

## **Second Language Listening – Investigating Self-supporting Needs**

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### **Abstract**

In most of the ESL classrooms in Sri Lanka among four basic language skills, Listening Comprehension (LC) is almost neglected due to many practical reasons; in some classrooms LC is conducted; but the achievement rate is not satisfactory; to recognize part of the solution for this problem, the primary objective of this investigation was to recognize the peculiar listening comprehension (LC) issues encountered by the Tamil medium first year undergraduates in the Faculty of Arts during transactional listening and suggest feasible and effective recommendations for the stakeholders based on classroom investigation. In order to accomplish this objective, 27 Tamil medium ESL first year listeners were randomly selected as sample population in the Faculty of Arts and a classroom investigation employing an intervention programme for one complete semester was conducted; the intervention programme incorporated some specially selected LC texts/activities, participant observation and verbal report.

Having employed qualitative methodology with the questionnaire, participant observation and retrospective report, this study, at the end, found out that the ESL listeners' comprehension level progressed dramatically when training was provided with specially selected texts with appropriate support needs to match our listeners' requirements.

**Keywords:** Listening Comprehension, Bottom-up, Top-down, Learning Style, Brain Dominance

### **1. Introduction**

Basically second language classroom research relevant to four basic skills has evolved due to the influences of researches from many different fields, for example, education, psychology, anthropology, sociology, linguistics, and applied linguistics. At the outset, in the field of second language research, four conventions were accommodated according to Nunan (2005):

01. Psychometric research- It is mainly based on comparison of – pre-test and post test.
02. Interaction studies - It was based on classroom interactions; classroom interactions between the teacher and the learners and among learners are cautiously observed and recorded and analysis is carried out.
03. Discourse analysis - This type of research evolved from socio – linguistic perspective analysis.
04. Ethnographic conventions - This type of investigation developed from the field of anthropology and sociology. In this investigation the behaviour of classroom participants were minutely observed and described. (Nunan, 2005)

In a language classroom research, chiefly L1 acquisition/learning or L2 acquisition/learning situation, language pathology, speech and hearing and language use in social/professional contexts are considered as the main areas of investigations.

This paper attempts to present a research design on English as a Second Language (ESL) listening comprehension. Therefore, in the next section, I present adequate information pertinent to listening comprehension because a researcher must have sufficient understanding on the nature of listening comprehension and the research design. It is supposed this model can be followed by any researchers on listening comprehension.

## **2. Listening Comprehension (LC)**

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Before discussing the details of research designing, it is better to understand briefly about the concept and nature of second language Listening Comprehension (LC), since the main focus of this research design is on second language LC.

LC is an active process of constructing meaning, and that this is done by applying knowledge to the incoming sound and signals. Listeners can receive messages conveyed to their ears as sound waves pass through the medium of auditory organs. Therefore, nowadays language scholars view listening comprehension process happens in a highly complex and active situation, which involves lot of internal neurological network and processes within listeners' brain and this high level network, cannot be understood by human beings.

For instance Anderson and Lynch (1988) consider listeners are “active model builders” and Rost (1990) believes that LC process employs not only “comprehension” process but also “interpretation;” Quoting Rost (1990), Ellis (2003) also advocates, “because listeners are involved in hypothesis-testing and inferencing, not just decoding what is said”(2003, p. 39). In the sense, hypothesis – testing and inferencing are considered very high level process related to LC. From the discussion of these scholars it is clear that LC is an active and dynamic process and understanding this process is not easy because it is internal.

Generally speaking, the speculation and guesswork of a Language Understanding System (LUS) in human beings incorporates a large number of language processors and a General Problem Solver (GPS) according to language scholars. Further, most of the leading researchers (for example, Foster, 1979; Marslen-Wilson & Tyler, 1980; Anderson, 1995; Garnham, 1985; Aitchison, 1989) in the field of psychology of language and in artificial intelligence have the same opinion on it.

