NORMATIZATION OF SCALE OF EARLY COMMUNICATION SKILLS
FOR THE HEARING IMPAIRED ON INDIAN POPULATION

Swathi (C.S.)
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To My

BAPU, MUMMY, JOE AND RAJU

For being the pillars of my strength

C E R T I F I C A T E

This is to certify that the Dissertation entitiled 'Normatization Of Scales Of Early Communication Skills For The Hearing Impaired On Indian Population" is bonafide work, done in part fulfilment for the second year degree of Master of Science (Speech and Hearing) of the student with Reg. No. M9123.

Mysore

1993

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C E R T I F I C A T E

This is to certify that the Dissertation entitiled 'Normatization Of Scales Of Early Communication Skills For The Hearing Impaired On Indian Population" has been prepared under my supervision and guidance.

Mysore

1993

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D E C L A R A T I O N

I hereby declare that this Dissertion entitled 'Normatization Of Scales Of Early Communication Skills For The Hearing impaired On Indian Population' is the result of my own study under the guidance of Dr. (Mrs.) Prathiba Karanth Prof. and H. O. D. of Speech Pathology, All India Institute Of Speech And Hearing, Mysore, and has not been submitted earlier at any University for any other Diploma or Degree.

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CONTENTS

INTRODUCTION

The art of communication has metamorphosised from one species to the other and from one generation to another. From smoke signals to coded messages we now talk in terms of 'bits' and 'bytes'. The same has been true for the verbal language system. Caveman communicated using differential "cries", while the neolithicman became more socialized and formed rudimentary speech. The modren man has become more sophisticated and civilized with the complex use of language.

The acquisituin of verbal language begins from the birth cry of the child and continues up to the pre-teen years. Thus, it acquires its first language in several stages namely, the prevenbal stage, single word, 2 word-, 3 word-, refinement - & complex-structure formulations, until it reachs the stature of adult like language at 8 to 9 year of age.

Verbal language acquired in the early childhood years provide the formulation for all later language development. Any interference with the development of the foundation, will likely interfere with all subsequent learning processes. Thus early verbal language development is highly influenced by parent-child interactions. Variables such as a normal child born to deaf parents a deaf child born to normal hearing parents or a deaf child born to deaf parents, early identification, extent of intervention & use of amplification system, all contribute to the cognitive development of a child. This is especially so in hearing impaired children.

Deafness cannot be described as a language disorder in the same way as for e.g. developmental dysphasia or dyslexia, since deaf children (unless they have additional difficulties) have no intrinsic impairment in their language tearing abilities. Neither can deafness be described as a speech disorder. Since a deaf child's speech mechanism is unimapired and the difficulties cannot be equated with those of children who have orofacial anomalies or dysarthria. Their only impairment is a sensory one & yet this influences all the levels of language.

To some extent the way in which the language of deaf children is described - whether phonetic, phonological, syntactic, semantic or pragmatic terms are used - depends on the theory of normal language acquisition that is held and on whether it is assumed that the deaf children do infact acquire language in the same way as hearing childern do. Whatever the theory of language acquisition there is little doubt that children have to experience language in their environment before speech is acquired.

A number of important variables influence the child's early linguistic experiences in the family e.g., the parents of the child may or may not know of the deafness at an early stage. If early diagnosis has taken place, further variables include the professional intervention and the usefulness of sound amplification to the child.

Approximately 1 in 20 deaf children are born to deaf parents (Wall and Lawson, 1980) and their early experiences are very different from those of the deaf child born into a hearing

family. The deaf parents are unlikely to experience the mourning, grieving, sense of toss, denial, guilt, possible rejection and anxiety for their deaf child, (Mundel & Feldman 1987) that hearing parents may undergo when learning their child is deaf.

Research (Gregory & Mogford 1981) suggests that hearing parents do in fact alter their behaviour towards their deaf infants. There is tendency for the hearing individuals to produce exaggerated & distorted speech patterns when talking to a deaf child. The child may thus be deprived of normal auditory & visual models of speech production.

Wood et al (1986) Found that adults behaviour towards the child is likely to be based on what the child can express, negotiate & communicated, without taking into account what the child knows, thinks & feels. The result is that the normal processes of adult child communication & interaction are restricted.

There is a small portion of deaf children who are born to deaf parents who use sign language. These children have the opportunity to acquire sign language in infancy & early childhood through a similar natural process to that of spoken language acquisition.

Brasel & Quigley (1977) Reported that deaf children of British sign language using deaf parents generally develop linguistic skills in English which are superior to those of deaf children of hearing parents. The nature of the linguistic experience provided by the educational environment has an important influence on the language development. Thus, qualified teachers, a well equiped set up & the mode of teaching goes a long way in providing the hearing impaired child with a conducive learning environment.

Mow, the question arises whether we are justified in using a test standardized on hearing population when actually there are many variables, as we have seen above, affecting the language acquisition abilities of the hearing impaired child. It is important to be able to compare the language level of a hearing impaired child not only with his normal peer but also with a hearing impaired child from his socio cultural background, both for purposes of assessment and rehabilitation.

The vehicle of language in all its existance is the ultimate expression of human communication. Structuralistic approach, Naturalistic and Pragmatic approach are just some of the theories of language acquisition developed through the years.

For those who are deprived of normal language development, indeed this human tool is not to be taken for granted. To help them realize the tremendous potential of speech & language aspects of language development before plunging into the necessities of language assessment in general and assessment of the language of the hearing impaired in particular.

NORMAL LANGUAGE DEVELOPMENT :

Studies on child language acquisition reveal that the child goes through various stages until the development of adequate speech & language.

These stage include :-

1. Freverbal Stage

2. Single-Word Stage

3. Two-Word Stage

4. Three-Word Stage

5. Refinement Stage

6. Complex Form Stage

PREVERBAL STAGE (0 - 10 mths)

The preverbal infant operate primarily as a social being strongly concerned about his comforts,(Kretschmer .R. R. Jr. &

Kretschmer .L.W, 1978). It has been suggested that during the preverbal stage the child is learning about segments that tend to concentrate around syllabic differentiations.

Although there are some indications that children learn the general rote of stress and intonational patterns rather early there is also evidence to suggest that complete mastery of stress and intonational system is not accomplished until children are much older. During the preverbal period, according to (Bates 1976) the child develops an elementary knowledge of performatives, propositions and persupposition, but this knowledge exists only at the sensorymotor level, as defined in piagetian terms.

Vocalization of infants during the preverbal stage, if viewed as speech practice and not language practice can be seen as strikingly similar to the speech of older children.

SINGLE WORD STAGE : (10 - 24 mths)

From the preverbal stage the child moves into a period of speaking almost entirely in single words. Huttenlocher (1974) reports that early meaning acquisition to focus on proper names. The child's semantic fields seem to parallel those found in adults, but the basis upon which such categories are organized do not seem to be the same as for adults.

The single-word stage can be seen as the period extending from development of basic concepts such as, existance, non-existence & recurrence sophisticated usage, including experiencer, possersor and stative-locations.

TWO-WORD STAGE : (24 - 42MTHS)

This stage can be seen as a continuation from the single-word stage. It is during the two-word that the child begins to combine the semantic notions developed during the single-word stage into meaningful relations. The child proceeds from simple semantic concepts such as functional relations to more complex concepts embodied by so-called grammatical relations, whether use of two-word combinations rejects genuine systematic understanding is still subject to considerable debate. [Kretschmer R.R. Jr., Kretschmer .L.W (1978)].

REFINEMENT & COMPLEX SENTENCE DEVELOPMENT-THREE WORD & BEYOND (42 MTHS & BEYOND)

Children who have passed through the two word stage may begin to adhere rigidly to N-V-N word order in their comprehension of utterances,even when it seems inappropriate as in passive like constructions(deVililliers & deVilliers,1972). This rigidity in comprehension is interpreted by researchers as the over learning of a syntactic rule that had not been used with great certainty during the two word stage.

As the child moves into & beyond the three word stage, he begins to work on both linguistic refinement & linguistic complexity. Refinements are defined as linguistic units that semantically explicate basic linguistic relations. The process is brought about by imitation & modality refinement. Complex sentence operations might develop simultaneously or slightly after initiation of refinement of basic modes within the deep structure. This child begins to develop complex operations such as co-

ordination,relativization and complementation. It can thus be seen that the process is not one day's job but repeated attempts of the child with improvement at every stage and each stage developing on the previous one.

But, how do we know at what level a child is when he is brought to our clinics? For this we need to make use of the language assessment tools.

IMPORTANCE OF LANGUAGE ASSESSMENT

Language assessment is an important but complicated process. Complicated because of the difficulty in adequately evaluating many aspects of language performance, or determining whether the sample of behavior any relationship to a child's generally demonstrated capabilities or not.

The type of sample desired depends upon the specific purpose of the test. Tests are generally designed to accomplish one or both of the following goals:-

1. Rank individuals : In using these tests the examiner compares the score of a given child with the scores of other children who have taken the test & determine where that child's scores falls within the distribution of scores. For e.g. Norm-referenced tests.

2. Describe regularities of performance.

It has many instances of a specified type of behaviors the goal of identifying the specific behaviors the child does or does not possess. The interest in these tests is not how the child ranks relative to a group children, rather the question is whether or not the child knows the specific objectives that the tester has chosen to be important to know. For e.g. :- Criterion referenced tests.

According to Patrica (1991) the needs for language assessment are as follows :-

In comparative outcome research it maybe essential to comfort for language level across the groups studies in order adequately to investigate the influence of other factor on development.

In Experimental research involving different group of subjects, frequent language ability to be taken into account in the interpretation of findings.

In Evaluative studies of therapeutic effects necessitated the adequate matching of groups prior to treatment as well as valid outcome measures to document the effects of treatment.

For clinical purposes early and reliable identification of children with language impairment is important.

TRENDS IN ASSESSMENT LANGUAGE DEVELOPMENT

The diversity of tests reflects the variety of approaches one may take to the study of Language development.

As concepts of theories of Language involve, the tools available to clinicians change accordingly bearing testimony to the fact that the clinical practice of speech Language patterns are interwinied with basic developments in theory and research.

