ं or ँ preceded by either आ or ई or ऐ or ओ or औ or ऑ or उ or ऊ or ा

or ी or े or ै or ो or ौ then ं or ँ in the word will be

transliterated to ਂ. For example: डिपार्टमेंट (*ḍipārṭmēṇṭ*): ਡਿਪਾਰਟਮੇਂਟ

(*ḍipārṭamēṇṭ),* ऐंट्री(*aiṇṭrī*):ਐਂਟਰੀ(*aiṇṭrī).*

35. ं or ँ preceded by either ए or अ or ु or ृ or इ or ि in the word will be

transliterated to ੰ. For example: इंटरनैशनल(*iṇṭranaishnal)* : ਇੰਟਰਨੈਸ਼ਨਲ

(*iṇṭranaishnal),* एंटनी(*ēṇṭnī*):ਏਂਟਨੀ(*ēṇṭnī).*

36. ं or ँ between two consecutive consonants in the word, will be

transliterated to ੰ. For example: संदीप(*sandīp)*:ਸੰਦੀਪ(*sandīp),* स्टूडंट्स

(*sṭūḍaṇṭs)*,ਸਟੂਡੰਟਸ(*saṭūḍṇṭas).*

When translation was performed on a document of 100 pages consisting of about 3,58,874 words, We found that about 24% of total words gets transliterated during translation process. Thus, above transliteration module plays a major role in translation.

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5.3 Summary

This chapter presented the detailed working of tokenizer and the working of sub phases of translation engine phase of our Machine Translation system. The translation engine plays an important role in selecting the correct target language. Identifying surnames and titles modules detect the proper names of a person and pass them to the transliteration module. *N-gram* approach is employed for word sense disambiguation. The solution for handling out of vocabulary words using inflectional analysis without using morphology and transliteration activities are discussed in depth. The output generated by this phase is further refined by the post-processing phase. This phase is discussed in detail in next chapter.

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Chapter 6

Post-Processing

6.1 Grammar Corrections

In spite of the great similarity between Hindi and Punjabi languages, there are still a number of important grammatical divergences: gender and number divergences which affect agreement. The grammar is incorrect or the relation of words in their reference to other words, or their dependence according to the sense is incorrect and needs to be adjusted. This phase is the tail end of our Machine Translation system. It is a sentence level post-processing module that improves the translation quality by making corrections in the translation generated. In other words, it can be said that it is a system of correction for ill-formed sentences. The output generated by the translation engine phase becomes the input for post-processing phase. This phase will correct the grammatical errors based on the rules implemented in the form of regular expressions discussed in the next section. In this section, we will discuss error categories which include those mistakes that lead to ungrammaticality, and thus need to be corrected. It is not possible to fully remove all the grammatical errors but to some extent. In each of the examples given in each error category, sentence marked with the asterisk (*) is

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ungrammatical sentence and the other sentence without the asterisk (*) is the one corrected grammatically by the post processing phase.

1. Within Verb Phrase Agreement:

In a typical Punjabi sentence, within verb phrase, all the verbs must agree in gender and number.

1(a) * ਨਿਰਮਲਾ ਦੀ ਅਵਾਜ ਸੁਣਦੇ ਹੀ <u>ਭੱਜਦੀ ਹਨ</u>।

(nirmalā dī avāj suṇdē hī bhajjdī han.)

ਨਿਰਮਲਾ ਦੀ ਅਵਾਜ ਸੁਣਦੇ ਹੀ <u>ਭੱਜਦੀਆਂ ਹਨ</u>।

(nirmalā dī avāj suṇdē hī bhajjdīāṃ han.)

1(b) * ਉਨ੍ਹਾਂ ਕੰਪਨੀਆਂ ਨੂੰ ਜਿਆਦਾ ਵਿਆਕੁਲ ਕਰੇਗਾ ਜੋ ਭਾਰਤ ਵਿੱਚ ਸਥਿਤ ਆਪਣੀ ਅਨੁਸ਼ੰਗੀਆਂ

ਦੁਆਰਾ ਕੰਮ-ਕਾਜ <u>ਕਰਾਂਦੀ ਹਨ</u> ।

(unhāṃ kampnīāṃ nūṃ jiādā viākul karēgā jō bhārat vicc sathit āpṇī anushṅgīāṃ)

ਉਨ੍ਹਾਂ ਕੰਪਨੀਆਂ ਨੂੰ ਜਿਆਦਾ ਵਿਆਕੁਲ ਕਰੇਗਾ ਜੋ ਭਾਰਤ ਵਿੱਚ ਸਥਿਤ ਆਪਣੀ ਅਨੁਸ਼ੰਗੀਆਂ

ਦੁਆਰਾ ਕੰਮ-ਕਾਜ <u>ਕਰਾਂਦੀਆਂ ਹਨ</u> ।

(unhāṃ kampnīāṃ nūṃ jiādā viākul karēgā jō bhārat vicc sathit āpṇī anushṅgīāṃ duārā kamm-kāj karāndīāṃ han)

1(c) *ਪਿਛਲੇ ਸਾਲ ਇਸੇ ਮਹੀਨੇ ਕੰਪਨੀ ਨੇ 2,76,580 ਮੋਟਰਸਾਈਕਲਾਂ <u>ਵੇਚੀ ਸਨ</u> ।

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(pichlē sāl isē mahīnē kampnī nē 2,76,580 mōṭarsāīklāṃ vēcī san)

ਪਿਛਲੇ ਸਾਲ ਇਸੇ ਮਹੀਨੇ ਕੰਪਨੀ ਨੇ 2,76,580 ਮੋਟਰਸਾਈਕਲਾਂ <u>ਵੇਚੀਆਂ ਸਨ</u> ।

(pichlē sāl isē mahīnē kampnī nē 2,76,580 mōṭarsāīklāṃ vēcīāṃ san)

2. Noun's Oblique Form before Postpositions

In the Punjabi Sentence, the noun before the postpositions take the oblique form.

2(a) *ਸਭ <u>ਸਮਾਂ ਤੇ</u> ਆਓ ।

(sabh samāṃ tē āō)

ਸਭ <u>ਸਮੇਂ ਤੇ</u> ਆਓ ।

(sabh samēṃ tē āō)

2(b) *<u>ਰਾਜਾ ਨੇ</u> ਮੰਤਰੀਆਂ ਨੂੰ ਆਦੇਸ਼ ਦਿੱਤਾ ।

(rājā nē mantrīāṃ nūṃ ādēsh dittā .)

<u>ਰਾਜੇ ਨੇ</u> ਮੰਤਰੀਆਂ ਨੂੰ ਆਦੇਸ਼ ਦਿੱਤਾ

(rājē nē mantrīāṃ nūṃ ādēsh dittā)

3. Subject Verb Agreement

In Punjabi Sentence, the subject must agree with verb.

3(a) *<u>ਤੁਸੀ</u> ਕੋਈ ਵੀ ਮੁਸੰਮੀ ਫਲ ਲੈ ਸਕਦੇ <u>ਹਨ</u> ।

(tusī kōī vī musmmī phal lai sakadē han)

<u>ਤੁਸੀ</u> ਕੋਈ ਵੀ ਮੁਸੰਮੀ ਫਲ ਲੈ ਸਕਦੇ <u>ਹੋ</u> ।

(tusī kōī vī musmmī phal lai sakadē hō)

3(b) *ਅਸੀਂ ਵਾਲਾਂ ਦੀ ਠੀਕ ਦੇਖਭਾਲ ਕਰ ਸੱਕਦੇ ਹਨ ।

(asīṃ vālāṃ dī ṭhīk dēkhbhāl kar sakkdē han .)

ਅਸੀਂ ਵਾਲਾਂ ਦੀ ਠੀਕ ਦੇਖਭਾਲ ਕਰ ਸੱਕਦੇ ਹਾਂ ।

(asīṃ vālāṃ dī ṭhīk dēkhbhāl kar sakkdē hāṃ)

4. Verb Object noun phrase agreement if there is ਚਾਹੀਦਾ *cāhīdā* in verb phrase

In Punjabi Sentence, verb must agree with the object noun phrase if there is ਚਾਹੀਦਾ in the verb phrase.

4(a) * ਪ੍ਰੀਖਿਆ ਵਿੱਚ ਇਹ ਗੱਲ ਸਾਹਮਣੇ ਆਈ ਹੈ ਕਿ ਸੰਕਟਗਰਸਤ ਬੈਂਕ ਆਫ ਅਮਰੀਕਾ ਨੂੰ ਸਭਤੋਂ ਜਿਆਦਾ 33 . 9 ਅਰਬ ਡਾਲਰ ਦੀ ਪੂੰਜੀ ਚਾਹੀਦਾ ਹੈ ।

(prīkhiā vicc ih gall sāhmaṇē āī hai ki saṅkṭagrasat baiṅk āph amrīkā nūṃ sabhtōṃ jiādā 33 . 9 arab ḍālar dī pūñjī cāhīdā hai .)

ਪ੍ਰੀਖਿਆ ਵਿੱਚ ਇਹ ਗੱਲ ਸਾਹਮਣੇ ਆਈ ਹੈ ਕਿ ਸੰਕਟਗਰਸਤ ਬੈਂਕ ਆਫ ਅਮਰੀਕਾ ਨੂੰ ਸਭਤੋਂ ਜਿਆਦਾ 33 . 9 ਅਰਬ ਡਾਲਰ ਦੀ ਪੂੰਜੀ ਚਾਹੀਦੀ ਹੈ ।

(prīkhiā vicc ih gall sāhmaṇē āī hai ki saṅkṭagrasat baiṅk āph amrīkā nūṃ sabhtōṃ jiādā 33 . 9 arab ḍālar dī pūñjī cāhīdī hai .)

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6.2 Pattern matching and Regular Expressions:

Pattern matching is a searching technique employed normally on a string containing text in order to locate a portion or all of the specified data based on a specific search pattern criterion. A regular expression is a special text string for describing a search pattern. Regular expressions are a 'way to describe text through pattern matching' (Stubblebine 2003: 1). Regular expressions provide a powerful, flexible, and efficient method for processing text. The extensive pattern-matching notation of regular expressions allows to quickly parsing large amounts of text to find specific character patterns; to extract, edit, replace, or delete text substrings. The idea of using regular expressions for natural language processing is widely known. By using them, the most complex and repetitive linguistic errors can be identified and replaced with the right text in the MT output. The syntax of regular expressions can be simple or highly complex, depending on the pattern.

6.2.1 Related Works

The concept of automated Post-Editing was first introduced by Knight and Chander[218] and further explored by Allen and Hogan with a view to fix systematic errors committed by an MT system [219]. When these MT errors cannot be fixed with advanced User Dictionary coding techniques, they may be fixed using powerful global search and replace patterns. Roturier [220-223] used regular expressions for post-processing module of their Machine

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Translation system. Kartunnen [224] suggests applying finite automata and transducers that represent regular expressions, for natural language texts. Oflazer [225] shows the use of regular expressions for tokenization, shallow parsing or morphology analysis. Hasan [226] describes the use of regular expressions for sentence clustering in SMT. Number of hybrid experiments have been conducted by combining rule-based MT (RBMT) systems with Statistical Post-Editing (SPE) systems. Two experiments were carried out for the shared task of the ACL 2007 Workshop on Statistical Machine Translation, combining a raw SYSTRAN system with a statistical post-editing (SPE) system. One experiment was run by NRC using the language pair English<>French in the context of Automatic Post-Edition systems using the PORTAGE system. The second experiment based on the same principle was run on the German > English and Spanish > English language pairs using the Moses system. The objective was to train a SMT system on a parallel corpus composed of SYSTRAN translations with the referenced source aligned with its referenced translation. A detailed evaluation of these experiments was then conducted and presented in [227,228]. They concluded that the SYSTRAN+SPE experiments demonstrated very good results – both on automatic scoring and on linguistic analysis. Their detailed comparative analysis provided directions on how to further improve these results by adding "linguistic control" mechanisms.

6.2.2 Our Approach

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Here, we present the use of regular expressions in a translation system for doing post editing. The grammatical categories discussed in Section 6.1 are corrected using pattern matching through regular expressions in the MT output. It is a two step process:

(i)   Pattern mentioned in regular expressions are matched with text.

(ii)   If some pattern(s) matches with the strings in the text, it is replaced with the required one mentioned in pattern matched regular expression.

We have formulated 28 regular expressions for correcting such grammatical errors. Following table shows the distribution of regular expressions on the basis of error categories discussed above:

Table 6.1: Grammatical Error Category wise Regular Expression

Distribution

S.No.	Grammatical Error Category	Regular Expression Count
1.	Within Verb Phrase agreement	12
2.	Noun's Oblique Form before Postpositions	02
3.	Subject Verb Agreement	13
4.	Verb Object noun phrase agreement if there is ਚਾਹੀਦਾ (*cāhīdā)* in verb phrase	01

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For instance, the following example shows the subject verb agreement through regular expression:

MT output before post-processing : ਅਸੀਂ ਵਾਲਾਂ ਦੀ ਠੀਕ ਦੇਖਭਾਲ ਕਰ ਸੱਕਦੇ ਹਨ ।

(*asīṃ vālāṃ dī ṭhīk dēkhbhāl kar sakkdē han* .)

Search pattern : (ਅਸੀਂ)(((?!\u0A05\u0A38\u0A40).)+)(ਹਨ)

Replace pattern : $1$2ਹਾਂ

MT output after post-processing : ਅਸੀਂ ਵਾਲਾਂ ਦੀ ਠੀਕ ਦੇਖਭਾਲ ਕਰ ਸੱਕਦੇ ਹਾਂ ।

(*asīṃ vālāṃ dī ṭhīk dēkhbhāl kar sakkdē hāṃ)*

In the above example, the pattern is matched for a sentence in which subject is ਅਸੀਂ and verb is ਹਨ. Even the regular expression has been written in complex way to handle similar nested patterns also. $1 and $2 are the environment variables to store the intermediate substrings matched within the pattern.

The analysis was done on a document consisting of 35500 words. It was found that 6.197% of the output text has been corrected grammatically using these regular expressions. Following table shows the contributions of various regular expression categories in correcting the grammatical errors:

Table 6.2: % Contribution of Regular Expressions on the basis of Grammatical Error Categories

S.No.	Grammatical Error Category	Regular Expression

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		Count
1.	Within Verb Phrase agreement	38.67%
2.	Noun's Oblique Form before Postpositions	3.20%
3.	Subject Verb Agreement	35.63%
4.	Verb Object noun phrase agreement if there is ਚਾਹੀਦਾ (*cāhīdā)* in verb phrase	9.84%

6.3 Sample Translations:

Following are some sample translations obtained from the system:

Input: संभावना है कि जल्दी ही कर्नाटक के राजनीतिक भविष्य का कोई फ़ैसला हो जाएगा

sambhāvnā hai ki jaldī hī karnāṭak kē rājnītik bhavishy kā kōī phaaislā hō jāēgā

Output: ਸੰਭਾਵਨਾ ਹੈ ਕਿ ਜਲਦੀ ਹੀ ਕਰਨਾਟਕ ਦੇ ਰਾਜਨੀਤਿਕ ਭਵਿੱਖ ਦਾ ਕੋਈ ਫੈਸਲਾ ਹੋ ਜਾਵੇਗਾ।

(sambhāvnā hai ki jaldī hī karnāṭak dē rājnītik bhavikkh dā kōī phaislā hō jāvēgā).

Input: लाला साहब ने अपना जीवन इसी काम के हेतु अर्पण कर दिया है।

(lālā sāhab nē apnā jīvan isī kām kē hētu arpaṇ kar diyā hai.)

Output: ਲਾਲਾ ਸਾਹਿਬ ਨੇ ਆਪਣਾ ਜੀਵਨ ਇਸ ਕੰਮ ਦੇ ਲਈ ਅਰਪਣ ਕਰ ਦਿੱਤਾ ਹੈ।

(lālā sāhib nē āpaṇā jīvan is kamm dē laī arpaṇ kar dittā hai).

Input: अपना बिस्तर खिड़की से सटाकर कभी भी न लगाएँ।

(apnā bistar khiṛkī sē saṭākar kabhī bhī na lagāēṃ.)

Output: ਆਪਣਾ ਬਿਸਤਰਾ ਖਿੜਕੀ ਤੋਂ ਸਟਾਕਰ ਕਦੇ ਵੀ ਨਹੀਂ ਲਗਾਓ।

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(āpaṇā bisatrā khiḍ⬚kī tōṃ saṭākar kadē vī nahīṃ lagāō .)

Input: शरीफ लाहौर से इस्लामाबाद के लिए निकले थे ।

(sharīph lāhaur sē islāmābād kē liē niklē thē .)

Output: ਸ਼ਰੀਫ ਲਾਹੌਰ ਤੋਂ ਇਸਲਾਮਾਬਾਦ ਲਈ ਨਿਕਲੇ ਸਨ ।

(sharīph lāhaur tōṃ islāmābād laī niklē san).

6.4 Illustrative Example:

For illustration purpose of how the input is passed through various phases consider the following sentence in Hindi:

Input: हम अपने दोस्त दीपक शर्मा से पूछेंगे कि क्या वो हमारे साथ वन डे मैच

ख़ेल कर गरीब बच्चों की मदद करना चाहेगा जैसे हम करना चाहते हैं ।

(ham apnē dōst dīpak sharmā sē pūchēṅgē ki kyā vō hamārē sāth van ḍē

maic khaēl kar garīb baccōṃ kī madad karnā cāhēgā jaisē ham karnā cāhtē

haiṃ).

Pre Processing Phase:

- During the Text Normalization, ख़ेल *(khaēl)* will be replaced with खेल

  (khēl)

- No named Entity is found.

- वन डे *(van ḍē)* is collocation , thus it will be replaced with ਵਨ ਡੇ *(van*

  ḍē) rather than it's actual word to word translation ਜੰਗਲ ਡੇ *(jaṅgal ḍē)*

Intermediate Output: हम अपने दोस्त दीपक शर्मा से पूछेंगे कि क्या वो हमारे

साथ <u>ਵਨ ਡੇ</u> मैच <u>खेल</u> कर गरीब बच्चों की मदद करना चाहेगा जैसे हम करना चाहते हैं

(ham apnē dōst dīpak sharmā sē pūchēṅgē ki kyā vō hamārē sāth van ḍē

maic khēl kar garīb baccōṃ kī madad karnā cāhēgā jaisē ham karnā cāhtē

haiṃ)

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Tokenizer: It will generate हम, अपने, दोस्त, दीपक, शर्मा, से, पूछेंगे, कि, क्या, वो, हमारे, साथ, वन, डे, मैच, खेल, कर, गरीब, बच्चों, की, मदद, करना, चाहेगा, जैसे, हम, करना, चाहते, हैं,। These tokens are generated one by one and passed to translation engine for processing one after another.

Translation Engine:

- No Title is found

- Surname शर्मा is found and thus दीपक शर्मा will be translated to ਦੀਪਕ ਸ਼ਰਮਾ rather than ਦੀਵਾ ਸ਼ਰਮਾ

- हम, अपने, दोस्त, पूछेंगे, कि, क्या, वो, हमारे, साथ, खेल, गरीब, बच्चों, की, मदद, करना, चाहेगा, जैसे, हम, करना, चाहते, हैं,। tokens will be translated using lexicon lookup and will be translated to ਅਸੀਂ, ਆਪਣੇ , ਦੋਸਤ , ਪੁੱਛਾਂਗੇ, ਕਿ, ਕੀ, ਉਹ, ਸਾਡੇ, ਨਾਲ, ਖੇਲ, ਗਰੀਬ, ਬੱਚਿਆਂ, ਕੀਤੀ, ਮਦਦ, ਕਰਨਾ, ਚਾਹੇਗਾ, ਜਿਵੇਂ, ਅਸੀਂ, ਕਰਨਾ, ਚਾਹੁੰਦੇ, ਹਨ,। respectively.

- Tokens से and कर are ambiguous words and hence using word sense disambiguation approach, these will be translated to ਤੋਂ and ਕੇ respectively.

- मैच will be transliterated by the transliteration module to ਮੇਚ.

Intermediate Output: ਅਸੀਂ ਆਪਣੇ ਦੋਸਤ ਦੀਪਕ ਸ਼ਰਮਾ ਤੋਂ ਪੁੱਛਾਂਗੇ ਕਿ ਕੀ ਉਹ ਸਾਡੇ ਨਾਲ ਵਨ ਡੇ ਮੇਚ ਖੇਲ ਕੇ ਗਰੀਬ ਬੱਚਿਆਂ ਦੀ ਮਦਦ ਕਰਨਾ ਚਾਹੇਗਾ ਜਿਵੇਂ ਅਸੀਂ ਕਰਨਾ ਚਾਹੁੰਦੇ ਹਨ।

(asīṃ āpaṇē dōsat dīpak sharmā tōṃ pucchāṅgē ki kī uh sāḍē nāl van ḍē maic khēl kē garīb bacciāṃ dī madad karnā cāhēgā jivēṃ asīṃ karnā cāhundē han.)

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Post Processing:

Pattern matching is done using regular expressions for correcting grammar. Thus, this output will be made grammatically correct using the regular expressions implementing the grammatical agreements. In this example, subject verb agreement will be done and ਹਨ will be replaced with ਹਾਂ.

Final Output: ਅਸੀਂ ਆਪਣੇ ਦੋਸਤ ਦੀਪਕ ਸ਼ਰਮਾ ਤੋਂ ਪੁੱਛਾਂਗੇ ਕਿ ਕੀ ਉਹ ਸਾਡੇ ਨਾਲ ਵਨ ਡੇ ਮੈਚ ਖੇਲ ਕੇ ਗਰੀਬ ਬੱਚਿਆਂ ਦੀ ਮਦਦ ਕਰਨਾ ਚਾਹੇਗਾ ਜਿਵੇਂ ਅਸੀਂ ਕਰਨਾ ਚਾਹੁੰਦੇ ਹਾਂ ।

(asīṃ āpaṇē dōsat dīpak sharmā tōṃ pucchāṅgē ki kī uh sāḍē nāl van ḍē maic khēl kē garīb bacciāṃ dī madad karnā cāhēgā jivēṃ asīṃ karnā cāhundē hāṃ .)

Evaluation:

The evaluation document set consisted of documents from various online newspapers news, articles, blogs, biographies etc. This test bed consisted of 35500 words and was translated using our Machine Translation system. Following table shows the contribution of various important modules of the system during translation:

Table 6.3 : % Contribution of Various MT System Modules during Translation

Module	Submodule	Contribution (%)
Preprocessing	Text Normalization	1.121%

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	Replacing Collocations	0.281%
	Replacing Proper Nouns	1.408%
Translation Engine	Identifying Titles	0.005%
	Identifying Surnames	3.380%
	Word-to-word translation using Lexicon Lookup	50.949%
	Word Sense disambiguation	7.140%
	Word Inflectional analysis and generation	6.45%
	Transliteration	23.239%
Post Processing	Grammar Correction	6.197%

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Following is the output translation for the text downloaded from website -

http://www.bbc.co.uk/hindi/india/2010/01/100104_india_cold_va.shtml

accessed on dated 04-01-2010 :

Input Text:

उत्तरी भारत में ठंड का प्रकोप जारी है. सरकारी टेलीविज़न के मुताबिक ठंड के कारण अब तक 100 लोगों की मौत हो चुकी है. हिमाचल प्रदेश और कश्मीर घाटी में बर्फ़बारी हुई है और कई इलाक़ों में घना कोहरा छाया हुआ है. पंजाब, हरियाणा और उत्तर प्रदेश में भी कड़ाके के ठंड पड़ रही है. पिछले कुछ दिनों से छाए कोहरे की वजह से कई उड़ानें और ट्रेनें रद्द करनी पड़ी हैं. उत्तर प्रदेश में तापमान सामान्य से दो से 10 डिग्री कम चल रहा है.

गिरता पारा

वहीं राजधानी दिल्ली में भी काफ़ी सर्दी है. दिल्ली में करीब 20 ट्रेनें रद्द कर दी गई हैं. रविवार को न्यूनतम तापमान 9.5 डिग्री सेल्सियस था जबकि शनिवार को तापमान 8.4 रहा. उधर अमृतसर में रविवार रात को पारा मात्र 0.8 डिग्री सेल्सियस रहा जबकि चंडीगढ़ में तापमान 9.4 डिग्री सेल्सियस था. ठंड की वजह से कई जगह स्कूलों में छुट्टियाँ बढ़ा दी गई हैं. कोहरे के कारण कई जगह दुर्घटनाएँ भी हो रही हैं.शनिवार को दो रेल हादसों में कम से कम 10 लोग मारे गए थे. कोहरे से बिजली आपूर्ति भी प्रभावित हुई थी और उत्तरी ग्रिड फेल हो गया था.

uttarī bhārat mēṃ ṭhaṇḍ kā prakōp jārī hai. sarkārī ṭēlīvija◌n kē mutābik ṭhaṇḍ kē kāraṇ ab tak 100 lōgōṃ kī maut hō cukī hai. himācal pradēsh aur kashmīr ghāṭī mēṃ barphbārī huī hai aur kaī ilākōṃ mēṃ ghanā kōhrā chāyā huā hai. pañjāb, hariyāṇā aur uttar pradēsh mēṃ bhī kaḍaākē kē ṭhaṇḍ paḍa◌ rahī hai. pichlē kuch dinōṃ sē chāē kōhrē kī vajah sē kaī uḍānēṃ aur ṭrēnēṃ radd karnī paḍaī haiṃ. uttar pradēsh mēṃ tāpmān sāmāny sē dō sē 10 ḍigrī kam cal rahā hai.

girtā pārā

vahīṃ rājdhānī dillī mēṃ bhī kāphī sardī hai. dillī mēṃ karīb 20 ṭrēnēṃ radd kar dī gaī haiṃ. ravivār kō nyūntam tāpmān 9.5 ḍigrī sēlsiyas thā jabki shanivār kō tāpmān 8.4 rahā. udhar amrtasar mēṃ ravivār rāt kō pārā mātr 0.8 ḍigrī sēlsiyas rahā jabki caṇḍīgḍha◌ mēṃ tāpmān 9.4 ḍigrī sēlsiyas thā. ṭhaṇḍ kī vajah sē kaī jagah skūlōṃ mēṃ chuṭṭiyāṃ baḍhā dī gaī haiṃ. kōhrē

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kē kāraṇ kaī jagah durghṭanāēṃ bhī hō rahī haiṃ.shanivār kō dō rēl hādsōṃ mēṃ kam sē kam 10 lōg mārē gaē thē. kōhrē sē bijlī āpūrti bhī prabhāvit huī thī aur uttarī griḍ phēl hō gayā thā.

Output text:

ਉੱਤਰੀ ਭਾਰਤ ਵਿੱਚ ਠੰਡ ਦਾ ਕਹਿਰ ਜਾਰੀ ਹੈ . ਸਰਕਾਰੀ ਟੇਲੀਵਿਜਨ ਦੇ ਮੁਤਾਬਕ ਠੰਡ ਦੇ ਕਾਰਨ ਹੁਣ ਤੱਕ 100 ਲੋਕਾਂ ਦੀ ਮੌਤ ਹੋ ਚੁੱਕੀ ਹੈ . ਹਿਮਾਚਲ ਪ੍ਰਦੇਸ਼ ਅਤੇ ਕਸ਼ਮੀਰ ਘਾਟੀ ਵਿੱਚ ਬਰਫਬਾਰੀ ਹੋਈ ਹੈ ਅਤੇ ਕਈ ਇਲਾਕੀਆਂ ਵਿੱਚ ਸੰਘਣਾ ਕੋਹਰਾ ਛਾਇਆ ਹੋਇਆ ਹੈ . ਪੰਜਾਬ , ਹਰਿਆਣਾ ਅਤੇ ਉੱਤਰ ਪ੍ਰਦੇਸ਼ ਵਿੱਚ ਵੀ ਕੜਾਕੇ ਦੇ ਠੰਡ ਪੈ ਰਹੀ ਹੈ . ਪਿਛਲੇ ਕੁੱਝ ਦਿਨਾਂ ਤੋਂ ਛਾਏ ਕੋਹਰੇ ਦੀ ਵਜ੍ਹਾ ਕਰਕੇ ਕਈ ਉਡਾਨੇ ਹੋਰ ਟਰੇਨਾਂ ਰੱਦ ਕਰਨੀ ਪਈਆਂ ਹਨ . ਉੱਤਰ ਪ੍ਰਦੇਸ਼ ਵਿੱਚ ਤਾਪਮਾਨ ਇੱਕੋ ਜਿਹੇ ਤੋਂ ਦੋ ਤੋਂ 10 ਡਿਗਰੀ ਘੱਟ ਚੱਲ ਰਿਹਾ ਹੈ .