During LC process, linguistic knowledge incorporates from the minimal unit to semantic information of the language, for instance, phonological, lexical, syntactic and semantic knowledge of language (Bransford & McCarrell, 1977, p. 389 – quoted in Wu Yi'an, 1998). On the other hand non-linguistic knowledge is considered as linguistic background knowledge which is supposed to gain by

previous relevant experience by listeners from varieties sources like library reading, travelling, interacting in English with different types of experienced people, watching English movies, and so on. They can also be obtained from the field of science and technology, socio-religious culture, history, etc. The generally accepted tendency of the scholars is that the linguistic knowledge is activated from bottom up way and non-linguistic knowledge is triggered from top-down way to interpret and process the input data by listeners in collaboration with his general/world knowledge (Clark & Clark, 1977).

Anderson (1995) and Bialystok (1990) categorize two different major types of processes: 1) automatic process and 2) controlled process. The automatic process is desirable because it happens very quickly with little effort of a smart listener, whereas controlled process needs a lot of concentration and attention of the listeners. This situation generally delays the LC processing and leads to less process of a particular language.

Richards (1983) explains that when listeners listen to some utterances they make use of two kinds of information/knowledge to comprehend the meaning of those utterances: (1) linguistic knowledge and (2) prior knowledge. Listeners, while they process information signals from bottom up way exploit linguistic schemata from their Long-Term Memory (LTM). These information include grammatical or syntactic rules according to Richards' (1983) view. The main advantages of the schemata are, helping listeners to accelerate the comprehension processes from top-down employing non-linguistic knowledge; it also helps listeners to anticipate and guess the next incoming utterance while processing top-down approach.

To interpret this nature of bottom-up and top-down processes many models have been established by several scholars. For instance, bottom – up model, top – down model and the interactive model are some important models to mention. Brief discussion on these models is supposed to help the researchers, curriculum designers and teachers to understand the basic frames and dimensions of each model.

## **2.1 The Bottom-up Model**

In this model the process begins with smallest linguistic unit (sounds), words, and then identifying the syntactical level. For this kind of linguistic processes a listener has to pay very sharp attention to every single detail of the linguistic units from bottom to top. Usually it is said, that this model was developed from the communication process (Shannon & Weaver, 1949 – quoted in Flowerdew & Miller, 2005).

## **2.2 The Top-down Model**

The LC process of this model mainly processes the incoming signal/message by drawing appropriate background knowledge and contextual situation; if appropriate background knowledge is not available there will be a breakdown in comprehension. A listener during this LC process applies his background knowledge for prediction and inferencing.

## **2.3. The Interactive Model**

In interactive model process a listener is supposed to employ two ways simultaneously (bottom-up and top-down) to comprehend the incoming messages. This theory was built up by Rumelhart (1980) to explain reading comprehension but it is suggested that it can be equally applied to LC also. According to this model, the processes occur concurrently at all the levels; anyhow no researches are available to explain how this process happens. This is also called as parallel distributed processing (McClelland, Rumelhart & PDP Research Group, 1986).

## **3. Aims**

In the previous section I have explained briefly about three major models pertaining to LC. Now the aims of this research can be summarized. The main aims of the present research are:

- (1) Recognizing varieties of learners' self-supporting requirements in LC process employing appropriate tool

- (2) Helping the unsuccessful listeners to identify their own potentialities and encourage them to apply whenever necessary independently to become a successful learners.

To achieve these aims, at the initial stage, the following are some tentative outline questions, which are expected to guide the researcher to frame the research questions in future. Generally, for qualitative method research questions are not formed; however, in this context I employed these questions as my research guidelines.

- a) Are there any self-supporting systems, which play important role for the successful learners in LC?
- b) Is there any possibility of identifying the self-supporting systems? If so, how?
- c) Practically are there any possibilities to provide training in self-supporting systems with the day-to-day LC tasks?
- d) Will that kind of collaborative training programme with the task provide fruitful result for the less successful learners in LC?

I attempted to find answers to the above question via a classroom research.

#### **4. Subjects**

With those aims, I planned to conduct the research in my working place (The University of Jaffna, Sri Lanka). The research population was first year first semester Arts Tamil medium 27 mixed ability undergraduates.