Some 30 to 40 years ago, when Language was defined primarily in terms of count and tally proceeds,diagnostic tests consisted mainly of phoneme and vocabulary counts,measures of the length and number of utterances and various type - token ratios.
e.g. :- Test of Language Development - Darley

In 1950's there were two approaches to Language necessity. Firstly the normative approach as taken by Johnson and Spriesterbach (1952). Their emphasis was on how normal children of different ages performed on measures such as mean sentence length in words,rate of speech used,sentence structure and ratings verbal output. The second approach was pathology, based cm a medical model, the goals of assessment were to identify the "disease" underlying cause of the persuarating symptoms. Disordered language was viewed as one of a clusters of symptom that could lead the clinician to diagnosing the problem.
E.g. :- Assessment of Auditory disorders in children myklebust (1965).

The decade of 1960's brought new trends in language assessment, impact of behaviouristic movement shifted the emphasis from deviant language behavior as a symptom of an underlying to a view that the disordered language itself was the problem.
For e.g. :- Illinoise Test Of Psycholinguistic Abilities - Kirk and McCarthy(1981)

The auditory language processing framework grew out of the behavior and presented a view that language processing begins with the stimulus and proceeds two various steps until it is stored in memory. Thus, the test batteries or specific tests have been designed to test child's audinory processing abilities.
For e.g. :- Test of auditory comprehension of language - Carrow & wool folk (1973).

Late in 1960's due to the influence of Chomsky's view of the nature of language the test focus changed from words of phonemes to focus on sentence as the fundamental unit. They also attempted to probe the child's understanding and use of the grammatical rule systems. This lead to inguistic approach to language assessment. For e.g. :- Bochem's Test of Basic Concepts - Bochem (1971)

Carrow's Elicited Language Inventory - Carrow (1974)

Developmental Analysis of Sentences- Leel (1974)

Northwestern Syntax Screening Test - Leel (1971)

Linguistic analyses of children's phonology, morphology and syntax have led the research away from the behavior way of thinking to a more Mentalistic approach, that is, we are no longer talking about language as made up of responses pulled from represented repertoire. We know talk about linguistic rules which children and adults use to understand and produce language. This brings the emergence of language to the semantic emphasis. For e.g. :- Bankson's Language Screening Test - Bankson (1977).

In this same time, as result of focus on semantics, there was a renewed interest in Piaget's congitive theory, leading to a cognitive emphasis in assessment. The focus became one which asked whether the language impaired child had the necessary prerequisite cognitive knowledge for language learning. This type of assessment can be used with non-verbal children who cannot be assessed by procedures built on linguistic structure models. Language pathology reasoned that if normal children expressed a given set of interests as different stages in their development, we need to find out, whether language impaired children also express them.

For e.g. Scale For Early Communication Skills. Jean .S. Moog and
Ann .V. Green.

The approaches to assessment were based on the various
aspects of interaction.
For e.g. :-   Talking to Children : Ferguron and Snon (1977)

A second perspective to emerge in 1980's was one which
examined language in terms of its event contexts. For e.g. Duchman
(1988) and Land and Rucha (1988) opined that the selection of
language assessment instrument should be guided by the assessment
questions we are asking for : The probable questions are :- a)
Does this child have a language problem ? b) What is causing the
problem ? c) Vhat are the regularities in the child's language
performance ? d) Vhat are the areas of deficit ? e) Mhat is
recommended for this child ?

EFFECTS OF HEARING LOSS ON COMMUNICATION

The sequential development of language skills in normal
children is typically, first listening, speaking, then reading &
writing.

It must be recognised that there are numerous variables which
influence the development of language by hearing impaired
individuals & those with normal hearing. The impaired may often
have poorer vocabulary than normal and they may show a general lag
in academic progress. (Goetzinger, 1962).

Perhaps the most devasting influence of the hearing loss is for individuals is, the social influence and its effect on the individual's personality. Additional factors which influence language development of hearing impaired children include the hearing of parents, intelligence, psychological adjustment and preferred mode of communication.

The profoundly and severely deaf children of average intelligence, as a result of difficulty in comprehension and expressing language, suffer from severe academic retardation. (Quigley and Kreschmer, 1982) The effects of milder hearing acquired at an early age have resulted in a condition described as "Minimal auditory deficiency" which is characterized by learning language problems. The effect of middle ear problems on the acquisition that due to the experience auditory sequential memory, reading and other related language skills (Katz, 1985)

LANGUAGE ACQUISITION IN THE HEARING IMPAIRED CHILDREN

The bulk of early literature on Language acquisition and development in hearing impaired children deals with early language acquisition,emphasizing the effects of preschool experiences of hearing impaired children or the lingusitive performance of order deaf children. However with the development of better tools for measurement of language the studies were conducted on the phonology,syntax and semantics.

Heider and Heider (1940), reported that the total number of words used by deaf is similar to hearing poems in the written composition and less in the spoken Language (Brammon, 1968). The frequency with which different classes of words are used also differed from the hearing children.

It was found that the language used in the structured was different from that of unstructured. Vhen the sentences were elicited, the deaf tended to use a greater proportion of nouns,verbs and articles in the utterances and very few adverbs,pronouns,prepositions and question forms(Bramman, 1968). In the less structured samples,articles and main verbs (particularly the verb to be) are also omitted (Taylor, 1969).

Majority of the studies paint that the syntax used by the deaf is different from that used by hearing press only one study conducted by Hess (1972) found no difference behavior hearing

impaired & their peers are the syntactic's development (Quigley et at, 1976) compared the syntactic knowledge of deaf chiidren aged 10 to 18 yrs and found that the syntax develops similarly for the deaf but at a greatly retarded rate.

The average sentence length is shorter for deaf children that for their hearing peers; fever compound and complex sentences are used and sterobyge caxier phrases & sentences frames are common (Simmons, 1962). Blanton (1968) concluded that deaf individuals (1) have excellent visual memory but do not use syntax as do the hearing individuals to aid in usual memory of sentences, (2) Know sentence frames & can determine the form class that should be inserted in a sentences paw,but do not understand, the use of meaning of specific words.

It can be conctuded that the sentence structure and vocabulary are stereotypical! and include many grammatical errors. Deaf children may know what they need to know about objects and events in the word & many know how to interact with others in order to communicate,but they may not know the conventional form used for communication in their community. In other words,it appears the the deaf children do learn something of the form of language as it is written,but possibly do not learn language as a vehicle for coding content or for a particular use.

ASSESSMENT LANGUAGE OF HEARING IMPAIRED

Historically, informal techniques were used by teachers of the deaf to assess the language of their hearing impaired students with little consistency with in or across programs.

The Severely delayed language and communication skills of many prelingualy hearing impaired children, the absence of available language instruments designed for and standardized on the hearing impaired and the lack if training language assessment technique and procedures by teacher and professionals dealing with deaf contributed to the minimal use of formalized assessment procedure with the hearing impaired children.

Behavioral difficulted ranked second with problems such as hyperactivity, attention span and motivational difficulties (Abrahman 1985).

The most often used approaches to the language assessment however can be categorized as involving the use of norm-referenced test or informal descriptive assessment as have already been mentioned.

The Scale Of Early Communication Skills For Hearing Impaired (Jean .S. Moog and Aun .V. Green, 1975) are designed to evaluate speech and language development of the hearing impaired children between the ages 2 to 8 yrs 11 mths. The instrument is divided

into 4 scales - Receptive Language Skills (RLS), Expressive Language Skills (ELS), Nonverbal Expressive Skills (NES) and Nonverbal Receptive Skills (NRS). The scale is completed by the child's teacher or a person who knows to evaluate language.

There are two levels of items for the receptive and expressive skills. 'A' level items describe the use of skill within a structured situation, while 'B' level items represent the use of the skill in a spontaneous manner. The items are scored independent of each other. Each item must receive on of the following ratings :-

+ Child demonstrates the skill enough to indicated that he is capable of performing at that level. The child must demonstrate facility with the skill in several instances.

+ Child has demonstrated the skill on occasions often enough to indicate that it may be emerging, but not sufficiently often to fulfill the criteria necessary for being rated at this level.

Child does not demonstrates the skill or it has occurred only by accident.

The receptive scale is designed to provide a device for observing and recording in a consistent manner a behavioral description of the level at which the child is comprehending speech. The five major levels represent steps in the acquistion of receptive language skills which could also be used as guidelines teaching.

The expressive scale is designed to provide a device for observing and recording in a consistent manner a behavioral description of the level at which the child initated speech and spontaneously uses speech for communicating. The nine major levels represent steps in the acquisition of expressive language skills which could be used as guidelines for teaching.

The Nonverbal receptive scale enables the teacher to describe the extent to which the child makes use of nonverbal cues in comprehending what is said to him. A child's ability to respond to nonverbal cues is a valuable tool in his learning to understand speech. As the child acquires the skill of comprehending words, combining this skill with the ability to effectively use gestues and situational cues is essential in order to function adequately in the talking community.

The Nonverbal expressive skills enables the teacher to describe the extent to which the child uses nonverbal cues and gestues for making himself understood. For the child who is not talking, or not talking very much, the ability to use nonverbal gestues and cues to supplement his vocalizations and whatever words he knows is necessary in order to communicate effectively. The child's skill in making himself understood may serve to motivate him to learn to talk more.

The test was standardized on 372 hearing impaired children. Most of them were enrolled in classes for the hearing impaired. The validity was found to be good and reliability was found to range from 0.76 to 0.91.

The SECS has been normalized on the western population since, this cannot be applied directly on the Indian population there is a need of a normative sample on the hearing impaired in India.

In India's few attempts have been made to test the language ability of the hearing impaired children.