ਡਿੱਗਦਾ ਪਾਰਾ

ਉਥੇ ਹੀ ਰਾਜਧਾਨੀ ਦਿੱਲੀ ਵਿੱਚ ਵੀ ਕਾਫੀ ਸਰਦੀ ਹੈ . ਦਿੱਲੀ ਵਿੱਚ ਕਰੀਬ 20 ਟਰੇਨਾਂ ਰੱਦ ਕਰ ਦਿੱਤੀ ਗਈਆਂ ਹਨ . ਐਤਵਾਰ ਨੂੰ ਹੇਠਲਾ ਤਾਪਮਾਨ 9.5 ਡਿਗਰੀ ਸੇਲਸਿਅਸ ਸੀ ਜਦੋਂ ਕਿ ਸ਼ਨੀਵਾਰ ਨੂੰ ਤਾਪਮਾਨ 8.4 ਰਿਹਾ . ਉੱਧਰ ਅਮ੍ਰਿਤਸਰ ਵਿੱਚ ਐਤਵਾਰ ਰਾਤ ਨੂੰ ਪਾਰਾ ਸਿਰਫ 0.8 ਡਿਗਰੀ ਸੇਲਸਿਅਸ ਰਿਹਾ ਜਦੋਂ ਕਿ ਚੰਡੀਗੜ ਵਿੱਚ ਤਾਪਮਾਨ 9.4 ਡਿਗਰੀ ਸੇਲਸਿਅਸ ਸੀ . ਠੰਡ ਦੀ ਵਜ੍ਹਾ ਕਰਕੇ ਕਈ ਜਗ੍ਹਾ ਸਕੂਲਾਂ ਵਿੱਚ ਛੁੱਟੀਆਂ ਵਧਾ ਦਿੱਤੀ ਗਈਆਂ ਹਨ . ਕੋਹਰੇ ਦੇ ਕਾਰਨ ਕਈ ਜਗ੍ਹਾ ਦੁਰਘਟਨਾਵਾਂ ਵੀ ਹੋ ਰਹੀ ਹਨ . ਸ਼ਨੀਵਾਰ ਨੂੰ ਦੋ ਰੇਲ ਹਾਦਸਿਆਂ ਵਿੱਚ ਘੱਟ ਤੋਂ ਘੱਟ 10 ਲੋਕ ਮਾਰੇ ਗਏ ਸਨ . ਕੋਹਰੇ ਤੋਂ ਬਿਜਲੀ ਆਪੂਰਤੀ ਵੀ ਪ੍ਰਭਾਵਿਤ ਹੋਈ ਸੀ ਅਤੇ ਉੱਤਰੀ ਗਰਿਡ ਫੇਲ ਹੋ ਗਿਆ ਸੀ .

uttarī bhārat vicc ṭhaṇḍ dā kahir jārī hai . sarkārī ṭēlīvijan dē mutābak ṭhaṇḍ dē kāran huṇ takk 100 lōkāṃ dī maut hō cukkī hai . himācal pradēsh atē kashmīr ghāṭī vicc barphabārī hōī hai atē kaī ilākīāṃ vicc saṅghaṇā kōhrā chāīā hōiā hai . pañjāb , hariāṇā atē uttar pradēsh vicc vī kaṛākē dē ṭhaṇḍ pai rahī hai . pichlē kujjh dināṃ tōṃ chāē kōhrē dī vajhā karkē kaī uṛānēṃ hōr ṭarēnāṃ radd karṇī paīāṃ han . uttar pradēsh vicc tāpmān ikkō jihē tōṃ dō tōṃ 10 ḍigrī ghaṭṭ call rihā hai .

ḍiggdā pārā

uthē hī rājdhānī dillī vicc vī kāfī sardī hai . dillī vicc karīb 20 ṭarēnāṃ radd kar dittī gaīāṃ han . aitvār nūṃ hēṭhlā tāpmān 9.5 ḍigrī sēlsias sī jadōṃ ki shanīvār nūṃ tāpmān 8.4 rihā . uddhar amritsar vicc aitvār rāt nūṃ pārā siraph 0.8 ḍigrī sēlsias rihā jadōṃ ki caṇḍigaṛ vicc tāpmān 9.4 ḍigrī sēlsias sī . ṭhaṇḍ dī vajhā karkē kaī jaghā sakūlāṃ vicc chuṭṭīāṃ vadhā dittī gaīāṃ han . kōhrē dē kāran kaī jaghā durghaṭnāvāṃ vī hō rahī han . shanīvār nūṃ dō rēl hādsiāṃ vicc ghaṭṭ tōṃ ghaṭṭ 10 lōk mārē gaē san . kōhrē tōṃ bijlī āpūrtī vī prabhāvit hōī sī atē uttarī gariḍ phēl hō giā sī .

6.5 Summary

This chapter discusses in detail the post-processing phase. This phase involves the rules that are applied on the output produced by previous phases. The various grammatical errors corrected by this phase are also discussed. The implementation of whole system is also discussed along with illustrative example.

Translations for text from various sources like news items, stories, blogs, office orders, articles etc. are obtained from this system and made available to the evaluators for the evaluation purpose. In the next chapters, we will discuss the evaluation and results of our system, for the language pair of Hindi and Punjabi.

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Chapter 7

Evaluation and Results

7.1 Introduction

Evaluation of a MT system is as important as the MT itself, answering the questions about the accuracy, fluency and acceptability of the translation and thus artifying the underlying MT algorithm. Evaluation has long been a tough task in the development of MT systems because there may exist more than one correct translations of the given sentence. The problem with natural language is that language is not exact in the way that mathematical models and theories in science are. While there is general agreement about the basic features of Machine Translation (MT) evaluation (as reflected in general introductory texts Lehrberger & Bourbeau, 1988; Hutchins & Somers, 1992; Arnold et al., 1994), there are no universally accepted and reliable methods and measures, and evaluation methodology has been the subject of much discussion (e.g. Arnold et al., 1993; Falkedal, 1994, AMTA, 1992). As in other areas of NLP, three types of evaluation are recognised:

- Adequacy evaluation to determine the fitness of MT systems within a specified operational context. It is typically performed by potential users and/or purchasers of systems (individuals, companies, or agencies). Adequacy evaluations usually include the testing of systems with sets

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of *typical* documents. But these are necessarily restricted to specific domains.

- Diagnostic evaluation to identify limitations, errors and deficiencies, which may be corrected or improved (by the research team or by the developers). It is the concern mainly of researchers and developers.

- Performance evaluation to assess stages of system development or different technical implementations. It may be undertaken by either researchers/developers or by potential users.

MT evaluations typically include features not present in evaluations of other NLP systems: the quality of the *raw* (unedited) translations, e.g. intelligibility, accuracy, fidelity, appropriateness of style/register; the usability of facilities for creating and updating dictionaries, for post-editing texts, for controlling input language, for customisation of documents, etc.; the extendibility to new language pairs and/or new subject domains; and cost-benefit comparisons with human translation performance.

7.2 Related Works:

Several researchers have worked on evaluation techniques of Machine Translation systems and many measures and methods have been developed for this purpose. Attempts have been made to produce well designed and well founded evaluation schemes. Initially, MT evaluation was seen primarily in terms of comparisons of unedited MT output quality and human translations, e.g. the ALPAC evaluations [3] and those of the original Logos system

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[30,31]. Later, systems were assessed for quality of output and usefulness in operational contexts, e.g., the influential evaluations of Systran by the European Commission [102]. SYSTRAN [35,227,228] and Logos [30,31] have developed internal evaluation methods to compare results given by different versions of their own systems. Palmira Marrafa and Antonio Ribero [92] proposed quantitative metrics for evaluations based on the number of errors in an evaluation and the total number of possible errors. Rita Nüebel [229] presents a blueprint for a strictly user-driven approach to MT evaluation within a net-based MT scenario, which can also be adapted to developer-driven evaluations. The Van Slype report for the European Commission [102] provided a very thorough critical survey of evaluations. Eagles Evaluation Group [230] also worked to establish standards in the field to come up with a theoretically sound framework for evaluation of a Machine Translation system. However, no consensus has ever been reached in defining one single evaluation procedure, applicable to a Machine Translation system in all circumstances. Valuable contributions to MT evaluation methodology have been made by Rinsche (1993) in her study for the European Commission, and by the JEIDA committee (Nomura & Isahara, 1992), which proposed evaluation tools for both system developers and potential users .The evaluation exercise by ARPA (White et al., 1994) compared the unedited output of the three APRA-supported experimental systems (Pangloss, Candide, Lingstat) with the output from 13 production systems from Globalink, PC-Translator, Microtac, Pivot, PAHO, Metal, Socatra XLT, Systran, and

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Winger. The initial intention to measure the productivity of systems for potential users was abandoned because it introduced too many variables. Evaluation, therefore, has concentrated on the performance of the core MT engines of systems, in comparison to human translations, using measures of adequacy (how well a text fragment conveys the information of the source), fluency (whether the output reads like good English, irrespective of accuracy), and comprehension or informativeness (using SAT-like multiple choice tests covering the whole text). Roudaud [231] discusses in detail the procedure for the evaluation and improvement of an MT system by the end users. He describes the different types of problems encountered and categories them. Simone Wagner [232] suggested four methods viz. percentage of correct sentences, no. of errors, Intelligibility, Accuracy, and time taken to do post editing, which concentrates on linguistic performance of the system. He claims that these evaluation methods do not require expert linguistic knowledge and can be performed in quite short time. However, not all of them were equally suited for a comparative evaluation. Keiji *et al.* [233] evaluates the translation output by measuring the similarity between the translation output and translation answer candidates from a parallel corpus. Yasuhiro *et al.* [234] use multiple edit distances to automatically rank Machine Translation output by translation examples. While the IBM BLEU method Papineni *et al.* [235] and the NIST MT evaluation [236] compare MT output with expert reference translations in terms of the statistics of word *N-gram*s. Melamed *et al.* [237] adopt the maximum matching size of the translation and the

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reference as the similarity measure for the score. Nieben and Och [238] score a sentence on the basis of scores of translations in a database with the smallest edit distance. Yokoyama *et al.* [239] propose a two-way MT based evaluation method, which compares output Japanese sentences with the original Japanese sentence for word identification and the correctness of the modification.

7.3 Our Approach:

For our purpose following steps have been performed for evaluating the system that is discussed in detail as follows:

7.3.1 Selection Set of Sentences:

It is very important aspect in MT evaluation to make appropriate selection of the sentences for evaluating the Machine Translation system. According to Lorna Balkan [240,241], There are basically three types of test materials:

Test Corpora: It is a collection of naturally occurring text, increasingly in electronic form.

Test Suites: It is a collection of usually artificially constructed inputs, where each input is designed to probe a system's treatment of a specific phenomenon or set of phenomena. Inputs may be in the form of sentences, sentence fragments, or even sequences of sentences. Test suites are useful for presenting language phenomena and combinations of phenomena in an exhaustive and systematic way. Furthermore, negative data can be derived systematically from positive data by violating grammatical constraints associated with the positive data item.

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Test Collections: It is a set of inputs associated with a corresponding set of expected outputs. This type of test material is increasingly common and has been used in the evaluation of parsers and other Natural Language Processing applications. The problem with test collections is that of being able to specify an appropriate output for a system. Output from parsers can be many and varied. The Parseval project, in common with other parser evaluation projects, uses hand-produced ideal parses of sentences from the Penn Treebank, a parsed corpus, to compare parser output against. Machine Translation shares a similar problem - there is no one correct output. While at present no test collections exist for MT, it is possible to imagine producing an ideal translation, in the same way as an ideal parse.

There are several issues involved in the selection of set of sentences for a comprehensive evaluation. For example, the set could be constant, variable or a mixed one; the number of sentence may be small or large, the collection of sentences may be domain specific or generic. It is obvious that there is no guarantee that even the bulkiest sample will include all the possible syntactic structures of the source language. Elliott et al. [242] describes the text limit to include in a corpus for MT evaluation, given the general hypothesis that more text would lead to more reliable scores. The author, on the basis of an empirical assessment of score variation, estimates that systems could be reliably ranked with around 40 texts (ca. 14,000 words). Zhang and Vogel [243] also studied the influence of the amount of test data on the reliability of automatic metrics, focusing on confidence intervals for

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BLEU and NIST scores. Estrella P. et. al. [244] show that for human or automatic evaluation about five documents from the same domain—with ca. 250 segments or 6,000 words—seem sufficient to establish the ranking of the systems and about ten documents are sufficient to obtain reliable scores.

For our Machine Translation system evaluation, we have used benchmark sampling method for selecting the set of sentences. Input sentences are selected from randomly selected news (sports, politics, world, regional, entertainment, travel etc.), articles (published by various writers, philosophers etc.), literature (stories by Prem Chand, Yashwant jain etc.), Official language for office letters (The Language Officially used on the files in Government offices) and blogs (Posted by general public in forums etc.). Care has been taken to ensure that sentences use a variety of constructs. All possible constructs including simple as well as complex ones are incorporated in the set. The sentence set also contains all types of sentences such as declarative, interrogative, imperative and exclamatory. Sentence length is not restricted although care has been taken that single sentences do not become too long. Following table shows the test data set:

Table 7.1: Test data set for the evaluation of Hindi to Punjabi Machine Translation System

	Daily News	Articles	Official Language Quotes	Blog	Literature
Total Documents	100	50	01	50	20

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Total Sentences	10,000	3,500	8,595	3,300	10,045
Total Words	93,400	21,674	36,431	15,650	95,580

7.3.2. Selection of Tests for Evaluation

There are number of tests available for evaluating the Machine Translation systems. Van Slype [102] describes that the selection of tests for MT evaluation depends upon the target users of the MT system. The main aim of our system is effective transfer of information from Hindi to Punjabi language. Thus, Subjective tests and Error diagnosis/analysis have been selected for our MT System evaluation. Subjective Tests include intelligibility test, Accuracy Test / Fidelity rating and BLUE Scoring. Some Quantitative Metrics have also been evaluated through error analysis / diagnosis by calculating Sentence Error Rate (SER) and Word Error Rate (WER). These tests are discussed in detail in following sections.

7.3.2.1 Subjective Tests

7.3.2.1.1 Intelligibility Test

This test is used to check the intelligibility of the MT System. Van Slype Georges [102] describes intelligibility as a measure of how understandable the sentence is. Intelligibility is measured without the reference to the original sentence. It tells the degree of comprehensibility and clarity of the translation. Intelligibility is effected by grammatical errors, mis-translations, and un-translated words. The scoring methodology for intelligibility test has been adopted described by Van Slype Georges [102]. Each evaluator receives a

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series of sentences in sequence i.e. sentence in their context. Literature shows variations in selecting the point scales. It has been observed that a scale comprising a very low number of points seems insufficiently discriminatory. On the other hand, a scale comprising a high number of points, assessment of which remains in the final analysis subjective, involves too wide a scatter of the ratings. Furthermore, to clarify in detail each of the possible values of the scale, there is a risk of introducing elements not germane to intelligibility. Thus, it is concluded that four points scale is most adequate, in that it measures intelligibility only, has a low scatter and is of a sufficiently discriminatory character since the evaluation covers several hundreds of sentences and the average calculated as a percentage is sufficiently precise. Hence, a four point scale is made in which highest point is assigned to those sentences that look perfectly clear and intelligible and lowest point is assigned to the sentence which is non understandable. The scale looks like:

Table 7.2 Score Sheet for Intelligibility Test

Score	Significance
3	The sentence is perfectly clear and intelligible. It is grammatically correct.
2	The sentence is generally clear and intelligible. Despite some inaccuracies, one can understand the information to be conveyed.
1	The general idea is intelligible only after considerable study. The sentence contains grammatical errors and/or poor word choice.

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| 0 | The sentence is unintelligible. The meaning of the sentence is not understandable. |

7.3.2.1.2 Accuracy Test / Fidelity Measure

Accuracy Test or Fidelity measure is a measure of how much information the translated sentence retained compared to the original. It is measured indirectly. The evaluator is asked to gather whatever meaning he could from the translation sentence and then evaluate the original sentence for its "informativeness" in relation to what he had understood from the translation sentence. Thus, a rating of the original sentence as "highly informative" in relation to the translated sentence would imply that the latter was lacking in fidelity/accuracy. Halliday [245] define it as the Measurement of the correctness of the information transferred from the source language to the target language. Van Slype Georges [102] describes it as a subjective evaluation of the measure in which the information contained in the sentence of the original text reappears without distortion in the translation. Analogous to the Intelligibility test, the methodology described by Van Slype Georges [102] is adopted for the accuracy test also. A Four point scale is made in which highest point is assigned to those sentences that are completely faithful and lowest point is assigned to the sentence which is un-understandable and unacceptable. The scale looks like:

Table 7.3 Score Sheet for Accuracy Test

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Score	Significance
3	Completely faithful
2	Fairly faithful: more than 50 % of the original information passes in the translation.
1	Barely faithful: less than 50 % of the original information passes in the translation.
0	Completely unfaithful. Doesn't make sense.

These both scales i.e. Intelligibility and Accuracy test scales have already been used in the evaluation of the SYSTRAN English-French MT system acquired by the Commission of the European Communities.

7.3.2.1.3 BLEU Score

Bilingual Evaluation Understudy or BLEU [246] is one of the most popular metric for automatically evaluating Machine Translation system output quality. The central idea behind this metric is the closer a Machine Translation is to a professional human translation, the better it is. The primary programming task in a BLEU implementation is to compare n-grams of the candidate with the n-grams of the reference translation and count the number of matches. These matches are position-independent. The more the matches, the better is the candidate translation. The metric calculates scores for individual segments, generally sentences, and then averages these scores over the whole corpus in order to reach a final score. It has been shown to correlate highly with human judgments of quality at the corpus level. The quality of translation is

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indicated as a number between 0 and 1 and is measured as statistical closeness to a given set of good quality human reference translations. Therefore, it does not directly take into account translation intelligibility or grammatical correctness. The metric works by measuring the n-gram co-occurrence between a given translation and the set of reference translations. Then the weighted geometric mean is calculated.

7.3.3 Evaluation based on Quantitative Metrics

Rather than using broad indicators as guides to score assignments, we must also focus on the errors made by the MT system. Quantitative metrics play major role in it. It includes the technique of error analysis that tries to establish how seriously errors affect the translation output. The error analysis includes calculating Word Error Rate (WER) and Sentence Error Rate (SER). Word Error Rate (WER) is defined as percentage of words which are to be inserted, deleted, or replaced in the translation in order to obtain the sentence of reference. Sentence Error Rate (SER) is defined as percentage of sentences, whose translations have not matched in an exact manner with those of reference.

7.3.4 Experiments

It is also important to choose appropriate evaluators for our experiments. Thus, depending upon the requirements and need of the above mentioned tests, 50 People of different professions were selected for performing

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experiments. 20 Persons were from villages that only knew Punjabi and did not know Hindi and 30 persons were from different professions having knowledge of both Hindi and Punjabi. Average ratings for the sentences of the individual translations were then summed up (separately according to intelligibility and accuracy) to get the average scores. Percentage of accurate sentences and intelligent sentences was also calculated separately by counting the number of sentences.

7.3.4.1 Intelligibility Evaluation

The evaluators do not have any clue about the source language i.e. Hindi. They judge each sentence (in target language i.e. Punjabi) on the basis of its comprehensibility. The target user is a layman who is interested only in the comprehensibility of translations. Intelligibility is effected by grammatical errors, mis-translations, and un-translated words.

7.3.4.1.1 Scoring

The scoring is done based on the degree of intelligibility and comprehensibility. A four point scale is made in which highest point is assigned to those sentences that look perfectly alike the target language and lowest point is assigned to the sentence which is un-understandable. Detail is as follows:

Score 3: The sentence is perfectly clear and intelligible. It is grammatical and reads like ordinary text.

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Score 2: The sentence is generally clear and intelligible. Despite some inaccuracies, one can understand immediately what it means.

Score 1: The general idea is intelligible only after considerable study. The sentence contains grammatical errors &/or poor word choice.

Score 0: The sentence is unintelligible. Studying the meaning of the sentence is hopeless. Even allowing for context, one feels that guessing would be too unreliable.

7.3.4.1.2 Results

The response by the evaluators were analysed and following are the results:

- 70.3 % sentences got the score 3 i.e. they were perfectly clear and intelligible.

- 25.1 % sentences got the score 2 i.e. they were generally clear and intelligible.

- 3.5 % sentences got the score 1 i.e. they were hard to understand.

- 1.1 % sentences got the score 0 i.e. they were not understandable.

So we can say that about 95.40 % sentences are intelligible. These sentences are those which have score 2 or above. Thus, we can say that the direct approach can translate Hindi text to Punjabi Text with a consideably good accuracy.

7.3.4.1.3 Percentage Intelligibility:

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Following graph shows that percentage intelligibility of individual documents:
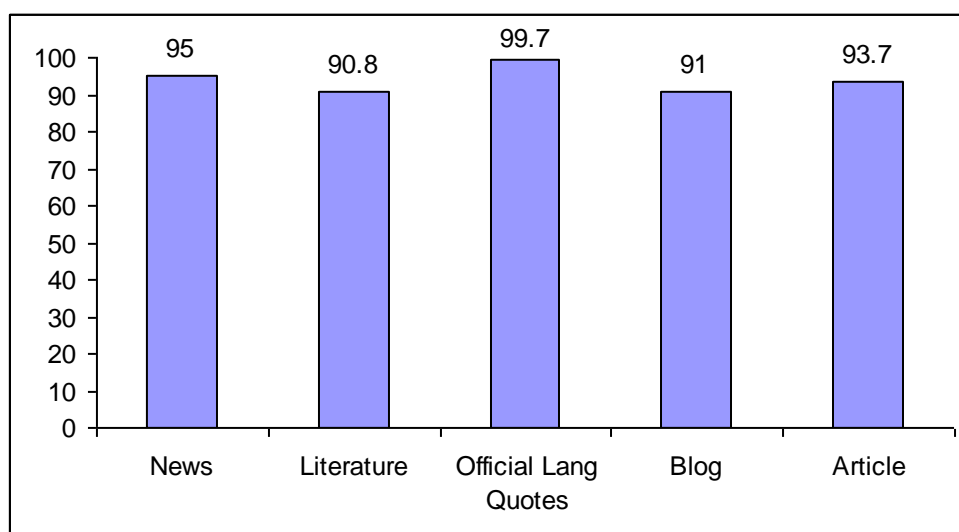
Figure 7.1: Percentage Intelligibility for Different Documents

7.3.4.1.4 Analysis

The main reason behind less accuracy for literature documents is due to the language dialect used by the writer of the stories. Some writers use Rajasthani language, some use Haryanavi dialect. And this resulted in less translation accuracy for this category. Otherwise for rest of the four categories, the quality of translation is better than other systems which will be discussed in following sections.

7.3.4.2 Accuracy Evaluation / Fidelity Measure

The evaluators are provided with source text along with translated text. A highly intelligible output sentence need not be a correct translation of the source sentence. It is important to check whether the meaning of the source

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language sentence is preserved in the translation. This property is called accuracy.

7.3.4.2.1 Scoring:

The scoring is done based on the degree of intelligibility and comprehensibility. A four point scale is made in which highest point is assigned to those sentences that look perfectly like the target language and lowest point is assigned to the sentence which is not understandable and unacceptable. The scale looks like:

Score 3 : Completely faithful

Score 2: Fairly faithful: more than 50 % of the original information passes in the translation.

Score 1: Barely faithful: less than 50 % of the original information passes in the translation.

Score 0: Completely unfaithful. It doesn't make any sense.

7.3.4.2.2 Results

Initially Null Hypothesis is assumed i.e. the system's performance is NULL. The author assumes that system is dumb and does not produce any valuable output. By the intelligibility of the analysis and Accuracy analysis, it has been proved wrong.

The accuracy percentage for the system is found out to be 87.60%

Further investigations reveal that out of 13.40%:

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- 80.6 % sentences achieve a match between 50 to 99%

- 17.2 % of remaining sentences were marked with less than 50% match against the correct sentences.

- Only 2.2 % sentences are those which are found unfaithful.

A match of lower 50% does not mean that the sentences are not usable. After some post editing, they can fit properly in the translated text.

7.3.4.2.3 Percentage Accuracy:

Following graph shows that percentage accuracy of individual documents:
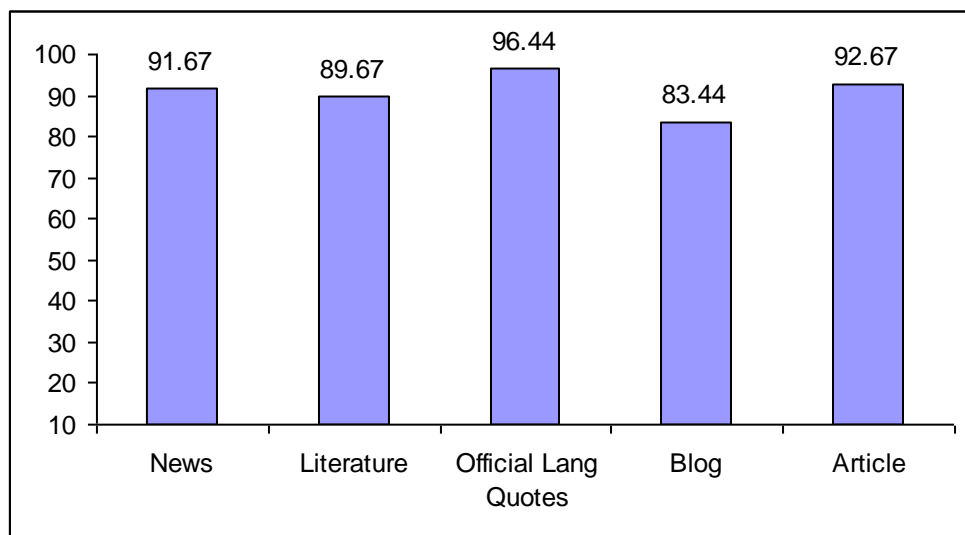
Figure 7.2: Percentage Accuracy for Different Documents

7.3.4.2.4 Analysis

The overall performance accuracy test of the system is quite good. But for Blog it is less than others. The reason is the use of slang which causes the failure of the translation software as the slang available in one language is not present in the other language. Also un-standardized language causes more ambiguities.

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7.3.5 Error Analysis

Error analysis is done against pre classified error list. All the errors in translated text were identified and their frequencies were noted. Errors were just counted and not weighted. In the following sections, the experiments conducted for Word Error Analysis and Sentence Error Analysis will be explained.

7.3.5.1 Word Error Analysis

After robust analysis, Word Error rate is found to be 4.58% which is comparably lower than that of general systems, where it ranges from 9.5 to 12%[231,237,238]. Following figure shows the percentage type of errors out of the errors found:
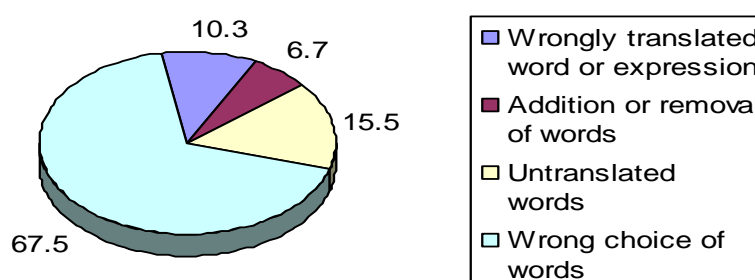
Figure 7.3: Percentage Distribution of Errors

From the above figure, it is concluded that majority of the errors are due to wrong choice of words, means the WSD module of the system must be

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improved. Further, the bilingual dictionary improvements can reduce the wrongly translated and untranslated words errors.

Word Error Rate Percentage:

Following graph shows the Word Error Rate for different articles:
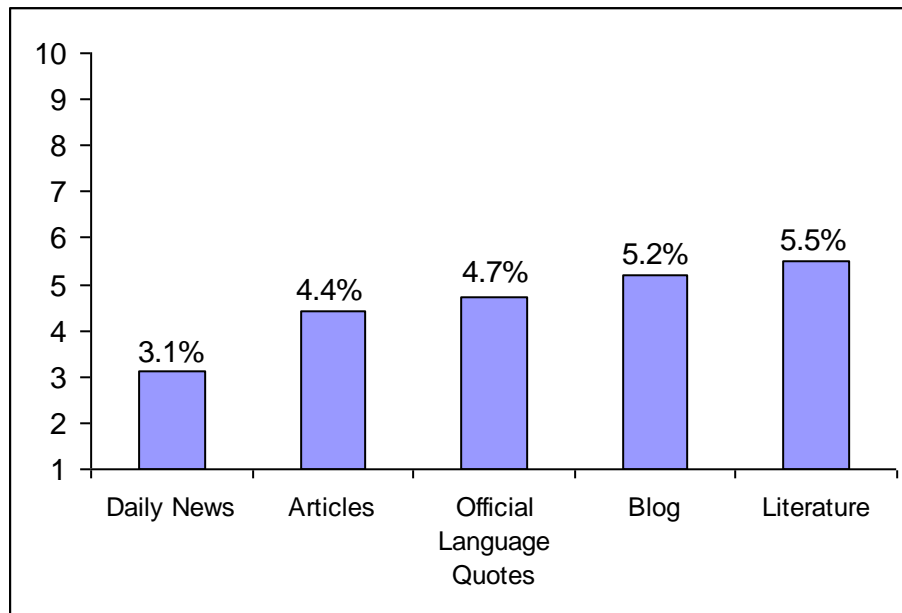
Figure 7.4: Word Error Rate for Different Documents

7.3.5.2 Sentence Error Analysis:

The Sentence error rate comes out to be 28.82%. Following graph shows the Word Error for different arcticles:

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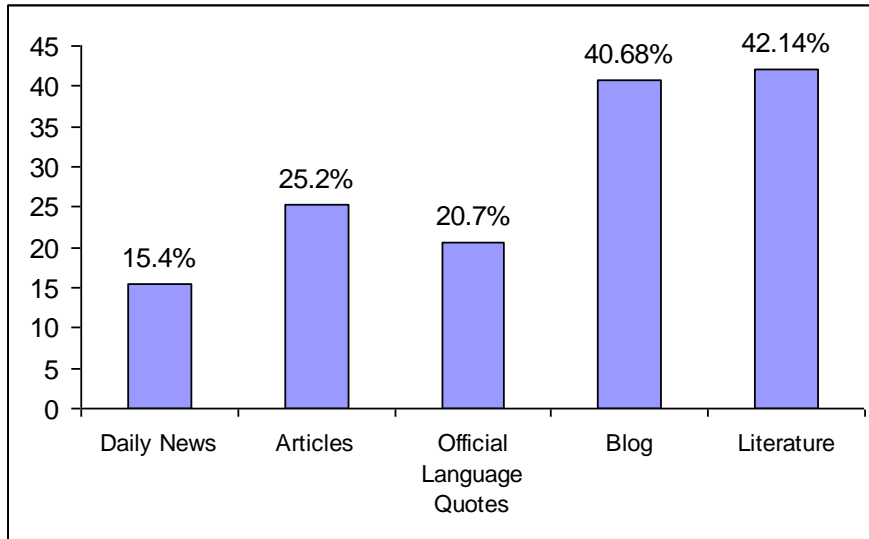
Figure 7.5: Sentence Error Rate for Different Documents

7.3.5.3 Error Analysis Conclusion

As discussed earlier, the WER and SER of un-standardized matter i.e.Blog and Literature is higher than the standardized matter. It strengthens the fact that better input gives the better output. If some pre editing of the text is performed then better results may be expected.

