Development and Validation of the Objectives for Language Stimulation Home Training Activity Manual in Hindi for Parents of the Children with Hearing Impairment

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Abstract

The Study was aimed to develop and validate the items/ objectives for language stimulation home training activity manual useful for the children with hearing impairment in the chronological age range of 2-6 years. A Quasi Experimental Research Design was chosen to undertake the present study, in which 15 subjects (5 Parents of the hearing impaired, 5 Special educators of hearing impaired and 5 audiologist and speech-language pathologist) as judges were included. All subjects were having or teaching schools going severe to profound hearing impaired children in the age range of 2-6 years. All set items/ objectives under each section of the activity manual was given to all the subjects to rate under 4 points rating scale. The keys and rating points for judging the items was, (a) Not relevant & useful: 1, (b) Very Limited use & relevant: 2, (c) Mostly suitable & useful: 3 and (d) Most relevant & Very useful: 4. The judges were requested to re-write the irrelevant or undecided questions as they think most relevant or add their views to present questions. ANOVAs test was done to see the significant difference among the groups for the set objectives. To signify that there was no significant difference among the groups for the selected objectives, intra-reliability test (spearman brown coefficient) was done. The selected objectives will be useful and helpful to develop a home training activity manual for Parents for the children with hearing impairment.

Key Words: Language stimulation, activity manual, Hearing Impairment, Children, Home, Parents, Special educators

Introduction

"Hearing impairment and deafness are serious disabilities that can impose a heavy social and economic burden on individuals, families, communities and countries. Children

Language in India www.languageinindia.com **ISSN 1930-2940** 13:4 April 2013
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with hearing impairment often experience delayed development of speech, language and cognitive skills, which may result in slow learning and difficulty progressing in school. The burden of hearing impairment and deafness falls disproportionately on the poor, because they are unable to afford the preventive and routine care necessary to avoid hearing loss, or to afford hearing aids to make the condition manageable. Hearing impairment can also make it more difficult to escape poverty by slowing progress in school and the workplace, and placing people in social isolation" (WHO, 1998).

Hearing impairment has a devastating, detrimental and an invariably adverse impact on the development of new-born and the psychological well-being of their families. Neonates having mild to profound hearing loss bilaterally or unilaterally, hearing loss of varying degrees above 1000Hz, or auditory deprivation due to recurrent otitis media, develop significant and long term effects on speech and language skills. Reduced auditory input also adversely affects development of the central auditory nervous system, and can negatively impact speech perception that interferes with growth in social, emotional, behavioral and cognitive spheres, academic achievement, vocational options, employment opportunities and economic self-sufficiency. Indeed, such problems may trouble these individuals for the rest of their lives, if not attended in time (cited in work done by Shamim Ansari, 2004).

Thus, to reduce all these problems faced by children with hearing impairment, there is a need for intervention in early stages.

Intervention Issues

Language and communication Intervention has many issues which include Early Intervention, influence of inter-actionist perspective, influence of clinician (speech-language therapist) perspective and influence of home training (parent based) perspective.

Influence of home training (parent based) perspective is most important because most parents who find out that their child has learning problems and is not developing as expected will react with concern (What does this mean for my child?) and often guilt (What have I done wrong?) or infer (What has gone wrong? Who is to blame?). These may be defenses in the ways that mothers and fathers react which can cause additional conflict (Burgess, 1997).

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Training for Parents

And also the parents are the ones who stay for longer time with their child after the school. Hence they need to get trained in different approaches and different activities which help them to work on communication of the child at home. For getting trained and equipped with different approaches and activities to work at home, a parental guidance along with written training manuals, video and other support material is needed.

There are some written guides for parents such as The SKI* HI Model: Programming for Hearing Impaired Infants through Home Intervention, Home visit curriculum, 4th edition by Clarck, Thomas C., Watkins, Susan (1985) which describes the SKI*HI Model, A comprehensive approach to identification and home intervention treatment of Hearing Impaired children and their families (http://trove.nla.gov.au/work/18430656?versionId=46255170). The model features home programming in four basic areas: The home hearing aid program (Nine lessons which facilitate the proper fit and acceptance of amplification by the child), Home communication program (ways to help Parents develop essential communication skills and select an optimum language method), Home auditory program (ways to promote use of residual hearing), and home language stimulation program. Information for parent advisors addresses the first home visits, psycho-emotional support for families and home visit planning, delivering and reporting. Home visit programs are examined in terms of lesson plans and sample activities for the subject areas of: hearing aids, home communication, home auditory program, and home language stimulation programs (aural-oral and total communication).