3D LAT & HARD OF HEARING

Developed by Usha K.R. (1986) this test explores the performance of 28 hearing impaired children on 3D LAT. The age group considered was 18 - 36 mths. The results indicated that when a comparison was made with the data collected on normal children (Geetha .H, 1984) the hearing impaired children on the three dimensions showed very poor performance on the items for reception, both with in age groups and across the age groups between expression and cognition the results showed that the latter was better that the former. On the cognitive items, greater variability was seen in general as compared to the normal children. The hard or hearing children performed better on the cognitive dimension than on the Receptive and Expressive scales, supporting the notion of cognitive development is free of linguistic development, at least in the early years. When the scores on all the three dimensions were compared on the basis of non-verbal performance, subjects were found to perform better on the Receptive and Cognitive items than on the Expressive items. On

the verbal scale, a good correlation in the positive direction was seen for cognition. A poor correlation was seen in the positive direction for expression. On the nonverbal scale, a good correlation was seen in the positive direction for a!i the three dimensions in the case of hard hearing impaired.

NEED FOR THE STUDY

Just as we would not compare the performance of a child speaking French to the norms of English speakers, we cannot use the performance of a dissimilar geographic or social group to judge the normalcy of a child.

The standardized population generally does not include individuals who deviate from the "typical" in anyway. If the clinician is seeking a test determine ranking for a particular child, it is important to choose one which was standardized with a population similar in cultural background of the child.

It has been seen that typically there are several behaviors, reported to be normal at each age level. The language acquisition hearing impaired has been reported to be different from his peers with normal hearing so, an individual child should be observed or directed to perform these behaviors and then scored accordingly to which age group his or her score is closest to.

In the same manner for arual rehabilitation of the hearing impaired a standardized sample on the hearing impaired poputation needs to be constructed. An attempt is made in this study towards that direction. Such an adaptation Would help in comparing the Indian hearing impaired child with his peers rather than English speaking children.

This would lend the test to be used along with other standardized tests on the Indian poputation.

It could also be used in schools, clinics and either educational centers for the benefit of the hearing impaired children.

CURRENT STUDY

METHODOLOGY

The present study is intended to provide a normative measurement of SECS that could be used for the hearing impaired children of India.

In the process of obtaining this, the original SECS was first translated into Kannada and Telugu. The procedures for administration & scoring were similar to that used in the original scale. In the analysis the percentile ranks & z scores were obtained.

TRANSLATION OF ORIGINAL FORMAT INTO KANNADA AND TELUGU

The original SECS is in English, which cannot be directly applied for the Indian population. This test was hence translated into Kannada & Telugu since the data was collected from Mysore & Hyderabad respectively. This translation would also benefit the teachers and or mothers who helped in the data collection.

The translations were done by the senior clinicians, who are well versed with Kannada & Telugu. The formats are given in Appendix - A & B respectively. The english test format has been enclosed in Appendix - C.

ADMINISTRATION OF THE ADAPTED SCALES

The SECS was administrated using the format as described in the original scale. The subjects were required to point to or give a verbal response to questions.

SUBJECT SELECTION

Hard of hearing children ranging from 2 years to 8 years, 11 months were selected as the subjects of this study.

The criteria for selection was :-
1) The child should have congenital hearing impairment before the development of speech & langugage.
2) The degree of toss may range from Moderate to profound.
3) The child should not have any other associated problems.
4) He/She should have normal developmental milestones.
5) Mother tongue or language used by the child was not used as a criterion.

All 76 subjects included in the study wore hearing aids, from at least 6 months prior to the day of testing. In the lowest age group however 4 months criteria was considered. Hearing evaluation was done using conventional methods, however for the lower age groups behavioral observation audiometry or conditioning was done.

The subjects were selected from :-
1) Hellen Keller School for the deaf, Mysore
2) Hyderabad Special School, Hyderabad.
3) N.K. Gyanappayya Rotary school for physically handicapped, Sakleshpur.

The distribution of children according to age groups is given in the Table A. The mean & standard deviations of hearing levels has been presented in Table - B.

TABLE A

DISTRIBUTION OF SUBJECTS

AGE GROUP	MALES	FEMALES	TOTAL
2.0 TO 2.11	5	5	10
3.0 TO 3.11	4	6	10
4.0 TO 4.11	4	6	10
5.0 TO 5.11	7	5	12
6.0 TO 6.11	8	5	13
7.0 TO 7.11	7	4	11
8.0 TO 8.11	5	5	10

TABLE B

AVERAGE HEARING LEVELS OF SUBJECTS

AGE GROUP	N	HEARING LEVEL*	
		MEAN	STD DEVIATION
2.0 TO 2.11	10	83.99	4.42
3.0 TO 3.11	10	84.64	3.21
4.0 TO 4.11	10	90.18	7.79
5.0 TO 5.11	12	90.00	7.94
6.0 TO 6.11	13	80.53	7.63
7.0 TO 7.11	11	90.1	6.68
8.0 TO 8.11	10	96.36	11.77

(* - Includes speech frequency average (500, 1000 & 2000 Hz) in the better ear. For the younger age group the hearing level was obtained by Behaviour Observation Audiometry or Conditioning.)

TEST PROCEDURE

Each child accompanied by mother and /or teacher was tested in a quiet room free from distractions. Instructions given to the children were as follows :-

" I am going to ask you to show me some pictures. Point to them when I name them. Next I will tell a sentence & you should repeat after me, shall we start *.

The mother and teacher were given the translated test format and were asked to go through it. They were then explained the procedure for scoring. These ratings formed the 'B' score of the scale. The examiner's ratings constituted the 'A' score.

Children were evaluated on four dimensions.

1) Receptive language skills

2) Expressive language skills

3) Nonverbal receptive language skills

4) Nonverbal expressive language skills.

SCORING THE DATA

Each item would receive one of the following ratings.

+ Child demonstrates the skill sufficiently to indicate that he is capable of performing at that level. The child must demonstrate facility with the skill in several instances.

<u>+</u> Child has demonstated the skill on occasion; often enough to indicate that it may be emerging but not sufficiently often to fulfill the criteria necessary for being rated at this level.

Child has not demonstrated the skill or it has occured only by accident.

Depending on the age of the child the time taken for evalution varied from 6min - 14 min. The data for the entire sample was collected over a span of 3 months.

Responses marked as '+' received one point; 1/2 point to each '+ ' rating while, o for '-' was given.

These points were added to obtain the raw scores for :-

Receptive skills

    Receptive 'A' scale

            'B' scale

    combined receptive (A + B + non verbal receptive).

Expressive skills

    Expressive 'A' scale

    combined 'B' scale

    Expressive (A + B + nonverbal expressive)

The 'A' scale & 'B' scale have been rated independently. A '+' rating would always proceed a '+' or '-' since the items have an heirarchical order.

ANALYSIS

The raw scores of each scale were considered to calculate the mean and standard deviations. These were then converted into percentile ranks & standard scores.

CALCULATION OF PERCENTILE RANK

The raw score was first rank ordered. The cumulative frequency and percentile ranks were then calculated & tabulated.

CALCULATION OF STANDARD SCORES

The z scores were first obtained by subtracting the mean value for the age group from each scale and dividing the result by the standard deviation for the age groups. These z scores were then converted into standard scores with a mean of 50 and standard deviation of 10.

RESULTS AND DISCUSSION

The results of this study are intersting in several accounts,

TABLE 1

Age Group	VERBAL				Nonverbal		Combined	
	Receptive		Expertsive					
	A	B	A	B	R	E	R	E
2 - 2.11	3.0	2.5	2.8	2.8	1.8	1.6	7.5	7.3
3 - 3.11	3.5	3.3	4.4	3.9	2.3	1.9	8.9	10.2
4 - 4.11	4.0	3.6	4.5	4.4	2.5	2.4	9.9	11.4
5 - 5.11	4.1	4.2	5.8	5.2	2.4	1.9	10.4	13.5
6 - 6.11	4.6	4.5	6.6	6.2	2.4	1.8	11.5	15.0
7 - 7.11	3.9	4.2	4.6	4.4	2.5	2.5	10.2	11.5
8 - 8.11	4.3	4.3	5.2	5.2	2.8	2.8	11.4	13.4

As can be seen in table 1 the combined expressive scores are better than combined receptive scores on the verbal scale. However such a discrepancy is not seen in the nonverbal scale, which match both on the receptive and expressive aspects, with receptive being slightly better than expressive. Literature on the normal hearing children shows that parents and people attending to the child tend to use both verbal and nonverbal communication with them. But as the child grows older, they move from both to more focus on the verbal mode. With in the verbal mode, the child generally has better comprehension than expression i.e., he learns to comprehend the meaning of a word before he learns to use it himself,thus the reception is better than expression. The finding of this study contradicts this general trend. A look at the summary table indicates that these children have better expressive scores than receptive scores. This finding can be attributed to teaching strategies used for the children tested in this study. Here the stress was more on the reading and writing abilities of the child, as a result of which the child developed better inner language. In contrast their ability to listen to others and comprehend what is said to them is poorer. This is apparently due to inadequate generalization of speech reading abilities.

Similar observation has been made by Usha K. R. (1986) in her study on the performance of the hearing impaired on 3D LAT, where she too has observed better expressive and cognitive scores as compared to the receptive.

Another interesting finding of this study was that among the receptive and expressive skills on structured items 'A' and

unstructured items 'B' the performance was different. The structured situation elicited better responses than the natural ones. The reason could be that in the strucutred mode the cues are readly available where as in the unstructured situation the cues need to be picked up by the child from the environment. The hearing impaired child seems, unable to differentiate between the relevant and irrelevant cues in the environment and selectivity respond to the approriate ones. This aspect sheds light on the inadequacy of generalization of teaching strategies or therapentic goals to the day to day communication of the hearing impaired.

A finding consistent with the literature was that the performance on the verbal scale was poorer than that of nonverbal among all the age groups. The difference between the verbal and nonverbal skills, however, was found to be greater for the older age group, as compared to the younger ones. This difference could be attributed to the difficulty in processing the verbal stimuli among the hearing impaired children. Hence the gap between the verbal and nonverbal increases. A good correlation was seen in the positive direction on the nonverbal scale, on all the three dimensions of reception, expression and cognition by Usha K.R. (1986). She points out that since the nonverbal behaviour is close to that in normals, this alternate mode of communocation should also be given due consideration in rehabilitation.

