

**LINGUISTIC PROFILE TEST (LPT) (TELUGU) -
NORMATIVE DATA FOR CHILDREN
IN GRADES I TO X**

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This dissertation submitted as part fulfillment of final year M.sc.
(Speech and Hearing) to the University of Mysore, Mysore.

All India Institute of Speech & H e a r i n g :
Mysore - 570 006 May 1997.

DEDICATED


TO

MY FAMILY

CERTIFICATE

This is to certify that the dissertation entitled: Linguistic Profile Test (LPT) (Telugu) - Normative data for children in grades I to X is the bona fide work in part fulfillment for the final year M.Sc, (Speech & Hearing) of the student with the Reg.No. M9505.

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DECLARATION

*/ hereby declare that the Dissertation entitled LPT (Telugu) - Normative data for children in grades I to X is the result of my own study under the guidance of **Dr. Shyamala Chengappa**, Reader and Head of the Department of Speech Pathology, All India Institute of Speech & Hearing, Mysore and has not been submitted earlier at any University for any other Diploma or Degree.*

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INTRODUCTION

Human communication includes a wide range of activities. Much of it is nonverbal. A Speaker's body posture & hand gestures convey aspects of attitude, emphasis and emotion. Often these nonverbal forms of communication are unintentional and nonspecific. When a specific message must be conveyed, people typically employ language. Language, whether spoken, written or signed, involves a system of symbols that conveys meanings. Language involves the interaction of many skills, which combine for effective communication. A speaker must know the rules for combining sounds into words and words into sentences. The speaker uses both sentence structure and word meanings to convey the content of the message. Finally, the speaker must appreciate the rules of social discourse to use language effectively for communication.

(Language acquisition begins with the birth cry of the child and continues up to late childhood at 9 to 10 years of age. During this the child progresses through various stages namely, the preverbal stage, single word stage, two word stage, three word stage, refinement stage and complex-structure formulations.

A test is basically a tool available to the clinician for sampling some of a child's behaviours in terms of different dimensions. It is an objective measure and aids the clinician in arriving at an accurate diagnosis and in

successful rehabilitation of the client. There are different types of tests, designed with a particular purpose. There are screening tests which are used to tap the early vocal and verbal skills of small children and in older children for identification of the problem. Then, there are diagnostic tests which are more detailed and give the amount of the disability and ability in any particular sub ability. There are those tests also which test specific age groups. Some tests are designed especially to test language & its acquisition in preschoolers and some tests are to test language and its disorders in school going children. Some tests are administered only for the adult population & then there are test which test all age groups.

There is a vast variety of these tests being used abroad. During the last decade or two a plethora of language tests have been published in the west. Consequently, the speech language clinician in the west has a wide choice of language tests far different purposes in different theoretical frameworks. The Indian scene on the other hand is characterized by an extreme paucity of language tests. In the recent past some attempts have been made to fill the lancunae, for testing younger and adult population but for school going children there is still a lack of good language tests very little attention has been paid to this school going age group.

As India is a country which has an enormous number of languages being spoken. The need for indigenous tests standardized on local population becomes prominent. But these seem to be a rarity when comparison is done with the large number of tests developed in other countries in other languages.

Telugu is a language belonging to the Dravidian family and it is the spoken language in an around the State of Andhra Pradesh. Telugu is one among these where in there is no standardized test available for assessing language. So an attempt is made here to develop and standardize a language test in Telugu for children between 6-15 years of age (i.e., from grade I to grade X). These normative scores of LPT - LPT is a linguistic profile test which is a principled description of those features of a person's use of language which will enable him to be identified for a particular purpose. This is not a test nor sets of teaching materials (only gives guidelines). Here certain general principles are taken from linguistic science and interpreted in the light of the demands of clinical practice. Telugu would be useful in identifying school age children with language deficits and also in finding out the area of deficit- i.e., linguistic skills and structures at different linguistic levels; which is essential for carrying out a systematic language remediation programme.