No Activity Manual in India Incorporating Indian Contexts

In Indian context there is no activity manual for parents of hearing impaired children at home has been developed. However, there are different learning manual for children with Hearing-Impairment have been developed in different languages mainly, Kannada, Malayalam and English, which mainly focus on Listening and auditory based activities.

Learning Manuals for Indian Languages Including English

The learning manuals are as follows:

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1. Auditory learning Manual for English speaking Hearing-Impaired Children (Anitha, 2001).

2. Auditory learning Manual for Kannada speaking Hearing-Impaired Children (Vijayalakshmi, 2004).

3. Auditory learning Manual for Malayalam speaking children with Hearing-Impaired (Asha Manoharan, 2008).

4. Auditory learning manual for hearing-impaired infants and toddlers (Devi, N. 2005).

These learning manuals do not focus on the home base activities to develop language. There are also very few written activity manuals for parents are available for the children with mental retardation. One written guide for parents has been developed at National Institute for the Mentally Handicapped (NIMH), Secunderabad, namely, "Training in Communication Skills for Persons with Mental Retardation (UTILITY GUIDE FOR PARENTS)" by Subba Rao & Narayan, (2003). The guide has 10 sections in which about 175 activities are recorded. And based on work done by Subba Rao & Narayan, (2003), "Language stimulation techniques for the children with mental retardation - an activity manual for the parents" has been developed by Rajeev Ranjan, (2006), (an unpublished master dissertation, Mangalore University) which has 3 sections in which about 100 activities are recorded).

So, there is a need to plan, draft and develop items under different domains of communication such as Attention, Auditory training, Verbal Comprehension, Oral Expression and Articulation. This will help to develop activity manuals for all needy parents of the children with Hearing impairment.

Aim of the Study

Development and validation of the items/ objectives for language stimulation home training activity manual useful for the children with hearing impairment in the chronological age range of 2-6 years.

Objectives of the Study

1. To develop items/ objectives for language stimulation home training activity manual useful for the children with hearing impairment in the chronological age range of 2-6 years.

   Sub-Objectives: This will have V sections (under each section 10 objectives/ items will be developed).

   - Section I: Attention.
   - Section II: Auditory training.
   - Section III: Verbal Comprehension.
   - Section III: Oral Expression.
   - Section V: Articulation.

2. To validate developed items/ objectives for language stimulation home training activity manual useful for the children with hearing impairment in the chronological age range of 2-6 years.

Methods

A Quasi Experimental Research Design has been chosen to undertake the present study. 11-15 items/ objectives under each section of the manual were planned and written. To know whether the items/ objectives framed in the Language Stimulation Home Training Activity Manual are suitable for the study, 15 judges (5 Special educators, Parents of the hearing impaired and Audiologist and Speech-Language Pathologist (ASLP)) were selected. They helped validate and confirm the items/ objectives in present research tool (activity manual) under 4 points rating scale. The keys and rating points for judging the written items/ objectives were (a) Not relevant & useful: 1, (b) Very Limited use & relevant: 2, (c) Mostly suitable & useful: 3 and (d) Most relevant & Very useful: 4.

The judges were provided with the following:

(1)   A covering letter of the researcher

(2)   Bio - data of the researcher

(3)   A copy of the drafted items/objectives

The covering letter focused on the following:

1.   Introduction of the present researcher

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2.   Topic of the research and its objectives

3.   Explanation of their role in validation

The judges were requested to re-write the questions which they thought as irrelevant and/or to add their views to present questions. After getting the items/objectives back from the 15 judges, 10 items/ objectives were selected under each section for developing the activities after the validation from the judges. The items/ objectives which rated as Most relevant & very useful (4) and Mostly suitable & useful (3) were retained for the development of activities in the activity manual. The items/ objectives which received less than 4 and 3 ratings were deleted from the items / objectives and not included in the activity manual .

Result

For this study 5 Parents, 5 Special Educators and 5 ASLPs' were selected and most of them were from Northern side of India. All subjects were Hindi-speaking and had working knowledge of English. The keys and rating points for judging the written items/ objectives were (a) Not relevant & useful: 1, (b) Very Limited use & relevant: 2, (c) Mostly suitable & useful: 3 and (d) Most relevant & Very useful: 4.