In comparing the normative data of the original scale with that of the Indian the following observations have been made. As in the original scale the higher age group obtained higher scores that the lower age group in all aspects. These acan be seen from the tables 2, 3, 4 and 5. Table 2 gives the percentile rank and standard scores on the receptive skills, while 3 gives that of the expressive scores. Tables 4 and 5 show the combined receptive and expressive scores respectively.

TABLE 2

RECEPTIVE LANGUAGE SKILLS

PERCENTILE RANKS (PR) AND STANDARD SCORES (SS)

Raw Score	A Scale		B Scale	
	PR	SS	PR	SS
5.0	100	56.2	100	93
4.5	100	54.6	100	85
4.0	100	53.1	100	77
3.5	80	51.5	100	69
3.0	70	50	80	60
2.5	40	48.5	60	52
2.0	10	46.9	30	44
1.5	0	45.4	0	36
1.0	0	43.8	0	22
0.5	0	42.2	0	17

AGE 3.0 TO 3.11 [1 B]
                              R

| Raw Score | "A" SCALE | | "B" SCALE | |
	PR	SS	RR	SS
5.0	100	75.6	100	68.8
4.5	90	69.0	90	63.3
4.0	90	62.5	90	57.7
3.5	80	55.9	70	52.2
3.0	40	49.35	40	46.7
2.5	30	42.7	30	41.2
2.0	0	36.2	20	35.6
1.5	0	29.7	0	30
1.0	0	23.1	0	24.5
0.5	0	16.5	0	8.9

AGE 4.0 TO 4.11 [1 C]

Raw Score	"A" SCALE PR	SS	"B" SCALE RR	SS
3.0	100	61.4	100	69.2
4.5	100	55.4	100	62.1
4.0	60	50.6	80	55.0
3.5	40	43.4	40	47.86
3.0	30	37.4	30	40.72
2.5	20	31.4	20	33.6
2.0	0	25.4	0	26.5
1.5	0	20	0	19.2
1.0	0	13.3	0	12.2
0.5	0	7.3	0	5.0

AGE 5.0 TO 5.11 [1 D]

Raw Score	"A" SCALE PR	SS	R "B" SCALE RR	SS
5.0	100	62.8	100	61.4
4.5	67	55.7	67	53.9
4.0	67	48.6	67	52.6
3.5	42	41.5	50	40.8
3.0	8	34.3	8	34.3
2.5	0	27.2	0	27.1
2.0	0	20.0	0	21.1
1.5	0	12.9	0	14.5
1.0	0	5.8	0	7.9
0.5	0	0	0	1.4

AGE 6.0 TO 6.11 [1 E]

Raw Score	"A" SCALE		"B" SCALE	
	PR	SS	RR	SS
5.0	100	58.3	100	60
4.5	54	48.0	54	50
4.0	23	37.5	31	40
3.5	8	27.1	80	30
3.0	0	16.7	0	20
2.5	0	6.3	0	10
2.0	0	0	0	0
1.5	0	0	0	0
1.0	0	0	0	0
0.5	0	0	0	0

AGE 7.0 TO 7.11 [1 B]

R

Raw Score	"A" PR	SCALE SS	"B" RR	SCALE SS	
5.0	100	64.3	100	63.1	:
4.5	91	57.5	91	54.3	:
4.0	73	5O.6	73	45.7	:
3.5	46	43.9	45	36.9	:
3.0	27	37.05	16	28.1	:
2.5	9	3O.2	0	19.3	:
2.0	0	23.3	0	10.6	:
1.5	0	16.5	0	1.8	:
1.0	0	9.6	0	0:	
0.5	0	2.8	0	0:	

AGE 8.0 TO 8.11 [1 G]
R

Raw Score	"A" SCALE		"B" SCALE	
	PR	SS	RR	SS
5.0	100	55.7	100	56.0
4.5	60	51.3	60	51.7
4.0	40	47.0	50	47.5
3.5	30	42.6	30	43.2
3.0	0	38.25	0	38.8
2.5	0	33.8	0	34.5
2.0	0	30.0	0	30.2
1.5	0	25.0	0	25.9
1.0	0	20.7	0	21.6
0.5	0	16.3	0	17.3

TABLE 3

EXPRESSIVE LANGUAGE SKILLS

PERCENTILE RANKS AND STANDARD SCORES

AGE 2.0 TO 2.11 [2 A]

Raw Score	"A" SCALE PR	SS	"B" SCALE RR	SS
9.0	100	92.9	100	92.9
8.5	100	88.7	100	88.7
8.0	100	84.4	100	84.4
7.5	100	80.1	100	80.1
7.0	100	75.8	100	75.8
6.5	100	71.6	100	71.6
6.0	100	67.3	100	67.3
5.5	100	63.0	100	63.0
5.0	100	58.8	100	58.8
4.5	100	54.5	100	54.5
4.0	90	50.2	90	50.2
3.5	80	49.9	80	49.9
3.0	60	48.3	60	48.3
2.5	50	47.5	50	47.5
2.0	30	43.2	20	43.2
1.5	20	38.9	20	38.9
1.0	10	34.7	10	34.7
0.5	0	30.4	0	30.4

AGE 3.0 TO 3.11 [2 B]

Raw Score	"A" SCALE PR	SS	"B" SCALE RR	SS
9.0	100	76.9	100	92.5
8.5	100	74.1	100	88.3
8.0	90	71.1	100	84.1
7.5	90	68.2	100	80.0
7.0	90	65.2	100	75.8
6.5	90	62.3	100	71.6
6.0	90	59.4	100	67.5
5.5	90	56.4	100	63.3
5.0	70	53.5	80	59.1
4.5	70	49.5	80	55.0
4.0	60	47.6	60	50.8
3.5	30	44.7	30	49.7
3.0	30	41.3	30	42.5
2.5	10	38.9	20	38.4
2.0	10	35.5	10	34.5
1.5	0	33.0	10	30.0
1.0	0	30.0	0	25.9
0.5	0	27.1	0	22.2

AGE 4.0 TO 4.11 [2 C]

E

Raw Score	"A" SCALE PR	SS	"B" SCALE RR	ss
9.0	100	87.0	100	88.3
8.5	100	82.9	100	84.1
8.0	100	78.8	100	80.0
7.5	100	74.5	100	75.8
7.0	100	70.4	100	71.6
6.5	100	66.2	100	67.5
6.0	80	62.1	100	63.3
5.5	80	57.9	80	59.1
5.0	70	53.7	70	55.0
4.5	70	50.4	70	50.8
4.0	50	45.5	40	46.7
3.5	20	41.2	20	42.5
3.0	20	37.1	20	38.4
2.5	0	32.7	20	30.0
2.0	0	24.6	0	25.9
1.5	0	20.5	0	21.7
0.5	0	16.2	0	17.5

AGE 5.0   TO 5.11 [2 D]

Raw Score	"A" SCALE PR	ss	"B" SCALE RR	ss
9.0	100	64.2	100	87.0
8.5	83	62.0	100	64.7
8.0	83	59.7	100	62.5
7.5	75	57.5	92	60.2
7.0	67	55.3	84	57.9
6.5	42	53.1	75	55.6
6.0	42	50.8	58	53.4
5.5	42	48.7	58	51.0
5.0	33	46.5	42	48.9
4.5	33	44.3	42	46.6
4.0	33	42.0	33	44.4
3.5	8	39.8	25	42.1
3.0	8	37.6	8	39.8
2.5	8	35.5	8	37.5
2.0	8	33.2	8	35.3
1.5	0	30.9	8	33.0
1.0	0	26.9	0	30.7
0.5	0	26.5	0	28.5

AGE 6.0 TO 6.11 [2 E]

Raw Score	"A" SCALE PR	ss	"B" SCALE RR	ss
9.0	100	62.6	100	66.4
8.5	69	60.0	92	63.4
8.0	69	57.3	92	60.5
7.5	61	54.7	77	57.6
7.0	61	52.1	69	54.7
6.5	61	50.5	69	51.7
6.0	59	46.9	54	48.9
5.5	46	44.3	54	45.9
5.0	31	41.6	31	43.0
4.5	23	39.0	23	40.0
4.0	8	36.4	15	37.1
3.5	0	33.7	0	34.2
3.0	0	31.1	0	31.2
2.5	0	28.3	0	28.3
2.0	0	22.6	0	25.3
1.5	0	22.4	0	22.4
1.0	0	19.5	0	21.5
0.5	0	16.5	0	16.5

AGE 7.0 TO 7.11 [2 F]

Raw Score	"A" SCALE PR	ss	"B" PR	SCALE ss
9.0	100	68.9	100	71.3
8.5	91	66.8	100	69.0
8.0	82	64.6	91	66.7
7.5	82	62.5	91	64.4
7.0	82	60.3	82	62.0
6.5	82	58.1	82	59.7
6.0	82	56.0	82	57.4
5.5	64	53.8	64	55.1
5.0	64	51.7	64	52.7
4.5	64	50.4	64	50.4
4.0	55	47.5	55	48.2
3.5	55	45.3	55	45.9
3.0	36	43.2	45	43.7
2.5	27	41.0	36	41.2
2.0	9	38.8	9	38.9
1.5	0	36.7	0	36.6
1.0	0	34.5	0	34.2
0.5	0	32.4	0	31.4

AGE 8.0 TO 8.11 [2 G]

Raw Score	"A" SCALE PR	SS	"B" SCALE RR	SS
9.0	100	78.4	100	78.4
8.5	100	74.6	100	74.6
8.0	100	70.8	100	70.8
7.5	90	67.0	90	67.0
7.0	90	63.2	90	63.2
6.5	90	59.4	90	59.4
6.0	80	55.6	80	55.6
5.5	60	51.8	60	51.8
5.0	60	48.2	60	48.2
4.5	40	44.4	40	44.4
4.0	30	40.6	20	40.6
3.5	10	36.8	10	36.8
3.0	0	33.0	0	33.0
2.5	0	29.2	0	29.2
2.0	0	25.4	0	25.4
1.5	0	21.6	0	21.6
1.0	0	17.9	0	17.9
0.5	0	15.3	0	15.3