#### **5. Problem**

It has been casually observed for a long time that whatever efforts have been made to improve the LC level of the university students have not yielded the expected results. With the 26<sup>th</sup> years teaching of LC experience with the university students it has been noticed by me that the students are unable to perform satisfactorily in the classroom and in the final semester LC examinations in four basic skills; in

this research I attempted to find some solutions relevant to LC only; this research does not focus on other skills.

## 6. Research Design

The whole research was planned to conduct in two stages (preliminary investigation - stage I and main investigation - stage II). Preliminary investigation stage was expected to support to gain basic information like current entry proficiency level of the subjects, background information about the subjects, recognizing the basic research issues, and some fundamental clues pertaining to learners' self-supporting needs which were anticipated to facilitate to construct the research questions for the primary enquiry. With those evidences it was planned to build up many LC tasks for the main study, primary investigation stage II. These LC tasks were planned to implement for one semester by the researcher. Since a large number of factors have to be observed in the class pertaining to listeners' behaviour during tasks sessions it was determined that the researcher took the responsibility of teaching and observing the classroom as participant observant. During this session it was aimed that many more (in addition to information those obtained in the preliminary study) self-supporting systems would be recognized by the researcher and they would be introduced to the learners who have problems in LC in the class.

In the middle of the session an examination was planned to be conducted in LC to check what type of self-supporting trends, facilitated them in comprehending listening very successfully, and how these trends assisted the low and average level learners to process effectively. As soon as the test was over (within fifteen minutes) retrospective report was obtained from the students. From that report, many constructive data pertinent to learners' self supporting tendencies were recognized. At the end of the session also a LC posttest was planned to administer to check the effectiveness of the self-supporting system in LC especially with the less successful learners. The following research tools were planned to use for the preliminary investigation apart from the LC tasks.

a) Biographic questionnaire:

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Biographic questionnaire was hoped to provide necessary information to the researcher about the subjects. For example, details about the socio-economic cultural background, biographic information, family education level, parents' support, information regarding to motivation/attitude, previous language exposure/history and so on.

b) Participatory observation:

During and after the LC initial test, test takers will be observed by the researcher to get some preliminary data. This observation will be mainly focused on their tendencies during LC test, their anxiety level, feedback in the form of opinions, their interests, to some degree about their motivational level, etc. These factors are also expected to support the researcher to design the main study.

c) Initial listening comprehension test/pre-test:

The chief purposes of the initial LC test in this context was to recognize the current entry level of the subjects only in terms of LC, identifying some of the learners' self-supporting systems from the successful test takers and some of the self-supporting needs of the less successful test takers. For these purposes a LC test was developed incorporating bottom up (for 50%) and top down (for 50%) tasks equally. And this initial LC test was based on non-interactive listening tasks using transactional language. It is suggested by the scholars that these types of tasks are enough to gauge reasonable key aspects of the second language listening capacity of a test taker (Buck, 2001).

d) Retrospection verbal report:

Immediately after (within 15 minutes) completing the pre test researcher met the test takers to have an informal discussion. From this relaxed tension free conversation researcher gathered some basic, rich and useful data for the main study associated to learners self supporting needs and pattern, difficult areas of test tasks, and reasons for the difficulties.

e) Brain Dominance inventory:



This inventory revealed some useful information about the learners' brain dominating behaviours. Further, through this inventory the researcher was able to make out individual differences in learners, which were expected to help the researcher to plan tasks in such a manner. This again helped to reduce mismatching activities in the classroom.

f) Learning style inventory:

Every student has his/her own learning style and these learning styles differ from learners to learners. For example, some students like to learn by looking at things (visual learners) or some will prefer to hear (auditory learners); some others like to learn by doing things or involve themselves (kinaesthetic or tactile learners); some learners enjoy learning only when they do something by themselves (individual work), meanwhile some others prefer to study in groups/pairs (group/combine/cooperative/pair work). These information assisted the researcher to design the LC activities according to the learners' learning styles.

## **7. Summary of Self-supporting System**

During preliminary investigation as mentioned above, I employed six instruments to elicit varieties of relevant information. Biographic questionnaire provided ample data relevant to our subjects; for example, their English language learning experience, school teaching method and text, motivational level with attitude, parental/teachers' encouragements, needs, type of tasks, pronunciation type, speech delivery rate, appropriate visual supports, pre-task familiarization support and so on. With these data main investigation started.