7.4 Comparison with Other Existing Systems:

Following table shows the comparison among various existing systems with our system:

Table 7.4: Comparison of our System with other existing systems

MT SYSTEM	Accuracy	Test Used
RUSLAN	40% correct 40% with minor errors. 20% with major error.	Intelligibility Test

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CESILKO (Czech-to-Slovak)	90%	Intelligibility Test
Czech-to-Polish	71.4%	Accuracy Test
Czech-to-Lithuanian	69%	Accuracy Test
Punjabi-to-Hindi	92%	Intelligibility Test
Hindi-to-Punjabi	*94%*	Intelligibility Test
	90.84%	Accuracy Test

From the above table, it is clear that the system is outperforming in comparision to others. Thus system can be acceptable for practical use.

7.5 Conclusion

Human evaluation is Holy Grail for MT evaluation, but due to lack of time and money it is becoming impractical. Thus, many automatic MT evaluation techniques have been developed. We have evaluated our system based on the subjective tests and quantitative metrics. From the above analysis, it is concluded the overall accuracy of Hindi to Punjabi Machine Translation system is found to be 94% on the basis of intelligibility test and 90.84% on the basis of accuracy test. The accuracy can be improved by improving and extending the bilingual dictionary. Even robust Word Sense Disambiguation module and Post Processing of the system can improve the system to greater extent. This system is comparable with other existing systems and its accuracy is better than those.

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Chapter 8

Summary

We have developed robust Hindi to Punjabi Machine Translation system. It is available to use for free at website http://h2p.learnpunjabi.org. With online version, a user can translate a text by typing it in a box provided at webpage or one can submit a file containing text in Unicode. A user can also translate any Hindi website like http://bbc.co.uk/hindi/ and can view it in Punjabi. An E-mail option is also included whereby a user can type his message in Hindi and send the translated text or typed text to an email id submitted by him. To the best of the knowledge, the current system is one of the best Machine Translation System from one Indic language to another.

In this chapter, we will summarize the achievements and limitations of the present research work. Directions for further research that can help to enhance this Machine Translation system have also been included.

8.1 Contributions

- The survey of various existing Machine Translation systems has been presented. Based on this survey, it has been concluded that direct Machine Translation approach is suitable for closely related language pair. We call a language pair to be closely related if the languages have the grammar that is close in structure, contain similar constructs having almost same semantics, and share a great deal of lexicon. By

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closely related languages, we also mean in ectively and morphosyntactically similar languages. Generally, such languages have originated from the same source and spoken in the areas in close proximity. Thus, being Hindi and Punjabi closely related language pair [250], direct approach has been used for developing Machine Translation system for this language pair.

- The closeness between Hindi and Punjabi has been devised by comparing these languages on the basis of orthogonality, grammar and from machine translation point of view. It has also been proved using corpus based measures by Anil and Harshit [250].

- As the Statistical Machine Translation approach is actively used among researchers nowadays, the scarcity of the resources of language pair like non availability of any annotated or parallel corpus in question limited the choice of translation approach to conventional direct method. The required resources are developed from scratch and used to develop a Machine Translation system.

- The system has to tackle the named entity recognition problem as there are the chances when a token in input text having its translated meaning in target language need to be transliterated rather than translated because it acts as proper noun. Thus, module has been developed for handling Proper Nouns successfully.

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- As there is no dictionary available for the language pair for Machine Translation purpose, Hence, Hindi to Punjabi lexicon for Machine Translation has been developed.

- Word sense disambiguation is done by using language modeling techniques. *N-gram*s can successfully model the disambiguation of Hindi language.

- Transliteration is the option for the out-of-vocabulary words. A successful transliteration module has been developed that uses large number of developed rules in addition to direct mapping of characters.

- Transfer rules are desirable for handling the grammatical and some structural deviations.

- The development is aimed to make a robust system for translating the input text without failure or going blank. The system was evaluated formally and informally both ways. In informal evaluation, the system has been made online at website http://h2p.learnpunjabi.org. The system was introduced to all the researchers working in this area through emails. Even the announcement of this Machine Translation system was also done through media (newspapers, Television and FM Radio). All the Major newspapers like The Tribune, Indian Express, Hindustan Times, Ajit daily, Jagbani, Dainik Jagran, Dainik Bhaskar, Amar Ujala, Rozana Rashtriya Sahara (Urdu Newspaper), Punjab Newsline etc. have published the news of launch of this system at prominent positions of their newspaper. Number of readers have used

the system and sent us the feedback about the quality of the system. Now, it is regularly being used by several newspaper publishers for translating their news, book publishers etc. In formal evaluation, the system is evaluated by both objective and subjective tests. The accuracy is figured out as 94% on the basis of Intelligibility test and 90.84% on the basis of accuracy test. In the quantitative tests the Word Error Rate is found out to be 4.58% whereas Sentence Error Rate is 28.82%.

- The development of this system is an effort to bring the Punjabi on the map of Machine Translation. The system can be integrated to other existing translation system like English to Hindi (facility provided by Google) to produce a system that will translate the text from English to Punjabi. In fact the integration of our system with Urdu to Hindi transliteration system is on chart where the Hindi text produced by transliteration system is fed into our translation system thereby producing Punjabi text from the text in Urdu.

8.2. Limitations

Although system shows good accuracy but the system still fails at some points. Some common errors are explained with examples:

8.2.1 Named Entity Recognition Failure:

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a. There are foreign names in the text like बाश की लीनी (*bāsh kī līnī*). It will be

translated into ਬਾਸ਼ ਦੀ ਲੀਨੀ (*bāsh dī līnī*).

b. There are proper nouns having multiple translations in Punjabi which do not

have title or surname surrounding them in the sentence. For example:

दीपक कहाँ है (*dīpak kahāṃ hai*)

ਦੀਵਾ ਕਿੱਥੇ ਹੈ (*dīvā kitthē hai*)

8.2.2 Modifier and Noun Agreement: All the modifiers must agree with the

word that they modify in a noun phrase. But it fails in some of the cases as

shown in following example:

बैंक खेतीबाड़ी के कर्जे के लिए घटी दरें लागू करेगा (*baiṅk khētībāṛī kē karjē kē liē ghatī*

darēṃ lāgū karēgā)

ਬੈਂਕ ਖੇਤੀਬਾੜੀ ਦੇ ਕਰਜ਼ੇ ਲਈ ਘਟੀ ਦਰਾਂ ਲਾਗੂ ਕਰੇਗਾ। (*baiṅk khētībāṛī dē karzē laī ghatī*

darāṃ lāgū karēgā)

8.2.3 Subject/Object and Verb Agreement: All the verbs must agree with

the Subject/Object in the sentence. But it fails in some of the cases as shown

in following example:

हम नयी भाषा कर नौकरी में उन्नती कर सकते हैं (*ham nayī bhāshā kar naukrī mēṃ*

unntī kar saktē haiṃ)

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ਅਸੀਂ ਨਵੀਂ ਭਾਸ਼ਾ ਸਿੱਖ ਕੇ ਨੈਕਰੀ ਵਿੱਚ ਤਰੱਕੀ ਕਰ ਸਕਦੇ <u>ਹਨ</u>। (*asīṃ navīṃ bhāshā sikkh kē*

naukrī vicc tarkkī kar sakadē han.)

8.2.4 Resolving meaning of ambiguous words: For some of the cases, the system fails to resolve the meaning of the word among its multiple meanings. For example:

दो हफ्तों के लिए बढा दिया है (*dō haphtōṃ kē liē baḍhā diyā hai*)

ਦੋ ਹਫਤੀਆਂ ਲਈ <u>ਵਧਿਆ</u> ਦਿੱਤਾ ਹੈ (*dō haphtīāṃ laī vadhiā dittā hai*)

8.2.5 Noun phrase in oblique case form before postposition: In the sentence, if Noun phrase is present before the postposition, then it will come in oblique case. In some cases, it fails as in the following example:

वह खुश होकर अपने पति के पास चली गयी (*Vah khush hōkar apnē pati kē pās calī gayī*)

ਉਹ ਖੁਸ਼ ਹੋ ਕੇ ਆਪਣੇ <u>ਘਰਵਾਲਾ</u> ਦੇ ਕੋਲ ਚਲੀ ਗਈ। (*uh khush hō kē āpaṇē gharvālā dē kōl calī gaī*)

8.2.6 Agreement of subject noun phrase having ਨੂੰ *with* verb phrase: In Punjabi, all the Verb phrases in the sentence must agree with the Subject Noun phrases having ਨੂੰ like ਮੈਨੂੰ. Sometimes, it fails in cases as shown in following example:

मुझे दवाई चाहिए (*mujhē davāī cāhiē*)

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ਮੈਨੂੰ ਦਵਾਈ ਚਾਹੀਦਾ ਹੈ। (*mainūṃ davāī cāhīdā hai*)

8.2.7 ਦਾ postposition agreement before Verb phrase: In Punjabi, all the

Verb phrases in the sentence must agree with the postposition ਦਾ. But in

some cases, it fails as shown in following example:

यह शव कंवलजीत सिंह का है (*yah shav kaṃvlajīt siṃh kā hai*)

ਇਹ ਲਾਸ਼ ਕੰਵਲਜੀਤ ਸਿੰਘ ਦਾ ਹੈ। (*ih lāsh kaṃvlajīt siṅgh dā hai.*)

8.2.8 ਵਾਲਾ postposition and following Noun phrase agreement: In Punjabi,

the postposition ਵਾਲਾ must agree with the following Noun phrase in the

sentence. But in some cases, it fails as shown in following example:

रात वाला झगडा चल रहा है (*rāt vālā jhagḍā cal rahā hai*)

ਰਾਤ ਵਾਲਾ ਲੜਾਈ ਚੱਲ ਰਿਹਾ ਹੈ। (*rāt vālā laṛāī call rihā hai.*)

8.2.9 Noun Verb Agreement: In Punjabi, the postposition ਵਾਲਾ must agree

with the following Noun phrase in the sentence. But in some cases, it fails as

shown in following example:

वे कोई भड़काऊ भाषण नहीं देंगे (*vē kōī bhaḍkāū bhāshaṇ nahīṃ dēṅgē*)

ਉਹ ਕੋਈ ਭੜਕਾਉ ਭਾਸ਼ਣ ਨਹੀਂ ਦੇਵਾਂਗੇ (*uh kōī bhaṛkāū bhāshaṇ nahīṃ dēvāṅgē*)

Similarly, It is not possible to cover all the hindi words in the dictionary and as when we use the application for use, we come across words that are missing and can be added in parallel to its use.

8.3 Future Directions

Although our system is showing good results using the direct translation approach but still there is lot of scope for improvement. Following are some of the future directions:

- **More Data**

The most obvious way to improve a data-driven approach like presented here is of course to utilize more data. Database entries for bilingual dictionary, proper noun gazetteers, surnames, titles, bigrams and trigrams for WSD need to be extended.

- **Resource Development**

Statistical Machine Translation approach has now often been used by the researchers. The only requirement for this approach is the availability of high quality parallel corpus. Thus, with the development of this system, parallel corpus for Hindi-Punjabi Language pair must be developed for use in future researches in these languages.

- **Better Models**

Despite using more data, improved models can lead to better translation quality. Using parallel corpus for the language pair, it is of great interest to combine automatic techniques for various tasks with direct approach to

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develop a more robust and accurate Machine Translation system. Even use of full parsers in the Machine Translation Systems can show better results.

- **Public Corpora and Tools**

There are initiatives by various NLP research groups for releasing the corpora publicly. Some of NLP tools are also available for various tasks. Using such corpora and tools will help in reducing the development time and effort of the system. Such practice will also help the researchers' efforts in redoing the tasks that have already been done.

- **Better Evaluation Metrics**

Automatic evaluation metrics are important for a rapid development cycle. During the development and tuning phase, the quality of the MT system is evaluated several (hundred) times. The parameters of the MT system are adjusted to achieve a high score of a given automatic evaluation metric. Nevertheless, the ultimate goal is to improve the translation quality using this parameter tuning. Therefore, automatic evaluation metrics should have a high correlation with human judgment of translation quality. Furthermore, it should not be possible to cheat the metric, i. e. to improve the score without improving translation quality. Current metrics have their limitations as pointed out in [Callison-Burch & Osborne+ 06] for the BLEU score. As MT systems are tuned toward a specific metric, improved MT evaluation metrics will lead to better Machine Translation quality.

- **Integration with other systems**

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The system developed can be integrated with other systems to deal with more complicated tasks. The system can be integrated to translate any Language to Hindi and further to Punjabi. Thus, we can say that any language text can be translated to Punjabi language text using this system. For this purpose, Google translation APIs can also be used.

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Appendix A

Graphic User Interface and Extended Features

Information technology in the current scenario is evolving as an effective tool for making information wide spread and available *on-line* to several communities at large. On one hand, the increased use of ICT is enabling people across the globe to participate in the knowledge network; at the same time larger populations in the rural areas of developing country like India are being deprived of the benefits of the use of ICT. One of the main reasons behind this seems to be the *language barrier*. For such cause, Hindi to Punjabi Machine Translation system can play an important role to reduce digital divide due to the language barrier. This lessening of digital divide and increasing the accessibility of information present in the Internet happens to be one of the objectives of our work among the various aims of this research. We have made our Hindi to Punjabi Machine Translation available online free of cost for use world wide. Our System is capable of doing following tasks:

1. Text translation from Hindi to Punjabi

2. Text transliteration from Hindi to Punjabi

3. Translating Websites

4. Sending Email in Punjabi Language originally written in Hindi language.

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Above tasks will be discussed in detail in following sections. Following Screenshot shows the GUI for the Hindi to Punjabi Machine Translation System:

Figure A.1: GUI for Hindi to Punjabi Machine Translation System

Text translation from Hindi to Punjabi

This facility enables the users to translate the input text into Punjabi language text on clicking the Translate button. The text can be input in the textarea there through various modes viz. browsing and reading the text file, typing the text using keyboard and by using the typing pad provided on the interface. It is also an added feature that the text can be entered in a mixed way i.e. English text can also be embedded in between the Hindi text. For the ease of users,

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the text can also be typed in four different ways. Care has been taken for professionals or users who are habitual of typing Hindi text in Krutidev or AnmolLipi Font. As it is clear from the above GUI, there is an option of choosing keyboard mapping for typing showing three values in the drop down besides it. The dropdown has the values Krutidev, AnmolLipi and Roman. For instance, if the user chooses the Krutidev option for keyboard mapping style, it enables the user to type the text using the keyboard mapping similar to Krutidev character mapping on the keyboard. For example – on pressing the key 'v' , the character 'अ' will be typed. The difference is the typed text will be

in Unicode encoding rather in Krutidev font. It is very interesting that if the user chooses the Roman option, it facilitates the user to type a word just the way it sounds in Hindi language using English letters and once the typing of a word is finished, hit the SPACE bar, the word will be converted to Hindi language script. For example, typing "hamesha" transliterates into Hindi as: "हमेशा ". We have enabled it on our System interface using the Google Indic Transliteration APIs available at the Google website. Another way for entering in input text is by using the typing pad available on the interface. User needs to just click the appropriate buttons corresponding to each character to be typed. Now the text has been entered using any one of the options mentioned above and on pressing the "Translate" button, the input text is translated into Punjabi language. Following screen shot demonstrates text translation facility in our system:

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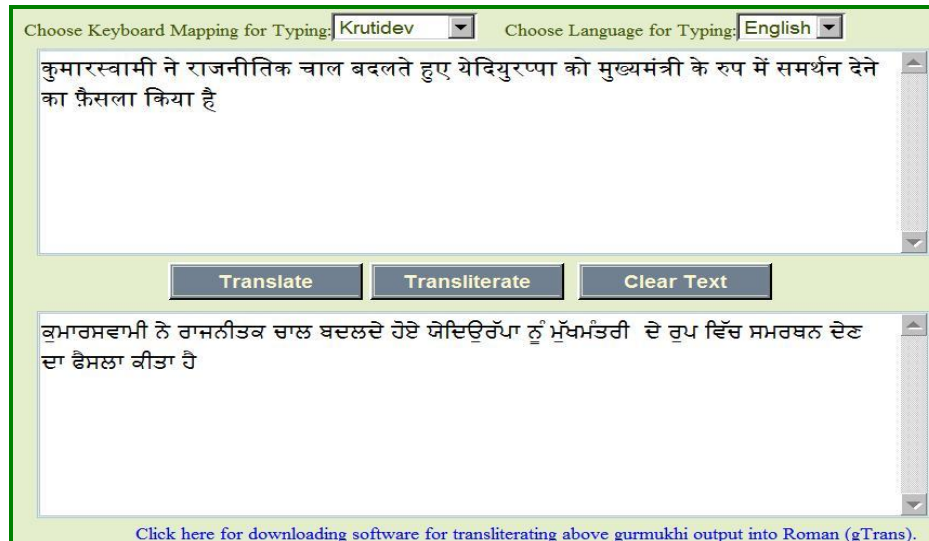
Figure A.2: Screenshot for translation facility of the system

Text transliteration from Hindi to Punjabi:

Transliteration is the process of converting a word written in one language into another language. Transliteration is distinct from translation, which involves a change in language while maintaining the meaning of the word; transliteration instead converts the sound of the word from one language to another. The option of a transliteration component is to enable the well developed poetic verse in the Hindi language to be available to the Punjabi literate public. The transliteration facility in our system can be used in similar manner as explained above for translation facility. The only difference is that user will click the transliterate button for transliterating the text from Hindi to Punjabi text. Following screen shot demonstrates the transliteration feature of the system:

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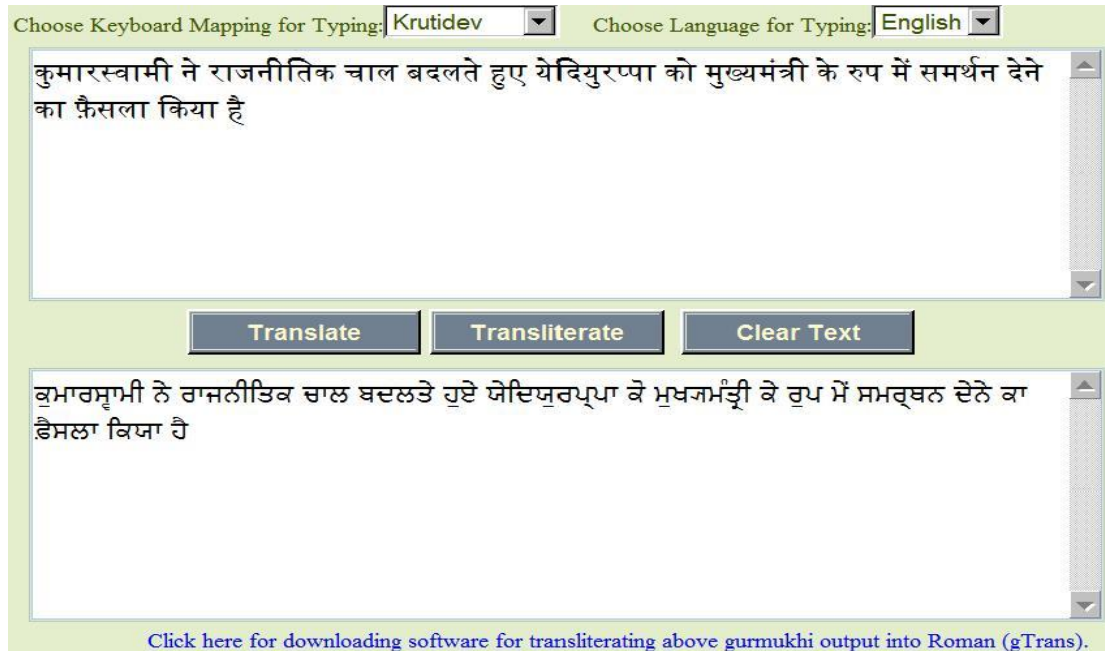
Figure A.3: Screenshot for transliteration facility of the system

Website Translation

Using this facility, user can translate an entire web page directly, simply by entering the URL and clicking Translate button. This facility is available on the home page of our system displayed at the lower right most corner of the GUI. The user can submit a URL of a Hindi website of his/her interest for translation, then clicks the translate button present besides the textbox where user has entered the URL. Then the translation request is processed at the web server and after translation, translated website is displayed to the user. The important aspect in this feature is that the format of the website is retained after translation. On translated webpage, the links can be further clicked to process them similar to the one that has been translated. It gives the user a feeling that they are browsing Punjabi website. The implementation

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of this task includes modules - retrieving and parsing HTML Page, translating, combining the translation unit with HTML Codes, altering the links in webpage, displaying the result. Retrieving and Parsing HTML Page includes first downloading the html source code from the server and then extracting the text out of the html tags for processing. Then the text present in the HTML tags is translated using the text translation module mentioned above. Altering the links in webpage is very important process in it. Here, all the links in webpage are replaced, so that the next links must redirect the request through our translation service. By this step, user does not need to enter URLs or take any other action if user wants to translate the linked page. The user simply needs to click on the given link. Translated webpage is then forwarded to the client in the same format in which the original page had appeared. Following screen shots demonstrate the website translation feature:

Figure A.4: Screenshot for website translation facility of the system

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Figure A.5: Screen shot of Original Website http://www.webdunia.com/ accessed on 27/12/2009 at 08:40 PM IST

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Figure A.5: Screen shot of translated version by the system for website shown in Figure A.4

Sending Email in Punjabi originally written in Hindi language:

This facility enables the user to write the email (text) in Hindi language and this text can be emailed to the recipient either in same language or in Punjabi language after translating the original text. It has very real application in sense that sender knows Hindi and wants to communicate some information to target recipient who knows only Punjabi. For this purpose, the sender can write the email in Hindi language and while sending the email, can send the email in Punjabi by clicking the option of sending the email after translating into Punjabi. Thus, recipient will receive the email in Punjabi. The message is communicated as per the

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convenience of the sender and recipient both. Following screen shot demonstrates this feature:
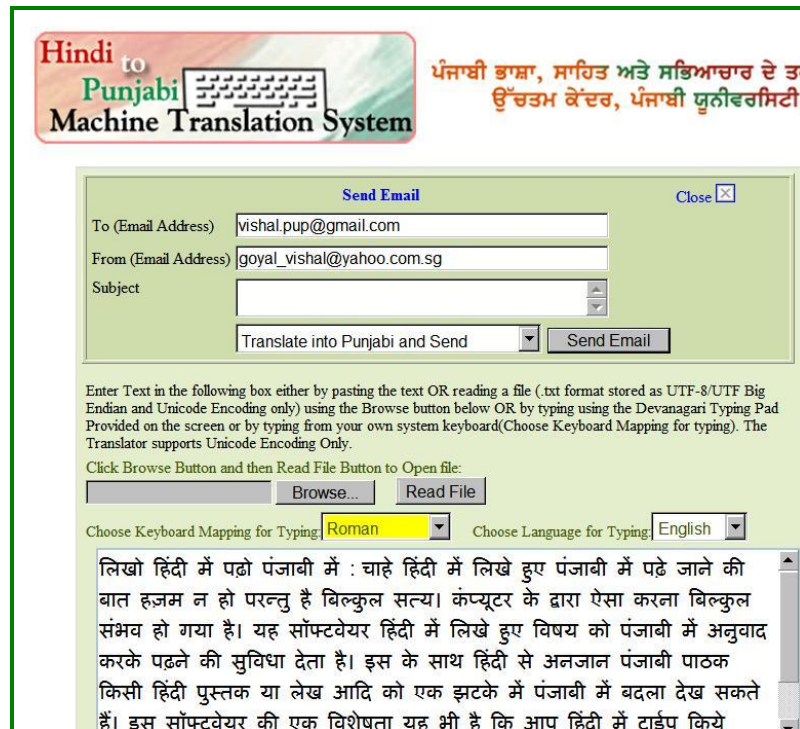
Figure A.7: Screenshot for Email Sending facility of the system

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Appendix B

Test Data Set for Intelligibility Test

Intelligibility Evaluation:

The evaluators do not have any clue about the source language i.e. Hindi Language. They judge each sentence (in target language i.e. Punjabi) on the basis of its comprehensibility. The target user is a layman who is interested only in the comprehensibility of translations. Intelligibility is effected by grammatical errors, miss-translations, and un-translated words.

Scoring:

The scoring is done based on the degree of intelligibility and comprehensibility. A Four point scale is made in which highest point is assigned to those sentences that look perfectly alike the target language and lowest point is assigned to the sentence which is un-understandable. Detail is a follows:

Score 3 : The sentence is perfectly clear and intelligible. It is grammatical and reads like ordinary text.

Score 2: The sentence is generally clear and intelligible. Despite some inaccuracies, one can understand immediately what it means.

Score 1: The general idea is intelligible only after considerable study. The sentence contains grammatical errors &/or poor word choice.

Score 0: The sentence is unintelligible. Studying the meaning of the sentence is hopeless. Even allowing for context, one feels that guessing would be too unreliable.

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Intelligibity Test -News

S.No.	Sentence	0	1	2	3
1.	ਮੁੰਬਈ । ਰਿਜਰਵ ਬੈਂਕ ਨੇ ਸ਼ੁੱਕਰਵਾਰ ਨੂੰ ਕਿਹਾ ਕਿ ਸੰਸਾਰਿਕ ਆਰਥਕ ਸੰਕਟ ਦੇ ਪ੍ਰਭਾਵ ਨੂੰ ਦੇਸ਼ ਦੀ ਮਾਲੀ ਹਾਲਤ ਦੇ ਉੱਬਰਣ ਦੇ ਬਾਅਦ ਉਹ ਮੁਦਰਾਸਫੀਤੀ ਦੇ ਅੰਦਾਜ਼ੀਆਂ ਅਤੇ ਮੱਧ ਕਾਲ ਵਿੱਚ ਇਸਦੇ ਨਤੀਜੀਆਂ ਦੇ ਪਰਬੰਧਨ ਉੱਤੇ ਧਿਆਨ ਦੇਵੇਗਾ ।				
2.	ਵਾਸ਼ਿੰਗਟਨ । ਅਮਰੀਕੀ ਬੈਂਕਾਂ ਦੇ ਸਟਰੇਸ ਟੇਸਟ ਦਾ ਨਤੀਜਾ ਆਖ਼ਿਰਕਾਰ ਆ ਹੀ ਗਿਆ ।				
3.	ਜਿਨ੍ਹਾਂ ਬੈਂਕਾਂ ਨੂੰ ਪੂੰਜੀ ਦੀ ਲੋੜ ਹੈ , ਉਨ੍ਹਾਂਨੂੰ ਯੋਜਨਾ ਬਣਾਉਣ ਲਈ 8 ਜੂਨ ਤੱਕ ਦਾ ਸਮਾਂ ਦਿੱਤਾ ਗਿਆ ਹੈ ।				
4.	ਬੈਂਕਾਂ ਨੂੰ ਇਹ ਯੋਜਨਾ ਆਪਣੇ ਨਿਯਾਮਕਾਂ ਤੋਂ ਮਨਜ਼ੂਰ ਕਰਵਾਣੀ ਹੋਵੇਗੀ ।				
5.	ਅਧਿਕਾਰੀਆਂ ਦਾ ਕਹਿਣਾ ਹੈ ਕਿ ਆਰਥਕ ਹਾਲਤ ਵਿੱਚ ਸੁਧਾਰ ਲਈ ਮਜਬੂਤ ਬੈਂਕਿੰਗ ਤੰਤਰ ਜਰੂਰੀ ਹੈ ।				
6.	ਇਸ ਟੇਸਟ ਤੋਂ ਨਿਵੇਸ਼ਕਾਂ ਵਿੱਚ ਇਹ ਭਰੋਸਾ ਪਰਤੇਗਾ ਕਿ ਸਾਰੇ ਬੈਂਕ ਕਮਜੋਰ ਨਹੀਂ ਹਨ ।				
7.	ਨਾਲ ਹੀ ਕਮਜੋਰ ਬੈਂਕਾਂ ਵਿੱਚ ਵੀ ਸੁਧਾਰ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ ।				
8.	ਵਿਕਰਮ ਪੰਡਤ ਦੀ ਅਗੁਵਾਈ ਵਾਲੀ ਸਿਟੀ ਨੇ ਕਿਹਾ ਕਿ ਉਹ 5 . 5 ਅਰਬ ਡਾਲਰ ਇਲਾਵਾ ਪੂੰਜੀ ਜੁਟਾਣ ਲਈ ਪਬਲਿਕ ਏਕਸਚੇਂਜ ਆਫਰ ਦਾ ਦਾਇਰਾ ਵਧਾਏਗੀ ।				
9.	ਨਿਊਯਾਰਕ । ਅਮਰੀਕੀ ਸ਼ੇਅਰ ਬਾਜ਼ਾਰ ਵੀਰਵਾਰ ਨੂੰ ਗਿਰਾਵਟ ਦੇ ਨਾਲ ਬੰਦ ਹੋਏ ।				

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10.	ਉੱਧਰ , ਵੀਰਵਾਰ ਨੂੰ ਬਾਜ਼ਾਰ ਬੰਦ ਹੋਣ ਦੇ ਬਾਅਦ ਸਰਕਾਰ ਨੇ ਪ੍ਰਮੁੱਖ ਬੈਂਕਾਂ ਦੇ ਸਟਰੇਸ ਟੇਸਟ ਦੇ ਨਤੀਜੇ ਘੋਸ਼ਿਤ ਕੀਤੇ ਜਿਨ੍ਹਾਂ ਦੇ ਮੁਤਾਬਕ ਦੇਸ਼ ਦੇ 10 ਪ੍ਰਮੁੱਖ ਬੈਂਕਾਂ ਨੂੰ ਆਪਣੇ ਬਚਾਵ ਲਈ ਹੋਰ ਨਗਦੀ ਇਕੱਠੀ ਕਰਨੀ ਪਵੇਗੀ ।				
11.	ਵਰੁਣ ਗਾਂਧੀ ਨੇ ਪੀਲੀਭੀਤ ਵਿੱਚ ਮੁਸਲਮਾਨਾਂ ਦੇ ਖਿਲਾਫ ਭੜਕਾਊ ਭਾਸ਼ਣ ਦਿੱਤੇ ਸਨ				
12.	ਇਸ ਮਾਮਲੇ ਦੇ ਪ੍ਰਕਾਸ਼ ਵਿੱਚ ਆਉਣ ਦੇ ਬਾਅਦ ਚੋਣ ਕਮਿਸ਼ਨ ਦੇ ਨਿਰਦੇਸ਼ ਉੱਤੇ ਵਰੁਣ ਗਾਂਧੀ ਦੇ ਖਿਲਾਫ ਏਫਆਈਆਰ ਦਰਜ ਹੋਈ ਸੀ .				
13.	ਪਹਿਲਾਂ ਹੀ ਵਿੱਤੀ ਸਾਲ ਯਾਨੀ ਸਾਲ 2004 - 05 ਵਿੱਚ ਕੇਂਦਰ ਨੇ ਰਾਜ ਸਰਕਾਰ ਨੂੰ 2831 . 82 ਕਰੋੜ ਰੂਪਏ ਦੀ ਰਾਸ਼ੀ ਉਪਲੱਬਧ ਕਰਾਈ .				
14.	ਸਭਾ ਲਈ ਪਿਛਲੇ ਚੋਣ ਵਿੱਚ ਜਿੱਤੀ 32 ਵਿੱਚੋਂ ਆਪਣੀ 15 ਸੀਟਾਂ ਨੂੰ ਬਚਾਉਣ ਦੀ ਚੁਣੌਤੀ ਹੈ , ਜਿਨ੍ਹਾਂ ਵਿੱਚੋਂ ਲੱਗਭੱਗ ਅੱਧਾ ਦਰਜਨ ਸੀਟਾਂ ਦੀ ਹਾਰ - ਜਿੱਤ ਤਾਂ ਕਲਿਆਣ ਫੈਕਟਰ ਦੀ ਕਸੌਟੀ ਉੱਤੇ ਹੀ ਕੱਸਿਆ ਜਾਵੇਗਾ ।				
15.	ਉਨ੍ਹਾਂਨੇ ਭਾਜਪਾ ਨੇਤਾਵਾਂ ਨੂੰ ਇਸ ਤਰ੍ਹਾਂ ਦੇ ਬਿਆਨ ਨਹੀਂ ਦੇਣ ਦੀ ਸਲਾਹ ਦਿੱਤੀ । ਇਸਦੇ ਨਾਲ ਹੀ ਸ਼ਰਦ ਯਾਦਵ ਨੇ ਵਿਦੇਸ਼ੀ ਬੈਂਕਾਂ ਵਿੱਚ ਭਾਰਤੀਆਂ ਦੇ ਜਮਾਂ ਕਾਲੇ ਧਨ ਦਾ ਮੁੱਦਾ ਫਿਰ ਚੁੱਕਿਆ ।				
16.	ਰਾਹੁਲ ਨੇ ਕਿਹਾ , ਮਨਮੋਹਨ ਸਿੰਘ ਸਾਡੇ ਪ੍ਰਧਾਨਮੰਤਰੀ ਹਨ , ਉਹ ਯੂਪੀਏ ਦੇ ਵੀ ਪ੍ਰਧਾਨਮੰਤਰੀ ਹੈ .				
17.	ਰਾਹੁਲ ਗਾਂਧੀ ਦੋ ਦਿਨ ਦੇ ਚੋਣ ਪ੍ਰਚਾਰ ਉੱਤੇ ਰਾਜਸਥਾਨ ਵਿੱਚ ਹਨ .				