TABLE-4
COMBINED RECEPTIVE LANGUAGE SKILLS - PERCENTILE RANKS

Raw Score	2.0 to 2.11	3.0 to 3.11	4.0 to 4.11	5.0 to 5.11	6.0 to 6.11	7.0 to 7.11	8.0 to 8.11
13.0	100	100	100	100	100	100	100
12.5	100	100	100	75	62	91	90
12.0	100	90	100	67	54	91	60
11.5	100	90	100	67	54	82	50
11.0	100	90	90	67	46	82	50
10.5	100	90	60	67	38	45	40
10.0	100	80	50	58	15	45	30
9.5	100	70	40	50	8	36	0
9.0	100	60	30	33	8	36	0
8.5	90	50	20	17	0	36	0
8.0	70	70	20	8	0	9	0
7.5	60	30	10	8	0	9	0
7.0	30	10	0	8	0	0	0
6.5	30	10	0	8	0	0	0
8.0	20	0	0	0	0	0	0
5.5	0	0	0	0	0	0	0
5.0	0	0	0	0	0	0	0
4.5	0	0	0	0	0	0	0
4.0	0	0	0	0	0	0	0
3.5	0	0	0	0	0	0	0
3.0	0	0	0	0	0	0	0
2.5	0	0	0	0	0	0	0
2.0	0	0	0	0	0	0	0
1.5	0	0	0	0	0	0	0
1.0	0	0	0	0	0	0	0
0.5	0	0	0	0	0	0	0

TABLE-5

COMBINED EXPRESSIVE LANGUAGE SKILLS - PERCENTILE RANKS

Raw Score	2.0 to 2.11	3.0 to 3.11	4.0 to 4.11	5.0 to 5.11	6.0 to 6.11	7.0 to 7.11	8.0 to 8.11
21.0	100	100	100	100	100	100	100
20.5	100	100	100	100	85	100	100
20.0	100	100	100	100	85	100	100
19.5	100	100	100	100	85	100	100
19.0	100	100	100	92	77	91	100
18.5	100	100	100	92	77	82	100
18.0	100	100	100	92	69	82	90
17.5	100	100	100	83	62	82	90
17.0	100	100	100	67	62	82	90
16.5	100	100	100	67	62	82	90
16.0	100	90	100	58	62	82	90
15.5	100	90	100	58	62	82	80
15.0	100	90	100	58	62	82	80
14.5	100	90	80	58	62	64	70
14.0	100	90	80	42	54	64	70
13.5	100	90	80	42	54	64	60
13.0	100	90	80	33	46	64	60
12.5	100	80	70	33	38	64	40
12.0	100	80	70	33	38	64	40
11.5	100	80	70	33	31	55	30
11.0	100	80	70	33	15	55	20
10.5	100	70	30	33	8	55	10
10.0	90	60	20	33	8	55	10
9.5	90	50	20	33	0	45	0
9.0	80	50	20	25	0	45	0
8.5	80	40	20	25	0	36	0
8.0	50	20	0	8	0	36	0
7.5	50	20	0	8	0	36	0
7.0	40	20	0	8	0	36	0
6.5	40	20	0	8	0	18	0
6.0	20	10	0	8	0	9	0
5.5	20	0	10	8	0	0	0
5.0	20	0	0	8	0	0	0
4.5	20	0	0	8	0	0	0
4.0	10	0	0	8	0	0	0
3.5	10	0	0	0	0	0	0
3.0	10	0	0	0	0	0	0
2.5	0	0	0	0	0	0	0
2.0	0	0	0	0	0	0	0
1.5	0	0	0	0	0	0	0
1.0	0	0	0	0	0	0	0
0.5	0	0	0	0	0	0	0

The children tested in this study functioned at a lower Level as compared to the westeren poputation. For e. g. a raw score of 9.0 on combined receptive skills placed the child at 97th percentile in the original scale while for the same score the child was placed in the 100th percentile in this study.

These findings give us an insight about the rehabilitation programmes used for hearing impaired in India. The major focus here is onthe instrumental benefits for the child, but what eeds to be taken into account use early identification and diagnosis, to place the child appropriately into schools and base therapy so as to attain the use of language in the natural situation. As pointed out by Wood et al (1986) the child's (hearing impaired) ability to know, think and feel should also be considered.

From the above discussion it is clear that we cannot use a test standardized on a different socioeconomic and cultural background to our population. The study justifies the need for norms on a local population. The addition of norms on the hearing impaired norms to sxisting language instruements will also facilitate greater accuracy of tanguage testing in these children.

SUMMARY

Language is frequently viewed interms of receptive and expressive abilities for the purpose of research, diagnosis and clinical educational teaching.

Indigenous language tests are scarce in India. Consequently wherever possible western tests are used, preferably with norms on Indian population. In this study an attempt has been made to obtain norms on scales of early communication skills for the hearing impaired, a language scale specifically meant for assessment of the communication abilities of hearing impaired children.

Language tests are also formulated on similar lines. A language test standardized on a particular group of children i.e., from a specific geographic area, belonging to a particular socioeconomic group and speaking one language cannot be used on children from another population.

The sample though small, is adequate enough to be used in the clinical setting and for cases in clinical use have been converted into percentile ranks. Major observations made on the normative data are :-
   (i) The expressive skills was found to be better than the receptive skills,
   (ii) The response in structured situation was better than that obtained in the natural one.
   (iii) The nonverbal scores were better than the verbal scores.

These findings shed light on the fact that the teaching programmes used in India required to be modified further. Along with the use of modifications of hearing aids, drill on speech, drill on expression and therapy directed towards daily language use are also equally important.

A limitation of this data is that the sample size is small. It is hence necessary that normative data be obtained an larger samples.

SCALES OF EARLY COMMUNICATION SKILLS FOR HEARING

IMPARIRED CHILDREN

NAME _____

DATE _____ Child's age _____

RECEPTIVE LANGUAGE SKILLS

I. DEMONSTRATES AWARENESS THAT THEMOUTH AND/OR VOICE CONVEY INFORMATION.

_____A. Responds to a verbal stimulus.

_____B. Watches and/or listens to the speaker spontaneously

II. DEMONSTRATES COMPTREHENSION OF A FEW WORDS OR EXPRESSIONS:

_____A. Identifies at least 1 word or expression from a choice of 2 or 3.

_____B. Demonstrates comprehension of atleast 1 word or expression in a natural situation.

III. DEMONSTRATES THE ABILITY TO LEARN NEW WORDS

_____A. Identifies 4 or more words or exppressions from a choice of 4 or more.

_____B. Demonstrates comprehension of 4 or more words, phrases or sentences in a natural situation.

IV. DEMONSTRATES THE ABILITY TO ACQUIRE NEW COMPREHENSION VOCABULARY IN PHRASES AND SENTENCES.

_____A. Identifies sentences containing new words and phrases after only a few exposure.

_____B. Demonstrates comprehension of new words and phrases in sentences in a natural situation.

V. DEMONSTRATES COMPREHENSION OF SUCCESSIVE PHRASES AND SENTENCES.

_____A. Demonstrates comprehension of the essential meaning of stories or related sentences about a particular topic.

_____B. Engages in conversation about a particular topic.

EXPRESSIVE LANGUAGE SKILLS

I. DEMONSTRATES AWARENESS THAT VOCALIZATION ARE USED TO COMMUNICATE.

_____ A. Vocalizes when expected to imitate speech.

_____ B. Vocalizes spontaneously while looking at another person or to get someone's attention,

II. DEMONSTRATES THE ABILITY TO USE A FEW SYLLABLES; WORDS OR EXPRESSIONS

_____ A. Imitates at least one phoneme, syllable or word

_____ B. Uses at leat one syllable, word or expression consistently and meaningfully.

III. DEMONSTRATES THE ABILITY TO LEARN NEW EXPRESSIVE VOCABULARY.

_____ A. Imitates atleast 4 different syllables, words or expressions.

_____ B. Uses at least 4 different words or expressions to communicate.

IV. DEMONSTRATES THE ABILITY TO ACQUIRE NEW EXPRESSIVE VOCABULARY FAIRLY READILY

_____ A. Imitates a large number of words or expressions after only one or two presentations.

_____ B. Uses a variety of one-word utterances or expressions in spontaneous speech.

V. DEMONSTRATES THE ABILITY TO JOIN 2 OR 3 WORDS TOGETHER.

_____ A. Imitates at teat two words of a phrase or recalls atleast two words of a practiced sentence pattern.

_____ B. Joins at least two words in spontaneous speech.

VI. DEMONSTRATES THE ABILITY TO COMBINE VERBS AND NOUSS IN PHRASES OR SENTENCES.

_____ A. Imitates the verb at least one noun of a phrase or recalls the verb and atleast one noun of a practiced sentences pattern.

_____ B. Joins at least two words(a noun and verb) in

VII. DEMONSTRATES THE ABILITY TO USE SENTENCES CONTAINING A MODIFYING WORD OR PHRASE.

      A. Imitates at least 4 words of a sentence or recalls at least 4 words of a practiced sentence pattern.

      B. Uses phrases of 4 or more words in spontaneous speech.

VIII. DEMONSTRATES THE ABILITY TO USE SENTENCES CONTAINING MORETHAN ONE VERB FORM.

      A. Imitates or recalls practiced sentences of 6 or more words.

      B. Uses————————sentences of 6 or more words in spontaneous speech.

IX. DEMONSTRATES THE ABILITY TO US SENTENCES CONTAINING MORE THAN ONE VERB FORM.

      A. Imitates or recalls practiced sentences of 8 or more words.

      B. Uses complex sentences of 8 or more words in spontaneous speech.

NONVERBAL RECEPTIVE SKILLS

I.   DEMONSTRATES THE ABILITY TO RESPOND APPROPRIATELY TO A SIMPLE GESTURE

II.   DEMONSTRATES THE ABILITY TO RESPOND TO SUBTLE OR ELABORATE GESTURES WHEN THE SITUATION DOES NOT MAKE THE MEANING OBVIOUS.