## **8. Main Investigation – Stage – II**

The preliminary investigation facilitated the investigator to build up a viable research structure through which the investigator discovered more salient insights pertinent to self-supporting systems required by the listeners as mentioned previously.

With those data classroom LC tasks/stimuli were implemented by the researcher and carefully observed as participant observant. While LC tasks were realized, observation techniques were employed by the researcher as one of the central tools. Because while doing the tasks learners engage in many activities internally and externally; some of the tactics may help them to learn the tasks successfully whereas some of the tactics will not. It would be wrong to make an assumption that less successful learners do not apply any self-supporting system or they don't have the ability to apply those systems. Since LC tasks played a key role for the main investigation in combination with the tools, the rationale and descriptions of the tasks are specified here.

### **8.1 Rationale of the Task Types**

Approximately thirty LC tasks/stimuli were presented including ten bottom-up models, ten top-down models – (Vanderplank terms as “following” and “understanding,” 1988, quoted in Macaro, 2003), and ten interactive (assorted) models (bottom-up + top-down); these tasks were all fine-tuned with the current proficiency level of the subjects; the preliminary investigation confirmed that our subjects' proficiency level is novice – high listeners according to the American Council of Testing Foreign Languages (ACTFL, 1986) guideline descriptors. In recent times, in the case of LC tasks, more emphasis is laid on top-down process. However, many current studies (for example, Ross, 1997; Tsui & Fullilove, 1998; Wu, 1998) suggest that although top-down processing is vital, bottom-up processing cannot be ignored and it is believed that bottom-up processing is a better indicator of LC style of a student than top-down processing (Macaro, 2003). To heed separate account of both bottom-up processings and top-down processing, it was intended to implement tasks separately on both styles and to examine the effect on mixed tasks (both bottom-up and top-down); it was decided to employ equal numbers of mixed tasks in the class.

Buck (1990) reports from his study a successful learner needs to “check and monitor” his own interpretation and comprehension. In order to achieve this, bottom-up and top-down processing happen at

the same time (Buck, 1990). Therefore, researcher accommodated all three models; while LC stimuli were prepared for the main investigation, texts types accommodated following the “oral-literate continuum”, explained by Tannen (1982) (quoted in Shohamy & Inbar, 1991). Buck (1997) also explains more or less the same view as “listening situations can be arranged on a continuum, based on the amount of interaction, or collaboration, between the listener and the speaker: from non-interactive monologue at one end to completely interactive discussion at the other” (Buck, 1997, pp. 65-74).

While preparing the tasks researcher accommodated information which were obtained from the preliminary study. These tasks were considered to encourage the subjects,

- to process linguistic knowledge (bottom – up)
- to process non-linguistic knowledge (top-down)
- to process both linguistic and non-linguistic knowledge (interactive model)
- the subjects’ individual needs/interests (reasonably by grouping the needs as three/four)

Further, tasks were designed to

- avoid subjects’ cultural conflicts/contradictions as much as possible
- include non-interactive/interactive text type – reasonably authentic
- incorporate some self-supporting schemes, which were supposed to obtain from the preliminary investigation, to lead the subjects for a successful LC independently
- promote learners’ autonomy by recognizing their own self-supporting systems in LC

Table – 6.2.1.1 - Tasks implementation plan

<b>1.Pre-listening session</b>
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01.	Objectives – bottom-up/interactive/top-down process (Introduction of keywords/activating background knowledge) and learning strategies
02.	Introducing themes.
03.	Introduction of knowledge of learning strategies /benefits.
04.	Tracing classroom strategies if any.
05.	Introducing tasks and objectives (If necessary sub-tasks)
06.	Previewing tasks
07.	Group/pair discussions
08.	Objective setting on par with proficiency level
09.	Teaching tools – audio player/blackboard/pictures
10.	Rechecking their understanding in what they have to do during listening and immediate listening.
11.	Observation
<b>2. While – listening session</b>	
01.	LC text presentation (first listening)
02.	Individual work (second listening)
03.	Small group work (with limited support)
04.	The subjects were requested to note their problems.
05.	Immediate protocol verbal report. (to recognize the learning strategy use)
06.	Observation
<b>3. Post – listening session – Extension of collaborative activities</b>	
01.	Analysing individual LC issues
02.	Self-evaluation/peer correction
03.	Group work – extensive discussion
04.	Rechecking strategy use
05.	Troubleshooting/analysing issues (text and task difficulties)
06.	Casual/unstructured interview
07.	Observation