The results are presented in this section.

Table-1. Parents group

S.No	Name	Age/Sex	Education	Age of the HI child	Knowledge of English
1.	Mr. S.J	37Yrs/F	BA	6Yrs	Yes
2.	Mr. R. S	38Yrs/M	PUC	4Yrs	Yes
3.	Mrs. A.J	35Yrs/F	PUC	6Yrs	Yes
4.	Mrs. R.A	37Yrs/F	B.Ed.	6Yrs	Yes
5.	Mrs. P. S	26Yrs/F	BA	5Yrs	Yes

(Note: PUC- Pre University College, BA- Bachelors of Arts, B.Ed-Bachelors in education)

Table-1 shows the characteristics of subjects (Parents), i.e. Name, Age/Sex, Education, Age of the HI child and knowledge of English for parents.

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It can be observed that 02 fathers and 03 mothers participated in the study. The education levels are generally above PUC level. All parents reported working knowledge of English.

Table-2. Special Educators group

S.No	Name	Age/Sex	Education	Experience	Knowledge of English
1.	Ms.V.T.J	24 Yrs/F	DSE-HI	2 years	Yes
2.	Ms. D.T	23 Yrs/F	DSE-HI	1years	Yes
3.	Ms. K.S	23 Yrs/F	DSE-HI & (B.Ed.-HI distance)	1.5years	yes
4.	Mr. G	24 Yrs/M	DSE-HI	4years	Yes
5.	Ms. A.K	22 Yrs/F	DSE-HI	2years	Yes

(Note: DSE-HI: Diploma in Special Education-Hearing Impairment, B.Ed.-HI: Bachelors in education-Hearing Impairment)

Table-2 shows the characteristics of subjects (Special Educators) i.e. Name, Age/Sex, Education, work experience and Knowledge of English for Special educators.

As can be observed from table 2, All Special Educators had Diploma in Special Education-Hearing Impairment (DSE-HI), with a minimum experience of 1 Year. All reported a working knowledge of English.

Table-3. Audiologist and Speech Language Pathologist (ASLPs') group

S.No	Name	Age/Sex	Education	Experience	Knowledge of English
1.	Mr. G	29Yrs/M	MASLP	4Yrs	Yes
2.	Mrs. P. S	30Yrs/F	M.Sc (ASLP)	5 Yrs	Yes
3.	Dr. A. DG	39Yrs/M	Au.D., MSLH	14 Yrs	Yes
4.	Mr. K.G	32Yrs/F	MASLP	6Yrs	Yes
5.	Mr. R. R	34Yrs/M	MASLP	6Yrs	Yes

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(Note: MASLP: Master in Audiology and Speech Language Pathology, M.Sc. (ASLP): Master of Science in Audiology and Speech Language Pathology, Au.D: Doctor of Audiology, MSLH: Master in Speech Language and Hearing)

Table- 3 shows the Name, Age/Sex, Education, work experience and Knowledge of English for the ASLPs'. All ASLPs' had masters' degree and working knowledge of English and their minimum work experience was 4 years.

Anova test was done to find any significant difference among the groups and results showed that there is no significant difference among the groups for most of the items/ objectives under each section. However there were a few items/ objectives that approached near significant level. Intra-reliability test (spearman brown coefficient) was done to know the reliability of the items/ objectives among the groups (Alpha value more than 0.5 for all the items/ objectives under each section).

The table below shows Mean, Standard deviation and p-value for the items/ objectives under each section.

Table: 4. Comparison among the group, i.e., Parents (P), Special Educators (SE) and ASLPs' for the objectives selected in Section I. Attention

Items/ Objectives	Groups	Mean	Standard deviation	p-value
O.2. To attend the puzzles	P	2.8	1.09	0.28 **
	SE	3.6	0.54	
	ASLP	3.2	0.44	
O.3. To match the two Pictures: Bus & Car	P	4	0.00	0.23 **
	SE	3.4	0.54	
	ASLP	3.4	0.89	
O.4. To match the Pictures (Bus) and object (Bus)	P	3.2	0.83	0.61 **
	SE	3.2	0.44	
	ASLP	4	.00	
O.5. Points to a person (Mother/ Father)	P	3.2	0.83	0.28 **
	SE	3	0.00	
	ASLP	3.6	0.54	
O.6. To colour the Picture as per Number	P	3.4	0.54	