III. DEMONSTRATES THE ABILITY TO USE A VARIETY OF NONVERBAL CUES TO SUPPLEMENT THE WORDS HE KNOWS.

NONVERBAL EXPRESSIVE SKILLS.

I.   COMMUNICATES BY USING SIMPLE GESTURES.

II. COMMUNICATES BY USING ELABORATE GESTURES.

III.   COMMUNICATES BY USING GESTURES OR PANTOMIME TO EXPRESS MORE THAN ONE IDEA OR RELATE SEQUENTIAL EVENTS.

SCOREING SHEET

	RAW SCORES	PERCENTILE BANK	STANDARD SCORE
RECEPTIVE A			
RECEPTIVE B			
COMBINED RECEPTIVE			
EXPRESSIVE A			
EXPRESSIVE B			
COMBINED EXPRESSIVE			

APPENDIX - B
TELUGU FORMAT OF SECS

బాష గ్రహించే శక్తి

I. నోరు లేదా/మరియు కంఠధ్వని సమూహాలమును తెలియ - జేస్తున్నదని తెలియుపరుచుట.

  - A మాటలకు బదులు ఇస్తాడు.

  - B మాట్లాడే వ్యక్తి వైపు చూస్తాడు లేదా వింటాడు.

II. కొన్ని పదాలను గ్రహించుట లేదా ప్వక్తపరచుట.

  - A ప్వక్తపరచిన 2 లేదా 3 పదాలలో ఒక పదానిని గుర్తుపట్టుట.

  - B పరిసరాలలో మాట్లాడిన కనీసం ఒక పదానిని గుర్తు పెట్టుట లేదా గ్రహించుట.

III. క్రొత్త పదాలను నేర్చుకొనుటలో ఆసక్తి చూపించుట.

  - A నాలుగు లేదా ఎక్కువ పదాలలో కనీసం 4 లేదా ఎక్కువ పదాలను గుర్తించుట.

  - B పరిసరాలలో మాట్లాడినప్పుడు 4 లేదా ఎక్కువ పదాలు, పదసముదాయములు, వాక్యములు గ్రహించుట.

IV. క్రొత్త పదసముదాయములను, వాక్యములను నేర్చుకొనుటలో ఆసక్తి తెలియుపరుచుట.

‑ A కొన్ని సార్లు తెలియపరచిన తిరువాత వాక్యాలలోని క్రొత్త పదాలను మరియు పదసముదాయములను గుర్తించుట.

‑ B పరిసరాలలో సహజంగా మాట్లాడినప్పుడు వాక్యాలలో క్రొత్త పదాలను మరియు పద‑సముదాయములను గుర్తించుట.

Ⅴ పదసముదాయములను మరియు వాక్యాలను గ్రహించుట.

‑ A ఎదైన విషయములో కాని లేదా కథలలోని అర్థమును గ్రహించుట.

‑ B ఎదైన ప్రత్యేకమైన విషయము సంభాషనలో నిమగ్రమగుట.

భాష వ్యక్తపరిచే శక్తి

Ⅰ కంఠధ్వని ద్వారా సమాచారమును తెలియపరుచుట.

‑ A మాట్లాడటానికి ప్రయత్నించినప్పుడు కంఠధ్వని ఉపయోగిస్తాడు.

‑ B ఎవరినైన చూసినప్పుడు లేదా వ్యక్తిని పిలుచుటకు కంఠధ్వని ఉపయోగిస్తాడు.

Ⅱ. కొన్ని పదాలలో వ్యక్తపరుచుటలో ఆసక్తి పరుచుట.

3

 – A   కనీసం ఒక్క అక్షరాన్ని లేదా పదాన్ని
       మాట్లాడుటకు ప్రయత్నించుట.

 – B   అర్థమైన సంభాషణములో కనీసం ఒక్క
       అక్షరాన్ని లేదా పదాన్ని ఉపయోగించుట.

III క్రొత్త క్రొత్త పదాలను నేర్చుకొని మాట్లాడుటకు
     ఆసక్తి చూపుట.

 – A   కనీసం 4 పదాలను స్పష్తపరుచుటకు ప్రయత్నించుట

 – B   కనీసం 4 వేరే వేరే పదాలను సంభాషణలో
       ఉపయోగించుట.

IV క్రొత్త క్రొత్త పదాలను మాట్లాడుటకు నేర్చుకొనుటకు ఆసక్తి
    తెలియపరుచుట.

 – A   ఒకటి లేదా రెండు సార్లు తెలియపరిచిన
       తరువాత కొన్ని పదాలను మాట్లాడుటానికి
       ప్రయత్నించుట.

 – B   సాధారణముగా మాట్లాడుచున్నప్పుడు ఇతర
       పదాలను ఉపయోగించుట.

V   2 లేదా 3 పదాలను సమూహపరిచి మాట్లాడుటలో ఆసక్తి
    తెలుపపరుచుట.

 – A   2 లేదా 3 పదసముదాయముగల పదాలను
       మాట్లాడుట

 – B   సాధారణముగా మాట్లాడుటలో కనీసం
       రెండు పదాలను జోడించుట.

4

VI   పదసముదాయములలో లేదా వాక్యాలలో క్రిమాపదాలను, నామవాచకాలను జోడించే శక్తి.

    — A   కనీసం ఒక క్రిమాపదాన్ని లేక ఒక నామవాచకా వాక్యములో ఉపయోగించి లేదా జ్ఞప్తికి తెచ్చుకొని మాట్లాడుటానికి ప్రయత్నించుట.

    — B   తన్నంతటు తానే మాట్లాడుచున్నప్పుడు కనీసం రెండు పదాలను (ఒక నామవాచకము మరియు ఒక క్రిమాపదము) జోడించుట.

VII   కొన్ని పదాలను దిద్ది వాక్యాలలో ఉపయోగించే శక్తి.

    — A   కనీసం 4 పదాలు కలిసిన వాక్యాన్ని మాట్లాడుటు లేదా జ్ఞప్తికి తెచ్చుకొనుట.

    — B   తనంతటు తానే మాట్లాడుచున్నప్పుడు 4 లేదా ఎక్కువ పదాలు గల పదసముదాయములను ఉపయోగించుట.

VIII   వేరు వేరు రకాలుగా దిద్ది పదాలను లేదా పదసముదాయములను వాక్యాలలో ఉపయోగించే శక్తి.

    — A   6 లేక ఎక్కువ పదాలు కలిసిన వాక్యాన్ని జ్ఞప్తికి తెచ్చుకొనుట లేదా మాట్లాడుటానికి ప్రయత్నించుట.

    — B   తనంతటు తానే 6 లేక ఎక్కువ పదాలు కలిసిన వాక్యాలను ఉపయోగించుట.

5.

IX ఒకటి లేదా ఎక్కువ క్రియా పదాలు కలిగిన వాక్యాలను ఉపయోగించే శక్తి.

— A 8 లేదా ఎక్కువ పదాలు కలిగిన వాక్యాలను మాట్లాడటానికి ప్రయత్నించుట లేదా క్షితికి తెచ్చుకొనుట.

— B తినంతట తానే మాట్లాడు చున్నప్పుడు 8 లేదా ఎక్కువ పదాలు కలిగిన వాక్యాలను ఉపయోగించుట.

మాటలు లేకుండా గ్రహించే శక్తి.

I కొన్ని సాధారనమైన సైగలకు అరిగి జవాబు ఇచ్చే శక్తి.

II కొన్ని కొన్ని పరిస్థితులలో అర్ధము కాకున్న సైగలను అర్ధము చేసుకునే శక్తి.

III కొన్ని కొన్ని తెలిసిన పదాలకు మాట్లాడకుండా సైగలను చొప్పే శక్తి.

మాట్లాడకుండా సంభాషించే శక్తి.

I సాధారనమైన సైగలతో సంభాషించుట.

II క్లిష్టతరమైన సైగలను ఉపయోగించి సంభాషించుట.

III ఒకటి లేదా ఎక్కువ ఆలోచనలను సైగల ద్వారా లేదా మాటలు ద్వారా కాకుండా సంభాషించుట.

ಭಾಷಾ ಗ್ರಹಣ ಶಕ್ತಿ

1 ಬಾಂತು ವುತ್ತು ಅಥವಾ ಧ್ವನಿಂತು ವುಳಾಳಕ ಸುದ್ದಿ:ವಿಷಂತು ತಿಳಿಂತುುತ್ತದೆ ಎಂಬ ಅರಿವನ್ನು ತೋರಿಸುಕೊಳ್ಳುತ್ತಾನೆ.

   — (ಎ) ವುಾತಿಗೆ ಪ್ರತಿಕ್ರಿಂತೆ ತೋರಿಸುತ್ತಾನೆ.

   — (ಬಿ) ಸಹಜವಾಗಿ (ಸ್ವಾಭಾವಿಕವಾಗಿ) ವುಾತನಾಡುವವರನ್ನು ಗವುನಿಸುತ್ತಾನೆ. ವುತ್ತು:ಅಥವಾ ಆರಿಸುತ್ತಾನೆ.

2 ಕೆಲವು ಪದಗಳನ್ನು ಅಥವ ಭಾವಗಳನ್ನು ಅರ್ಥ ವುಾಡಿಕೊಂಡಿದ್ದೇನೆಂದು ತೋರ್ಪಡಿಸುತ್ತಾನೆ.

   — (ಎ) 2 ಅಥವ 3 ಪದ ಅಥವಾ ಭಾವಗಳಲ್ಲಿ ಕನಿಷ್ಠ ಒಂದನ್ನಾದರೂ ಗುರುತಿ ಸುತ್ತಾನೆ.

   — (ಬಿ) ಒಂದು ಸಹಜವಾದ ಸನ್ನಿವೇಶದಲ್ಲಿ ಕನಿಷ್ಠ 1 ಪದ ಅಥವಾ ಭಾವ ಗುತ್ತಿದೆ ಎಂದು ತೋರ್ಪಡಿಸಿಕೊಳ್ಳುತ್ತಾನೆ.