In this fashion, tasks were prepared and implemented to make out which types of self-supporting systems helped them understanding the LC reasonably better and which was not. During task sessions, learners were given freedom to choose their own style of attempting the tasks such as pair work, individual work, group work and so on. And researcher did not interrupt their independent activities and autonomous functions in the classroom.

#### **a. Participatory Observation**

For the present research, participatory observation played central role. However, that does not mean other tools were inferior to this. It was envisaged that participatory observation assisted the

researcher to discover the vital and potential self-supporting systems in LC and sensible reasons for those deployments by the students.

While implementing the LC tasks/stimuli, researcher observed the following systematically. For instance, learners' reactions, interactions types among themselves and the teacher, mood pattern of the learners (happy/unhappy), free movement around the classroom, their intentions, occasions of mother tongue (MT) use, and other peculiar behavioural patterns, are some examples of classroom events, which were noticed in depth by the observer. The researcher changed his personality frequently during observation session. Certainly he/she cannot apply any authoritative action in the classroom. He/she has to create a suitable environment and his/her role cannot affect the classroom events, instead it should stimulate more interactions.

### **b. Strategy Inventory for Language Learning**

The chief purposes of the Strategy Inventory for Language Learning will be mainly to acquire cumulative data to confirm the findings of the study and which are supposed to enhance the final results with other tools.

### **c. Retrospection Verbal Reports**

This report was used to supplement with researcher's own observation about the students' learning supporting needs. Immediately after completing every task trial in the classroom (approximately within 5-10 minutes) retrospective verbal report was generated among subjects. In this short moment very useful rich and reliable data were accumulate from Short Term Memory (STM) of the subjects in relation to cognitive neurological process of trial LC tasks/stimuli. These reports were claimed as rich and authentic because of its true nature of the reflection on learning event (Ericsson & Simon, 1984/1993). To encourage learners to talk about their LC task experiences researcher supplied some guidelines without misleading/distracting/interfering the subjects' real statements/utterances related to his/her thought processes. The researcher's guidelines can be on different aspects (implicitly) of self-support systems, trial

task difficulty, experience/feelings, significant turning points (middle part or final part), confusion, etc. But the researcher has to overtly utter only phrases like “keep on talking”, “then ...”, “well ....proceed” and “Ok ..... what is next” and so on. The obtained array of data was analysed qualitatively. Some major examples of cues are 1) Interlingual – loan words in MT, 2) Intralingual – linguistic knowledge of English and 3) Extra lingual - non-linguistic knowledge or world/global knowledge.

#### **d) Post-test Indicators**

From the preliminary investigation, it is found that our subjects were all novice – high proficiency level listeners according to ACTFL (1986) guidelines. For them we provided training for approximately 32 hours to employ self supporting systems and in the end it was proved that appropriate explicit training in self-supporting system would enhance listening ability; this type of training elevated their proficiency level to the intermediate – mid (ACTFL, 1986) level listeners. In the end it was identified that they were able to independently employ different strategies, oversee and manage their own LC processes and apply varieties of self supporting system in their classrooms.