REVIEW OF LITERATURE

The Language development in children has drawn great deal of attention in the vast area of child development, particularly since the 1970s.

Several theories have been put forward to explain language development. Language acquisition in children is explained traditionally by two main approaches-Chomskyan Model and the Behaviorist model. The model proposed by chomsky and others is that the child is born with an innate capacity for language acquisition; that the human being is in some way prestructured towards the acquisition of language, so that when the child is exposed to language, certain language structuring principles automatically begin to operate.

The Behaviorist Model explains language learning as essentially a process of imitation and reinforcement. The child learns to speak by copying the noise patterns heard around him, and through stimulus and response, trial and error, reinforcement and reward, he would refine his own production until it matches the language of his adult models (Crystal, 1976).

A number of studies in a variety of disciplines have been done in the area of language acquisition. Psychologists, linguists, educators, parents, neurologists

and speech-pathologists have contributed to the knowledge of language acquisition in children. The information from developmental psycholinguistics is useful to the assessment and management of language disordered children. The vast research on language acquisition has been through case studies both longitudinal and cross-sectional (McCarthy, 1930; Day, 1932; Davis, 1937; Templin, 1957; Winitz, 1959; Spriesterbach, Darley and Morris, 1962; Miller, 1962).

Most of the work on children's language acquisition has been focussed on preschool development. The relative speed and efficiency of language learning has been taken as a main justification for a large innate component in language development. It has been often argued that children's language acquisition is virtually completed by the time they go to school. It has become increasingly clear, however, that a great deal of acquisition takes place after 5 years, particularly in the context of formal schooling. A review of literature on language acquisition reveals that language is an ongoing process which is active during the school years also.

By the time the child enters school at 5 years the preliminary stages considered to be so important to the potential for language development will be well under way in the majority. However, it is not unusual for problems to be present or even to persist during early school years. The demands that are placed on the child's language skills change

at school entry. The environment is widened such that family and home are no longer the only considerations. For the child with difficulty in language development the transition to school can be a considerable hurdle. Language problems may be accompanied by problems of social interaction which can further impede progress at school.

Such language disordered children problems are concentrated in language skills. All learning involves language to some extent. Thus, the child's difficulty becomes more diffuse, involving abstract concepts, manipulation of vocabulary as well as poor auditory memory and attention.

A thorough assessment of school going children, that determines strengths and needs in which information is shared between parents and professionals, is thus required.

There has been a lot of work done abroad on problems of language acquisition in school going children. Durkin (1987) claims that later language development is difficult to handle within a single comprehensive theoretical framework because a succession of changes takes place in the child's later language development which are quantitatively and qualitatively less manageable than those in previous stages.

A number of studies have been done to seek the pattern of language development in school going children. These studies are either longitudinal studies i.e., studying a

subject over a long period of time or cross-sectional studies i.e., studying a number of subjects over short duration of time. Then there are studies which have focussed their main attention on only one aspect of language for eg. it can be a study only on syntax or an semantics and so on. Whereas, there are those studies also which study language as a whole i.e, focussing their attention to all the aspects of language, whether it be syntax, semantics or discourse. A few studies have taken a combination of some aspects of language. Consequently, based on these studies done, a number of tests for assessing language development have been developed on the same pattern.

Studies on School Going Children:

Gregory, Shanahan, Walberg (1985) did a descriptive analysis of high school seniors with speech disabilities. Of over 26,000 high school seniors for whom survey data was collected, 278 were identified as having speech disabilities. These orally handicapped pupils tended to be older, more often from linguistic minority groups and were at a disadvantage regarding achievement, self image, motivation, career aspirations when compared to their peers.

Stewart (1985) studied incidence and prevalence communicative disorders in a mid southern public school system in USA in grades K through 12. Results indicate an average prevalence of 2.95% for primary communicative disorders in school population.