3 ಹೊಸ ಪದಗಳನ್ನು ಕಲಿಯುವ ಸಾವುರ್ಥ್ಯ ಇದೆ ಎಂದು ತೋರಿಸುಕೊಳ್ಳುತ್ತಾನೆ.

   — (ಎ) 4 ಅಥವ ಅದಕ್ಕಾ ಹೆಚ್ಚಿನ ಪದ ಅಥವಾ ಭಾವಗಳಲ್ಲಿ 4 ಅಥವಾ ಹೆಚ್ಚಿನ ಪದ ಅಥವಾ ಭಾವಗಳನ್ನು ಗುರುತಿಸುತ್ತಾನೆ.

   — (ಬಿ) ಸಹಜ ಸನ್ನಿವೇಶದಲ್ಲಿ 4 ಅಥವಾ ಅದಕ್ಕೂ ಹೆಚ್ಚಿನ ಪದಗಳು, ಪದಪುಂಜ ಅಥವಾ ವಾಕ್ಯಗಳನ್ನು ಗ್ರಹಿಸಬಲ್ಲೆನೆಂದು ತೋರಿಸಿಕೊಳ್ಳುತ್ತಾನೆ.

4 ಪದಕುಂಜಗಳು ವುತ್ತು ವಾಕ್ಯಗಳಲ್ಲಿ ಹೊಸ ಗ್ರಹಣ ಶಬ್ದ ಭಂಡಾರವನ್ನು ಗಳಿಸುವ ಸಾವುರ್ಥ್ಯ ಇದೆ ಎಂದು ತೋರ್ಪಡಿಸಿಕೊಳ್ಳುತ್ತಾನೆ.

   — (ಎ) ಸ್ವಲ್ಪ ಅನುಭವದ ನಂತರ ಹೊಸ ಪದಗಳು, ಪದಕುಂಜಗಳಿರುವ ವಾಕ್ಯಗಳನ್ನು ಗುರುತಿಸಬಲ್ಲ.

2

   (ಖ) ಸಹಜ ಸನ್ನಿವೇಶದಲ್ಲಿ ಹೊಸ ಪದಗಳು, ಪದಕುಂಜಗಳಿರುವ ವಾಕ್ಯಗಳನ್ನು
      ಅರಿಂಯುಬಲ್ಲಿನೆಂದು ತೋಱಿಸಿಕೊಳ್ಳಬಲ್ಲ.

5 ಅನುಗೂಡಿ (ಬಂದರ ಹುದೊಂದು) ಬರುವ ಪದಕುಂಜಗಳು ಮತ್ತು ವಾಕ್ಯಗಳನ್ನು
 ಗ್ರಹಣವಾಗುವುದೆಂದು ಕೊಱ್ಱಿಸಿಕೊಳುವುದು.

   (ಎ) ಕಥೆಗಳ ಅವಶ್ಯಕ ತಿರುಗಳನ್ನು ಅಥವಾ ಒಂದು ವಿಷಂಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದ
      ವಾಕ್ಯಗಳ ಅರ್ಥವನ್ನು ಅರಿಂಯುುವ ಸಾಮರ್ಥ್ಯ ಪ್ರದರ್ಶನ

   (ಖ) ಒಂದು ವಿಷಂಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ಮಾತಿನಲ್ಲಿ ತೊಡಗಬಲ್ಲ.

ಭಾಷೆಂಯನ್ನು ಉಪಂಯೋಗಿಸಿರುವ ಸಾಮರ್ಥ್ಯ

(ವಾಕ ಶಕ್ತಿ)

·1 ಮೂತನಾಡಲು, ಕಂಠಸ್ವರವನ್ನು ಉಪಂಯೋಗಿಸುತ್ತಾರೆ ಎಂಬ ಅರಿವು ಇರುವುದು.

   (ಎ) ಮೂತನಮೃ ಅನುಕರಿಸಬೇಕೆಂದು ನಿರೀಕ್ಷಿಧಾಗ, ಸ್ವರನಮೃ ಉಪಂಯೋ
      ಗಿಸುತ್ತಾನೆ.

   (ಖ) ಬೇರೊೇಬ್ಬರ ಗವನ ಸೆಳೆಂಯುಲು ಅಥವಾ ಬೇಱೆಂತುವರನ್ನು ಮುಖವನ್ನು
      ನೊೇಡುತ್ತಿದ್ದಾಂಗ, ತಾನಾಗಿಂಯೇ (ಸಹಜವಾಗಿ) ಕಂಠಸ್ವರನಮೃ
      ಹೊರಡಿಸಿತ್ತಾನೆ.

2 ಕೆಲವು ಅಕ್ಷರ : ಪದ : ಹೇಳಿಕೆಗಳನ್ನು ಉಪಂಯೋಗಿಸುವುದರ ಬಗ್ಗೆ ತೋಱ್ಱಡಿಸಿ
 ಕೊಳುವುತ್ತಾನೆ.

   (ಎ) ಭಾಷೆಂಯು ನಣ್ಣ ಭಾಗ : ಅಕ್ಷರ : ಪದಗಳನ್ನು ಒಬ್ಬರು ಹೇಳಿದ್ದನ್ನೆ
      ನೊೇಡಿ ಹೇಳುವುದು.

   (ಖ) ಕೆಲವು : ಅಕ್ಷರ : ಪದ : ಹೇಳಿಕೆಂತುನ್ನು ಅರ್ಥಪೂರ್ಣವಾಗಿಂಯೂ
      ಆಗಾಗ ಉಪಂಯೋಗಿಸಲ್ಪಡುವುದು.

3 ಹೊಸ ಶಬ್ದ ಭಂಡಾರವನ್ನು ಪುರಾತನಾಡಲು ಬಳಸುವ ಸಾಮರ್ಥ್ಯವನ್ನು ತೋರುತ್ತಾನೆ.

— (ಎ) ಕನಿಷ್ಠ 4 ಬೇರೆ ಬೇರೆ ಶಬ್ದಿಗಳು, ಪದಗಳು ಅಥವಾ ಭಾವಗಳನ್ನು ಅನುಕರಿಸುತ್ತಾನೆ.

— (ಬಿ) ಕನಿಷ್ಠ 4 ಬೇರೆ ಬೇರೆ ಪದಗಳು ಅಥವಾ ಭಾವಗಳನ್ನು ವ್ಯಕ್ತಪಡಿಸಬಲ್ಲ.

4 ಹೇಳಲು (ವ್ಯಕ್ತ ಪಡಿಸಲು) ಶಬ್ದ ಬಂಡಾರವನ್ನು ಹೊಂದುವ ಅಸಾಂಯುತವಾಗಿ ಸಾಮರ್ಥ್ಯವನ್ನು ತೋರಬಲ್ಲ.

— (ಎ) 1—2 ಬಾರಿ ಹೇಳಿಕೊಡುವವ್ಯರಲ್ಲಿಯೇ ಸುಮಾರು ಸಂಖ್ಯೆಯಲ್ಲಿ ಪದಗಳನ್ನು ಶ ಅಥವಾ ಭಾವಗಳನ್ನು ಅನುಕರಿಸಬಲ್ಲ.

— (ಬಿ) ಸ್ವಾಭಾವಿಕವಾಗಿ ಪುರಾತನಾಡಲು ಹಲವಾರು ಬಗೆಯ ಒಂದು ಪದಗಳನ್ನು ಭಾವಗಳನ್ನು ಉಪಯೋಗಿಸಬಲ್ಲ.

5 2 ಅಥ 3 ಪದಗಳನ್ನು ಕೂಡಿಸುವ ಸಾಮರ್ಥ್ಯವನ್ನು ತೋರಬಲ್ಲ.

— (ಎ) ಕನಿಷ್ಠ 2 ಪದಗಳ ಪದಪಂಜವನ್ನು ಅನುಕರಿಸಬಲ್ಲ ಅಥವ ಅಭ್ಯಾಸ ಮಾಡಿದ ವಾಕ್ಯರಜನೆಯಲ್ಲಿ ಕನಿಷ್ಠ ಎರಡು ಪದಗಳನ್ನು ಜೋಡಿಸಿಕೊಳ್ಳಬಲ್ಲ.

— (ಬಿ) ಸಹಜವಾಗಿ ಆಡುವ ಮಾತಿನಲ್ಲಿ ಕನಿಷ್ಠ 2 ಪದಗಳನ್ನು ಕೂಡಿಸಬಲ್ಲ.

6 ಕ್ರಿಯಾಪದಗಳು ಮತ್ತು ನಾಮಪದಗಳನ್ನು ಪದಕಂಜಗಳಲ್ಲಿ ಅಥವಾ ವಾಕ್ಯದಲ್ಲಿ ಬಳಿಸುವ ಸಾಮರ್ಥ್ಯ ಇದೆ ಎಂದು ತೋರಿಸಿಕೊಳ್ಳುತ್ತಾನೆ.

— (ಎ) ಪದಪಂಜದಲ್ಲಿ ಕ್ರಿಯಾಪದ ಮತ್ತು ಕನಿಷ್ಠ ಒಂದು ನಾಮ ಪದವನ್ನು ಅನುಕರಿಸುತ್ತಾನೆ; ಅಥವಾ ಕಲಿತಿರುವ ವಾಕ್ಯ ರಜನೆಯಲ್ಲಿ ಕ್ರಿಯಾ ಪದ ಮತ್ತು ಕನಿಷ್ಠ ಒಂದು ನಾಮ ಪದವನ್ನು ಜೋಡಿಸಿಕೊಳ್ಳಬಲ್ಲ.

7 ರೂಪವ್ಯತ್ಯಾಸ ಪದ ಅಥವ ಪದ ಪುಂಜವನ್ನಳ್ಳ ವಾಕ್ಯವನ್ನು ಉಪಯೋಗಿಸುವ ಸಾಮರ್ಥ್ಯ ತೋರಿಸುತ್ತಾರನೆ.