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Items/ Objectives	Groups	Mean	Standard deviation	p-value
	SE	3.2	0.44	0.54 **
	ASLP	2.8	1.30	
O.7. To sit for 10 – 20 minutes	P	2.8	0.44	0.80 **
	SE	2.8	0.44	
	ASLP	3	0.70	
O.9. To search the words in 10 words puzzle	P	3.8	0.44	0.64 **
	SE	3.4	0.54	
	ASLP	3.6	0.89	
O.10. To look towards an object (Bus/Car)	P	3.8	0.44	0.55 **
	SE	3.4	0.54	
	ASLP	3.4	0.89	
O.11. Points to an object (Bus/Car)	P	4.0	0.00	0.30 **
	SE	3.6	0.54	
	ASLP	3.6	0.54	
O.12. Turns and looks toward person speaking	P	4	0.00	0.32 **
	SE	3.6	0.54	
	ASLP	3.4	0.89	

(**: Not significant, *: Significant)

Table 4 shows that there is no significant difference among the groups for all selected items/ objectives under section I Attention.

Table: 5. Comparison among the group i.e. Parents (P), Special Educators (SE) and ASLPs' for the objectives selected in Section II. Auditory Training

Items/ Objectives	Groups	Mean	Standard deviation	p-value
O.1. To attend the sound (Mother and Father Voice)	P	3.4	0.89	0.64 **
	SE	3.6	0.54	
	ASLP	3.4	0.44	
O.2. To localize the sound (Mother and Father Voice)	P	3.2	1.09	0.35 **
	SE	3.2	0.44	
	ASLP	3.8	0.44	
O.3. To detect sound (Mother & Father voice) from distance (3-6 feet)	P	3.8	0.44	0.75 **
	SE	3.6	0.54	
	ASLP	3.8	0.44	
O.4. To discriminate between two sounds-Door bell &	P	3.6	0.54	

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Items/Objectives	Groups	Mean	Standard deviation	p-value
Door knocks	SE	3.2	0.44	0.17 **
	ASLP	3.8	.44	
O.5. To discriminate between name call & Table tap	P	3.6	0.54	
	SE	3.4	0.54	0.86 **
	ASLP	3.4	0.89	
O.6. To identify his/her name	P	3.2	0.54	
	SE	3.4	0.54	0.49 **
	ASLP	3.2	0.44	
O.7. To identity his/her parent voice from back	P	3.6	0.89	
	SE	3.4	0.54	0.64 **
	ASLP	3.8	0.44	
O.8. To identify the sound from distance (3-6 feet)	P	3.4	0.89	
	SE	3.2	0.44	0.34 **
	ASLP	3.8	0.44	
O.9. To understand two word utterances (Action + location= come here)	P	3.8	0.44	
	SE	3.6	0.54	0.34 **
	ASLP	3.2	0.83	
O.10. To understand the different speech sounds, such as /p/, /t/ and /k/	P	3.4	0.54	
	SE	3.2	0.44	0.49 **
	ASLP	3.6	0.54	

(**: Not significant, *: Significant)

Table 5 shows that there is no significant difference among the groups for all selected items/ objectives under section II Auditory Training.

Table: 6. Comparison among the group i.e. Parents (P), Special Educators (SE) and ASLPs' for the objectives selected in Section III. Verbal Comprehension

Items/ Objectives	Groups	Mean	Standard deviation	p-value
O.1. To develop name Recognition	P	3.8	0.44	
	SE	3.6	0.54	0.33 **
	ASLP	4.0	0.00	
O.2. To recognize his family members (Father and Mother)	P	3.8	0.44	
	SE	3.4	0.54	0.10 **
	ASLP	4.0	0.00	
O.3. To follow simple instruction (Give me + object –	P	3.4	0.54	