Stewart (1985) in another study determined number and prevalence of communicative disorders in minority preschool and school age children in USA. Results indicates out of 3827 children seen from 1973 to 1977, 38.5% were diagnosed as with communicative disorders. Distribution of population for hearing, speech, language and learning disabilities was 4.88%, 1.63%, 0.84% and 0.33% respectively. Distribution for preschool, elementary, junior high school was 39.2%, 38.9% and 21.9% respectively.

Hill and Hayner (1992) compared the language performance of low achieving (LA) elementary school students and normal achieving students. Results show over half of LA group scored low on language measures.

Studies on Phonology in School Going Children:

Grunwell (1981) summarizes various aspects of children's phonetic and phonological development. It appears that children have acquired the basics of the phonetic system by age 5, but that mature phonological system is not completely acquired until about age 10.

Hoffman Norris (1989) studied spelling errors of 45 elementary school children (1st, 2nd and 3rd grade) which were analyzed for phonological process patterns. A considerable proportion involved both syllabic reduction and features changes similar to those seen in normal spelling development.

Roberts, Burchinal and Footo (1990), examined phonological development of 145 children between ages 2 1/2 and 8 years. Speech was assessed annually using a standardized articulation test and analyzed for the occurrence of both common and uncommon phonological processes. A marked decline in process usage was observed between ages 2 1/2-4 years and infrequent process usage was observed after the age of 4. Uncommon processes were used infrequently even at 2 1/2 years.

Lewis and Freebairn (1992) studied residual effects of preschool phonology disorders in grade school, Adolescence and Adulthood. Age ranges were 4 to 6 (preschool), 7 to 11 (grade school) 12-17 (adolescence), 18-45 (adulthood). Results show high performance on measures from preschool to grade school and smaller but steady improvement to adolescence to adulthood.

Oerlemans and Dodd (1993) studied development of spelling ability and letter sound orientation in primary school children. Modified version of Schonoll graded spelling test (1956) was administered to assess 1372 children in grades 2-6. Children with higher socio-economic status groups were better spellers. Children who were good spellers tended to generate more phonologically plausible misspellings. Results show phonological awareness is associated with acquisition of adequate spelling ability.

Studies on Syntax in School Going Children:

Fujiki, Brinton and Dunton (1987) examined the effectiveness of a grammatical judgement screening test in separating linguistically normal and language disordered first grade (6:6-7:6 years), 2nd grade (7:6-8:6 years), 3rd grade (8:6-9:6 years) children. Ten language disordered and ten linguistically normal children were selected from each grade, for a total of sixty. Results indicated that there were statistically significant differences between performance of normal and language disordered children at the first and second grade levels.

Fujiki, Brinton and Dunton (1987) examined the ability of normal and language impaired children to correct grammatical violations of word order. Ten language impaired and ten linguistically normal subjects were sampled from following age levels; 6, 7, 8, 9 and 10 years with a total of 100 subjects. Results indicate normal 6-, 7-, 8 year old performed significantly better than their language impaired age matched peers. Also, performance of language impaired 9- and 10 years olds was superior to that of younger impaired groups. In normals only age level difference were produced by 6 year old, who performed significantly poorly than two of the older age groups (8- and 10- years.)

Tyler and Nagy (1989), administered 3 paper and pencil measures to students in 4th, 6th and 8th grade (total 100 children) to assess different aspects of their knowledge of

English derivational suffixes. Children appear to develop a rudimentary knowledge of derivational morphology before IV grade. Knowledge of syntactic properties of derivational suffixes appears to increase through 8th grade. Knowledge of distributional properties of suffixes also increases, with 6th grade students showing an increase in over generalization errors parallel to that found for inflectional suffixes in much younger children.

Masterson and Kamhi (1992) studied linguistic trade offs in school age children with and without language disorder. Several linguistic measures were used to represent syntactic and phonological productions in order to determine whether interrelationship patterns would vary across measures. Linguistic interactions present in imitated speech were compared to those from spontaneous speech. Results show trade off present in imitated speech than in spontaneous speech, in both groups Interrelationship patterns were similar across groups.