4

— (ಎ) ವಾಕ್ಯದರ್ಲಿ ಕನಿಷ್ಠ ನಾಲ್ಕು ಪದಗಳನ್ನು ಅನುಕರಿಸುತ್ತಾನೆ. ಅಥವಾ ಅಭ್ಯಾಸ ಮಾಡಿರುವ ವಾಕ್ಯ ರಚನೆಯಲ್ಲಿ ಕನಿಷ್ಠ 4 ಪದಗಳನ್ನು ಜ್ಞಾಪಿಸಿ ಕೊಳ್ಳಬಲ್ಲ.

— (ಬ) ಸಹಜವಾಯಿ ಆಡುವ ಮಾತಿನಲ್ಲಿ 4 ಅಥವಾ ಅದಕ್ಕೂ ಹೆಚ್ಚು ಪದಗಳುಳ್ಳ ಪದಪುಂಜವನ್ನು ಉಪಯೋಗಿಸುತ್ತಾನೆ.

8 ಒಂದಕ್ಕಿಂತಲೂ ಹೆಚ್ಚು ಂಾಪವ್ಯತ್ಯಾಸಗೊಂಡ ಪದ ಅಥವಾ ಪದಪುಂಜಗಳ್ಳ ವಾಕ್ಯವನ್ನು ಉಪಯೋಗಿಸುವ ಸಾಮರ್ಥ್ಯ ಇದೆ ಎಂದು ತೋರಿಸಿಕೊಳ್ಳಬಲ್ಲ.

— (ಎ) ಅಭ್ಯಾಸ ಮಾಡಿರುವ 8 ಅಥವ ಹೆಚ್ಚಿನ ಪದಗಳುಳ್ಳ ವಾಕ್ಯಗಳನ್ನು ಅನುಕರಿಸಬಲ್ಲ ಅಥವ ಜ್ಞಾಪಿಸಿಕೊಳ್ಳಬಲ್ಲ.

— (ಬ) ಸಹಜವಾಗಿ ಆಡುವ ಮಾತಿನಲ್ಲಿ 6 ಅಥವಾ ಅದಕ್ಕೂ ಹೆಚ್ಚು ಪದಗಳಿರುವ ವಾಕ್ಯಗಳಿರುವ ವಾಕ್ಯಗಳನ್ನು ಉಪಯೋಗಿಸುತ್ತಾನೆ.

9 ಒಂದಕ್ಕಿಂತ ಹೆಚ್ಚು ಹೆಚ್ಚು ಕ್ರಿಯಾಪದವುಳ್ಳ ವಾಕ್ಯಗಳನ್ನು ಉಪಯೋಗಿಸುವ ಸಾಮಥ್ಯ ಇದೆ ಎಂದು ತೋರಿಸಬಲ್ಲ.

— (ಎ) 8 ಅಥವಾ ಅದಕ್ಕೂ ಹೆಚ್ಚಿಗೆ ಪದಗಳುಳ್ಳ ವಾಕ್ಯಗಳನ್ನು ಅನುಕರಿಸಬಲ್ಲ ಅಥವಾ ನೆನಪಿಸಿಕೊಳ್ಳಬಲ್ಲ.

— (ಬ) ಸಹಜವಾಗಿ ಆಡುವ ಮಾತಿನಲ್ಲಿ 8 ಅಥವಾ ಅದಕ್ಕೂ ಹೆಚ್ಚು ಪದಗಳುಳ್ಳ ಕ್ಲಿಷ್ಟವಾದ ವಾಕ್ಯಗಳನ್ನು ಉಪಯೋಗಿಸುತ್ತಾನೆ.

5

ವಾಕರಹಿತ ಗ್ರಹಣ ಶಕ್ತಿಯು ಪರಿಣಿತ

— 1   ಸರಳ ಸಂಜ್ಞೆಗೆ ಸರಿಯಾದ ಪ್ರತಿಕ್ರಿಯೆಯೆಂಬುದನ್ನು ತೋರಬಲ್ಲ.

— 2   ಸನ್ನಿವೇಶ ಅರ್ಥ ಮಾಡಿಕೊಳ್ಳಲು ಸಹಾಯಕವಾಗಿದ್ದಿರುವಾ
         ವಿವರವಾದ (ಕ್ಲಿಷ್ಟ) ಸಂಜ್ಞೆಗಳಿಗೆ ಪ್ರತಿಕ್ರಿಯೆಯು ತೋರುವ
         ಸಾಮರ್ಥ್ಯವನ್ನು ತೋರುತ್ತಾನೆ.

— 3   ಹಲವಾರು ಬಗೆಯ ವಾಕ ರಹಿತ ಸೂಚನೆ (ಸಂಕೇತ)ಗಳನ್ನು ತನಗೆ
         ಗೊತ್ತಿರುವ ಪದಗಳಿಗೆ ಬದಲಾಗಿ ಉಪಯೋಗಿಸ ಬಲ್ಲೆ ಎಂಬುದನ್ನು
         ತೋರ್ಪಡಿಸಿಕೊಳ್ಳುತ್ತಾನೆ.

ಆವಾಕ್ಯ ಭಾವ ನೈಪುಣ್ಯ

— 1   ಸರಳ ಸಂಜ್ಞೆಗಳಿಂದ ತಿಳಿದು ಪಡಿಸುತ್ತಾನೆ.

— 2   ವಿಸ್ತಾರವಾದ ಸಂಜ್ಞೆಗಳಿಂದ ತಿಳಿಯು ಪಸುತ್ತಾನೆ.

— 3   ಒಂದಕ್ಕಿಂತ ಹೆಚ್ಚಿನ ಭಾವನೆಗಳನ್ನು ಹೇಳಲು ಅಥವಾ   ಬಂದರ
         ಹಿಂದೊಂದು ಬರುವ ಘಟನೆಗಳನ್ನು ಹೇಳಲು ಸಂಜ್ಞೆಗಳನ್ನು ಅಥವ
         ಮೂಕಾಭಿನಂತುವನ್ನು ಉಪಯೋಗಿಸುತ್ತಾರನೆ.

BIBLIOGRAPHY

Abraham (1985), cited by Howlin .P. (1991) in - Assessing children with language tests - which tests to use ?, British journal of Disorders of Communication, Vol. 26, No. 3.

Bates (1976), cited by Kretschmer R.R. Jr. & Kretschmer L.W. (1978), in Language Development and intervention with the Hearing Impaired, University Park Press, Baltimore.

Blanton (1968), cited by Bloom and Lahey M. (1978) in Language Development and Language Disorders, Pub. John Wiley and Sons, New York.

Brannon (1968), cited by Bloom and Lahey M. (1978) in Language Development and Language Disorders, Pub. John Wiley and Sons, New York.

deVilliers and deVilliers (1972), cited by Kretschmer R.R. Jr. & Kretschmer L.W. (1978), in Language Development and Intervention with the Hearing Impaired, University Park Press, Baltimore.

Duchman (1986), cited by Ann Parker & Helen Rose in Deaf Children's phonological development, in Pamela Grunwell (1990) Developmental Speech Disorders - clinical issues and practical implications, Pub. churchill living stone, New York.

Geetha H. (1984), cited by Usha.K.R(1986)-3D LAT and The Hard of Hearing,Unpub.Dissertation, Mysore University.

Goetzinger (1962), cited by Kretschmer R.R. Jr. & Kretschmer L.W (1978), in Language Development and Intervention with the Hearing Impaired, University Park Press, Baltimore.

Heider and Heider (1940), cited by Bloom and Lahey M. (1978) in Language Development and Language Disorders, Pub. John Wiley and Sons, New York.

Hess (1972), cited by Schlesinger. H.S in Deafness Mental Health and Language, in Frank Powell(Ed), 19S5, Education of the hearing impaired children, College Hill Press, California.

Huttenlocher(1974), cited by Kretschmer R.R. Jr. & Kretschmer L.W. (1978), in Language Development and Intervention with the Hearing Impaired, University Park Press, Baltimore.

Jean .S. .M. and Green .A. .V. (1971), cited in Darley F.L.(1978),Evaluation of appraisai techniques in speech and language pathology,Addison-Wesley Publishing Company,California.

Juenke (1971), cited by Schlesinger. H.S in Deafness Mental Health and Language, in Frank Powell(Ed), 1985, Education of the hearing impaired children, College Hill Press, California.

Katz .J. (Ed.) (1985), Hand Book of Clinical Audiology Ed. IIIrd Pub. Williams and Wilkins, Baltimore.

Land and Rucha (1988), cited by Ann Parker & Helen Rose in Deaf Children's phonological development, in Pamela Grunwell (1990) Developmental Speech Disorders - clinical issues and practical implications, Pub. Churchill living stone, New York.

Patrica Bender et al (1979), Research Trends in The Field of Speech and Hearing, Journal of Communication Disorders, Vol. 12.

Quigley and Kretschmer (1982), cited by Ann Parker & Helen Rose in Deaf Children's phonological development, in Pamela Grunwell (1990) - Developmental Speech Disorders - clinical issues and practical implications, Pub. Churchill living stone, New York.

Quigley et al (1976), cited by Bloom and Lahey H. (1978) in Language Development and Language Disorders, Pub. John Wiley and Sons, New York.

Simmons (1962), cited by Bloom and Lahey M. (1978) in Language Development and Language Disorders, Pub. John Wiley and Sons, New York.

Taylor (1969), cited by Bloom and Lahey M. (1978) in Language Development and Language Disorders, Pub. John Wiley and Sons, New York.

Usha K.R.(1988), 3-D LAT and The Hard Of Hearing,Unpub.Dissertation, Mysore University.

Woll and Lawson (1980), cited by Ann Parker & Helen Rose in Deaf Children's phonological development, in Pamela Grunwell (1990)- Developmental Speech Disorders - clinical issues and practical implications, Pub. Churchill living stone, New York.

Wood et al,(1990), cited by Ann Parker & Helen Rose in Deaf Children's phonological development, in Pamela Grunwell (1990) Developmental Speech Disorders - clinical issues and practical implications, Pub. Churchill living stone, New York.

For the tests cited in the study the references can be obtained from:
Darley F.L.(1978),Evaluation of appraisal techniques in speech and language pathology, Addison-Wesley Publishing Company, California,

Lees .J. and Urwin .S. (1991), Children with Language Disorders, Whurr Publishers, London and New Jersey.