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18.	ਆਰਥਕ ਸੰਕਟ ਦਾ ਦਬਾਅ ਝੇਲਣ ਦੀ ਸਮਰੱਥਾ ਆਂਕਣ ਵਾਲੇ ਇਸ ਟੇਸਟ ਵਿੱਚ ਅਮਰੀਕਾ ਦੇ 10 ਵੱਡੇ ਬੈਂਕ ਬੇਦਮ ਨਿਕਲੇ ਹਨ ।				
19.	ਕੰਪਨੀ ਦੀ ਇਸ ਪਹਿਲ ਤੋਂ ਉਸਨੂੰ ਹੋਰ ਸਰਕਾਰੀ ਸਹਾਇਤਾ ਜਾਂ ਸਰਕਾਰੀ ਪ੍ਰਤੀਭੂਤੀਯੋਂ ਨੂੰ ਇੱਕੋ ਜਿਹੇ ਸ਼ੇਅਰਾਂ ਵਿੱਚ ਪਰਿਵਰਤਿਤ ਕੀਤੇ ਬਿਨਾਂ ਆਪਣਾ ਪੂੰਜੀ ਆਧਾਰ ਵਧਾਉਣ ਵਿੱਚ ਮਦਦ ਮਿਲੇਗੀ ।				
20.	ਉਨ੍ਹਾਂਨੇ ਕਿਹਾ ਕਿ ਰਾਜਗ ਦੁਆਰਾ ਇਸਨੂੰ ਚੁਨਾਵੀ ਮੁੱਦਾ ਬਣਾਏ ਜਾਣ ਦੇ ਬਾਅਦ ਮਜਬੂਰੀ ਵਿੱਚ ਮਨਮੋਹਣ ਸਰਕਾਰ ਹੁਣ ਕਾਰਵਾਈ ਕਰਣ ਦਾ ਦਿਖਾਵਾ ਕਰ ਰਹੀ ਹੈ ।				
21.	ਸੰਪਾਦਕਾਂ ਦੇ ਮੁਤਾਬਕ , ਟਾਇਮ 100 ਸੰਸਕਰਣ ਵਿੱਚ ਅਸੀ ਉਨ੍ਹਾਂ ਲੋਕਾਂ ਦਾ ਨਾਮ ਦਿੰਦੇ ਹਨ ਜੋ ਸਾਡੀ ਦੁਨੀਆ ਨੂੰ ਸਭਤੋਂ ਜ਼ਿਆਦਾ ਪ੍ਰਭਾਵਿਤ ਕਰਦੇ ਹਾਂ .				
22.	ਮੇਗਾਸਟਾਰ ਅਮੀਤਾਭ ਬੱਚਨ ਨੇ ਕੱਲ ਆਪਣੇ ਸੰਵਿਧਾਨਕ ਫਰਜ ਦਾ ਗੁਜਾਰਾ ਕਰਣ ਦੇ ਨਾਲ ਹੀ ਆਪਣੇ ਸਾਮਾਜਕ ਫਰਜ ਦਾ ਵੀ ਬਖੂਬੀ ਗੁਜਾਰਾ ਕੀਤਾ ।				
23.	ਇਸਦੇ ਇਲਾਵਾ ਉਪ ਮੁੱਖਮੰਤਰੀ ਸੁਖਬੀਰ ਬਾਦਲ ਨੇ ਵੀ ਇੰਟਰਨੇਟ ਉੱਤੇ ਕਈ ਪ੍ਰੋਫਾਇਲ ਬਣਾ ਰੱਖੀ ਹੈ ।				
24.	ਹਾਲ ਹੀ ਵਿੱਚ ਲਤਾ ਮੰਗੇਸ਼ਕਰ ਨੇ ਮਧੁਰ ਭੰਡਾਰਕਰ ਦੀ ਫਿਲਮ 'ਜੇਲ੍ਹ' ਵਿੱਚ ਇੱਕ ਧਾਰਮਿਕ ਗੀਤ ਰਿਕਾਰਡ ਕੀਤਾ ਹੈ .				
25.	ਹਿਮੇਸ਼ ਜੀ , ਗੱਲ ਤਾਂ ਠੀਕ ਹੈ ਲੇਕਿਨ ਕਰਜ ਦੇ ਹਾਲ ਦੇ ਬਾਅਦ ਤੁਹਾਨੂੰ ਨਹੀਂ ਲੱਗਦਾ ਕਿ ਦਰਸ਼ਕਾਂ ਦਾ ਤੁਹਾਨੂੰ ਹੀਰੋ ਦੇ ਰੁਪ ਵਿੱਚ ਸਵੀਕਾਰ ਕਰਣਾ ਥੋੜ੍ਹਾ ਮੁਸ਼ਕਲ ਹੋਵੇਗਾ .				
26.	ਉਨ੍ਹਾਂਨੇ ਵੀ ਲੋਕਸਭਾ ਚੋਣ ਵਿੱਚ ਜਿੱਤ ਦਾ ਦਾਵਾ ਕੀਤਾ ਹੈ ।				

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27.	ਫ਼ਿਲਮ ਸਲਮਡਾਗ ਮਿਲਿਅਨੇਇਰ ਦੀ ਬਾਲ ਕਲਾਕਾਰ ਰੁਬੀਨਾ ਅਲੀ ਕਾਫ਼ੀ ਪ੍ਰਿਸੱਧ ਹੋ ਗਈ ਹੈ				
28.	ਮੈਂ ਇਸ ਪਰਵਾਰ ਨੂੰ ਪਿਛਲੇ ਵੀਹ ਸਾਲਾਂ ਤੋਂ ਜਾਣਦਾ ਹਾਂ , ਰਫ਼ੀਕ ਬਹੁਤ ਸ਼ਰੀਫ ਆਦਮੀ ਹੈ , ਉਹ ਅਜਿਹੀ ਹਰਕੱਤ ਕਦੇ ਨਹੀਂ ਕਰੇਗਾ				
29.	ਕਰੀਨਾ ਪੂਰੇ ਦਿਨ ਘਾਹ ਨਾਲ ਬਣੇ ਮਚਾਣ ਉੱਤੇ ਤਾਂ ਕਦੇ ਬੈਲਗਾੜੀ ਪਰ ਮਸਤੀ ਕਰਦੀ ਨਜ਼ਰ ਆਈਆਂ ।				
30.	ਸ਼ੁੱਕਰਵਾਰ ਨੂੰ ਕਰੀਨਾ ਦੇ ਆਉਣ ਦੇ ਨਾਲ ਹੀ ਸ਼ਹਿਰ ਵਿੱਚ ਸੈਫ ਦੇ ਵੀ ਆਉਣ ਦੀ ਉੱਮੀਦ ਲਗਾਈ ਜਾ ਰਹੀ ਸੀ ।				
31.	ਹਾਲ ਵਿੱਚ ਮੋਹਮੰਦ ਵਿੱਚ ਹੋਈ ਫੌਂਜੀ ਕਾਰਵਾਈ ਵਿੱਚ 18 ਚਰਮਪੰਥੀ ਮਾਰੇ ਗਏ ਸਨ				
32.	ਧਿਆਨ ਯੋਗ ਹੈ ਕਿ ਪਾਕਿਸਤਾਨ ਦੇ ਪਸ਼ਚਿਮੋੱਤਰ ਵਿੱਚ ਬੁਨੇਰ ਵਿੱਚ ਪਿਛਲੇ ਕੁੱਝ ਹਫਤੀਆਂ ਵਿੱਚ ਫੌਂਜ ਅਤੇ ਤਾਲੇਬਾਨ ਚਰਮਪੰਥੀਆਂ ਦੇ ਵਿੱਚ ਭੀਸ਼ਨ ਸੰਘਰਸ਼ ਹੋਇਆ ਹੈ				
33.	ਇਸਲਾਮਾਬਾਦ । ਪਾਕਿਸਤਾਨ ਦੇ ਗ੍ਰਹ ਮੰਤਰੀ ਰਹਿਮਾਨ ਮਲਿਕ ਨੇ ਸੋਮਵਾਰ ਨੂੰ ਕਿਹਾ ਕਿ ਦੇਸ਼ ਦੇ ਬੇਚੈਨ ਪਸ਼ਚਿਮੋੱਤਰ ਖੇਤਰ ਵਿੱਚ ਚੱਲ ਰਹੇ ਇੱਕ ਵੱਡੇ ਫੌਂਜੀ ਅਭਿਆਨ ਵਿੱਚ ਕਰੀਬ 700 ਤਾਲਿਬਾਨ ਆਤੰਕੀਆਂ ਨੂੰ ਮਾਰ ਗਿਰਾਇਆ ਗਿਆ ਹੈ ਅਤੇ ਸਾਰੇ ਆਤੰਕੀਆਂ ਦਾ ਖਾਤਮਾ ਹੋਣ ਤੱਕ ਉੱਥੇ ਫੌਂਜੀ ਕਾਰਵਾਈ ਜਾਰੀ ਰਹੇਗੀ ।				
34.	ਗ੍ਰਹ ਮੰਤਰੀ ਨੇ ਕਿਹਾ ਕਿ ਇਹ ਪੂਰੇ ਦੇਸ਼ ਲਈ ਇੱਕ ਪਰੀਖਿਆ ਹੈ ।				
35.	ਪਾਕਿਸਤਾਨ ਦੇ ਸੀਮਾਵਰਤੀ ਇਲਾਕੀਆਂ ਵਿੱਚ ਮਿਸਾਈਲ ਹਮਲੇ ਹੁੰਦੇ ਰਹੇ ਹਨ ਅਤੇ ਇਸਦੇ ਲਈ ਪਾਕਿਸਤਾਨ ਅਮਰੀਕਾ ਤੇ ਇਲਜ਼ਾਮ ਲਗਾਉਂਦਾ ਰਿਹਾ ਹੈ .				

36.	ਪ੍ਰਧਾਨਮੰਤਰੀ ਦੇ ਬਿਆਨ ਦੀ ਭਾਜਪਾ ਨੇ ਵੀ ਆਲੋਚਨਾ ਕੀਤੀ ਹੈ । ਦਿੱਲੀ ਪ੍ਰਦੇਸ਼ ਦੇ ਪ੍ਰਧਾਨ ਮੰਤਰੀ ਆਰਪੀ ਸਿੰਘ ਨੇ ਕਿਹਾ ਕਿ ਪ੍ਰਧਾਨਮੰਤਰੀ ਨੇ ਪਦ ਦੀ ਗਰਿਮਾ ਧੁਮੀਲ ਕੀਤੀ ਹੈ ।					
37.	ਪ੍ਰਧਾਨਮੰਤਰੀ ਦੇ ਸਰਕਾਰੀ ਘਰ ਤੇ ਹੋਈ ਇਹ ਗੱਲਬਾਤ ਇਸ ਮਾਅਨੇ ਵਿੱਚ ਮਹੱਤਵਪੂਰਣ ਹੈ ਕਿ ਮਾਓਵਾਦੀ ਨੇਤਾ ਨੇ ਭਾਰਤ ਤੇ ਨੇਪਾਲ ਦੇ ਅੰਦਰੂਨੀ ਮਾਮਲੇ ਵਿੱਚ ਦਖੱਲੰਦਾਜੀ ਦਾ ਇਲਜ਼ਾਮ ਲਗਾਇਆ ਸੀ ਜਿਨੂੰ ਬਾਅਦ ਵਿੱਚ ਉਨ੍ਹਾਂਨੇ ਹਲਕਾ ਕਰਣ ਦੀ ਕੋਸ਼ਿਸ਼ ਕੀਤੀ ਸੀ ।					
38.	ਗੁਜਰਾਤ ਵਿੱਚ 2002 ਵਿੱਚ ਹੋਏ ਦੰਗੀਆਂ ਦੇ ਕੁੱਝ ਮਾਮਲੀਆਂ ਵਿੱਚ ਨਿੱਤ ਸੁਣਵਾਈ ਦੇ ਆਧਾਰ ਉੱਤੇ ਫਾਸਟ ਟ੍ਰੈਕ ਅਦਾਲਤਾਂ ਗਠਿਤ ਕਰਣ ਦੇ ਸੁਪਰੀਮ ਕੋਰਟ ਦੇ ਅਜੋਕੇ ਫੈਸਲੇ ਉੱਤੇ ਭਾਜਪਾ ਨੇ ਇਹ ਪ੍ਰਤੀਕਿਰਆ ਦਿੱਤੀ ਹੈ ।					
39.	ਮੌਸਮ ਵਿਭਾਗ ਨੇ ਅੰਡਮਾਨ ਦੇ ਸਾਗਰ ਵਿੱਚ ਮਾਨਸੂਨ ਦੀ ਸਾਲਾਨਾ ਮੀਂਹ ਥੋੜ੍ਹਾ ਦੇਰ ਤੋਂ ਹੋਣ ਦੀ ਸੰਦੇਹ ਜਤਾਈ ਹੈ ।					
40.	ਵਿੰਸ਼ਵ ਦੀ ਤਿੰਨ ਸਭਤੋਂ ਮੋਟੀ ਬਰਫੀਲੀ ਪਰਤਾਂ ਵਿੱਚੋਂ ਇੱਕ ਪੱਛਮ ਵਾਲਾ ਅੰਟਾਰਕਟੀਕਾ ਦੀ ਤਹ ਹੈ ।					
41.	ਫਿਲਹਾਲ ਡਰਨ ਦੀ ਜ਼ਰੂਰਤ ਨਹੀਂ					
42.	ਉਨ੍ਹਾਂ ਦੇ ਅਤੇ ਪਾਇਟ ਦੇ ਵਿਦਿਆਰਥੀਆਂ ਦੇ ਵਿੱਚ ਦਾ ਸੰਵਾਦ ਬੇਹੱਦ ਰੋਚਕ ਰਿਹਾ ।					
43.	ਇੰਦਰਾ ਗਾਂਧੀ ਰਾਸ਼ਟਰੀ ਅਜ਼ਾਦ ਯੂਨੀਵਰਸਿਟੀ [ਇਗਨੂ] ਦੇ ਵਿਦਿਆਰਥੀਆਂ ਨੂੰ ਉਨ੍ਹਾਂ ਦੀ ਮੰਗ ਪਰ ਘਰ ਬੈਠੇ ਪਰੀਖਿਆ ਦੇਣ ਦੀ ਸੁਵਿਧਾ ਮਿਲਣ ਜਾ ਰਹੀ ਹੈ ।					
44.	ਧੋਨੀ ਨੇ ਕਪਤਾਨੀ ਪਾਰੀ ਖੇਡੀ					
45.	ਇਸਦੇ ਬਾਅਦ ਸਚਿਨ ਤੇਂਦੁਲਕਰ ਟੀਮ ਦੀ ਬੇੜੀ ਪਾਰ ਲਗਾਉਣ ਲਈ ਮੈਦਾਨ ਪਰ ਆਏ ਲੇਕਿਨ ਉਹ ਜਿਆਦਾ ਰਣ ਨਹੀਂ ਬਣਾ ਸਕੇ ।					

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46.	ਰਾਜਸਥਾਨ ਦੀ ਸ਼ੁਰੂਆਤ ਬੇਹੱਦ ਖ਼ਰਾਬ ਰਹੀ ਅਤੇ ਇੱਕ ਵਾਰ ਦਬਾਅ ਵਿੱਚ ਆਉਣ ਦੇ ਬਾਅਦ ਉਸਦੇ ਸਾਰੇ ਬੱਲੇਬਾਜ ਆਪਣਾ ਵਿਕੇਟ ਸੁੱਟਕੇ ਚਲਦੇ ਬਣੇ ।				
47.	ਸੰਸਾਰ ਬੈਡਮਿੰਟਨ ਚੈਂਪਿਅਨਸ਼ਿਪ ਨੂੰ ਤਿਆਰ ਭਾਰਤ May 08 , 06 : 45 pm				
48.	ਮੋਹਨ ਬਾਗਾਨ ਹੁਣ ਤੱਕ ਖਾਤਾ ਨਹੀਂ ਖੋਲ ਪਾਇਆ ਹੈ ਹੋਰ ਗਰੁਪ ਵਿੱਚ ਸਭਤੋਂ ਹੇਠਲੇ ਸਥਾਨ ਪਰ ਹੈ ।				
49.	ਦੇ ਗੋਲ ਨੂੰ ਵਾਧੇ ਬਣਾਉਣ ਦੇ ਬਾਵਜੂਦ ਚੀਨ ਦੇ ਨਾਲ 2 - 2 ਤੋਂ ਡਰਾ ਖੇਡਣ ਦੇ ਬਾਅਦ ਭਾਰਤ ਮੰਗਲਵਾਰ ਨੂੰ ਏਸ਼ਿਆ ਕਪ ਹਾਕੀ ਵਿੱਚ ਸੇਮੀਫਾਇਨਲ ਦੀ ਦੌੜ ਤੋਂ ਬਾਹਰ ਹੋ ਗਿਆ ਜਿਸਦੇ ਨਾਲ ਖਿਤਾਬ ਬਰਕਰਾਰ ਰੱਖਣ ਦਾ ਉਸਦਾ ਸੁੱਪਣਾ ਵੀ ਚੂਰ ਚੂਰ ਹੋ ਗਿਆ ।				
50.	ਸਾਰਵਜਨਿਕ ਖੇਤਰ ਦੇ ਆਈਡੀਬੀਆਈ ਬੈਂਕ ਨੇ ਵੀ ਏਫਡੀ ਉੱਤੇ ਵਿਆਜ ਦਰਾਂ ਅੱਧਾ ਤੋਂ ਇੱਕ ਫੀਸਦੀ ਤੱਕ ਘਟਾ ਦਿੱਤੀਆਂ ਹਨ । ਨਵੀਂ ਦਰਾਂ 21 ਮਈ ਤੋਂ ਲਾਗੂ ਹੋਵੇਗੀ ।				

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Intelligibility Test - Literature

S.No.	Sentence	0	1	2	3
1.	ਜੇਕਰ ਤੈਨੂੰ ਉਹ ਚੀਜ ਨਹੀਂ ਮਿਲੇ ਤਾਂ ਖਬਰਦਾਰ ਏਧਰ ਰੁੱਖ ਨਹੀਂ ਕਰਣਾ , ਵਰਨਾ ਸੂਲੀ ਪਰ ਖਿੰਚਵਾ ਦੂੰਗੀ				
2.	ਇਸਦੀ ਸੂਚਨਾ ਨੇ ਅਗਿਆਨ ਬਲਿਕਾ ਨੂੰ ਮੂੰਹ ਢਾਪ ਕਰ ਇੱਕ ਕੋਨੇ ਵਿੱਚ ਬਿਠਾ ਰੱਖਿਆ ਹੈ ।				
3.	ਸ਼ਾਮ ਦਾ ਸਮਾਂ ਸੀ , ਨਿਰਮਲਾ ਛੱਤ ਪਰ ਜਾਨਕੇ ਇਕੱਲੀ ਬੈਠੀ ਅਕਾਸ਼ ਕੀਤੀ ਹੋਰ ਤ੍ਰਿਸ਼ਿਤ ਨੇਤਰਾਂ ਤੋਂ ਵੇਖ ਰਹੀ ਸੀ ।				
4.	ਨਿਰਮਲਾ - ਨੇ ਉਦਾਸੀਨ ਭਾਵ ਨੂੰ ਕਿਹਾ - ਤੂੰ ਜਾ , ਮੈਂ ਨਹੀਂ ਜਾਵਾਂਗੀ ।				
5.	ਬਾਗ ਵਿੱਚ ਫੁਲ ਖਿੜੇ ਹੋਏ ਸਨ । ਮਿੱਠੀ - ਮਿੱਠੀ ਸੁਗੰਧ ਆ ਰਹੀ ਸੀ । ਚੇਤ ਦੀ ਸੀਤਲ ਮੰਦ ਸਮੀਰ ਚੱਲ ਰਹੀ ਸੀ ।				
6.	ਇਹ ਕਹਿਕੇ ਕਲਿਆਣੀ ਕਮਰੇ ਦੇ ਬਾਹਰ ਨਿਕਲ ਗਈ ।				
7.	ਮੁੰਸ਼ੀਜੀ ਤਾਂ ਭੋਜਨ ਕਰਣ ਗਏ ਅਤੇ ਨਿਰਮਲਾ ਦਵਾਰ ਦੀ ਚੌਖਟ ਪਰ ਖੜੀ ਸੋਚ ਰਹੀ ਸੀ - ਭਗਵਾਨ ।				
8.	ਸਾਧੂ - ਕਦੇ ਆ ਜਾਵਾਂਗਾ ਬੱਚਾ , ਤੁਹਾਡਾ ਘਰ ਕਿੱਥੇ ਹੈ ?				
9.	ਇੱਕ ਦਿਨ ਨਿਰਮਲਾ ਨੇ ਸਿਆਰਾਮ ਨੂੰ ਘੀ ਲਿਆਉਣ ਲਈ ਬਾਜ਼ਾਰ ਭੇਜਿਆ ।				
10.	ਮਾਤਾ - ਝੂਠ ਨੇ ਬੋਲ ! ਤੂੰ ਪੰਜ ਸੌ ਰੁਪਏ ਦੇ ਨੋਟ ਨਹੀਂ ਭੇਜੇ ਸਨ ?				
11.	ਕੀ ਮੇਰੀ ਹਾਲਤ ਨੂੰ ਹੋਰ ਵੀ ਦਾਰੁਣ ਬਣਾਉਣਾ ਚਾਹੁੰਦੇ ਹੋ ?				
12.	ਉਸ ਦਿਨ ਤੋਂ ਨਿਰਮਲਾ ਦਾ ਰੰਗ - ਢੰਗ ਬਦਲਨ ਲਗਾ ।				
13.	ਕੀ ਇਨ੍ਹਾਂ ਨੂੰ ਸਚਮੁੱਚ ਕੋਈ ਭੀਸ਼ਨ ਰੋਗ ਹੋ ਰਿਹਾ ਹੈ ?				
14.	ਨਿਰਮਲਾ - ਤਾਂ ਮੈਂ ਝੂਠ ਕਹਿੰਦੀ ਹਾਂ ?				
15.	ਬੇਚਾਰੇ ਮੁੰਡੇ ਨੂੰ ਵਾਰ - ਵਾਰ ਦੌੜਾਇਆ ਕਰਦੀ ਹੈ । ਮਤ੍ਰੇਈ ਮਾਂ ਹੈ ਨਹੀਂ ! ਆਪਣੀ ਮਾਂ ਹੋ ਤਾਂ ਕੁੱਝ ਖਿਆਲ ਵੀ ਕਰੇ ।				
16.	ਦਾਨਨਾਥ ਨੂੰ ਅਜਿਹੀ ਉੱਤਮ ਸਪੀਚ ਨੂੰ ਨਹੀਂ ਸੁਣਨ ਨੂੰ ਦਾ ਅਤਿਅੰਤ ਸੋਗ ਹੋਇਆ । ਬੋਲੇ—ਯਾਰ , ਮੈਂ ਜੰਮ ਦਾ ਅਭਾਗਾ ਹਾਂ । ਕੀ ਹੁਣ ਫਿਰ ਕੋਈ ਵਿਖਿਆਨ ਨਹੀਂ ਹੋਵੇਗਾ ?				