Windsor (1994) studied children's comprehension and production of derivational suffixes. Relational knowledge of 21 derivational suffixes conveying six different meanings was investigated with 120 children from 3rd to 8th grade and with 40 adults. Ten children from each grade level were taken with age ranges from 8 to 14 years. Results from nonsense word paradigm indicated that suffixes were comprehended with greater accuracy than they were produced, particularly by

children. Children in 5th through 8th grades were more accurate than children in 3rd and 4th grade in both suffix comprehension and production and adults demonstrated greatest accuracy in both comprehension and production.

Studies on Semantics in School Going Children:

Durkin, Crowther and Shire (1981) deal with vocabulary in particular how children cope with polysemy. They look at children's use and understanding of certain relational terms that are acquired first in the context of spatial reference but as then extended to describe mathematical or musical relations eg. Lower, up etc. The evidence indicates that children acquire the basic spatial sense of the items fairly early and that it takes some years before they learn the derived and more specialized meanings.

Brinton, Fujiki and Mackey (1985) explored the ability of elementary school age children to comprehend six idiomatic expressions. Eighty linguistically normal children, twenty from each of four different grade levels (Kindergarten, IInd grade, IVth grade, VI grade) participated in the study. Results suggest that when studied as a group, comprehension of the idioms studied improved with increasing age. However, when examined individually performance was found to be highly variable from idiom to idiom.

Clark and Berman (1987) examined the type of linguistic knowledge that affect children's ability to understand and

produce novel compound in Hebrew. Sixty children aged - 3:0 to 9:0 and 12 adults were asked to interpret and to produce noun and noun compounds. Their comprehension was in advance of their production. In comprehension, morphological form of head nouns had little effect- from age 4, children did equally well on all the compound forms tested; they identified head nouns and possible relations between heads and their modifiers. In production though knowledge of morphological form was crucial. The fewer the changes the children had to make in forms of head nouns, the earlier they mastered that compound pattern. Finally, the children who produced novel compounds correctly were also able to interpret them, but not vice-versa.

Coates (1988) tested children's understanding of modal meaning at ages of eight and twelve. The results of this test was compared with the results of the same test on adult informants. Cluster analysis of data reveals underlying patterns- 8 year old children have only rudimentary system of modal meaning and even by age of 12 year, child's system will not be isomorphic with the adult system.

Evans and Gamble (1988) examined relationship between attribute saliency and metaphor interpretation in school children. Two types of metaphors-predicate-promoting (pp) and preidicate introducing (PI) were selected. Adult samples used to select metaphors of each type which then were presented to 24 children in each of grades, 3, 5, 7 (mean

ages 8:5, 10:6, 12:8). Older children correctly interpreted more metaphors than younger children and at each grade level no difference was observed between number of correct interpretations of PP and PI metaphors. Attribute saliency for the individual perceiving metaphor plays a key role in the interpretation process.

Nippold, Schwarz and undlin (1992) did a developmental study of adolescents and young adults concerning use and understanding of adverbial conjuncts. Two types of adverbial conjuncts- concordant (eg. similarly, more over) and disconcordant (Eg. contrastively, rather) were examined in 120 adolescents and young adults. The age groups were 12:9, 15:10, 19:2, 23:8. Results indicate increasing ability to use and understand these words in the written mode.

Studies on Narratives in School Going Children:

Liles, (1985) studied children's use of cohesion of spoken narratives which was compared across three groups; normal, language disordered with good story comprehension and language disordered with poor story comprehension. Subject's age ranged from 7:6 to 10:6. Results indicate that good comprehending language disordered children and normal children used similar llinguistic cohesive structures, but both groups differed from poor comprehending language disordered children. Both groups of language disordered children used less adequate cohesion than normal children.