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Give me glass).	SE	3.2	0.44	0.02 *
	ASLP	4.0	0.00	
O.4. To develop number recognition (1-10)	P	3.4	0.89	0.13 **
	SE	3.0	0.00	
	ASLP	3.8	0.44	
O.5. Locates common objects in unfamiliar pictures	P	3.6	0.54	0.49 **
	SE	3.4	0.54	
	ASLP	3.8	0.44	
O.6. To follow 2 step instructions (Take the glass and give it to mummy)	P	3.0	0.70	0.03 *
	SE	3.0	0.00	
	ASLP	3.8	0.44	
O.7. To sort two groups of object (Fruits & vegetables) without assistance	P	2.6	1.14	0.03 *
	SE	3.4	0.54	
	ASLP	4.0	0.00	
O.8. To give the correct object when asked to give	P	3.0	1.0	0.16 *
	SE	2.6	0.54	
	ASLP	4	0.00	
O.9. To point to the correct picture which answers a question involving who, what or where? (To show a family picture, where his/her all family are there)	P	3.6	0.54	0.30 **
	SE	3.6	0.54	
	ASLP	4.0	0.00	
O.11. To improve understanding of, concepts of positions & Prepositions: on, under, in	P	3.4	0.54	0.02 *
	SE	3.0	0.00	
	ASLP	3.8	0.44	

(**: Not significant, *: Significant)

Table 6 shows that there is no significant difference among the groups for the most of the items/ objectives under section III Verbal Comprehension. However there are a few items/ objectives (i.e., O.3, O.6, O.7, O.8 & O.11) that approached near significant level.

Table: 7. Comparison among the group i.e. Parents (P), Special Educators (SE) and ASLPs' for the objectives selected in Section IV. Oral Expression

Items/ Objectives	Groups	Mean	Standard deviation	p-value
O.2. To vocalize vowels /a/, /e/, /u/	P	2.8	1.09	0.61 **
	SE	3.6	0.54	
	ASLP	3.2	0.44	

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Items/ Objectives	Groups	Mean	Standard deviation	p-value
O.3. To vocalize consonants /p/, /b/, /m/, /t/ etc.	P	4	0.00	0.10 **
	SE	3.4	0.54	
	ASLP	3.4	0.89	
O.4. Vocalizes to greet others (To say hello, Bye to mummy & Papa)	P	3.2	0.83	0.33 **
	SE	3.2	0.44	
	ASLP	4	.00	
O.6. To say his/her name	P	3.4	0.54	0.33 **
	SE	3.2	0.44	
	ASLP	2.8	1.30	
O.7. To say meaningful single word such as (mamma) & (papa)	P	2.8	0.44	0.35 **
	SE	2.8	0.44	
	ASLP	3	0.70	
O.9. To name the parts of the body – Hand, leg, mouth, head, ear, eye etc.	P	3.8	0.44	0.17 **
	SE	3.4	0.54	
	ASLP	3.6	0.89	
O.11. To speak action verbs such as eat, drink etc.	P	4.0	0.00	0.02 *
	SE	3.6	0.54	
	ASLP	3.6	0.54	
O.12. To say color names i.e. red, blue, black, green, white, yellow etc.	P	4	0.00	0.23 **
	SE	3.6	0.54	
	ASLP	3.4	0.89	
O.13. To speak in two word utterances (Agent + action form = mummy eat)	P	3.2	0.44	0.09 **
	SE	3	0.00	
	ASLP	3.2	1.30	
O.14. To answer (what) question – what is your name?	P	2.6	0.89	0.22 **
	SE	2.6	0.54	
	ASLP	3.4	0.89	

(**: Not significant, *: Significant)

Table 7 shows that there is no significant difference among the groups for the most of the items/ objectives under section IV Oral Expression. However there is one item/ objective (i.e. O.11) that approached near significant level.

Table: 8. Comparison among the group i.e. Parents (P), Special Educators (SE) and ASLPs' for the objectives selected in Section V. Articulation.

Items/ Objectives	Groups	Mean	Standard deviation	p-value
O.1. To articulate sound /p/	P	4.0	0.00	

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	SE	3.6	0.54	0.11 **
	ASLP	4.0	0.00	
O.2. To articulate sound /h/	P	3.4	0.54	
	SE	3.0	0.00	0.13 **
	ASLP	3.6	0.54	
O.3. To articulate sound /e/	P	3.6	0.54	
	SE	3.0	0.00	0.00 *
	ASLP	4.0	0.00	
O.4. To articulate sound /t/	P	3.4	0.54	
	SE	3.2	0.44	0.02 *
	ASLP	4.0	0.00	
O.5. To articulate sound /k/	P	3.0	1.00	
	SE	2.6	0.54	0.05 **
	ASLP	3.8	0.44	
O.6.To articulate sound /l/	P	4.0	0.00	
	SE	3.6	0.54	0.11 **
	ASLP	4.0	0.00	
O.7. To articulate sound /s/	P	3.2	0.83	
	SE	3.0	0.00	0.09 **
	ASLP	3.8	0.44	
O.8. To articulate sound /tS/	P	2.4	0.54	
	SE	3.0	0.96	0.05 **
	ASLP	3.0	1.22	
O.9. To articulate sound /d/	P	2.8	1.09	
	SE	2.8	0.44	0.02 *
	ASLP	4.0	0.00	
O.10. To articulate sound /a/	P	3.0	1.00	
	SE	2.8	0.44	0.02 *
	ASLP	4.0	0.00	