17.	ਦਾਨਨਾਥ ਤਾਂ ਇਹ ਗੱਲਬਾਤ ਕਰਕੇ ਆਪਣੇ ਮਕਾਨ ਨੂੰ ਰਵਾਨਾ ਹੋਏ ਅਤੇ ਅਮ੍ਰਿਤ ਰਾਇ ਉਸੀ ਹਨ੍ਹੇਰੇ ਵਿੱਚ , ਵੱਡੀ ਦੇਰ ਤੱਕ ਚੁਪਚਾਪ ਖੜੇ ਰਹੇ ।				
18.	ਅੱਜ ਵੀ , ਜਦੋਂ ਅਮ੍ਰਿਤ ਰਾਇ ਨੇ ਉਸਤੋਂ ਆਪਣੇ ਇਰਾਦੇ ਸਾਫ਼ ਕੀਤੇ ਤਦ ਉਸੇਨ ਸੱਚੇ ਦਿਲੋਂ ਉਨ੍ਹਾਂਨੂੰ ਸੱਮਝਾਕੇ ਉੱਚ ਨੀਚ ਸੁਝਾਇਆ ।				
19.	ਲਾਲਾ ਬਦਰੀਪ੍ਰਸਾਦ ਅਮ੍ਰਿਤ ਰਾਇ ਦੇ ਬਾਪ ਦੇ ਦੋਸਤਾਂ ਵਿੱਚ ਸਨ ਅਤੇ ਜੇਕਰ ਉਨ੍ਹਾਂ ਨੂੰ ਜਿਆਦਾ ਇੱਜ਼ਤ ਵਾਲਾ ਨਹੀਂ ਸਨ ਤਾਂ ਬਹੁਤ ਹੇਠੇ ਵੀ ਨਹੀਂ ਸਨ । ਦੋਨੂੰ ਵਿੱਚ ਮੁੰਡੇ - ਕੁੜੀ ਦੇ ਵਿਆਹ ਦੀ ਗੱਲਬਾਤ ਪੱਕੀ ਹੋ ਗਈ ਸੀ ।				
20.	ਦਸਮੀ ਨੇ ਆਉਂਦੇ ਹੀ ਸਭ ਸਤਰੀਆਂ ਨੂੰ ਉੱਥੇ ਨੂੰ ਹਟਾ ਦਿੱਤਾ , ਪ੍ਰੇਮਾ ਨੂੰ ਇਤਰ ਸੁਘਾਇਆ ਕੇਵੜੇ ਅਤੇ ਗੁਲਾਬ ਦਾ ਛੀਂਟਾ ਮੂੰਹ ਪਰ ਮਾਰਿਆ । ਹੌਲੀ - ਹੌਲੀ ਉਸਦੇ ਤਲਵੇ ਸਹਲਾਏ , ਸਭ ਖਿੜਕੀਆਂ ਖੁੱਲ੍ਹਵਾ ਦਿੱਤੀ ।				
21.	ਮਿਸਟਰ ਸ਼ਰਮਾ— (ਮੋਢੇ ਪਰ ਹੱਥ ਫੇਰਕੇ) ਉਹ ਤਾਜ਼ਾ ਖਬਰ ਲਿਆਇਆ ਹਾਂ ਕਿ ਤੁਸੀ ਲੋਕ ਸੁਣਕੇ ਫੜਫੜਾਹਟ ਜਾਇੰਗੇ ।				
22.	ਖੁਲਾਸਾ ਇਹ ਕਿ ਅਮ੍ਰਿਤਰਾਏ ਨੂੰ ਇੱਥੇ ਤੋਂ ਸੱਤਰਹ ਹਜਾਰ ਰੁਪਆ ਮਿਲਿਆ । ਮੁਨਸ਼ੀ ਬਦਰੀਪ੍ਰਸਾਦ ਨੇ ਇਕੱਲੇ ਬਾਰਾਂ ਹਜਾਰ ਦਿੱਤਾ ਜੋ ਉਨ੍ਹਾਂ ਦੀ ਉਮੇਦ ਤੋਂ ਬਹੁਤ ਜ਼ਿਆਦਾ ਸੀ ।				
23.	ਰਾਮ— (ਮੁਸਕਰਾਕੇ) ਚੁਪ । ਅਜਿਹਾ ਵੀ ਕੋਈ ਕਹਿੰਦਾ ਹੈ ।				
24.	ਆਪਣੇ ਦਿਲ ਦਾ ਜਾਣ ਪਹਿਚਾਣ ਉਹਨੂੰ ਇੱਕ ਦਿਨ ਇੰਝ ਮਿਲਿਆ ਕਿ ਬਾਬੂ ਅਮ੍ਰਿਤ ਰਾਇ ਨਿਅਤ ਸਮਾਂ ਪਰ ਨਹੀਂ ਆਏ । ਥੋੜ੍ਹੀ ਦੇਰ ਤੱਕ ਤਾਂ ਉਹ ਉਨ੍ਹਾਂ ਦੀ ਰੱਸਤਾ ਵੇਖਦੀ ਰਹੀ ਮਗਰ ਜਦੋਂ ਉਹ ਹੁਣ ਵੀ ਨਹੀਂ ਆਏ ਤਦ ਤਾਂ ਉਸਦਾ ਦਿਲ ਕੁੱਝ ਮਸੋਸਨੇ ਲਗਾ । ਵੱਡੀ ਵਿਆਕੁਲਤਾ ਤੋਂ ਦੌੜੀ ਹੋਈ ਦੀਵਾਜੇ ਪਰ ਆਈ ਅਤੇ ਅੱਧ ਘੰਟੇ ਤੱਕ ਕੰਨ ਲਗਾਏ ਖੜੀ ਰਹੀ , ਫਿਰ ਅੰਦਰ ਆਈ ਅਤੇ ਮਨ ਮਾਰਕੇ ਬੈਠ ਗਈ ।				
25.	ਅਮ੍ਰਿਤਰਾਏ— (ਦੱਬੀ ਜਬਾਨ ਤੋਂ) ਉਹ ਸਭ ਕਹਾਰ ਮੇਰੇ ਨੈਕਰ ਹੈ ।				

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26.	ਅਮ੍ਰਿਤ੦—ਵੇਖੇ ਹੁਣ ਕਦੋਂ ਕਿਸਮਤ ਜਾਗਦਾ ਹੈ । ਮੈਂ ਤਾਂ ਬਹੁਤ ਜਲਦੀ ਮਚਾ ਰਿਹਾ ਹਾਂ ।				
27.	ਮੈ ਤੁਹਾਡੇ ਤੋਂ ਕੋਈ ਅਣ-ਉਚਿਤ ਗੱਲ ਨਹੀਂ ਚਾਹੁੰਦਾ ।				
28.	ਉਨ੍ਹਾਂ ਦੇ ਜਰਾ ਤੋਂ ਇਸ਼ਾਰੇ ਪਰ ਮੈਂ ਆਪਣੇ ਨੂੰ ਨਿਛਾਵਰ ਕਰ ਸਕਦੀ ਹਾਂ ।				
29.	ਬਿੱਲਾਂ—ਦੇ ਕਿਉਂ ਨਹੀਂ ਗਿਆ ।				
30.	ਕੁੱਝ ਦਿਨਾਂ ਤੋਂ ਪੰਡਾਇਨ ਔਰਚੰਬਾਇਨ ਆਦਿ ਨੇ ਵੀ ਦਸਮੀਂ ਦੇ ਰਚਨਾ - ਚੋਣ ਪਰ ਨੱਕ - ਭਰਵੱਟਾ ਚੜਾਨਾ ਛੱਡ ਦਿੱਤਾ ਸੀ ।				
31.	ਉਸਨੇ ਆਉਂਦੇ ਹੀ ਹੁਕਮ ਦਿੱਤਾ ਕਿ ਭੀੜ ਹਟਾ ਦਿੱਤੀ ਜਾਵੇ ।				
32.	ਵਿਆਹ ਦੇ ਚੌਥੇ ਦਿਨ ਬਾਅਦ ਦਸਮੀਂ ਬੈਠੀ ਹੋਈ ਸੀ ਕਿ ਇੱਕ ਔਰਤ ਨੇ ਆਕੇ ਉਸਦੇ ਇੱਕ ਬੰਦ ਲਿਫਾਫਾ ਦਿੱਤਾ ।				
33.	ਚੰਮਨ ਚੌਧਰੀ— ਕਹਿ ਗਏ ਹਨ ਕਿਆਜ ਇਨਕੇਰ ਕੰਮ ਨਹੀਂ ਛੱਡ ਦੇਹਾਂ ਤਾਂ ਟਾਟ ਬਾਹਰ ਕਰ ਦੀਨ ਜੈਹੀ ।				
34.	ਇੱਕ ਦਿਨ ਵ੍ਰਜਰਾਨੀ ਸੁਵਾਮਾ ਦੇ ਸਿਰਹਾਨੇ ਬੈਠੀ ਪੱਖਾ ਝੱਲ ਰਹੀ ਸੀ ।				
35.	ਪ੍ਰਤਾਪ - ਤਾਂ ਭਈ , ਇੱਕ ਦਿਨ ਮੈਨੂੰ ਵੀ ਨੇਵਤਾ ਦੋ ।				
36.	ਨਵੀਨ ਮਿੱਟੀ ਦੀ ਮਿੱਠੀ - ਮਿੱਠੀ ਸੁਗੰਧ ਆ ਰਹੀ ਹੈ ।				
37.	ਚਿੰਟਾ ਗੁਲਾਬ - ਮੈਂ ਤਾਂ ਬਿਨਾਂ ਗੀਤ ਸੁਣੇ ਅੱਜ ਤੁਹਾਡਾ ਪਿੱਛਾ ਨਹੀਂ ਛੋੜੂੰਗੀ ।				
38.	ਰਾਜਾ ਨੇ ਕਿਹਾ "ਚੰਗੀ ਗੱਲ ਹੈ । "				
39.	ਤਿੰਨ ਦਿਨ ਗੁਜ਼ਰਨ ਪਰ ਬੁੱਢੀ ਫਿਰ ਉੱਥੇ ਪਹੁੰਚੀ ।				
40.	ਇਸਤਰੀ ਰੋਣ ਲੱਗੀ । ਇੱਕ ਮੁਸਾਫਰ ਉੱਧਰ ਜਾ ਰਿਹਾ ਸੀ ।				
41.	ਸੇਠ ਆਪਣੇ ਜਵਾਈ ਤੋਂ ਮਿਲਕੇ ਵੱਡੇ ਖੁਸ਼ ਹੋਏ ਅਤੇ ਉਨ੍ਹਾਂਨੇ ਉਸਨੂੰ ਵੱਡੀ ਚੰਗੀ ਤਰਾਂ ਤੋਂ ਘਰ ਵਿੱਚ ਰੱਖਿਆ ।				
42.	ਲੱਗਦਾ ਹੈ ਇਹ ਦਰਜ਼ੀ ਲੋਭੀ ਹੈ । ਇਹ ਸਾਨੂੰ ਖਵਾਉਣਾ ਨਹੀਂ ਚਾਹੁੰਦਾ , ਇਸਲਈ ਇਹ ਸਾਰਾ ਡਰਾਮਾ ਕਰ ਰਿਹਾ ਹੈ ।				
43.	ਰਾਜਾ ਮੇਰੇ ਤੋਂ ਡਰ ਗਿਆ ।				

44.	ਪਾਰਬਤੀ ਨੂੰ ਤਰਸ ਆ ਗਈ , ਅਤੇ ਉਨ੍ਹਾਂ ਨੇ ਸ਼ੰਕਰ ਤੋਂ ਪ੍ਰਾਰਥਨਾ ਦੀ ਕਿ ਜਿਵੇਂ ਵੀ ਬਣੇ , ਉਹ ਗਿਲਹਰੀ ਨੂੰ ਫਿਰ ਤੋਂ ਇਸਤਰੀ ਬਣਾ ਦਿਓ ।						
45.	ਰੂਸ ਵਿੱਚ ਇੱਕ ਬਹੁਤ ਵੱਡੇ ਲੇਖਕ ਹੋਏ ਹੈ , ਇਨ੍ਹੇ ਵੱਡੇ ਕਿ ਸਾਰੀ ਦੁਨੀਆ ਉਨ੍ਹਾਂਨੂੰ ਜਾਣਦੀ ਹੈ ।						
46.	ਰਵਿੰਦਰ ਠਾਕੁਰ ਦੀ ਇੱਕ ਵੱਡੀ ਹੀ ਸੀਖ ਦੇਣ ਵਾਲੀ ਰਚਨਾ ਹੈ ।						
47.	ਦੇਵਦੂਤ ਚਲਾ ਗਿਆ ਅਤੇ ਅਗਲੇ ਦਿਨ ਜਦੋਂ ਉਹ ਪਰਤਿਆ ਤਾਂ ਉਸਦੇ ਹੱਥ ਵਿੱਚ ਉਨ੍ਹਾਂ ਬੰਦੀਆਂ ਦੀ ਸੂਚੀ ਸੀ						
48.	ਆਦਮੀ ਨੂੰ ਭੂਮੀ ਤੋਂ ਕਿੰਨਾ ਮੋਹ ਹੁੰਦਾ ਹੈ ।						
49.	ਕਹਿਣ ਦਾ ਮਤਲੱਬ ਇਹ ਕਿ ਹਰ ਆਦਮੀ ਆਪਣੀ ਸਮਰੱਥਾ ਦੇ ਅਨੁਸਾਰ ਕੰਮ ਕਰੇ ਹੋਰ ਜ਼ਰੂਰਤ ਦੇ ਅਨੁਸਾਰ ਪਾਏ						
50.	ਅਸੀ ਆਸ ਕਰਦੇ ਹਾਂ ਕਿ ਪਾਠਕ ਇਸ ਕਿਤਾਬਾਂ ਨੂੰ ਵੱਡੇ ਚਾਵ ਨਾਲ ਪੜ੍ਹਾਂਗੇ , ਦੂਸਰੀਆਂ ਦੀ ਪੜਵਾਏ ਅਤੇ ਇਨ੍ਹਾਂ ਦਾ ਭਰਪੂਰ ਮੁਨਾਫ਼ਾ ਲੈਣਗੇ ।						

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Intelligibility Test - Articles

S.No.	Sentence	0	1	2	3
1.	ਐਨੀਮਿਆ (Anemia) ਦੇ ਕਾਰਨ ਔਰਤਾਂ ਵਿੱਚ ਥਕਾਣ , ਉੱਠਣ ਬੈਠਣ ਹੋਰ ਖੜੇ ਹੋਣ ਵਿੱਚ ਚੱਕਰ ਆਣਾ , ਕੰਮ ਕਰਣ ਦਾ ਮਨ ਨਹੀਂ ਕਰਣਾ , ਸਰੀਰ ਵਿੱਚ ਤਾਪਮਾਨ ਦੀ ਕਮੀ , ਤਵਚਾ ਵਿੱਚ ਪਿਲੱਤਣ , ਦਿਲ ਵਿੱਚ ਗ਼ੈਰ - ਮਾਮੂਲੀ ਧੜਕਨ , ਸਾਂਸ ਲੈਣ ਵਿੱਚ ਤਕਲੀਫ , ਸੀਨੇ ਵਿੱਚ ਦਰਦ , ਤਲਵਾਂ ਅਤੇ ਹਥੇਲੀਆਂ ਵਿੱਚ ਠੰਡਾਪਨ ਹੋਰ ਲਗਾਤਾਰ ਰਹਿਣ ਵਾਲਾ ਸਿਰ ਵਿੱਚ ਦਰਦ ਹੁੰਦਾ ਹੈ ।				
2.	ਗਰਭਾਵਸਥਾ (pregnancy) ਦੇ ਦੌਰਾਨ ਢਿੱਡ ਵਿੱਚ ਤੀਵਰ ਦਰਦ ਹੋਰ ਯੋਨੀ ਤੋਂ ਰਕਤ ਸਰਾਵ ਹੋਣ ਲੱਗੇ ਤਾਂ ਇਸਨੂੰ ਗੰਭੀਰਤਾ ਤੋਂ ਲਵੇਂ ਅਤੇ ਡਾਕਟਰ ਨੂੰ ਤੱਤਕਾਲ ਦੱਸੀਏ ।				
3.	ਸਾਮਗਰੀ : 150 ਗਰਾਮ ਅਰਹਰ ਦਾਲ , 20 ਗਰਾਮ ਮੂੰਗਫਲੀ , 100 ਗਰਾਮ ਗੁੜ , 100 ਮਿ . ਲਈ . ਤੇਲ , 15 ਗਰਾਮ ਦਾਲਚੀਨੀ , 3 ਗਰਾਮ ਹੀਂਗ , 5 ਗਰਾਮ ਈਮਲੀ , 5 ਗਰਾਮ ਅਦਰਕ , 5 ਗਰਾਮ ਲੂਣ , 3 ਗਰਾਮ ਹਲਦੀ , 5 ਗਰਾਮ ਹਰੀਮੀਰਚ , 5 ਗਰਾਮ , 3 ਗਰਾਮ ਕਰੀਪੱਤਾ , 3 ਗਰਾਮ ਨਾਰੀਅਲ (ਕੱਸਿਆ ਹੋਇਆ) , ਧਨਿਆ ਬਰੀਕ ਕਟੀ ਹੁਇ ।				
4.	ਆਇਸਕਰੀਮ ਦੇ ਦਾਗ : - ਜੇਕਰ ਆਇਸਕਰੀਮ ਦੇ ਦਾਗ ਕਪੜੋਂ ਵਿੱਚ ਲੱਗ ਜਾਵੇ ਤਾਂ ਅਮੋਨਿਆ ਦਾ ਘੋਲ ਪਾਓ ।				
5.	ਚਾਵਲ ਦੀ ਖੀਰ ਬਣਾਉਂਦੇ ਸਮਾਂ ਸ਼ਕਰ ਦੇ ਨਾਲ ਥੋੜਾ ਜਿਹਾ ਲੂਣ ਮਿਲਾਉਣ ਤੋਂ ਖੀਰ ਦਾ ਸਵਾਦ ਹੋਰ ਬਢ ਜਾਂਦਾ ਹੈ ।				
6.	ਸੋਨੇ ਦੇ ਜੇਵਰ ਤੇ ਪਿਸੀ ਹਲਦੀ ਲੱਗਾ ਕੇ ਮਸਲਣ ਤੋਂ ਉਹ ਚਮਕਣ ਲੱਗਦੇ ਹੈ				
7.	ਕਦੇ ਵੀ ਇਸਦਾ ਸਪੀਨਰ ਖਾਲੀ ਨਹੀਂ ਚਲਣ ਦਿਓ ।				

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8.	ਅੱਜਕੱਲ੍ਹ ਦੀਆਂ ਮਹਿਲਾਵਾਂ ਨੌਕਰੀਪੇਸ਼ਾ ਵਾਲੀਆਂ ਹਨ ਇਸਲਈ ਜਿਆਦਾ ਸਮਾਂ ਘਰ ਤੋਂ ਬਾਹਰ ਗੁਜ਼ਾਰਦੀਆਂ ਹਨ ਸੰਯੁਕਤ ਪਰਵਾਰਾਂ ਵਿੱਚ ਜਾਂ ਜਿਨ੍ਹਾਂ ਦੇ ਮਾਤੇ ਪਿਤਾ ਘਰ ਤੇ ਰਹਿਤੇ ਹੈ ਉਨ੍ਹਾਂ ਨੂੰ ਬਚਚਾਂ ਦੀ ਦੇਖਬਾਲ ਦੀ ਸਮੱਸਿਆ ਨਹੀ ਹੁੰਦੀ ਹੈ ਪਰ ਏਕਲ ਪਰਵਾਰਾਂ ਵਿੱਚ ਮਾਂ ਦੇ ਦਫਤਰ ਜਾਏ ਦੇ ਬਾਅਦ ਬਚਚੇ ਦੀ ਦੇਖਬਾਲ ਲਈ ਕੋਈ ਨਹੀ ਰਹਿੰਦਾ ਇਸਲਈ ਮਹਿਲਾਵਾਂ ਆਪਣੇ ਬਚਚਾਂ ਦੇ ਲਿਅ ਆਇਆ ਦਾ ਇੰਤਜਾਮ ਕਰਦੀ ਹੈ ।				
9.	ਆਪਣੇ ਜੀਵਨ ਉਦੇਸ਼ਿਅ ਨੂੰ ਜਾਨਵਾ ਅਤੇ ਉਸਨੂੰ ਪ੍ਰਾਪਤ ਕਰਣ ਲਈ ਦ੍ਰਿੜ ਆਤਮਵੀਸ਼ਵਾਸ ਰੱਖਣਾ , ਇਹੀ ਸਫਲਤਾ ਦੇ ਵੱਲ ਪਹਿਲਾ ਕਦਮ ਹੈ				
10.	ਭਗਤ ਦਾ ਭਗਵਾਨ ਤੋਂ , ਮਨੁੱਖ ਦਾ ਰੱਬ ਤੋਂ , ਸਫਲਤਾ ਦਾ ਸਾਰੇ ਤੋਂ , ਪਿੰਡ ਦਾ ਬਰਹਮੰਡ ਤੋਂ ਮਿਲਣ ਨੂੰ ਹੀ ਯੋਗ ਕਿਹਾ ਗਿਆ ਹੈ				
11.	ਮਿਜੋਰਮ ਦੇ ਇੱਕ 64 ਸਾਲ ਦਾ ਵਿਅਕਤੀ ਜਯੋਨ ਦੀ 50 ਪਤਨੀਆਂ ਅਤੇ 100 ਬੱਚੇ ਹਨ । ਮਿਜੋਰਮ ਤੋਂ ਲੱਗਭੱਗ 80 ਕਿਮੀ ਦੂਰ ਬਕਤਵਾਂਗ ਪਿੰਡ ਦਾ ਨਿਵਾਸੀ ਜਯੋਨ ਆਪਣੇ ਪਰਵਾਰ ਦੇ 180 ਤੋਂ ਜਿਆਦਾ ਸਦਸਯੋਂ ਦੇ ਨਾਲ ਧਰਤੀ ਤੇ ਸਭਤੋਂ ਬੜੇ ਪਰਵਾਰ ਦੇ ਮੁਖੀ ਦੇ ਰੁਪ ਵਿੱਚ ਜਾਣਿਆ ਜਾਂਦਾ ਹੈ ।				
12.	ਇੱਕ ਛੋਟਾ ਬਚਚਾ ਦੂਜੇ ਬਚਚੇ ਤੋਂ , ਜੇਕਰ ਦਿਨ ਨੂੰ ਸੂਰਜ ਨਹੀਂ ਨਿਕਲਿਆ ਤਾਂ ਕੀ ਹੋਵੇਗਾ ,ਦੂਜੇ ਬਚਚੇ ਨੇ ਜਵਾਬ ਦਿੱਤਾ , ਬਿਜਲੀ ਦਾ ਬਿਲ ਬਚ ਜਾਵੇਗਾ ।				
13.	ਬੀਰਬਲ ਨੂੰ ਤੰਬਾਕੂ ਖਾਣ ਦੀ ਆਦਤ ਸੀ ਲੇਕਿਨ ਅਕਬਰ (Akbar) ਨਹੀਂ ਖਾਂਦੇ ਸਨ ਇੱਕ ਦਿਨ ਅਕਬਰ ਨੇ ਤੰਬਾਕੂ ਦੇ ਖੇਤ ਵਿੱਚ ਗਾਯੇ ਨੂੰ ਘਾਹ ਖਾਂਦੇ ਵੇਖਕੇ ਕਿਹਾ ਬੀਰਬਲ ਇਹ ਵੇਖਿਆ ਤੰਬਾਕੂ ਕਿਵੇਂ ਦੀ ਬੁਰੀ ਚੀਜ ਹੈ , ਗਾਯੇ ਤੱਕ ਇਸ ਨੂੰ ਨਹੀ ਖਾਂਦੇ ।				

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14.	ਇਹ ਸਭ ਕਹਿਣ ਦੀਆਂ ਗੱਲਾਂ ਹਨ ਕਿ ਉਨ੍ਹਾਂ ਨੂੰ ਛੋਡ ਬੈਠੇ ਹਨ ਜਦੋਂ ਅੱਖਾਂ ਚਾਰ ਹੁੰਦੀਆਂ ਹਨ ਮੋਹਬਤ ਆ ਹੀ ਜਾਂਦੀ ਹੈ ।				
15.	ਨਵੇਂ ਅਤੇ ਆਧੁਨਿਕ ਡਿਜ਼ਾਇਨਾਂ ਦੇ ਅਤਪਾਦ ਤੇਜ਼ੀ ਤੋਂ ਬਾਜ਼ਾਰ ਵਿੱਚ ਆ ਰਹੇ ਹੈ । ਇਸ ਲਈ ਜ਼ਰੂਰੀ ਹੈ ਕਿ ਆਪ ਵੀ ਆਪਣੇ ਨੀਤੀਆਂ ਵਿੱਚ ਬਦਲਾਵ ਲਿਆਓ ਅਤੇ ਇਹੀ ਨਹੀਂ ਕਰਦੇ ਰਹੇ , ਅਸੀ ਤਾਂ ਇਸ ਕੰਮ ਨੂੰ ਇਸ ਤਰੀਕੇ ਤੋਂ ਕਰਦੇ ਆ ਰਹੇ ਹੈ ਅਤੇ ਅਜਿਹਾ ਹੀ ਕਰੇਗੋ ।				

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Intelligibility Test – Official Language Qoutes

S.No.	Sentence	1	2	3	4
1.	ਸੰਖਿਪਤ ਨੋਟ ਹੇਠਾਂ ਦਿੱਤਾ ਗਿਆ ਹੈ				
2.	ਪ੍ਰਚੱਲਤ ਨਿਯਮਾਂ ਦੇ ਅਨੁਸਾਰ				
3.	ਰਸੀਦ ਪਹਿਲਾਂ ਹੀ ਭੇਜੀ ਜਾ ਚੁੱਕੀ ਹੈ				
4.	ਉੱਤੇ ਕਕੇ ਅਨੁਸਾਰ ਕਾਰਵਾਈ ਕੀਤੀ ਜਾਵੇ				
5.	ਮਾਮਲੇ ਵਿੱਚ ਕਾਰਵਾਈ ਕੀਤੀ ਜਾ ਚੁੱਕੀ ਹੈ				
6.	ਪੱਤਰ ਦੀ ਇੱਕ ਨਕਲ				
7.	ਪਹਿਲਾਂ ਤੋਂ ਪ੍ਰਬੰਧ ਕਰਨਾ ਜਰੂਰੀ ਹੈ				
8.	ਅੱਗੇ ਦੀ ਤਰੱਕੀ ਤੋਂ ਜਾਣੂ ਕਰਾਓ				
9.	ਕਾਰਜ - ਸੂਚੀ ਨਾਲ ਭੇਜੀ ਜਾ ਰਹੀ ਹੈ				
10.	ਅਪੀਲ ਖਾਰਿਜ ਕਰ ਦਿੱਤੀ ਗਈ ਹੈ				
11.	ਜਿੱਥੇ ਤੱਕ ਸੰਭਵ ਹੋ				
12.	ਬਿਲ ਠੀਕ - ਠੀਕ ਬਣਾਇਆ ਗਿਆ ਹੈ				
13.	ਬਜਟ ਵਿੱਚ ਵਿਵਸਥਾ ਹੈ				
14.	ਸਵੀਕਾਰ ਨਹੀਂ ਕੀਤਾ ਜਾ ਸਕਦਾ				
15.	ਮਾਮਲੇ ਦੀ ਜਾਂਚ ਚੱਲ ਰਹੀ ਹੈ				

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Intelligibility Test - Blogs

S.No.	Sentence	0	1	2	3
1.	ਮੈਂ ਅਜਿਹਾ ਇਸਲਈ ਲਿਖ ਰਿਹਾ ਹਾਂ ਕਿ ਮੇਰਾ ਇੱਕ ਦੋਸਤ ਜੋ ਮੇਰਾ ਬਲਾਗ ਪੜ੍ਹਦਾ ਹੈ ਉਸਨੇ ਮੈਨੂੰ ਕਿਹਾ ਕਿ ਇਹ ਨਾਰਦ ਦਾ ਏਕਾਧਿਕਾਰ ਖਤਮ ਹੋਵੇਗਾ !				
2.	ਰਾਜੇਸ਼ , ਹਿੰਦੀ ਚਿੱਠੀਆਂ ਦੇ ਜਿਆਦਾਤਰ ਪਾਠਕ ਚਿੱਠੇ ਲਿਖਣ ਵਾਲੇ ਹੀ ਹਨ , ਤੁਹਾਡੇ ਮਿੱਤਰ ਦੀ ਸ਼੍ਰੇਣੀ ਦੇ ਪਾਠਕ ਫਿਲਹਾਲ ਘੱਟ ਹਨ । ਹੁਏ ਤੱਕ ਹਿੰਦੀ ਦੇ ਗੈਰ ਚਿੱਠੇਕਾਰ ਪਾਠਕ ਤੁਹਾਡਾ ਅਖਬਾਰ ਹੀ ਪੜ੍ਹਦੇ ਹਨ । ਵੈਸੇ ਪਾਠਕ ਕੋਈ ਵੀ ਹੋਣ , ਕਿੰਨੇ ਹੀ ਕਿਉਂ ਨਹੀਂ ਹੋਣ ਕਿਸੇ ਬਹਿਸ ਅੰਜਾਮ ਤੋਂ ਪਹਿਲਾਂ ਛੱਡਣਾ ਹੋਰ ਮਾਧਿਅਮ ਵੀ ਨਹੀਂ ਚਾਹੁੰਦੇ ।				
3.	ਕੁੱਝ ਲੋਕਾਂ ਨੂੰ ਮਜਾ ਆਉਂਦਾ ਉਸੀ ਵਿਸ਼ਾ ਨੂੰ ਵਾਰ - ਵਾਰ ਛੇੜਨੇ ਵਿੱਚ ਤਾਂ ਤੁਸੀ ਕੀ ਕਰ ਸੱਕਦੇ ਹਨ ! ਪਰਕਾਸ਼ਨ ਦੀ ਅਜਾਦੀ ਹੈ ।				
4.	ਜਿੱਥੇ ਤੱਕ ਮੈਂ ਸੱਮਝਦਾ ਹਾਂ , ਹਿੰਦੀ ਦੇ ਚਿੱਠੇ ਹੁਏ ਬਹੁਤ ਹੀ ਸੀਮਿਤ ਮਜ਼ਮੂਨਾਂ ਪਰ ਲਿਖੇ ਜਾ ਰਹੇ ਹੋ । ਅਜਿਹੇ ਵਿਸ਼ਾ , ਜਿਨ੍ਹਾਂ ਵਿੱਚ ਸਾਰਾ ਨੇਟਪ੍ਰਯੋਕਤਾਵਾਂਦੀ ਕੋਈ ਦਿਲਚਸਪੀ ਨਹੀਂ ਹੈ । ਜਦੋਂ ਤੱਕ ਇਹ ਹਾਲ ਰਹੇਗਾ , ਸ਼ਾਇਦ ਹੀ ਹਿੰਦੀ ਚਿੱਠੀਆਂ ਦਾ ਪਾਠਕਵਰਗ ਵਿਕਸਿਤ ਹੋ ਸਕੇ ।				
5.	ਇਹ ਤਾਂ ਸੱਚ ਹੈ , ਹਿੰਦੀ ਦੀ ਕਈ ਪੋਸਟਾਂ ਨੂੰ ਬਿਨਾਂ ਬੈਕਗਰਾਉਂਡ ਜਾਣ ਕੋਈ ਸੱਮਝ ਨਹੀਂ ਸਕਦਾ ।				
6.	ਆਪ ਦੁਆਰਾ ਚੁੱਕਿਆ ਗਿਆ ਪ੍ਰਸ਼ਨ ਬਹੁਤ ਮਹੱਤਵ ਰੱਖਦਾ ਹੈ ।				
7.	ਬਹੁਤ ਠੀਕ ਲਿਖਿਆ ਹੈ ਤੁਸੀਂ , ਸਾਧੁਵਾਦ ! !				
8.	ਹੁਣ ਮੈਂ ਤੁਹਾਨੂੰ ਇੱਕ ਬੇਨਤੀ ਕਰਣਾ ਚਾਹਵਾਂਗਾ ।				
9.	ਜੇਕਰ ਹਿੰਦੀ ਅਤੇ ਹੋਰ ਭਾਰਤੀਭਾਸ਼ਾਵਾਂਲਈ ਇੱਕ ਵਧੀਆ ਟੇਕਸਟ ਏਨਾਲਿਸਿਸ ਦਾ ਔਜਾਰ (ਸਾਫਟਵੇਇਰ) ਬਣਾ ਸਕਣ ਤਾਂ ਭਾਰਤੀਭਾਸ਼ਾਵਾਂ ਦਾ ਬਹੁਤ ਭਲਾ ਹੋ				
10.	ਅਪੀਲ ਖਾਰਿਜ ਕਰ ਦਿੱਤੀ ਗਈ ਹੈ				
11.	ਜਿੱਥੇ ਤੱਕ ਸੰਭਵ ਹੋ				

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12.	ਬਿਲ ਠੀਕ - ਠੀਕ ਬਣਾਇਆ ਗਿਆ ਹੈ				
13.	ਕ੍ਰਿਪਾ ਇਸ ਬਾਰੇ ਵਿੱਚ ਗੰਭੀਰਤਾ ਤੋਂ ਵਿਚਾਰ ਕਰੋ ।				
14.	ਤੁਸੀ ਜਿਵੇਂ ਲੇਖੋ ਦਾ ਸਾਡੀ ਭਾਸ਼ਾ ਦੇ ਪ੍ਰਤੀ ਪਿਆਰ ਹਿ ਸਾਰਿਆ ਨੂੰ ਉਤਸ਼ਾਹਿਤ ਰੱਖਦਾ ਹੈ .				
15.	ਬਹੁਤ ਸੁੰਦਰ ਕੋਸ਼ਿਸ਼ ਲਈ ਵਧਾਈ . ਇੱਕ ਬਲਾਗ ਪੋਸਟ ਇਸ ਪਰ ਕੱਲ ਲਿਖਦਾ ਹਾਂ .				