McCabe and Peterson (1985) analysed naturalistic production of 'because' and 'so' by 96 children, aged 3;6 to 9;6 while narrating real, personal events. Results indicate that semantic errors could be construed as evidence of confused thinking. Of semantically correct causal uses, 81% encode psychological causality, mostly statements of other people's intentions. Virtually all causality occurred prior to the time of narration. Age trends were remarkably absent. 'Because' and 'so' are used in significantly different ways even by the youngest children.

Scott (1988), evaluated school children's narratives. Two normally developing children and two language disordered children were taken in the age range between 7-10. Samples demonstrated a line between narratives judged as adequate or inadequate. Clear cut differences between stories told by language disordered children and normally developing children have not emerged and there can be wide variations in the narratives produced by any one child in different contexts and with different levels of motivation.

Edmonds and Haynes (1988) investigated the topic manipulation skills and conversational participation of school-age language impaired children in interaction with normal language peers. The subject's age ranged from 5.11 to 7.11 years. No significant differences between two groups for the number and proportion of topics maintained, topic introduced or topic shifted. However language impaired

children did produce significant more topic reintroductions than normals.

Verrall (1989) compared oral and written narrative skills of primary school aged children. Ten normally achieving children from each age group 8 year (3rd grade) and 10 year (5th grade) were taken. Similarities and differences between oral and written narratives at the two age levels were examined. Data indicated that the oral and written narratives at both age levels differed significantly only in grammatical analysis.

Strong and Shaver (1991) studied stability of cohesion in the spoken narratives of languages impaired and normally developing school-aged children. 39 children in the age range 8-10 years were taken in each of the two groups. Results show that stability increased after children had experienced telling stories.

German and Simon (1991) analysed children's word finding skills in discourse. Sixteen children each were selected in the two groups. One of word finding problems and other of normals in grades 1 to 6. Subjects narratives produced in response to 3 pictures and 5 probes were analysed with respect to following word-finding indices-languages productivity, incidence of word finding characteristics (repetitions, reformulations, substitutions, delays, empty words, insertions). Group comparisons were made with respect to these indices. Children with word finding disorders did

not differ from normal children in language productivity but manifested significantly more word finding characteristics in their narratives.

Purcell and Liles (1992) studied cohesion repairs in the narratives of normal language and language disordered school age children (age range 8:6 to 12:6, 3 to 6 grade). Self-initiated repairs during story retelling task were seen. No group differences found for either repair type, when grammatical repair and repairs to text meaning were analysed. Both groups initiated significantly more repairs to text meaning. No group differences for frequency or types of cohesive repairs initiated. However, differences for success of cohesive repair attempts and location of repairs seen.

Gilliam and Johnston (1992) studied spoken and written language relationships in language/learning impaired (LLI) and normally achieving school-age children. The two groups were matched for age, spoken language and reading abilities. Ten LLI of 9-12 years and forty school age children of same age were taken. Results show spoken narratives to be linguistically superior to written narratives in both groups.

A number of tests have been developed abroad to assess the language skills of school-going children. Some of these tests are grouped as under. Those tests which test a particular language skill are grouped together for ex. tests

testing the comprehension of child are grouped together under "Comprehension Tests" , test testing expression are grouped together and so on. The common main purpose of the grouped tests is given, a few examples under each group are listed and one test out of them is described to give a general idea about the group.

1. Comprehension Tests:

Purpose: These tests aim to measure auditory comprehension of language; word classes and relations, grammatical morphemes and elaborated sentence constructions and to determine areas of receptive linguistic difficulty.

Age range: These tests are efficient in testing children in age range 3 to 18 + years.

Eg.-Test for auditory comprehension (Carrow,1985)

-British picture vocabulary scale (dunn,1982)

-Test for Reception of Grammar (Bishop,1989).