(**: Not significant, *: Significant)

Table 8 shows that there is no significant difference among the groups for the most of the items/ objectives under section V Articulation. However there are few items/ objectives (i.e., O.3, O.4, O.9 & O.10) that approached near significant level.

Selected Items/ Objectives for Language Stimulation Home Training Activity Manual in Hindi for Parents of the Children with Hearing Impairment are listed in Appendix I.

Discussion

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As per the aim of the study, items/ objectives were developed and validated for developing a language stimulation home training activity manual for the parents of children with hearing impairment in the chronological age range of 2-6 years. The activity manual had five sections namely, Section I: Attention, Section II: Auditory training, Section III: Verbal Comprehension, Section IV: Oral Expression and Section V: Articulation. Under each section 11 to 15 items/ objectives were written, out of which ten items/ objectives were selected under each section.

The study was carried out in two parts. Part one was the development & validation of the items/ objectives and part two was to check the reliability of the developed items/ objectives.

Development & Validation of items/ objectives:
For section I: Attention
13 items/ objectives were written and these were given to all the judges to rate and validate each item/ objective. Out of 13 items/ objectives, total 10 items/ objectives were selected under attention to develop activity for the manual.

Section II: Auditory training
11 items/ objectives were written and these were given to all the judges to rate and validate each items/ objectives. Out of 11 items/ objectives, total 10 items/ objectives were selected under auditory training to develop activity for the manual.

Section III: Verbal Comprehension
12 items/ objectives were written and these were given to all the judges to rate and validate each item/ objective. Out of 12 items/ objectives, total 10 items/ objectives were selected under verbal comprehension to develop activity for the manual.

Section IV: Oral Expression
14 items/ objectives were written and it was given to all the judges to rate and validate each item/ objective in this section. Out of 14 items/ objectives, total 10 items/ objectives were selected under oral expression to develop activity for the manual.

Section V: Articulation
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11 items/ objectives were written and these were given to all the judges to rate and validate each item/ objective. Out of 11 items/ objectives, total 10 items/ objectives were selected under articulation to develop activity for the manual.

The developed items/ objectives under each section were given to the judges to rate the items/ objectives under four rating scales. All selected items/ objectives were rated as Most relevant & very useful (4) and Mostly suitable & useful (3) by all the judges. The items/ objectives which rated as Very Limited use & relevant (2) & Not relevant & useful (1) were deleted from the list and were not included for developing the activity.

Reliability of selected items/ objectives

It was very difficult to know the reliability of the developed items/ objectives for the developing activity manual. So to know the reliability of the items/ objectives among the judges, Intra-reliability test (Spearman Brown coefficient) was done. And Intra-reliability test (Spearman Brown coefficient) value, i.e., Alpha value was > 0.5 for all the groups under each section of the activity manual. This indicates good reliability for the items/ objectives under each section by all the judges. And as per the suggestion given by the judges, the items/ objectives were modified, added and sequentially arranged, which were incorporated in the final list of the items/ objectives for the activity manual.

Summary and Conclusion

Development of objectives is an important point for developing any language stimulation manual. Most of the objectives were highly rated by all the subjects, which indicated the high reliability of the selected objectives among the subjects.

Limitations of the study: The number of subjects taken was less for the groups and the developed items/ objectives in this study were very limited.

Further recommendations: More number of subjects can be included and more items/ objectives can be included to validate.

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In conclusion, the selected items/ objectives were useful and helpful to develop an activity in the home training activity manual for Parents of the children with hearing impairment.

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Acknowledgment

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References

Anitha. A, (2001). *Auditory learning Manual for English speaking Hearing-Impaired Children*. Unpublished M.Sc. (Speech and Hearing) Dissertation, AIISH, University of Mysore, Karnataka, India.