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Appendix C

Test Data Set for Accuracy Test

Accuracy Evaluation:

The evaluators are provided with source text along with translated text. A highly intelligible output sentence need not be a correct translation of the source sentence. It is important to check whether the meaning of the source language sentence is preserved in the translation. This property is called accuracy.

Scoring:

The scoring is done based on the degree of intelligibility and comprehensibility. A Four point scale is made in which highest point is assigned to those sentences that look perfectly alike the target language and lowest point is assigned to the sentence which is un-understandable and unacceptable. The scale looks like:

Score 3 : Completely Faithful

Score 2: Fairly faithful: more than 50 % of the original information passes in the translation.

Score 1: Barely faithful: less than 50 % of the original information passes in the translation.

Score 0: Completely Unfaithful. Does not make sense.

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Accuracy Test - News

S.No.	Hindi Sentence	Punjabi Sentence	0	1	2	3
1.	मुंबई। रिजर्व बैंक ने शुक्रवार को कहा कि वैश्विक आर्थिक संकट के प्रभाव से देश की अर्थव्यवस्था के उबरने के बाद वह मुद्रास्फीति के अनुमानों और मध्यम काल में इसके परिणामों के प्रबंधन पर ध्यान देगा।	ਮੁੰਬਈ । ਰਿਜਰਵ ਬੈਂਕ ਨੇ ਸ਼ੁੱਕਰਵਾਰ ਨੂੰ ਕਿਹਾ ਕਿ ਸੰਸਾਰਿਕ ਆਰਥਕ ਸੰਕਟ ਦੇ ਪ੍ਰਭਾਵ ਨੂੰ ਦੇਸ਼ ਦੀ ਮਾਲੀ ਹਾਲਤ ਦੇ ਉੱਬਰਣ ਦੇ ਬਾਅਦ ਉਹ ਮੁਦਰਾਸਫੀਤੀ ਦੇ ਅੰਦਾਜ਼ੀਆਂ ਅਤੇ ਮੱਧ ਕਾਲ ਵਿੱਚ ਇਸਦੇ ਨਤੀਜੀਆਂ ਦੇ ਪਰਬੰਧਨ ਉੱਤੇ ਧਿਆਨ ਦੇਵੇਗਾ ।				
2.	वाशिंगटन। अमेरिकी बैंकों के स्ट्रेस टेस्ट का नतीजा आखिरकार आ ही गया।	ਵਾਸ਼ਿੰਗਟਨ । ਅਮਰੀਕੀ ਬੈਂਕਾਂ ਦੇ ਸਟਰੇਸ ਟੇਸਟ ਦਾ ਨਤੀਜਾ ਆਖ਼ਿਰਕਾਰ ਆ ਹੀ ਗਿਆ ।				
3.	जिन बैंकों को पूंजी की आवश्यकता है, उन्हें योजना बनाने के लिए 8 जून तक का समय दिया गया है।	ਜਿਨ੍ਹਾਂ ਬੈਂਕਾਂ ਨੂੰ ਪੂੰਜੀ ਦੀ ਲੋੜ ਹੈ , ਉਨ੍ਹਾਂਨੂੰ ਯੋਜਨਾ ਬਣਾਉਣ ਲਈ 8 ਜੁਨ ਤੱਕ ਦਾ ਸਮਾਂ ਦਿੱਤਾ ਗਿਆ ਹੈ ।				
4.	बैंकों को यह योजना अपने नियामकों से मंजूर करानी होगी।	ਬੈਂਕਾਂ ਨੂੰ ਇਹ ਯੋਜਨਾ ਆਪਣੇ ਨਿਆਮਕਾਂ ਤੋਂ ਮਨਜ਼ੂਰ ਕਰਵਾਣੀ ਹੋਵੇਗੀ ।				
5.	अधिकारियों का कहना है कि आर्थिक स्थिति में सुधार के लिए मजबूत बैंकिंग तंत्र जरूरी है।	ਅਧਿਕਾਰੀਆਂ ਦਾ ਕਹਿਣਾ ਹੈ ਕਿ ਆਰਥਕ ਹਾਲਤ ਵਿੱਚ ਸੁਧਾਰ ਲਈ ਮਜਬੂਤ ਬੈਂਕਿੰਗ ਤੰਤਰ ਜਰੂਰੀ ਹੈ ।				

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6.	इस टेस्ट से निवेशकों में यह भरोसा लौटेगा कि सारे बैंक कमजोर नहीं हैं।	ਇਸ ਟੇਸਟ ਤੋਂ ਨਿਵੇਸ਼ਕਾਂ ਵਿੱਚ ਇਹ ਭਰੋਸਾ ਪਰਤੇਗਾ ਕਿ ਸਾਰੇ ਬੈਂਕ ਕਮਜੋਰ ਨਹੀਂ ਹਨ ।				
7.	साथ ही कमजोर बैंकों में भी सुधार किया जा सकता है।	ਨਾਲ ਹੀ ਕਮਜੋਰ ਬੈਂਕਾਂ ਵਿੱਚ ਵੀ ਸੁਧਾਰ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ ।				
8.	विक्रम पंडित की अगुवाई वाली सिटी ने कहा कि वह 5.5 अरब डालर अतिरिक्त पूंजी जुटाने के लिए पब्लिक एक्सचेंज आफर का दायरा बढ़ाएगी।	ਵਿਕਰਮ ਪੰਡਤ ਦੀ ਅਗੁਵਾਈ ਵਾਲੀ ਸਿਟੀ ਨੇ ਕਿਹਾ ਕਿ ਉਹ 5 . 5 ਅਰਬ ਡਾਲਰ ਇਲਾਵਾ ਪੁੰਜੀ ਜੁਟਾਣ ਲਈ ਪਬਲਿਕ ਐਕਸਚੇਂਜ ਆਫਰ ਦਾ ਦਾਇਰਾ ਵਧਾਏਗੀ ।				
9.	न्यूयार्क। अमेरिकी शेयर बाजार बृहस्पतिवार को गिरावट के साथ बंद हुए।	ਨਿਊਯਾਰਕ । ਅਮਰੀਕੀ ਸ਼ੇਅਰ ਬਾਜ਼ਾਰ ਵੀਰਵਾਰ ਨੂੰ ਗਿਰਾਵਟ ਦੇ ਨਾਲ ਬੰਦ ਹੋਏ ।				
10.	उधर, बृहस्पतिवार को बाजार बंद होने के बाद सरकार ने प्रमुख बैंकों के स्ट्रेस टेस्ट के नतीजे घोषित किए जिनके मुताबिक देश के 10 प्रमुख बैंकों को अपने बचाव के लिए और नकदी एकत्रित करनी पड़ेगी।	ਉੱਧਰ , ਵੀਰਵਾਰ ਨੂੰ ਬਾਜ਼ਾਰ ਬੰਦ ਹੋਣ ਦੇ ਬਾਅਦ ਸਰਕਾਰ ਨੇ ਪ੍ਰਮੁੱਖ ਬੈਂਕਾਂ ਦੇ ਸਟਰੇਸ ਟੇਸਟ ਦੇ ਨਤੀਜੇ ਘੋਸ਼ਿਤ ਕੀਤੇ ਜਿਨ੍ਹਾਂ ਦੇ ਮੁਤਾਬਕ ਦੇਸ਼ ਦੇ 10 ਪ੍ਰਮੁੱਖ ਬੈਂਕਾਂ ਨੂੰ ਆਪਣੇ ਬਚਾਵ ਲਈ ਹੋਰ ਨਗਦੀ ਇਕੱਠੀ ਕਰਨੀ ਪਵੇਗੀ ।				
11.	वरूण गाँधी ने पीलीभीत में मुसलमानों के ख़िलाफ भड़काऊ भाषण दिए थे	ਵਰੁਣ ਗਾਂਧੀ ਨੇ ਪੀਲੀਭੀਤ ਵਿੱਚ ਮੁਸਲਮਾਨਾਂ ਦੇ ਖਿਲਾਫ ਭੜਕਾਊ ਭਾਸ਼ਣ ਦਿੱਤੇ ਸਨ				

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12.	इस मामले के प्रकाश में आने के बाद चुनाव आयोग के निर्देश पर वरुण गांधी के ख़िलाफ़ एफ़आईआर दर्ज हुई थी.	ਇਸ ਮਾਮਲੇ ਦੇ ਪ੍ਰਕਾਸ਼ ਵਿੱਚ ਆਉਣ ਦੇ ਬਾਅਦ ਚੋਣ ਕਮਿਸ਼ਨ ਦੇ ਨਿਰਦੇਸ਼ ਉੱਤੇ ਵਰੁਣ ਗਾਂਧੀ ਦੇ ਖਿਲਾਫ ਏਫਆਈਆਰ ਦਰਜ ਹੋਈ ਸੀ .				
13.	पहले ही वित्तीय वर्ष यानी वर्ष 2004-05 में केंद्र ने राज्य सरकार को 2831.82 करोड़ रूपए की राशि उपलब्ध कराई.	ਪਹਿਲਾਂ ਹੀ ਵਿੱਤੀ ਸਾਲ ਯਾਨੀ ਸਾਲ 2004 - 05 ਵਿੱਚ ਕੇਂਦਰ ਨੇ ਰਾਜ ਸਰਕਾਰ ਨੂੰ 2831 . 82 ਕਰੋੜ ਰੁਪਏ ਦੀ ਰਾਸ਼ੀ ਉਪਲੱਬਯ ਕਰਾਈ .				
14.	सपा के लिए पिछले चुनाव में जीती 32 में से अपनी 15 सीटों को बचाने की चुनौती है, जिनमें से लगभग आधा दर्जन सीटों की हार-जीत तो कल्याण फैक्टर की कसौटी पर ही कसा जाएगा।	ਸਪਾ ਲਈ ਪਿਛਲੇ ਚੋਣ ਵਿੱਚ ਜਿੱਤੀ 32 ਵਿੱਚੋਂ ਆਪਣੀ 15 ਸੀਟਾਂ ਨੂੰ ਬਚਾਉਣ ਦੀ ਚੁਣੇਤੀ ਹੈ , ਜਿਨ੍ਹਾਂ ਵਿੱਚੋਂ ਲੱਗਭੱਗ ਅੱਧਾ ਦਰਜਨ ਸੀਟਾਂ ਦੀ ਹਾਰ - ਜਿੱਤ ਤਾਂ ਕਲਿਆਣ ਫੈਕਟਰ ਦੀ ਕਸੌਟੀ ਉੱਤੇ ਹੀ ਕੱਸਿਆ ਜਾਵੇਗਾ ।				
15.	उन्होंने भाजपा नेताओं को इस तरह के बयान न देने की सलाह दी। इसके साथ ही शरद यादव ने विदेशी बैंकों में भारतीयों के जमा काले धन का मुद्दा फिर उठाया।	ਉਨ੍ਹਾਂਨੇ ਭਾਜਪਾ ਨੇਤਾਵਾਂ ਨੂੰ ਇਸ ਤਰ੍ਹਾਂ ਦੇ ਬਿਆਨ ਨਹੀਂ ਦੇਣ ਦੀ ਸਲਾਹ ਦਿੱਤੀ । ਇਸਦੇ ਨਾਲ ਹੀ ਸ਼ਰਦ ਯਾਦਵ ਨੇ ਵਿਦੇਸ਼ੀ ਬੈਂਕਾਂ ਵਿੱਚ ਭਾਰਤੀਆਂ ਦੇ ਜਮਾਂ ਕਾਲੇ ਯਨ ਦਾ ਮੁੱਦਾ ਫਿਰ ਚੁੱਕਿਆ ।				

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16.	राहुल ने कहा, "मनमोहन सिंह हमारे प्रधानमंत्री हैं, वो यूपीए के भी प्रधानमंत्री हैं."	ਰਾਹੁਲ ਨੇ ਕਿਹਾ , "ਮਨਮੋਹਨ ਸਿੰਘ ਸਾਡੇ ਪ੍ਰਧਾਨਮੰਤਰੀ ਹਨ , ਉਹ ਯੂਪੀਏ ਦੇ ਵੀ ਪ੍ਰਧਾਨਮੰਤਰੀ ਹਨ."				
17.	राहुल गांधी दो दिन के चुनाव प्रचार पर राजस्थान में हैं.	ਰਾਹੁਲ ਗਾਂਧੀ ਦੋ ਦਿਨ ਦੇ ਚੋਣ ਪ੍ਰਚਾਰ ਉੱਤੇ ਰਾਜਸਥਾਨ ਵਿੱਚ ਹਨ .				
18.	आर्थिक संकट का दबाव झेलने की क्षमता आंकने वाले इस टेस्ट में अमेरिका के 10 बड़े बैंक बेदम निकले हैं।	ਆਰਥਕ ਸੰਕਟ ਦਾ ਦਬਾਅ ਝੇਲਣ ਦੀ ਸਮਰੱਥਾ ਆਂਕਣ ਵਾਲੇ ਇਸ ਟੇਸਟ ਵਿੱਚ ਅਮਰੀਕਾ ਦੇ 10 ਵੱਡੇ ਬੈਂਕ ਬੇਦਮ ਨਿਕਲੇ ਹਨ ।				
19.	कंपनी की इस पहल से उसे अतिरिक्त सरकारी सहायता या सरकारी प्रतिभूतियों को सामान्य शेयरों में परिवर्तित किए बगैर अपना पूंजी आधार बढ़ाने में मदद मिलेगी।	ਕੰਪਨੀ ਦੀ ਇਸ ਪਹਿਲ ਤੋਂ ਉਸਨੂੰ ਹੋਰ ਸਰਕਾਰੀ ਸਹਾਇਤਾ ਜਾਂ ਸਰਕਾਰੀ ਪ੍ਰਤੀਭੂਤੀਏਂ ਨੂੰ ਇੱਕੋ ਜਿਹੇ ਸ਼ੇਅਰਾਂ ਵਿੱਚ ਪਰਿਵਰਤਿਤ ਕੀਤੇ ਬਿਨਾਂ ਆਪਣਾ ਪੂੰਜੀ ਆਧਾਰ ਵਧਾਉਣ ਵਿੱਚ ਮਦਦ ਮਿਲੇਗੀ ।				
20.	उन्होंने कहा कि राजग द्वारा इसे चुनावी मुद्दा बनाए जाने के बाद मजबूरी में मनमोहन सरकार अब कार्रवाई करने का दिखावा कर रही है।	ਉਨ੍ਹਾਂ ਨੇ ਕਿਹਾ ਕਿ ਰਾਜਗ ਦੁਆਰਾ ਇਸਨੂੰ ਚੁਨਾਵੀ ਮੁੱਦਾ ਬਣਾਏ ਜਾਣ ਦੇ ਬਾਅਦ ਮਜਬੂਰੀ ਵਿੱਚ ਮਨਮੋਹਣ ਸਰਕਾਰ ਹੁਣ ਕਾਰਵਾਈ ਕਰਣ ਦਾ ਦਿਖਾਵਾ ਕਰ ਰਹੀ ਹੈ ।				

21.	संपादकों के मुताबिक, "टाइम 100 संस्करण में हम उन लोगों का नाम देते हैं जो हमारी दुनिया को सबसे ज़्यादा प्रभावित करते हैं."	ਸੰਪਾਦਕਾਂ ਦੇ ਮੁਤਾਬਕ , ਟਾਇਮ 100 ਸੰਸਕਰਣ ਵਿੱਚ ਅਸੀ ਉਨ੍ਹਾਂ ਲੇਕਾਂ ਦਾ ਨਾਮ ਦਿੰਦੇ ਹਨ ਜੋ ਸਾਡੀ ਦੁਨੀਆ ਨੂੰ ਸਭਤੋਂ ਜ਼ਿਆਦਾ ਪ੍ਰਭਾਵਿਤ ਕਰਦੇ ਹਾਂ .				
22.	मेगास्टार अमिताभ बच्चन ने कल अपने संवैधानिक दायित्व का निर्वाह करने के साथ ही अपने सामाजिक दायित्व का भी बखूबी निर्वाह किया।	ਮੇਗਾਸਟਾਰ ਅਮੀਤਾਭ ਬੱਚਨ ਨੇ ਕੱਲ ਆਪਣੇ ਸੰਵਿਧਾਨਕ ਫਰਜ ਦਾ ਗੁਜਾਰਾ ਕਰਣ ਦੇ ਨਾਲ ਹੀ ਆਪਣੇ ਸਾਮਾਜਕ ਫਰਜ ਦਾ ਵੀ ਬਖੁਬੀ ਗੁਜਾਰਾ ਕੀਤਾ ।				
23.	इसके अलावा उप मुख्यमंत्री सुखबीर बादल ने भी इंटरनेट पर कई प्रोफाइल बना रखी है।	ਇਸਦੇ ਇਲਾਵਾ ਉਪ ਮੁੱਖਮੰਤਰੀ ਸੁਖਬੀਰ ਬਾਦਲ ਨੇ ਵੀ ਇੰਟਰਨੇਟ ਉੱਤੇ ਕਈ ਪ੍ਰੋਫਾਇਲ ਬਣਾ ਰੱਖੀ ਹੈ ।				
24.	हाल ही में लता मंगेशकर ने मधुर भंडारकर की फ़िल्म 'जेल' में एक धार्मिक गीत रिकॉर्ड किया है.	ਹਾਲ ਹੀ ਵਿੱਚ ਲਤਾ ਮੰਗੇਸ਼ਕਰ ਨੇ ਮਧੁਰ ਭੰਡਾਰਕਰ ਦੀ ਫਿਲਮ 'ਜੇਲੁ' ਵਿੱਚ ਇੱਕ ਧਾਰਮਿਕ ਗੀਤ ਰਿਕਾਰਡ ਕੀਤਾ ਹੈ .				
25.	हिमेश जी, बात तो सही है लेकिन कर्ज़ के हश्र के बाद आपको नहीं लगता कि दर्शकों का आपको हीरो के रुप में स्वीकार करना थोड़ा मुश्किल होगा.	ਹਿਮੇਸ਼ ਜੀ , ਗੱਲ ਤਾਂ ਠੀਕ ਹੈ ਲੇਕਿਨ ਕਰਜ ਦੇ ਹਾਲ ਦੇ ਬਾਅਦ ਤੁਹਾਨੂੰ ਨਹੀਂ ਲੱਗਦਾ ਕਿ ਦਰਸ਼ਕਾਂ ਦਾ ਤੁਹਾਨੂੰ ਹੀਰੇ ਦੇ ਰੂਪ ਵਿੱਚ ਸਵੀਕਾਰ ਕਰਣਾ ਥੋੜ੍ਹਾ ਮੁਸ਼ਕਲ ਹੋਵੇਗਾ .				

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26.	उन्होंने भी लोकसभा चुनाव में जीत का दावा किया है।	ਉਨ੍ਹਾਂਨੇ ਵੀ ਲੋਕਸਭਾ ਚੋਣ ਵਿੱਚ ਜਿੱਤ ਦਾ ਦਾਵਾ ਕੀਤਾ ਹੈ ।				
27.	फ़िल्म स्लमडॉग मिलियनेयर की बाल कलाकार रुबीना अली काफ़ी प्रसिद्ध हो गई हैं	ਫ਼ਿਲਮ ਸਲਮਡਾਗ ਮਿਲਿਅਨੇਇਰ ਦੀ ਬਾਲ ਕਲਾਕਾਰ ਰੁਬੀਨਾ ਅਲੀ ਕਾਫ਼ੀ ਪ੍ਰਸਿੱਧ ਹੋ ਗਈ ਹੈ				
28.	मैं इस परिवार को पिछले बीस सालों से जानता हूँ, रफ़ीक बहुत शरीफ आदमी है, वो ऐसी हरकत कभी नहीं करेगा	ਮੈਂ ਇਸ ਪਰਵਾਰ ਨੂੰ ਪਿਛਲੇ ਵੀਹ ਸਾਲਾਂ ਤੋਂ ਜਾਣਦਾ ਹਾਂ , ਰਫ਼ੀਕ ਬਹੁਤ ਸ਼ਰੀਫ ਆਦਮੀ ਹੈ , ਉਹ ਅਜਿਹੀ ਹਰਕੱਤ ਕਦੇ ਨਹੀਂ ਕਰੇਗਾ				
29.	करीना पूरे दिन घास से बने मचान पर तो कभी बैलगाड़ी पर मस्ती करती नजर आईं।	ਕਰੀਨਾ ਪੂਰੇ ਦਿਨ ਘਾਹ ਨਾਲ ਬਣੇ ਮਚਾਣ ਉੱਤੇ ਤਾਂ ਕਦੇ ਬੈਲਗਾੜੀ ਉੱਤੇ ਮਸਤੀ ਕਰਦੀ ਨਜ਼ਰ ਆਈ ।				
30.	शुक्रवार को करीना के आने के साथ ही शहर में सैफ के भी आने की उम्मीद लगाई जा रही थी।	ਸ਼ੁੱਕਰਵਾਰ ਨੂੰ ਕਰੀਨਾ ਦੇ ਆਉਣ ਦੇ ਨਾਲ ਹੀ ਸ਼ਹਿਰ ਵਿੱਚ ਸੈਫ ਦੇ ਵੀ ਆਉਣ ਦੀ ਉੱਮੀਦ ਲਗਾਈ ਜਾ ਰਹੀ ਸੀ ।				
31.	हाल में मोहमंद में हुई सैन्य कार्रवाई में 18 चरमपंथी मारे गए थे	ਹਾਲ ਵਿੱਚ ਮੋਹਮੰਦ ਵਿੱਚ ਹੋਈ ਫੌਜੀ ਕਾਰਵਾਈ ਵਿੱਚ 18 ਚਰਮਪੰਥੀ ਮਾਰੇ ਗਏ ਸਨ				
32.	ग़ौरतलब है कि पाकिस्तान के पश्चिमोत्तर में बुनेर में पिछले कुछ हफ़्तों में सेना और तालेबान चरमपंथियों के बीच भीषण संघर्ष हुआ है.	ਧਿਆਨ ਯੋਗ ਹੈ ਕਿ ਪਾਕਿਸਤਾਨ ਦੇ ਪਸ਼ਚਿਮੋੱਤਰ ਵਿੱਚ ਬੁਨੇਰ ਵਿੱਚ ਪਿਛਲੇ ਕੁੱਝ ਹਫਤੀਆਂ ਵਿੱਚ ਫੌਜ ਅਤੇ ਤਾਲੇਬਾਨ ਚਰਮਪੰਥੀਆਂ ਦੇ ਵਿੱਚ ਭੀਸ਼ਨ ਸੰਘਰਸ਼ ਹੋਇਆ ਹੈ				

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33.	इस्लामाबाद,। पाकिस्तान के गृह मंत्री रहमान मलिक ने सोमवार को कहा कि देश के अशांत पश्चिमोत्तर क्षेत्र में चल रहे एक बड़े सैन्य अभियान में करीब 700 तालिबान आतंकियों को मार गिराया गया है और सभी आतंकियों का खात्मा होने तक वहां सैन्य कार्रवाई जारी रहेगी।	ਇਸਲਾਮਾਬਾਦ । ਪਾਕਿਸਤਾਨ ਦੇ ਗ੍ਰਹ ਮੰਤਰੀ ਰਹਿਮਾਨ ਮਲਿਕ ਨੇ ਸੋਮਵਾਰ ਨੂੰ ਕਿਹਾ ਕਿ ਦੇਸ਼ ਦੇ ਬੇਚੈਨ ਪੱਛਿਮੌੱਤਰ ਖੇਤਰ ਵਿੱਚ ਚੱਲ ਰਹੇ ਇੱਕ ਵੱਡੇ ਫੌਜੀ ਅਭਿਆਨ ਵਿੱਚ ਕਰੀਬ 700 ਤਾਲਿਬਾਨ ਆਤੰਕੀਆਂ ਨੂੰ ਮਾਰ ਗਿਰਾਇਆ ਗਿਆ ਹੈ ਅਤੇ ਸਾਰੇ ਆਤੰਕੀਆਂ ਦਾ ਖਾਤਮਾ ਹੋਣ ਤੱਕ ਉੱਥੇ ਫੌਜੀ ਕਾਰਵਾਈ ਜਾਰੀ ਰਹੇਗੀ ।				
34.	गृह मंत्री ने कहा कि यह पूरे देश के लिए एक परीक्षा है।	ਗ੍ਰਹ ਮੰਤਰੀ ਨੇ ਕਿਹਾ ਕਿ ਇਹ ਪੂਰੇ ਦੇਸ਼ ਲਈ ਇੱਕ ਪਰੀਖਿਆ ਹੈ ।				
35.	पाकिस्तान के सीमावर्ती इलाक़ों में मिसाईल हमले होते रहे हैं और इसके लिए पाकिस्तान अमरीका पर आरोप लगाता रहा है.	ਪਾਕਿਸਤਾਨ ਦੇ ਸੀਮਾਵਰਤੀ ਇਲਾਕੀਆਂ ਵਿੱਚ ਮਿਸਾਈਲ ਹਮਲੇ ਹੁੰਦੇ ਰਹੇ ਹਨ ਅਤੇ ਇਸਦੇ ਲਈ ਪਾਕਿਸਤਾਨ ਅਮਰੀਕਾ ਤੇ ਇਲਜ਼ਾਮ ਲਗਾਉਂਦਾ ਰਿਹਾ ਹੈ .				
36.	प्रधानमंत्री के बयान की भाजपा ने भी आलोचना की है। दिल्ली प्रदेश के महामंत्री आरपी सिंह ने कहा कि प्रधानमंत्री ने पद की गरिमा धूमिल की है।	ਪ੍ਰਧਾਨਮੰਤਰੀ ਦੇ ਬਿਆਨ ਦੀ ਭਾਜਪਾ ਨੇ ਵੀ ਆਲੋਚਨਾ ਕੀਤੀ ਹੈ । ਦਿੱਲੀ ਪ੍ਰਦੇਸ਼ ਦੇ ਪ੍ਰਧਾਨ ਮੰਤਰੀ ਆਰਪੀ ਸਿੰਘ ਨੇ ਕਿਹਾ ਕਿ ਪ੍ਰਧਾਨਮੰਤਰੀ ਨੇ ਪਦ ਦੀ ਗਰਿਮਾ ਧੁਮੀਲ ਕੀਤੀ ਹੈ ।				

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37.	प्रधानमंत्री के सरकारी आवास पर हुई यह बातचीत इस मायने में महत्वपूर्ण है कि माओवादी नेता ने भारत पर नेपाल के अंदरूनी मामले में दखलंदाजी का आरोप लगाया था जिसे बाद में उन्होंने हल्का करने की कोशिश की थी।	ਪ੍ਰਧਾਨਮੰਤਰੀ ਦੇ ਸਰਕਾਰੀ ਘਰ ਤੇ ਹੋਈ ਇਹ ਗੱਲਬਾਤ ਇਸ ਮਾਅਨੇ ਵਿੱਚ ਮਹੱਤਵਪੂਰਣ ਹੈ ਕਿ ਮਾਓਵਾਦੀ ਨੇਤਾ ਨੇ ਭਾਰਤ ਤੇ ਨੇਪਾਲ ਦੇ ਅੰਦਰੂਨੀ ਮਾਮਲੇ ਵਿੱਚ ਦਖ਼ਲੰਦਾਜੀ ਦਾ ਇਲਜ਼ਾਮ ਲਗਾਇਆ ਸੀ ਜਿਨੂੰ ਬਾਅਦ ਵਿੱਚ ਉਨ੍ਹਾਂਨੇ ਹਲਕਾ ਕਰਣ ਦੀ ਕੋਸ਼ਿਸ਼ ਕੀਤੀ ਸੀ ।				
38.	गुजरात में 2002 में हुए दंगों के कुछ मामलों में प्रतिदिन सुनवाई के आधार पर फास्ट ट्रैक अदालतें गठित करने के सुप्रीमकोर्ट के आज के फैसले पर भाजपा ने यह प्रतिक्रिया दी है।	ਗੁਜਰਾਤ ਵਿੱਚ 2002 ਵਿੱਚ ਹੋਏ ਦੰਗੀਆਂ ਦੇ ਕੁੱਝ ਮਾਮਲੀਆਂ ਵਿੱਚ ਨਿੱਤ ਸੁਣਵਾਈ ਦੇ ਆਧਾਰ ਉੱਤੇ ਫਾਸਟ ਟ੍ਰੈਕ ਅਦਾਲਤਾਂ ਗਠਿਤ ਕਰਣ ਦੇ ਸੁਪਰੀਮ ਕੋਰਟ ਦੇ ਅਜੋਕੇ ਫੈਸਲੇ ਉੱਤੇ ਭਾਜਪਾ ਨੇ ਇਹ ਪ੍ਰਤੀਕਿਰਆ ਦਿੱਤੀ ਹੈ ।				
39.	मौसम विभाग ने अंडमान के सागर में मानसून की सालाना बारिश थोड़ा देर से होने की आशंका जताई है।	ਮੌਸਮ ਵਿਭਾਗ ਨੇ ਅੰਡਮਾਨ ਦੇ ਸਾਗਰ ਵਿੱਚ ਮਾਨਸੂਨ ਦੀ ਸਾਲਾਨਾ ਮੀਂਹ ਥੋੜ੍ਹਾ ਦੇਰ ਤੋਂ ਹੋਣ ਦੀ ਸੰਦੇਹ ਜਤਾਈ ਹੈ ।				
40.	विश्व की तीन सबसे मोटी बर्फीली परतों में से एक पश्चिमी अंटार्कटिका की तह है।	ਵਿੰਸ਼ਵ ਦੀ ਤਿੰਨ ਸਭਤੋਂ ਮੋਟੀ ਬਰਫੀਲੀ ਪਰਤਾਂ ਵਿੱਚੋਂ ਇੱਕ ਪੱਛਮ ਵਾਲਾ ਅੰਟਾਰਕਟੀਕਾ ਦੀ ਤਹ ਹੈ ।				
41.	फिलहाल डरने की जरूरत नहीं	ਫਿਲਹਾਲ ਡਰਨ ਦੀ ਜ਼ਰੂਰਤ ਨਹੀਂ				