For eg.Test for Reception of Grammar (TROG) assess children's understanding of grammatical contrasts in English and compares their comprehension of individual structures with that of their peers. It is a useful test in assessment of children with speech and language disorders, deafness, severe/moderate learning difficulties and cerebral palsy and adults with acquired dysphasia. It aims to pinpoint areas of specific difficulties and to provide a profile patterns of errors.

2. Expression tests:

Purpose: These tests obtain short samples of spoken language which may then be evaluated in terms of information given and the grammatical forms used.

Age range: These tests may be used with children in the age range 3-16 years.

eg. Action picture test (Renfrew, 1989)

-The Bus story-A test of continuous speech (Renfrew, 1991)

-Carrow elicited language inventory (Carrow-Woolfolk, 1974).

For eg. Carrow Elicited Language Inventory (CELI) measures child's production control of grammar. It helps to diagnose language disabilities and to identify specific linguistic structures with which the child has difficulty.

3. Comprehension and Expression Tests:

Purpose: These tests provide a quantitative and qualitative analysis of a child's receptive and expressive language skills in order to;

1. distinguish between normal and language impaired children.

2. indicate where language problems may be

3. suggest possible approaches to remediation.

Age range: These tests can test children in the age range 2-18 years.

ex. - Test of Adolescent Language -2 (Hammill 1987),
 -Illinois Test for psycholinguistic Abilities (kirk, 1968)
 -Reynell Developmental Language Scale(Reynell, 1985),
 -Porch Index of Communicative ability in children (Porch, 1974). For eg.Reynell developmental language scales (RDLS) assess, as independently as possible expressive language and verbal comprehension (VC 'A' and VC 'B') during the years most important for language development. VC B scale allows assessment of verbal comprehension in severely physically handicapped or withdrawn children.

4. Phonology tests:

Purpose: To elicit spontaneous and representative speech samples of the child's habitual speech patterns which may be used for screening/assessment purposes.

Age range: Children of any age can be tested.

eg.-Metaphor resource Pack (dean, 1990).

- Phonological assessment of child speech (Grunwell, 1985)
- South Tyneside Assessment of Phonology (Armstrong and Ainley, 1988).

South Tyneside assessment of phonology (STAP) for instance is used to obtain a profile of child's phonological system. It aims at eliciting consonant phonemes and consonant clusters within the contexts of word initial, medial (i.e., all intervocalic) and final positions.

5. Pragmatics and Social Skills tests:

Purpose: These tests are used with children whose use of conversational intentions is limited or is impaired. They aim to provide a standardized/norm referenced assessment measuring a specific set of conversational behaviors and intentions.

Age range: These tests are intended for children in the age range 3-16 years.

eg.-Test of pragmatic skills (Shulman,1985).

- Progress assessment charts of social and personal development (Gunzburg,1963)

- Social skills training with children and adolescents (spencer,1980).

Progress assessment charts of social and personal development (PAC) for example describes qualitatively the strengths and weaknesses of an individual with learning difficulties in relation to others with similar difficulties over 4 areas of social competence and provides a basis for appropriate remedial action to be planned.

6. Language-Written Tests:

Purpose: These tests provide a profile of child's ability to cope with vital skills that written language requires. Can be used as screening procedure for early diagnosis of potential reading/writing problems and as diagnostic

procedure for children over 7 years, who are not showing expected progress.

Age range: Can be used with children in age range 5-14 and also with adults having reading and writing difficulties.

eg.-The Aston Index (Newton and Thomson, 1976).

-Test of Reading-spelling patterns (Boder and Jarrico,1982).

-MacMillan individual reading analysis (Vincent and Marse,1990).

Neale Analysis of Reading ability (Neale 1989).

Test of Reading-spelling patterns is used as screening device to identify normal/abnormal reading spelling patterns. It enables abnormal patterns to be classified into subtypes,thus providing pointers for remediation.

7. Bilingual Tests:

Purpose: The aim of these tests is to differentiate between the child who has impaired acquisition of both languages (i.e., first and second language) and the child who has difficulty only in the acquisition of second language.