Asha Manoharan, (2008). *Auditory learning Manual for Malayalam speaking children with Hearing-Impaired*. Unpublished M.Sc. (Speech and Hearing) Dissertation, AIISH, University of Mysore, Karnataka, India.

Ansari Shamim. M, (2004). *Screening programme for Hearing impairment in newborns: A challenge during Rehabilitation for all*, Asia Pacific disability rehabilitation journal, 83. Vol-15, No.1.2004.

Burgess, A. (1997). *Fatherhood Reclaimed: The making of the modern father*. London: Vermilion Press.

Clarck, Thomas c, Watkins, Susan (1985). *The SKI* HI Model: Programming for Hearing Impaired infants through home intervention, Home visit curriculum*, fourth edition, Utah state university, Logan, Department of communicative disorders.

Devi, N. (2005). *Auditory learning manual for hearing-impaired infants and toddlers*. Unpublished M.Sc. (Speech and Hearing) Dissertation, AIISH, University of Mysore, Karnataka, India.

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Ranjan Rajeev. (2006). *Language stimulation for the children with mental retardation-An activity manual for the Parents*, Unpublished master dissertation: Mangalore university, Mangalore, India.

Subba Rao, T.A., & Narayan, J., (2003). *Training in communication skills for Persons with Mental Retardation: UTILITY GUIDE FOR PARENTS*. Secunderabad: national institute for the mentally handicapped.

Vijayalakshmi, (2004). *Auditory learning Manual for Kannada speaking Hearing-Impaired Children*. Unpublished M.Sc. (Speech and Hearing) Dissertation, AIISH, University of Mysore, Karnataka, India.

World Health Organization, (1998). *The World Health Report Life in the 21st Century: a Vision for All*, Report of the Director General, Geneva, WHO.

APPENDIX-I

Selected Items/ Objectives under each section for Language Stimulation Home Training Activity Manual in Hindi for Parents of the Children with Hearing Impairment.

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I. ध्यान (Attention)

1. पज्जल्स/पहेली के तरफ ध्यान देना।
   (To attend the puzzles).

2. दो तस्वीरें बस और कार को मिलाना।
   (To match the two Picutres-Bus & Car).

3. तस्वीर 'बस' और वस्तु 'बस' को मिलाना।
   (To match the Picutres-Bus and object-Bus).

4. व्यक्ति 'माता/पिता' के तरफ इशारा करना।
   (Points to a person- Mother/ Father).

5. लिखे गये अंक के आधार पर रंग भरना।
   (To colour the Picture as per Number).

6. 10 – 20 मिनट के लिए बैठना।
   (To sit for 10 – 20 minutes).

7. दस शब्दों के पहेली में शब्द खोजना।
   (To search the words in 10 words puzzle).

8. एक वस्तु; 'बस/ कार' की ओर देखना।
   (To look towards an object-Bus/Car).

9. एक वस्तु; 'बस/ कार' के तरफ इशारा करना।
   Points to an objetct-Bus/Car).

10. बातें करते हुए व्यक्ति के तरफ मुड़ना और देखना।
    (Turns and looks toward person speaking).

II. श्रवण प्रशिक्षण (Auditory Training)

1. ध्वनि 'माँ और पिता का आवाज' पर ध्यान देना।
   (To attend the sound (Mother and Father Voice)).

2. ध्वनि 'माँ और पिता की आवाज' का स्थान निर्धारण करना।
   (To localize the sound 'Mother and Father voice')

3. ध्वनि 'माँ और पिता का आवाज' को दुर '3–6 फीट' से पता लगाना।
   (To detect sound from distance (3-6 feet) (Mother & Father voice))

4. दो ध्वनियों 'दरवाजे की घंटी और दरवाजे की खटखटाहट' में अंतर करना।
   (To discriminate between two sounds – Dor bell & Door knocks)

5. नाम बुलाने और टेबल थपथपाने की आवाज में अंतर करना।
   (To discriminate between name call & Table tap)

6. अपना नाम पहचानना। (To identifiy his/her name)

7. पीछे से आ रहे माता–पिता के आवाज को पहचानना।
   (To identity his/her parent voice from back)

8. दुर '3–6 फीट' फीट से आ रहे ध्वनि को पहचानना।
   (To identify the sound from distance (3-6 feet))

9. दो शब्द के वाक्य 'काम+स्थान – आओ+इधर' इधर आओ को समझना।
   (To understand two word utterances (Action + location= come here)

10. अलग–अलग वाक् ध्वनि; जैसेः प,ट,क को समझना।
    (To understand the different speech sounds, such as (p), (t) and (k))

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III. मौखिक बुद्धि/ समझ (Verbal Comprehension)

1. अपना नाम पहचानने में विकास करना।
   (To develop name Recognition).