42.	उनके और पाइट के विद्यार्थियों के बीच का संवाद बेहद रोचक रहा।	ਉਨ੍ਹਾਂ ਦੇ ਅਤੇ ਪਾਇਟ ਦੇ ਵਿਦਿਆਰਥੀਆਂ ਦੇ ਵਿੱਚ ਦਾ ਸੰਵਾਦ ਬੇਹੱਦ ਰੋਚਕ ਰਿਹਾ ।				
43.	इंदिरा गांधी राष्ट्रीय मुक्त विश्वविद्यालय [इग्नू] के छात्रों को उनकी मांग पर घर बैठे परीक्षा देने की सुविधा मिलने जा रही है।	ਇੰਦਰਾ ਗਾਂਧੀ ਰਾਸ਼ਟਰੀ ਅਜ਼ਾਦ ਯੂਨੀਵਰਸਿਟੀ [ਇਗਨੂ] ਦੇ ਵਿਦਿਆਰਥੀਆਂ ਨੂੰ ਉਨ੍ਹਾਂ ਦੀ ਮੰਗ ਪਰ ਘਰ ਬੈਠੇ ਪਰੀਖਿਆ ਦੇਣ ਦੀ ਸੁਵਿਧਾ ਮਿਲਣ ਜਾ ਰਹੀ ਹੈ ।				
44.	धोनी ने कप्तानी पारी खेली	ਧੋਨੀ ਨੇ ਕਪਤਾਨੀ ਪਾਰੀ ਖੇਡੀ				
45.	इसके बाद सचिन तेंदुलकर टीम की नैया पार लगाने के लिए मैदान पर आए लेकिन वह अधिक रन नहीं बना सके।	ਇਸਦੇ ਬਾਅਦ ਸਚਿਨ ਤੇਂਦੁਲਕਰ ਟੀਮ ਦੀ ਬੇੜੀ ਪਾਰ ਲਗਾਉਣ ਲਈ ਮੈਦਾਨ ਪਰ ਆਏ ਲੇਕਿਨ ਉਹ ਜਿਆਦਾ ਰਣ ਨਹੀਂ ਬਣਾ ਸਕੇ ।				
46.	राजस्थान की शुरुआत बेहद खराब रही और एक बार दबाव में आने के बाद उसके सभी बल्लेबाज अपना विकेट फेंककर चलते बने।	ਰਾਜਸਥਾਨ ਦੀ ਸ਼ੁਰੂਆਤ ਬੇਹੱਦ ਖ਼ਰਾਬ ਰਹੀ ਅਤੇ ਇੱਕ ਵਾਰ ਦਬਾਅ ਵਿੱਚ ਆਉਣ ਦੇ ਬਾਅਦ ਉਸਦੇ ਸਾਰੇ ਬੱਲੇਬਾਜ ਆਪਣਾ ਵਿਕੇਟ ਸੁੱਟਕੇ ਚਲਦੇ ਬਣੇ ।				
47.	विश्व बैडमिंटन चैंपियनशिप को तैयार भारत May 08, 06:45 pm	ਸੰਸਾਰ ਬੈਡਮਿੰਟਨ ਚੈਂਪਿਅਨਸ਼ਿਪ ਨੂੰ ਤਿਆਰ ਭਾਰਤ May 08 , 06 : 45 pm				

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48.	मोहन बागान अभी तक खाता नहीं खोल पाया है और ग्रुप में सबसे निचले स्थान पर है।	ਮੋਹਨ ਬਾਗਾਨ ਹੁਣੇ ਤੱਕ ਖਾਤਾ ਨਹੀਂ ਖੋਲ ਪਾਇਆ ਹੈ ਹੋਰ ਗਰੁਪ ਵਿੱਚ ਸਭਤੋਂ ਹੇਠਲੇ ਸਥਾਨ ਪਰ ਹੈ ।				
49.	दो गोल से बढ़त बनाने के बावजूद चीन के साथ 2-2 से ड्रा खेलने के बाद भारत मंगलवार को एशिया कप हाकी में सेमीफाइनल की दौड़ से बाहर हो गया जिससे खिताब बरकरार रखने का उसका ख्वाब भी चूर चूर हो गया।	ਦੋ ਗੋਲ ਨੂੰ ਵਾਧੇ ਬਣਾਉਣ ਦੇ ਬਾਵਜੂਦ ਚੀਨ ਦੇ ਨਾਲ 2 - 2 ਤੋਂ ਡਰਾ ਖੇਡਣ ਦੇ ਬਾਅਦ ਭਾਰਤ ਮੰਗਲਵਾਰ ਨੂੰ ਏਸ਼ਿਆ ਕਪ ਹਾਕੀ ਵਿੱਚ ਸੇਮੀਫਾਇਨਲ ਦੀ ਦੌੜ ਤੋਂ ਬਾਹਰ ਹੋ ਗਿਆ ਜਿਸਦੇ ਨਾਲ ਖਿਤਾਬ ਬਰਕਰਾਰ ਰੱਖਣ ਦਾ ਉਸਦਾ ਸੁੱਪਣਾ ਵੀ ਚੁਰ ਚੁਰ ਹੋ ਗਿਆ ।				
50.	सार्वजनिक क्षेत्र के आईडीबीआई बैंक ने भी एफडी पर ब्याज दरें आधा से एक फीसदी तक घटा दी हैं। नई दरें 21 मई से लागू होंगी।	ਸਾਰਵਜਨਿਕ ਖੇਤਰ ਦੇ ਆਈਡੀਬੀਆਈ ਬੈਂਕ ਨੇ ਵੀ ਏਫਡੀ ਉੱਤੇ ਵਿਆਜ ਦਰਾਂ ਅੱਧਾ ਤੋਂ ਇੱਕ ਫੀਸਦੀ ਤੱਕ ਘਟਾ ਦਿੱਤੀਆਂ ਹਨ । ਨਵੀਂ ਦਰਾਂ 21 ਮਈ ਤੋਂ ਲਾਗੂ ਹੋਵੇਗੀ				

Accuracy Test - Literature

S.No.	Hindi Sentence	Punjabi Sentence	0	1	2	3
1.	अगर तुझे वह चीज न मिले तो खबरदार इधर रूख न करना, वर्ना सूली पर खिंचवा दूँगी	ਜੇਕਰ ਤੈਨੂੰ ਉਹ ਚੀਜ ਨਹੀਂ ਮਿਲੇ ਤਾਂ ਖਬਰਦਾਰ ਏਧਰ ਰੁੱਖ ਨਹੀਂ ਕਰਣਾ , ਵਰਨਾ ਸੂਲੀ ਪਰ ਖਿੱਚਵਾ ਦੁੱਗੀ				
2.	इसकी सूचना ने अज्ञान बलिका को मुंह ढांप कर एक कोने में बिठा रखा है।	ਇਸਦੀ ਸੂਚਨਾ ਨੇ ਅਗਿਆਨ ਬਲਿਕਾ ਨੂੰ ਮੂੰਹ ਢਾਂਪ ਕਰ ਇੱਕ ਕੋਨੇ ਵਿੱਚ ਬਿਠਾ ਰੱਖਿਆ ਹੈ ।				
3.	संध्या का समय था, निर्मला छत पर जानकर अकेली बैठी आकाश की और तृषित नेत्रों से ताक रही थी।	ਸ਼ਾਮ ਦਾ ਸਮਾਂ ਸੀ , ਨਿਰਮਲਾ ਛੱਤ ਪਰ ਜਾਨਕੇ ਇਕੱਲੀ ਬੈਠੀ ਅਕਾਸ਼ ਕੀਤੀ ਹੋਰ ਤ੍ਰਿਸ਼ਿਤ ਨੇਤਰਾਂ ਤੋਂ ਵੇਖ ਰਹੀ ਸੀ ।				
4.	निर्मला- ने उदासीन भाव से कहा-तू जा, मैं न जाऊंगी।	ਨਿਰਮਲਾ - ਨੇ ਉਦਾਸੀਨ ਭਾਵ ਨੂੰ ਕਿਹਾ - ਤੂੰ ਜਾ , ਮੈਂ ਨਹੀਂ ਜਾਵਾਂਗੀ ।				
5.	बाग में फूल खिले हुए थे। मीठी-मीठी सुगन्ध आ रही थी। चैत की शीतल मन्द समीर चल रही थी।	ਬਾਗ ਵਿੱਚ ਫੁਲ ਖਿੜੇ ਹੋਏ ਸਨ । ਮਿੱਠੀ - ਮਿੱਠੀ ਸੁਗਂਧ ਆ ਰਹੀ ਸੀ । ਚੇਤ ਦੀ ਸੀਤਲ ਮੰਦ ਸਮੀਰ ਚੱਲ ਰਹੀ ਸੀ ।				
6.	यह कहकर कल्याणी कमरे के बाहर निकल गई।	ਇਹ ਕਹਿਕੇ ਕਲਿਆਣੀ ਕਮਰੇ ਦੇ ਬਾਹਰ ਨਿਕਲ ਗਈ ।				
7.	मुंशीजी तो भोजन करने गये और निर्मला द्वार की चौखट पर खड़ी सोच रही थी-भगवान।	ਮੁੰਸ਼ੀਜੀ ਤਾਂ ਭੋਜਨ ਕਰਣ ਗਏ ਅਤੇ ਨਿਰਮਲਾ ਦਵਾਰ ਦੀ ਚੌਖਟ ਪਰ ਖੜੀ ਸੋਚ ਰਹੀ ਸੀ - ਭਗਵਾਨ ।				
8.	साधु- कभी आ जाऊंगा बच्चा, तुम्हारा घर कहां है?	ਸਾਧੁ - ਕਦੇ ਆ ਜਾਵਾਂਗਾ ਬੱਚਾ , ਤੁਹਾਡਾ ਘਰ ਕਿੱਥੇ ਹੈ ?				

9.	एक दिन निर्मला ने सियाराम को घी लाने के लिए बाजार भेजा।	ਇੱਕ ਦਿਨ ਨਿਰਮਲਾ ਨੇ ਸਿਆਰਾਮ ਨੂੰ ਘੀ ਲਿਆਉਣ ਲਈ ਬਾਜ਼ਾਰ ਭੇਜਿਆ ।				
10.	माता-झूठ ने बोल! तूने पांच सौ रुपये के नोट नहीं भेजे थे?	ਮਾਤਾ - ਝੂਠ ਨੇ ਬੋਲ ! ਤੂੰ ਪੰਜ ਸੌ ਰੁਪਏ ਦੇ ਨੋਟ ਨਹੀਂ ਭੇਜੇ ਸਨ ?				
11.	क्या मेरी दशा को और भी दारुण बनाना चाहते हो?	ਕੀ ਮੇਰੀ ਹਾਲਤ ਨੂੰ ਹੋਰ ਵੀ ਦਾਰੁਣ ਬਣਾਉਣਾ ਚਾਹੁੰਦੇ ਹੋ ?				
12.	उस दिन से निर्मला का रंग-ढंग बदलने लगा।	ਉਸ ਦਿਨ ਤੋਂ ਨਿਰਮਲਾ ਦਾ ਰੰਗ - ਢੰਗ ਬਦਲਨ ਲਗਾ ।				
13.	क्या इन्हें सचमुच कोई भीषण रोग हो रहा है?	ਕੀ ਇਨ੍ਹਾਂ ਨੂੰ ਸਚਮੁੱਚ ਕੋਈ ਭੀਸ਼ਨ ਰੋਗ ਹੋ ਰਿਹਾ ਹੈ ?				
14.	निर्मला- तो मैं झूठ कहती हूं?	ਨਿਰਮਲਾ - ਤਾਂ ਮੈਂ ਝੂਠ ਕਹਿੰਦੀ ਹਾਂ ?				
15.	बेचारे लड़के को बार-बार दौड़ाया करती है। सौतेली मां है न! अपनी मां हो तो कुछ ख्याल भी करे।	ਬੇਚਾਰੇ ਮੁੰਡੇ ਨੂੰ ਵਾਰ - ਵਾਰ ਦੌੜਾਇਆ ਕਰਦੀ ਹੈ । ਮਤ੍ਰੇਈ ਮਾਂ ਹੈ ਨਹੀਂ ! ਆਪਣੀ ਮਾਂ ਹੋ ਤਾਂ ਕੁੱਝ ਖਿਆਲ ਵੀ ਕਰੇ ।				
16.	दाननाथ को ऐसी उत्तम स्पीच को न सुनने का अत्यंत शोक हुआ। बोले—यार, मैं जंम का अभागा हूँ। क्या अब फिर कोई व्याख्यान न होगा?	ਦਾਨਨਾਥ ਨੂੰ ਅਜਿਹੀ ਉੱਤਮ ਸਪੀਚ ਨੂੰ ਨਹੀਂ ਸੁਣਨ ਦਾ ਅਤਿਅੰਤ ਸੋਗ ਹੋਇਆ । ਬੋਲੇ—ਯਾਰ , ਮੈਂ ਜੰਮ ਦਾ ਅਭਾਗਾ ਹਾਂ । ਕੀ ਹੁਣ ਫਿਰ ਕੋਈ ਵਿਖਿਆਨ ਨਹੀਂ ਹੋਵੇਗਾ ?				

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17.	दाननाथ तो यह बातचीत करके अपने मकान को रवाना हुए और अमृतराय उसी अँधेरे में, बड़ी देर तक चुपचाप खड़े रहे।	ਦਾਨਨਾਥ ਤਾਂ ਇਹ ਗੱਲਬਾਤ ਕਰਕੇ ਆਪਣੇ ਮਕਾਨ ਨੂੰ ਰਵਾਨਾ ਹੋਏ ਅਤੇ ਅਮ੍ਰਿਤ ਰਾਇ ਉਸੀ ਹਨ੍ਹੇਰੇ ਵਿੱਚ , ਵੱਡੀ ਦੇਰ ਤੱਕ ਚੁਪਚਾਪ ਖੜੇ ਰਹੇ ।				
18.	आज भी, जब अमृतराय ने उससे अपने इरादे जाहिर किये तब उसेन सच्चे दिल से उनको समझाकर ऊँच नीच सुझाया।	ਅੱਜ ਵੀ , ਜਦੋਂ ਅਮ੍ਰਿਤ ਰਾਇ ਨੇ ਉਸਤੋਂ ਆਪਣੇ ਇਰਾਦੇ ਸਾਫ਼ ਕੀਤੇ ਤੱਦ ਉਸੇਨ ਸੱਚੇ ਦਿਲੋਂ ਉਨ੍ਹਾਂਨੂੰ ਸੱਮਝਾਕੇ ਉੱਚ ਨੀਚ ਸੁਝਾਇਆ ।				
19.	लाला बदरीप्रसाद अमृतराय के बाप के दोस्तों में थे और अगर उनसे अधिक प्रतिष्ठित न थे तो बहुत हेठे भी न थे। दोनो में लड़के-लड़की के ब्याह की बातचीत पक्की हो गयी थी।	ਲਾਲਾ ਬਦਰੀਪ੍ਰਸਾਦ ਅਮ੍ਰਿਤ ਰਾਇ ਦੇ ਬਾਪ ਦੇ ਦੋਸਤਾਂ ਵਿੱਚ ਸਨ ਅਤੇ ਜੇਕਰ ਉਨ੍ਹਾਂ ਨੂੰ ਜਿਆਦਾ ਇੱਜ਼ਤ ਵਾਲਾ ਨਹੀਂ ਸਨ ਤਾਂ ਬਹੁਤ ਹੇਠੇ ਵੀ ਨਹੀਂ ਸਨ । ਦੋਨੋਂ ਵਿੱਚ ਮੁੰਡੇ - ਕੁੜੀ ਦੇ ਵਿਆਹ ਦੀ ਗੱਲਬਾਤ ਪੱਕੀ ਹੋ ਗਈ ਸੀ ।				
20.	पूर्णा ने आते ही सब स्त्रियों को वहाँ से हटा दिया, प्रेमा को इत्र सुघाया केवडे और गुलाब का छींटा मुख पर मारा। धीरे धीरे उसके तलवे सहलाये, सब खिड़कियाँ खुलवा दीं।	ਦਸਮੀਂ ਨੇ ਆਉਂਦੇ ਹੀ ਸਬ ਸਤਰੀਆਂ ਨੂੰ ਉੱਥੇ ਨੂੰ ਹਟਾ ਦਿੱਤਾ , ਪ੍ਰੇਮਾ ਨੂੰ ਇਤਰ ਸੁਘਾਇਆ ਕੇਵਡੇ ਅਤੇ ਗੁਲਾਬ ਦਾ ਛੀਂਟਾ ਮੂੰਹ ਪਰ ਮਾਰਿਆ । ਹੌਲੀ - ਹੌਲੀ ਉਸਦੇ ਤਲਵੇ ਸਹਲਾਏ , ਸਬ ਖਿੜਕੀਆਂ ਖੁੱਲੁਵਾ ਦਿੱਤੀ ।				

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21.	मिस्टर शर्मा—(मूँछो पर हाथ फेरकर) वह ताजा खबर लाया हूँ कि आप लोग सुनकर फड़क जायँगे।	ਮਿਸਟਰ ਸ਼ਰਮਾ— (ਮੁੱਛੇ ਪਰ ਹੱਥ ਫੇਰਕੇ) ਉਹ ਤਾਜ਼ਾ ਖਬਰ ਲਿਆਇਆ ਹਾਂ ਕਿ ਤੁਸੀ ਲੋਕ ਸੁਣਕੇ ਫੜਫੜਾਹਟ ਜਾਇੰਗੇ ।				
22.	खुलासा यह कि अमृतराय को यहाँ से सत्तरह हजार रूपया मिला। मुंशी बदरीप्रसाद ने अकेले बारह हजार दिया जो उनकी उम्मेद से बहुत ज्यादा था।	ਖੁਲਾਸਾ ਇਹ ਕਿ ਅਮ੍ਰਿਤਰਾਏ ਨੂੰ ਇੱਥੇ ਤੋਂ ਸੱਤਰਹ ਹਜਾਰ ਰੂਪਯਾ ਮਿਲਿਆ । ਮੁਨਸ਼ੀ ਬਦਰੀਪ੍ਰਸਾਦ ਨੇ ਇਕੱਲੇ ਬਾਰਾਂ ਹਜਾਰ ਦਿੱਤਾ ਜੋ ਉਨ੍ਹਾਂ ਦੀ ਉਮੇਦ ਤੋਂ ਬਹੁਤ ਜ਼ਿਆਦਾ ਸੀ ।				
23.	राम—(मुस्कराकर) चुप। ऐसा भी कोई कहता है।	ਰਾਮ— (ਮੁਸਕਰਾਕੇ) ਚੁਪ । ਅਜਿਹਾ ਵੀ ਕੋਈ ਕਹਿੰਦਾ ਹੈ ।				
24.	अपने दिल का परिचय उसको एक दिन यों मिला कि बाबू अमृतराय नियत समय पर नहीं आये। थोड़ी देर तक तो वह उनकी राह देखती रही मगर जब वह अब भी न आये तब तो उसका दिल कुछ मसोसने लगा। बड़ी व्याकुलता से दौड़ी हुई दीवाजे पर आयी और आध घंटे तक कान लगाये खड़ी रही, फिर भीतर आयी और मन मारकर बैठ गयी।	ਆਪਣੇ ਦਿਲ ਦਾ ਜਾਣ ਪਹਿਚਾਣ ਉਹਨੂੰ ਇੱਕ ਦਿਨ ਇੰਜ ਮਿਲਿਆ ਕਿ ਬਾਬੂ ਅਮ੍ਰਿਤ ਰਾਇ ਨਿਅਤ ਸਮਾਂ ਪਰ ਨਹੀਂ ਆਏ । ਥੋੜ੍ਹੀ ਦੇਰ ਤੱਕ ਤਾਂ ਉਹ ਉਨ੍ਹਾਂ ਦੀ ਰੱਸਤਾ ਵੇਖਦੀ ਰਹੀ ਮਗਰ ਜਦੋਂ ਉਹ ਹੁਣ ਵੀ ਨਹੀਂ ਆਏ ਤੱਦ ਤਾਂ ਉਸਦਾ ਦਿਲ ਕੁੱਝ ਮਸੋਸਨੇ ਲਗਾ । ਵੱਡੀ ਵਿਆਕੁਲਤਾ ਤੋਂ ਦੌੜੀ ਹੋਈ ਦੀਵਾਜੇ ਪਰ ਆਈ ਅਤੇ ਆਧ ਘੰਟੇ ਤੱਕ ਕੰਨ ਲਗਾਏ ਖੜੀ ਰਹੀ , ਫਿਰ ਅੰਦਰ ਆਈ ਅਤੇ ਮਨ ਮਾਰਕੇ ਬੈਠ ਗਈ ।				

25.	अमृतराय—(दबी जबान से) वह सब कहार मेरे नौकर हैं।	ਅਮ੍ਰਿਤਰਾਏ— (ਦੱਬੀ ਜਬਾਨ ਤੋਂ) ਉਹ ਸਭ ਕਹਾਰ ਮੇਰੇ ਨੈਕਰ ਹੈ ।				
26.	अमृत०—देखे अब कब भाग्य जागता है। मैं तो बहुत जल्दी मचा रहा हूं।	ਅਮ੍ਰਿਤ੦—ਵੇਖੇ ਹੁਣ ਕਦੋਂ ਕਿਸਮਤ ਜਾਗਦਾ ਹੈ । ਮੈਂ ਤਾਂ ਬਹੁਤ ਜਲਦੀ ਮਚਾ ਰਿਹਾ ਹਾਂ ।				
27.	मै तुमसे कोई अनुचित बात नहीं चाहता।	ਮੈ ਤੁਹਾਡੇ ਤੋਂ ਕੋਈ ਅਣ-ਉਚਿਤ ਗੱਲ ਨਹੀਂ ਚਾਹੁੰਦਾ ।				
28.	उनके ज़रा से इशारे पर मैं अपने को निछावर कर सकती हूँ।	ਉਨ੍ਹਾਂ ਦੇ ਜਰਾ ਤੋਂ ਇਸ਼ਾਰੇ ਪਰ ਮੈਂ ਆਪਣੇ ਨੂੰ ਨਿਛਾਵਰ ਕਰ ਸਕਦੀ ਹਾਂ ।				
29.	बिल्लो—दे क्यों नहीं गया।	ਬਿੱਲਾਂ—ਦੇ ਕਿਉਂ ਨਹੀਂ ਗਿਆ ।				
30.	कुछ दिनों से पंडाइन औरचौबाइन आदि ने भी पूर्णा के बनाव-चुनाव पर नाक-भौं चढ़ाना छोड़ दिया था।	ਕੁੱਝ ਦਿਨਾਂ ਤੋਂ ਪੰਡਾਇਨ ਔਰਚੌਬਾਇਨ ਆਦਿ ਨੇ ਵੀ ਦਸਮੀਂ ਦੇ ਰਚਨਾ - ਚੋਣ ਪਰ ਨੱਕ - ਭਰਵੱਟਾ ਚੜ੍ਹਾਨਾ ਛੱਡ ਦਿੱਤਾ ਸੀ ।				
31.	उसने आते ही हुक्म दिया कि भीड़ हटा दी जाय।	ਉਸਨੇ ਆਉਂਦੇ ਹੀ ਹੁਕਮ ਦਿੱਤਾ ਕਿ ਭੀੜ ਹਟਾ ਦਿੱਤੀ ਜਾਵੇ ।				
32.	शादी के चौथे दिन बाद पूर्णा बैठी हुई थी कि एक औरत ने आकर उसके एक बंद लिफाफा दिया।	ਵਿਆਹ ਦੇ ਚੌਥੇ ਦਿਨ ਬਾਅਦ ਦਸਮੀਂ ਬੈਠੀ ਹੋਈ ਸੀ ਕਿ ਇੱਕ ਔਰਤ ਨੇ ਆਕੇ ਉਸਦੇ ਇੱਕ ਬੰਦ ਲਿਫਾਫਾ ਦਿੱਤਾ ।				

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33.	चम्मन—चौधरी कह गये हैं किआज इनकेर काम न छोड़ देहों तो टाट बाहर कर दीन जैही।	ਚੰਮਨ ਚੌਧਰੀ— ਕਹਿ ਗਏ ਹਨ ਕਿਆਜ ਇਨਕੇਰ ਕੰਮ ਨਹੀਂ ਛੱਡ ਦੇਹਾਂ ਤਾਂ ਟਾਟ ਬਾਹਰ ਕਰ ਦੀਨ ਜੈਹੀ । ਇੱਕ ਦਿਨ ਵ੍ਰਜਰਾਨੀ ਸੁਵਾਮਾ ਦੇ ਸਿਰਹਾਨੇ ਬੈਠੀ ਪੱਖਾ ਝਲ ਰਹੀ ਸੀ ।				
34.	एक दिन वृजरानी सुवामा के सिरहाने बैठी पंखा झल रही थी।	ਇੱਕ ਦਿਨ ਵ੍ਰਜਰਾਨੀ ਸੁਵਾਮਾ ਦੇ ਸਿਰਹਾਨੇ ਬੈਠੀ ਪੱਖਾ ਝਲ ਰਹੀ ਸੀ ।				
35.	प्रताप-तो भई, एक दिन मुझे भी नेवता दो।	ਪ੍ਰਤਾਪ - ਤਾਂ ਭਈ , ਇੱਕ ਦਿਨ ਮੈਨੂੰ ਵੀ ਨੇਵਤਾ ਦੇ ।				
36.	नवीन मिट्टी की मीठी-मीठी सुगन्ध आ रही है।	ਨਵੀਨ ਮਿੱਟੀ ਦੀ ਮਿੱਠੀ - ਮਿੱਠੀ ਸੁਗੰਧ ਆ ਰਹੀ ਹੈ ।				
37.	सेवती-मैं तो बिन गीत सुने आज तुम्हारा पीछा न छोड़ूंगी।	ਚਿੱਟਾ ਗੁਲਾਬ - ਮੈਂ ਤਾਂ ਬਿਨਾਂ ਗੀਤ ਸੁਣੇ ਅੱਜ ਤੁਹਾਡਾ ਪਿੱਛਾ ਨਹੀਂ ਛੋਡੁੰਗੀ ।				
38.	राजा ने कहा "अच्छी बात है।"	ਰਾਜਾ ਨੇ ਕਿਹਾ "ਚੰਗੀ ਗੱਲ ਹੈ । "				
39.	तीन दिन बीतने पर बुढ़िया फिर वहाँ पहुँची।	ਤਿੰਨ ਦਿਨ ਗੁਜ਼ਰਨ ਪਰ ਬੁੱਢੀ ਫਿਰ ਉੱਥੇ ਪਹੁੰਚੀ ।				
40.	स्त्री रोने लगी। एक मुसाफ़िर उधर जा रहा था।	ਇਸਤਰੀ ਰੋਣ ਲੱਗੀ । ਇੱਕ ਮੁਸਾਫਰ ਉੱਧਰ ਜਾ ਰਿਹਾ ਸੀ ।				
41.	सेठ अपने जमाई से मिलकर बड़े प्रसन्न हुए और उन्होंने उसे बड़ी अच्छी तरह से घर में रखा।	ਸੇਠ ਆਪਣੇ ਜਵਾਈ ਤੋਂ ਮਿਲਕੇ ਵੱਡੇ ਖੁਸ਼ ਹੋਏ ਅਤੇ ਉਨ੍ਹਾਂਨੇ ਉਸਨੂੰ ਵੱਡੀ ਚੰਗੀ ਤਰ੍ਹਾਂ ਤੋਂ ਘਰ ਵਿੱਚ ਰੱਖਿਆ ।				