Age range: These tests test children ranging from 3-15 years.

eg. Sentence comprehension test (Wheldall,1987).

Sandwell Bilingual screening assessment (Duncan 1987).

The former test in its revised edition (Wheldall, 1987) assesses child's ability to comprehend language in the absence of contextual clues which may accompany conversation. In its punjabi edition (Gibbs, 1987) it tries to establish whether the child's difficulties are specific to acquisition of English as a second language or are pathological.

In contrast to the number of foreign tests, there are only a handful on Indian tests in use today. These tests are limited in number and the areas they assess. Even though it is necessary to have an estimate of both expression and reception capacities, a vast majority of the currently available tests evaluate only the receptive modality. Also, these tests are mainly focussed at assessing the language of pre-school children. Very little attention has been paid to the language assessment of school going children. This will become clear as one goes through the available list of Indian tests.

a) Vocabularly Tests:

eg.-A screening picture vocabulary test in Kannada
(Sreedevi,N.1988)

-A screening picture vocabulary test in Tamil
(Bhubaneshwari,C.S.1993).

A Screening Picture Vocabulary Test in Kannada (KPVT)
Sreedevi,1988:

It is a useful tool in,

1. Screening language acquisition of Kannada speaking children,
2. identifying those children with comprehension deficiencies,
3. and aiding in therapy planning for such children.

The test is applicable to children between the age range of 3-6 years.

The test material consists of 30 picture plates with each plate containing four black and white drawings. One among the four pictures is the target picture. The test plates are arranged in order of increasing difficulty.

Advantages:

1. Helps in identifying children with delayed or deviant language.
2. Helps in planning therapy programme.

Limitations:

1. It is only a screening test and so descriptive information is not obtained.
2. It is applicable to only those children whose mother tongue is kannada.
3. The test considers only the receptive aspect of vocabulary.
4. The age range considered is limited.

b) Syntax tests:

eg. Test for acquisition of syntax in Kannada (TASK)
(Basavaraj, A.R.1981)

Screening test for the acquisition of Syntax in kannada
(Basavaraj , A.R.1981).

A syntax screening Test in Tamil (SST) (Sudha, K.M.
1981)

Test for Acquisition of syntax in kannada (TASK)
(Basavaraj.A.R.1981):

This test assesses the syntactic aspects of language acquisition in Kannada speaking children between 1-5 years of age, through performance. It yields the acquisition profiles from one to five years of normal language development. Its applications extend to linguistically deviant populations of any age. The test comprises of 19 subtests and 323 items in all. It tests the comprehension and expression of a wide spectrum of grammatical categories and sentences types. It is a power test (no time limit imposed for completion). Toys and pictures are used a complementary material to the test sentence.

Advantages:

1. The test assess both the receptive and expressive aspects of a wide spectrum of grammatical categories.
2. It is applicable to deviant populations of any age.

Limitations:

1. It is applicable only to a limited age range.
2. The test is valid only when administered to children whose mother tongue is Kannada and who reside in a Kannada speaking environment.

c) Tests for assessing languages:

eg.-Linguistic Profile Test (LPT) (Karanth,1980)

-A language test in Kannada for expression in children (Kathyayani, 1984).

-Three dimensional-language acquisition test (3D-LAT) (Geeta,H.1986).

-Language and Articulation Test (RRTC and AYJNIHH, 1990)

-Malayalam Language Test (Rukmini ,A.R.1994).

A Language Test in Kannada for Expression in Children (Kathyayani, 1984).

The purpose is to evaluate the use of various concepts in expression in terms of nouns, verbs, numbers, genders, tenses, place markers and persons. The testing material consists of picture stimuli depicting daily activities and has 30 picture cards in all. It was administered to 30 normal children (5-8 years), 6 hearing impaired and 2 mentally retarded and the responses of these groups with respect to the categories mentioned are given. It gives no cut off point for differentiating the deiant, or scoring procedure as such for the test.