2. अपने परिवार के सदस्य 'माँ और पिता' को पहचानना।
   (To recognize his family members- Father and Mother).

3. आसान निर्देश का पालन करना; जैसे– ग्लास दो।
   (To follow simple instruction- Give me + object = Give me glass).

4. नम्बर; एक–दस पहचानने में विकास करना।
   (To develop number recognition- 1-10).

5. अपरिचित वस्तुओं के तस्वीर में से आम वस्तु को ढूँढ़ना।
   (Locates common objects in unfamiliar pictures).

6. दो कदम वाले निर्देश का पालन करना–जैसे ग्लास लो और मम्मी को दो।
   (To follow 2 step instructions- take the glass and give it to mummy).

7. बिना सहायता के वस्तुओं को दो समुह– फल तथा सब्जी से अलग करना।
   (To sort two groups of object- Fruits & vegetables, without assitance).

8. जब बोला जाय कि वस्तु दो तो सही बस्तु देना।
   (To give the correct object when asked to give).

9. सही तस्वीर के तरफ इशारा करके सही उत्तर बताना, जिसमें कि कहाँ, क्या, कौन, प्रश्न शामिल हो; जैसे–अपने किसी एक परिवार के सदस्य के बारे में बताना, किसी एक तस्वीर में।
   (To point to the correct picture which answers a question involving who, what or where? i.e., to show a family picture, where his/her all family are there).

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१०. स्थिति के धारणा को समझना; प्रिपजिशनः उपर, नीचे, अन्दर इत्यादि।
(To improve understanding of, concepts of positions & Prepositions: on, under, in).

IV. मौखिक अभिव्यक्ति (Oral Expression)

१. स्वर; अ, ई, ऊ बोलने के लिये सीखना।
(To vocalize vowels- a, e, u).

२. व्यंजन; प,ब,म,ट इत्यादि बोलना सीखना।
(To vocalize consonants- p, b, m, t, etc.).

३. दुसरों का स्वागत करना सीखना; जैसे–हल्लो बोलना, मम्मी और पापा को बाय बोलना।
(Vocalizes to greet others, to say hello, Bye to mummy & Papa).

४. अपना नाम बोलना। (To say his/her name).

५. एक अर्थपूर्ण शब्द मम्मा तथा पापा बोलना।
(To say meaningful single word, such as mumma & papa).

६. शरीर के अंग का नाम बताना; जैसे– हाथ, पैर, मुँह, माथा, कान, आँख, इत्यादि।
(To name the parts of the body – Hand, leg, mouth, head, ear, eye etc.).

७. एक्शन वर्ब बोलना जैसे– खाना, पीना इत्यादि।
(To speak action verbs such as eat, drink etc.).

८. रंगो का नाम बोलना; जैसे लाल, नीला, काला, हरा, उजला, पीला इत्यादि।
(To say color names- red, blue, black, green, white, yellow etc.).

९. दो शब्दों के वाक्यों में बोलना जैसे– 'मम्मी खाना'।

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(To speak in two word utterances, 'agent + action' form = mummy eat).

१०. 'क्या' प्रश्न का उत्तर देना, जैसे – तुम्हारा नाम क्या है ?
(To answer 'what' question – what is your name?).

V. उच्चारण (Articulation)

१. 'प' का उच्चारण। (To articulate sound /p/).

२. 'ह' का उच्चारण। (To articulate sound /h/).

३. 'ई' का उच्चारण। (To articulate sound /e/).

४. 'त' का उच्चारण। (To articulate sound /t/).

५. 'क' का उच्चारण। (To articulate sound /k/).

६. 'ल' का उच्चारण। (To articulate sound /l/).

७. 'स' का उच्चारण। (To articulate sound /s/).

८. 'च' का उच्चारण। (To articulate sound /tS/).

९. 'द' का उच्चारण। (To articulate sound /d/).

१०. 'अ' का उच्चारण। (To articulate sound /a/).

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