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42.	लगता है यह दरजी लोभी है। यह हमको खिलाना नहीं चाहता, इसलिए यह सारा नाटक कर रहा है।	ਲੱਗਦਾ ਹੈ ਇਹ ਦਰਜ਼ੀ ਲੋਭੀ ਹੈ । ਇਹ ਸਾਨੂੰ ਖਵਾਉਣਾ ਨਹੀਂ ਚਾਹੁੰਦਾ , ਇਸਲਈ ਇਹ ਸਾਰਾ ਡਰਾਮਾ ਕਰ ਰਿਹਾ ਹੈ ।				
43.	राजा मुझसे डर गया।	ਰਾਜਾ ਮੇਰੇ ਤੋਂ ਡਰ ਗਿਆ ।				
44.	पार्वती को दया आ गई, और उन्होने शंकर से विनती की कि जैसे भी बने, वे गिलहरी को फिर से स्त्री बना दें।	ਪਾਰਬਤੀ ਨੂੰ ਤਰਸ ਆ ਗਈ , ਅਤੇ ਉਨ੍ਹਾਂ ਨੇ ਸ਼ੰਕਰ ਤੋਂ ਪ੍ਰਾਰਥਨਾ ਦੀ ਕਿ ਜਿਵੇਂ ਵੀ ਬਣੇ , ਉਹ ਗਿਲਹਰੀ ਨੂੰ ਫਿਰ ਤੋਂ ਇਸਤਰੀ ਬਣਾ ਦਿਓ ।				
45.	रूस में एक बहुत बड़े लेखक हुए हैं, इतने बड़े कि सारी दुनिया उन्हें जानती है।	ਰੂਸ ਵਿੱਚ ਇੱਕ ਬਹੁਤ ਵੱਡੇ ਲੇਖਕ ਹੋਏ ਹੈ , ਇਨ੍ਹੇ ਵੱਡੇ ਕਿ ਸਾਰੀ ਦੁਨੀਆ ਉਨ੍ਹਾਂਨੂੰ ਜਾਣਦੀ ਹੈ ।				
46.	रवीन्द्र ठाकुर की एक बड़ी ही सीख देने वाली रचना है।	ਰਵੀਂਦਰ ਠਾਕੁਰ ਦੀ ਇੱਕ ਵੱਡੀ ਹੀ ਸੀਖ ਦੇਣ ਵਾਲੀ ਰਚਨਾ ਹੈ ।				
47.	देवदूत चला गया और अगले दिन जब वह लौटा तो उसके हाथ में उन आदमियों की सूची थी	ਦੇਵਦੂਤ ਚਲਾ ਗਿਆ ਅਤੇ ਅਗਲੇ ਦਿਨ ਜਦੋਂ ਉਹ ਪਰਤਿਆ ਤਾਂ ਉਸਦੇ ਹੱਥ ਵਿੱਚ ਉਨ੍ਹਾਂ ਬੰਦੀਆਂ ਦੀ ਸੂਚੀ ਸੀ				
48.	आदमी को भूमि से कितना मोह होता है।	ਆਦਮੀ ਨੂੰ ਭੂਮੀ ਤੋਂ ਕਿੰਨਾ ਮੋਹ ਹੁੰਦਾ ਹੈ ।				
49.	कहने का मतलब यह कि हर आदमी अपनी क्षमता के अनुसार काम करे और जरूरत के अनुसार पाये	ਕਹਿਣ ਦਾ ਮਤਲੱਬ ਇਹ ਕਿ ਹਰ ਆਦਮੀ ਆਪਣੀ ਸਮਰੱਥਾ ਦੇ ਅਨੁਸਾਰ ਕੰਮ ਕਰੇ ਹੋਰ ਜ਼ਰੂਰਤ ਦੇ ਅਨੁਸਾਰ ਪਾਏ				

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| 50. | हम आशा करते हैं कि पाठक इन पुस्तकों को बड़े चाव से पढ़ेंगे, दूसरों की पढ़वाये और इनका भरपूर लाभ लेंगे। | ਅਸੀ ਆਸ ਕਰਦੇ ਹਾਂ ਕਿ ਪਾਠਕ ਇਸ ਕਿਤਾਬਾਂ ਨੂੰ ਵੱਡੇ ਚਾਵ ਨਾਲ ਪੜਾਂਗੇ , ਦੂਸਰੀਆਂ ਦੀ ਪੜਵਾਏ ਅਤੇ ਇਨ੍ਹਾਂ ਦਾ ਭਰਪੂਰ ਮੁਨਾਫਾ ਲੈਣਗੇ । | | | | |

Accuracy Test - Articles

S.No.	Hindi Sentence	Punjabi Sentence	0	1	2	3
1.	एनीमिया (Anemia) के कारण महिलाओं में थकान, उठने बैठने और खडे होने मे चक्र आना, काम करने का मन न करना, शरीर मे तापमान की कमी, तव्चा मे पीलापन, दिल मे असामान्य धड़कन, सांस लेने मे तकलीफ, सीने मे दर्द, तलवो व हथेलियों मे ठंडापन और लगातार रहने वाला सिर मे दर्द होता है।	ਐਨੀਮਿਆ (Anemia) ਦੇ ਕਾਰਨ ਔਰਤਾਂ ਵਿੱਚ ਥਕਾਣ , ਉੱਠਣ ਬੈਠਣ ਹੋਰ ਖੜੇ ਹੋਣ ਵਿੱਚ ਚੱਕਰ ਆਣਾ , ਕੰਮ ਕਰਣ ਦਾ ਮਨ ਨਹੀਂ ਕਰਣਾ , ਸਰੀਰ ਵਿੱਚ ਤਾਪਮਾਨ ਦੀ ਕਮੀ , ਤਵਚਾ ਵਿੱਚ ਪਿਲੱਤਣ , ਦਿਲ ਵਿੱਚ ਗੈਰ - ਮਾਮੂਲੀ ਧੜਕਨ , ਸਾਂਸ ਲੈਣ ਵਿੱਚ ਤਕਲੀਫ , ਸੀਨੇ ਵਿੱਚ ਦਰਦ , ਤਲਵਾਂ ਅਤੇ ਹਥੇਲੀਆਂ ਵਿੱਚ ਠੰਡਾਪਨ ਹੋਰ ਲਗਾਤਾਰ ਰਹਿਣ ਵਾਲਾ ਸਿਰ ਵਿੱਚ ਦਰਦ ਹੁੰਦਾ ਹੈ ।				
2.	गर्भावस्था (pregnancy) के दौरान पेट मे तीव्र दर्द और योनी से रक्त स्राव होने लगे तो इसे गंभीरता से लें तथा डाक्टर को तत्काल बताएं।	ਗਰਭਾਵਸਥਾ (pregnancy) ਦੇ ਦੌਰਾਨ ਢਿੱਡ ਵਿੱਚ ਤੀਵਰ ਦਰਦ ਅਤੇ ਯੋਨੀ ਤੋਂ ਰਕਤ ਸਰਾਵ ਹੋਣ ਲੱਗੇ ਤਾਂ ਇਸਨੂੰ ਗੰਭੀਰਤਾ ਤੋਂ ਲਵੇਂ ਅਤੇ ਡਾਕਟਰ ਨੂੰ ਤੱਤਕਾਲ ਦੱਸੀਏ ।				

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3.	**सामग्री:**150 ग्राम अरहर दाल, 20 ग्राम मूंगफली, 100 ग्राम गुड, 100 मि. ली. तेल, 15 ग्राम दालचिनी, 3 ग्राम हींग, 5 ग्राम ईमली, 5 ग्राम अदरक, 5 ग्राम नमक, 3 ग्राम हलदी, 5 ग्राम हरीमिर्च, 5 ग्राम, 3 ग्राम करीपत्ता, 3 ग्राम नारियल (कसा हुआ), धनिया बारीक कटी हुइ ।	ਸਾਮਗਰੀ : 150 ਗਰਾਮ ਅਰਹਰ ਦਾਲ , 20 ਗਰਾਮ ਮੁੰਗਫਲੀ , 100 ਗਰਾਮ ਗੁਡ , 100 ਮਿ . ਲਈ . ਤੇਲ , 15 ਗਰਾਮ ਦਾਲਚੀਨੀ , 3 ਗਰਾਮ ਹੀਂਗ , 5 ਗਰਾਮ ਈਮਲੀ , 5 ਗਰਾਮ ਅਦਰਕ , 5 ਗਰਾਮ ਲੂਣ , 3 ਗਰਾਮ ਹਲਦੀ , 5 ਗਰਾਮ ਹਰੀਮੀਰਚ , 5 ਗਰਾਮ , 3 ਗਰਾਮ ਕਰੀਪੱਤਾ , 3 ਗਰਾਮ ਨਾਰੀਅਲ (ਕੱਸਿਆ ਹੋਇਆ) , ਧਨਿਆ ਬਰੀਕ ਕਟੀ ਹੁਇ ।			
4.	**आइसक्रीम के दाग:-**अगर आइसक्रीम के दाग कपडों मे लग जाए तो अमोनिया का घोल डालें ।	ਆਇਸਕਰੀਮ ਦੇ ਦਾਗ : - ਜੇਕਰ ਆਇਸਕਰੀਮ ਦੇ ਦਾਗ ਕਪੜੋਂ ਵਿੱਚ ਲੱਗ ਜਾਵੇ ਤਾਂ ਅਮੋਨਿਆ ਦਾ ਘੋਲ ਪਾਓ ।			
5.	चावल की खीर बनाते समय शकर के साथ थोडा सा नमक मिलाने से खीर का स्वाद और बढ जाता है।	ਚਾਵਲ ਦੀ ਖੀਰ ਬਣਾਉਂਦੇ ਸਮਾਂ ਸ਼ਕਰ ਦੇ ਨਾਲ ਥੋੜਾ ਜਿਹਾ ਲੂਣ ਮਿਲਾਉਣ ਤੋਂ ਖੀਰ ਦਾ ਸਵਾਦ ਹੋਰ ਬਢ ਜਾਂਦਾ ਹੈ ।			
6.	सोने दे जेवर पर पिसी हल्दी लगा कर मसलने से वे चमकने लगते हैं।	ਸੋਣ ਦੇ ਜੇਵਰ ਤੇ ਪਿਸੀ ਹਲਦੀ ਲੱਗਾ ਕੇ ਮਸਲਨੇ ਤੋਂ ਉਹ ਚਮਕਣ ਲੱਗਦੇ ਹੈ ।			
7.	कभी भी इसका स्पिनर खाली न चलने दें।	ਕਦੇ ਵੀ ਇਸਦਾ ਸਪੀਨਰ ਖਾਲੀ ਨਹੀਂ ਚਲਣ ਦਿਓ ।			

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8.	आजकल की महिलाएं नौकरीपेशा वाली हैं इसलिए ज्यादा समय घर से बाहर बिताती हैं संयुक्त परिवारों मे या जिन के माता पिता घर पर रहते है उन्हे बच्चों की देखबाल की समस्या नही होती है परन्तु एकल परिवारों मे मां के दफतर जाने के बाद बच्चे की देखबाल के लिए कोई नही रहता इसलिए महिलाएं अपने बच्चों के लिय आया का इंतजाम करती है।	ਅੱਜਕੱਲ੍ਹ ਦੀਆਂ ਮਹਿਲਾਵਾਂ ਨੌਕਰੀਪੇਸ਼ਾ ਵਾਲੀਆਂ ਹਨ ਇਸਲਈ ਜਿਆਦਾ ਸਮਾਂ ਘਰ ਤੋਂ ਬਾਹਰ ਗੁਜ਼ਾਰਦੀਆਂ ਹਨ ਸੰਯੁਕਤ ਪਰਵਾਰਾਂ ਵਿੱਚ ਜਾਂ ਜਿਨ੍ਹਾਂ ਦੇ ਮਾਤਾ ਪਿਤਾ ਘਰ ਤੇ ਰਹਤੇ ਹੈ ਉਨ੍ਹਾਂ ਨੂੰ ਬਚਚਾਂ ਦੀ ਦੇਖਬਾਲ ਦੀ ਸਮੱਸਿਆ ਨਹੀ ਹੁੰਦੀ ਹੈ ਪਰ ਏਕਲ ਪਰਵਾਰਾਂ ਵਿੱਚ ਮਾਂ ਦੇ ਦਫਤਰ ਜਾਣ ਦੇ ਬਾਅਦ ਬਚਚੇ ਦੀ ਦੇਖਬਾਲ ਲਈ ਕੋਈ ਨਹੀ ਰਹਿੰਦਾ ਇਸਲਈ ਮਹਿਲਾਵਾਂ ਆਪਣੇ ਬਚਚਾਂ ਦੇ ਲਿਅ ਆਇਆ ਦਾ ਇੰਤਜਾਮ ਕਰਦੀ ਹੈ ।				
9.	अपने जीवन उदेश्य को जानना और उसे प्राप्त करने के लिए ढृढ आत्मविशवास रखना, यही सफलता की ओर पहला कदम है ।	ਆਪਣੇ ਜੀਵਨ ਉਦੇਸ਼ਿਅ ਨੂੰ ਜਾਨਣਾ ਅਤੇ ਉਸਨੂੰ ਪ੍ਰਾਪਤ ਕਰਣ ਲਈ ਦ੍ਰੁਢ ਆਤਮਵੀਸ਼ਵਾਸ ਰੱਖਣਾ , ਇਹੀ ਸਫਲਤਾ ਦੇ ਵੱਲ ਪਹਿਲਾ ਕਦਮ ਹੈ ।				
10.	भक्त का भगवान से, मानव का ईश्वर से, व्यष्टि का समष्टि से, पिण्ड का ब्रह्माण्ड से मिलन को ही योग कहा गया है	ਭਗਤ ਦਾ ਭਗਵਾਨ ਤੋਂ , ਮਨੁੱਖ ਦਾ ਰੱਬ ਤੋਂ , ਸਫਲਤਾ ਦਾ ਸਾਰੇ ਤੋਂ , ਪਿੰਡ ਦਾ ਬਰਹਮੰਡ ਤੋਂ ਮਿਲਣ ਨੂੰ ਹੀ ਯੋਗ ਕਿਹਾ ਗਿਆ ਹੈ				

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11.	मिजोरम के एक 64 वर्षीय व्यक्ति जियोन की 50 पत्नियां और 100 बच्चे हैं। मिजोरम से लगभग 80 किमी दूर बक्तवांग गांव का निवासी जियोन अपने परिवार के 180 से अधिक सद्स्यों के साथ पृथ्वी पर सबसे बडे परिवार के मुखिया के रुप मे जाना जाता है।	ਮਿਜੋਰਮ ਦੇ ਇੱਕ 64 ਸਾਲ ਦਾ ਵਿਅਕਟੀ ਜਯੋਨ ਦੀ 50 ਪਤਨੀਆਂ ਅਤੇ 100 ਬੱਚੇ ਹਨ । ਮਿਜੋਰਮ ਤੋਂ ਲੱਗਭੱਗ 80 ਕਿਮੀ ਦੂਰ ਬਕਤਵਾਂਗ ਪਿੰਡ ਦਾ ਨਿਵਾਸੀ ਜਯੋਨ ਆਪਣੇ ਪਰਵਾਰ ਦੇ 180 ਤੋਂ ਜਿਆਦਾ ਸਦਸਯੋਂ ਦੇ ਨਾਲ ਧਰਤੀ ਤੇ ਸਭਤੋਂ ਬਡੇ ਪਰਵਾਰ ਦੇ ਮੁਖੀ ਦੇ ਰੂਪ ਵਿੱਚ ਜਾਣਿਆ ਜਾਂਦਾ ਹੈ ।				
12.	एक छोटा बच्चा दुसरे बच्चे से, अगर दिन को सूर्य न निकला तो क्या होगा दुसरे बच्चे ने जवाब दिया, "बिजली का बिल बढ जाएगा।"	ਇੱਕ ਛੋਟਾ ਬਚਚਾ ਦੂਜੇ ਬਚਚੇ ਤੋਂ , ਜੇਕਰ ਦਿਨ ਨੂੰ ਸੂਰਜ ਨਹੀਂ ਨਿਕਲਿਆ ਤਾਂ ਕੀ ਹੋਵੇਗਾ ਦੂਜੇ ਬਚਚੇ ਨੇ ਜਵਾਬ ਦਿੱਤਾ , ਬਿਜਲੀ ਦਾ ਬਿਲ ਬਢ ਜਾਵੇਗਾ ।				
13.	बीरबल को तम्बाकू खाने की आदत थी लेकिन अकबर (Akbar) न खाते थे एक दिन अकबर ने तम्बाकू के खेत मे गधे को घास खाते देखकर कहा बीरबल ये देखा तम्बाकू कैसी बुरी चीज है, गधे तक इस को नही खाते ।	ਬੀਰਬਲ ਨੂੰ ਤੰਬਾਕੂ ਖਾਣ ਦੀ ਆਦਤ ਸੀ ਲੇਕਿਨ ਅਕਬਰ (Akbar) ਨਹੀਂ ਖਾਂਦੇ ਸਨ ਇੱਕ ਦਿਨ ਅਕਬਰ ਨੇ ਤੰਬਾਕੂ ਦੇ ਖੇਤ ਵਿੱਚ ਗਾਯੇ ਨੂੰ ਘਾਹ ਖਾਂਦੇ ਵੇਖਕੇ ਕਿਹਾ ਬੀਰਬਲ ਇਹ ਵੇਖਿਆ ਤੰਬਾਕੂ ਕਿਵੇਂ ਦੀ ਬੁਰੀ ਚੀਜ ਹੈ , ਗਾਯੇ ਤੱਕ ਇਸ ਨੂੰ ਨਹੀ ਖਾਂਦੇ ।				

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14.	ये सब कहने की बातें हैं कि उन को छोड बैठे हैं। जब आंखें चार होती हैं मौहबत आ ही जाती है ।।	ਇਹ ਸਭ ਕਹਿਣ ਦੀਆਂ ਗੱਲਾਂ ਹਨ ਕਿ ਉਨ੍ਹਾਂ ਨੂੰ ਛੋਡ ਬੈਠੇ ਹਨ । ਜਦੋਂ ਅੱਖਾਂ ਚਾਰ ਹੁੰਦੀਆਂ ਹਨ ਮੋਹਬਤ ਆ ਹੀ ਜਾਂਦੀ ਹੈ ।				
15.	नए व आधुनिक डिज़ाइनो के अत्पाद तेज़ी से बाज़ार मे आ रहे है। इस के लिए ज़रुरी है कि आप भी अपने नीतियों मे बदलाव लाएँ और यही न करते रहें, "हम तो इस काम को इसी तरीके से करते आ रहे है और ऐसा ही करेगे"।	ਨਵੇਂ ਅਤੇ ਆਧੁਨਿਕ ਡਿਜ਼ਾਇਨਾਂ ਦੇ ਅਤਪਾਦ ਤੇਜ਼ੀ ਤੋਂ ਬਾਜ਼ਾਰ ਵਿੱਚ ਆ ਰਹੇ ਹੈ । ਇਸ ਲਈ ਜ਼ਰੂਰੀ ਹੈ ਕਿ ਆਪ ਵੀ ਆਪਣੇ ਨੀਤੀਆਂ ਵਿੱਚ ਬਦਲਾਵ ਲਿਆਓ ਅਤੇ ਇਹੀ ਨਹੀਂ ਕਰਦੇ ਰਹੇ , ਅਸੀ ਤਾਂ ਇਸ ਕੰਮ ਨੂੰ ਇਸ ਤਰੀਕੇ ਤੋਂ ਕਰਦੇ ਆ ਰਹੇ ਹੈ ਅਤੇ ਅਜਿਹਾ ਹੀ ਕਰੇਗੇ ।				

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Accuracy Test – Official Language Quotes

S.No.	Hindi Sentence	Punjabi Sentence	0	1	2	3
1.	संक्षिप्त नोट नीचे दिया गया है	ਸੰਖਿਪਤ ਨੇਟ ਹੇਠਾਂ ਦਿੱਤਾ ਗਿਆ ਹੈ				
2.	प्रचलित नियमों के अनुसार	ਪ੍ਰਚੱਲਤ ਨਿਜਮਾਂ ਦੇ ਅਨੁਸਾਰ				
3.	पावती पहले ही भेजी जा चुकी है	ਰਸੀਦ ਪਹਿਲਾਂ ਹੀ ਭੇਜੀ ਜਾ ਚੁੱਕੀ ਹੈ				
4.	ऊपर कके अनुसार कार्रवाई की जाए	ਉੱਤੇ ਕਵੇ ਅਨੁਸਾਰ ਕਾਰਵਾਈ ਕੀਤੀ ਜਾਵੇ				
5.	मामले में कार्रवाई की जा चुकी है	ਮਾਮਲੇ ਵਿੱਚ ਕਾਰਵਾਈ ਕੀਤੀ ਜਾ ਚੁੱਕੀ ਹੈ				
6.	पत्र की एक प्रतिलिपि	ਪੱਤਰ ਦੀ ਇੱਕ ਨਕਲ				
7.	पहले से प्रबंध करना जरूरी है	ਪਹਿਲਾਂ ਤੋਂ ਪ੍ਰਬੰਧ ਕਰਣਾ ਜਰੂਰੀ ਹੈ				
8.	आगे की प्रगति से अवगत कराएं	ਅੱਗੇ ਦੀ ਤਰੱਕੀ ਤੋਂ ਜਾਣੂ ਕਰਾਓ				
9.	कार्य-सूची साथ भेजी जा रही है	ਕਾਰਜ - ਸੂਚੀ ਨਾਲ ਭੇਜੀ ਜਾ ਰਹੀ ਹੈ				
10.	अपील खारिज कर दी गई है	ਅਪੀਲ ਖਾਰਿਜ ਕਰ ਦਿੱਤੀ ਗਈ ਹੈ				
11.	जहां तक संभव हो	ਜਿੱਥੇ ਤੱਕ ਸੰਭਵ ਹੋ				
12.	बिल सही-सही बनाया गया है	ਬਿਲ ਠੀਕ - ਠੀਕ ਬਣਾਇਆ ਗਿਆ ਹੈ				
13.	बजट में व्यवस्था है	ਬਜਟ ਵਿੱਚ ਵਿਵਸਥਾ ਹੈ				
14.	स्वीकार नहीं किया जा सकता	ਸਵੀਕਾਰ ਨਹੀਂ ਕੀਤਾ ਜਾ ਸਕਦਾ				
15.	मामले की जांच चल रही है	ਮਾਮਲੇ ਦੀ ਜਾਂਚ ਚੱਲ ਰਹੀ ਹੈ				

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Accuracy Test - Blogs

S.No.	Hindi Sentence	Punjabi Sentence	0	1	2	3
1.	मैं ऐसा इसलिए लिख रहा हूं कि मेरा एक दोस्त जो मेरा ब्लाग पढ़ता है उसने मुझे कहा कि यह नारद का एकाधिकार खत्म होगा!	ਮੈਂ ਅਜਿਹਾ ਇਸਲਈ ਲਿਖ ਰਿਹਾ ਹਾਂ ਕਿ ਮੇਰਾ ਇੱਕ ਦੋਸਤ ਜੋ ਮੇਰਾ ਬਲਾਗ ਪੜ੍ਹਦਾ ਹੈ ਉਸਨੇ ਮੈਨੂੰ ਕਿਹਾ ਕਿ ਇਹ ਨਾਰਦ ਦਾ ਏਕਾਧਿਕਾਰ ਖਤਮ ਹੋਵੇਗਾ				
2.	राजेश, हिन्दी चिट्ठों के ज्यादातर पाठक चिट्ठे लिखने वाले ही हैं ,आपके मित्र की श्रेणी के पाठक फिलहाल कम हैं । अभी तक हिन्दी के गैर चिट्ठेकार पाठक आपका अखबार ही पढ़ते हैं। वैसे पाठक कोई भी हों ,कितने ही क्यों न हों किसी बहस अन्जाम से पहले छोड़ना अन्य माध्यम भी नहीं चाहते।	ਰਾਜੇਸ਼ , ਹਿੰਦੀ ਚਿੱਠੀਆਂ ਦੇ ਜਿਆਦਾਤਰ ਪਾਠਕ ਚਿੱਠੇ ਲਿਖਣ ਵਾਲੇ ਹੀ ਹਨ , ਤੁਹਾਡੇ ਮਿੱਤਰ ਦੀ ਸ਼੍ਰੇਣੀ ਦੇ ਪਾਠਕ ਫਿਲਹਾਲ ਘੱਟ ਹਨ । ਹੁਣੇ ਤੱਕ ਹਿੰਦੀ ਦੇ ਗੈਰ ਚਿੱਠੇਕਾਰ ਪਾਠਕ ਤੁਹਾਡਾ ਅਖਬਾਰ ਹੀ ਪੜ੍ਹਦੇ ਹਨ । ਵੈਸੇ ਪਾਠਕ ਕੋਈ ਵੀ ਹੋਣ , ਕਿੰਨੇ ਹੀ ਕਿਉਂ ਨਹੀਂ ਹੋਣ ਕਿਸੇ ਬਹਿਸ ਅੰਜਾਮ ਤੋਂ ਪਹਿਲਾਂ ਛੱਡਣਾ ਹੋਰ ਮਾਧਿਅਮ ਵੀ ਨਹੀਂ ਚਾਹੁੰਦੇ				
3.	कुछ लोगों को मजा आता उसी विषय को बार-बार फ़ेंटने में तो आप क्या कर सकते हैं! अभिव्यक्ति की स्वतंत्रता है।	ਕੁੱਝ ਲੋਕਾਂ ਨੂੰ ਮਜਾ ਆਉਂਦਾ ਉਸੀ ਵਿਸ਼ਾ ਨੂੰ ਵਾਰ - ਵਾਰ ਫ਼ੇਂਟਨੇ ਵਿੱਚ ਤਾਂ ਤੁਸੀ ਕੀ ਕਰ ਸੱਕਦੇ ਹਨ ! ਪਰਕਾਸ਼ਨ ਦੀ ਅਜਾਦੀ ਹੈ ।				

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4.	जहाँ तक मैं समझता हूँ, हिन्दी के चिट्ठे अभी बहुत ही सीमित विषयों पर लिखे जा रहे हैं। ऐसे विषय, जिनमें अधिकांश नेट प्रयोक्ताओं की कोई दिलचस्पी नहीं है। जब तक यह हाल रहेगा, शायद ही हिन्दी चिट्ठों का पाठकवर्ग विकसित हो सके।	ਜਿੱਥੇ ਤੱਕ ਮੈਂ ਸੱਮਝਦਾ ਹਾਂ , ਹਿੰਦੀ ਦੇ ਚਿੱਠੇ ਹੁਣੇ ਬਹੁਤ ਹੀ ਸੀਮਿਤ ਮਜ਼ਮੂਨਾਂ ਪਰ ਲਿਖੇ ਜਾ ਰਹੇ ਹੋ । ਅਜਿਹੇ ਵਿਸ਼ਾ , ਜਿਨ੍ਹਾਂ ਵਿੱਚ ਸਾਰਾ ਨੇਟ ਪ੍ਰਯੋਕਤਾਵਾਂਦੀ ਕੋਈ ਦਿਲਚਸਪੀ ਨਹੀਂ ਹੈ । ਜਦੋਂ ਤੱਕ ਇਹ ਹਾਲ ਰਹੇਗਾ , ਸ਼ਾਇਦ ਹੀ ਹਿੰਦੀ ਚਿੱਠੀਆਂ ਦਾ ਪਾਠਕਵਰਗ ਵਿਕਸਿਤ ਹੋ ਸਕੇ ।				
5.	यह तो सच है, हिन्दी की कई पोस्टों को बिना बैकग्राउंड जाने कोई समझ नहीं सकता।	ਇਹ ਤਾਂ ਸੱਚ ਹੈ , ਹਿੰਦੀ ਦੀ ਕਈ ਪੋਸਟਾਂ ਨੂੰ ਬਿਨਾਂ ਬੈਕਗਰਾਉਂਡ ਜਾਣੇ ਕੋਈ ਸੱਮਝ ਨਹੀਂ ਸਕਦਾ ।				
6.	आप द्वारा उठाया गया प्रश्न बहुत महत्व रखता है।	ਆਪ ਦੁਆਰਾ ਚੁੱਕਿਆ ਗਿਆ ਪ੍ਰਸ਼ਨ ਬਹੁਤ ਮਹੱਤਵ ਰੱਖਦਾ ਹੈ ।				
7.	बहुत सही लिखा है आपने, साधुवाद!!	ਬਹੁਤ ਠੀਕ ਲਿਖਿਆ ਹੈ ਤੁਸੀਂ, ਸਾਧੁਵਾਦ !				
8.	अब मैं आपसे एक निवेदन करना चाहूँगा।	ਹੁਣ ਮੈਂ ਤੁਹਾਨੂੰ ਇੱਕ ਬੇਨਤੀ ਕਰਣਾ ਚਾਹਵਾਂਗਾ ।				
9.	अगर हिन्दी तथा अन्य भारतीय भाषाओं के लिये एक बढ़िया टेक्स्ट एनालिसिस का औजार(साफ्टवेयर) बना सकें तो भारतीय भाषाओं का बहुत भला हो।	ਜੇਕਰ ਹਿੰਦੀ ਅਤੇ ਹੋਰ ਭਾਰਤੀਭਾਸ਼ਾਵਾਂ ਲਈ ਇੱਕ ਵਧੀਆ ਟੇਕਸਟ ਐਨਾਲਿਸਿਸ ਦਾ ਔਜਾਰ (ਸਾਫਟਵੇਇਰ) ਬਣਾ ਸਕਣ ਤਾਂ ਭਾਰਤੀ ਭਾਸ਼ਾਵਾਂ ਦਾ ਬਹੁਤ ਭਲਾ ਹੋ ।				

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10.	अपील खारिज कर दी गई है	ਅਪੀਲ ਖਾਰਿਜ ਕਰ ਦਿੱਤੀ ਗਈ ਹੈ				
11.	जहां तक संभव हो	ਜਿੱਥੇ ਤੱਕ ਸੰਭਵ ਹੋ				
12.	बिल सही-सही बनाया गया है	ਬਿਲ ਠੀਕ - ਠੀਕ ਬਣਾਇਆ ਗਿਆ ਹੈ				
13.	कृपया इस बारे में गम्भीरता से विचार करें।	ਕ੍ਰਿਪਾ ਇਸ ਬਾਰੇ ਵਿੱਚ ਗੰਭੀਰਤਾ ਤੋ ਵਿਚਾਰ ਕਰੋ ।				
14.	आप जैसे लोगो का हमारी भाषा के प्रति प्यार हि सबको उत्साहित रखता है.	ਤੁਸੀ ਜਿਵੇਂ ਲੋਕੋ ਦਾ ਸਾਡੀ ਭਾਸ਼ਾ ਦੇ ਪ੍ਰਤੀ ਪਿਆਰ ਹਿ ਸਾਰਿਆ ਨੂੰ ਉਤਸ਼ਾਹਿਤ ਰੱਖਦਾ ਹੈ .				
15.	बहुत सुंदर प्रयास के लिए बधाई. एक ब्लॉग पोस्ट इस पर कल लिखता हूँ.	ਬਹੁਤ ਸੁੰਦਰ ਕੋਸ਼ਿਸ਼ ਲਈ ਵਧਾਈ . ਇੱਕ ਬਲਾਗ ਪੋਸਟ ਇਸ ਪਰ ਕੱਲ ਲਿਖਦਾ ਹਾਂ .				

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