Table – 6.2.1 – LC Pretest score

Table – 6.2.2 – LC Posttest score

Serial No.	Subjects	Pretest s
0	S	70
0	S	40
0	S	50
0	S	30
0	S	60
0	S	60
0	S	A
0	S	50
0	S	60
1	S	40
1	S	20
1	S	20
1	S	20
1	S	30
1	S	20
1	S	20
1	S	30
1	S	20
1	S	30
1	S	20
1	S	30
2	S	10
2	S	20
2	S	20
2	S	30
2	S	20
2	S	20
2	S	20
2	S	30
2	S	20

Serial No.	Subjects	Posttest s
0	S	90
0	S	70
0	S	60
0	S	80
0	S	80
0	S	80
0	S	A
0	S	90
0	S	80
1	S	80
1	S	70
1	S	80
1	S	90
1	S	90
1	S	90
1	S	80
1	S	80
1	S	90
1	S	90
2	S	80
2	S	90
2	S	90
2	S	80
2	S	70
2	S	80
2	S	90
2	S	70

In addition to the tests, their classroom performances and feedback reports provided evidences to suggest that they were able to accommodate executive level metacognitive and other strategies with some new strategies constructively to enhance their LC ability.

**9. Discussion and Conclusion**

At the beginning of the present research, I formed some guidelines to direct my research even though it is not a convention to form research questions in qualitative approach. The guidelines are as follows:

- a) Are there any self-supporting systems, which play important role for the successful learners in LC?
- b) Is there any possibility of identifying the self-supporting systems? If so, how?
- c) Practically are there any possibilities to provide training in self-supporting systems with the day-to-day LC tasks?
- d) Will that kind of collaborative training programme with the task provide fruitful result for the less successful learners in LC?

The findings of this research clearly evidence that appropriate answers emerged for those guidelines. The main purpose of the present research is to discover the LC support requirements of the ESL learners, University of Jaffna, Faculty of Arts Tamil medium undergraduates and to recognize how best these learners could be assisted to become efficient listeners. To achieve this objective, initially I implemented preliminary investigation stage I to discover some major baseline data pertaining to learner related factors, texts/tasks related factors, and factors related to classroom activities to conduct the primary investigation stage II. The intervening period was approximately 32 hrs. and stretched nearly three months.

It is confirmed that there are varieties of features which control how teachers handle their classroom teaching and which particular fashion of method they have to deploy to reach their classroom task. The environments where they employ have an influence on classroom teaching. Most of the institutions do not provide teachers freedom to make decisions with respect to syllabus, materials, teaching methods and methods of assessment. Thus in a situation like this a teacher can only perform the classroom activities within the administrative frame which cannot produce better classroom output.



But in case of LC instruction for the University of Jaffna, Faculty of Arts undergraduates it is very essential that the institution has to offer sufficient freedom to teachers. In case of LC instruction it is felt from our investigation that the teacher has to perform varieties of roles. For example, needs analyst, syllabus designer, material designer, planner, counsellor, mentor, facilitator, team member, investigator, manager, motivator, empowerer, language analyst and professional are a few to mention.

Especially beginners/novice listeners require more guidance from their teacher. Due to their formal educational classroom influence, I believe that the university undergraduates have certain fossilized improper classroom behaviours which have to be eliminated or modified at the outset. The teacher has to understand and take proper measures to make them aware of active role and its benefits in language learning processes. The teacher has to organize varieties of classroom activities which incorporate previewing, keyword introduction, repeat practices, teacher-learner, learner-learner discussion, enjoyably integrating other skills, using L1 for demonstration, modified talking, and reflection session.

The posttest confirms that the LC learners improved immeasurably due to the special intervention programme. Therefore, I suggest the following actions have to be implemented in the LC classrooms to yield better output. At the beginning an awareness programme is a must; teachers have to introduce appropriate strategy training; teachers have to request the learners to make self-groups; before introducing the LC programme, teachers have to introduce the theme with keywords, activate background knowledge; learners have to be give practice on guessing, highlighting, attention focussing and associating previous knowledge; using more visual clues with LC text; providing adequate practice on how to focus on selected attention and connect previous event to understand the text; developing the capacity of self-monitoring and analyzing; and preparing LC text using non-native pronunciation

## **10. Limitations of the Research and Guidelines for Future Investigation**

There are some features of this research that may limit its generalizability, but they also offer guidelines for future discovery needs. With respect to the subjects, as the undergraduates were volunteers they might have been highly motivated to perform better than randomly chosen undergraduates. Besides, the number of the subjects was very small. Future researchers are requested to consider these factors to strengthen the current findings.

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