Advantages:

1. It helps in testing various aspects of expression.

Limitations:

1. Eye range is limited.
2. Validity is poor
3. No receptive skills are tested.
4. The scoring procedure is not clearly defined and hence it is difficult to differentiate normal and abnormal. Languages Acquisition Test (RRTC and AYJNIHH, 1990). This test was developed in eight Indian languages namely Bengali, Gujarati, Hindi, Kannada, Marathi, Malayalam, Oriya, Tamil. The test was developed to assist in;
 1. To identify potential delay and deviance in language and articulation acquisition.
 2. To identify those who need further detailed evaluation.
 3. To specify behaviour needing remediation.
 4. To establish baseline functioning prior to therapeutic intervention.
 5. To measure behavioural change during the process of therapy.
 6. To serve as an indicator for termination of therapy.

The test format was based on LPT (Karanth 1980), but was picturized for use with children. The test has 2 parts, Part one- semantics
part two- syntax.

I. Semantics:

1. Semantic discrimination.
2. Naming
3. Lexical category
4. Synonymy
5. Antonymy
6. Homonymy
7. Polar questions
8. Semantic anomaly
9. Paradigmatic relations
10. Syntagmatic relations
11. Semantic contiguity
12. Semantic similarity

II Syntax

1. Morphophonemic structures
2. Plurals
3. Tenses
4. PNG markers
5. Case markers.
6. Transitives, Intransitives, Causatives
7. Sentence types
8. Conjunctions and Quotatives
9. Comparatives
10. Conditional clauses
11. Participial construction.

The age group tested is 3-7 years. The scoring is done section wise and it tests both expressive and comprehensive modalities.

Advantages:

1. It tests both comprehension and expression
2. It serves as a baseline and monitor for therapy
3. The test assesses a wide spectrum of linguistic structures.

Limitations:

1. Age group tested is very limited.
2. The population on whom the test can be used is language dependent.

d) Tests of Pragmatics:

eg. Test of pragmatics in Tamil (Priya, K.S. 1994)

This test serves as a clinical tool to identify the pragmatically disordered children. This test is based on test design given by Shulman (1986) in the "Test of pragmatic skills" which consists of 4 tasks with examiner probes.

Test design: The test assess 3-8 years old children's use of language to signify conversational intent. A set of 4 guided play interactions (tasks) serve as the medium through which these pragmatic behaviours are assessed. Each task is administered using the materials and dialogue (examiner

probes) provided. The test is designed to provide information on 10 categories of communicative intentions expressed by the children. They are:

1. Requesting information
2. Requesting action
3. Rejection/Denial
4. Naming/Labeling
5. Answering/Responding
6. Informing
7. Reasoning
8. Summoning/Calling
9. Greeting
10. Closing conversation

The responses are scored on a rating scale ranging from 0 to 5 according to the appropriateness and linguistic sophistication of the child's responses to probes.

Advantages:

1. The test assess pragmatic skills in different contexts and as the materials and probes used are constant, it makes the test more objective and reliable.
2. Test uses a five point rating scale to give more accurate and quantitative outcome. This contributes to better inter-professional communication which is essential for successful rehabilitation of the child.

3. Helps to quantify the improvement seen after therapy, in pragmatic skills. Thus, evaluating the efficacy of therapy.
4. Since it is more objective, it has better face validity.

Limitations:

1. It is applicable to only those children whose mother tongue is Tamil and reside in Tamil speaking environment.
2. Age range is limited.
3. Number of subjects under each age group is only 5 i.e., small sample size.

So, it can be easily seen in the above section that the tests available in Indian languages are insufficient in the variety of purposes and age ranges they test.

In a study by Suchitra and Karanth (1990) Linguistic Profile Test was found to be effective in testing the language disorders in school going children, as it gives sufficient information of different areas of language tested, over a wide age range.

The Linguistic Profile Test, henceforth referred as LPT was designed with the objective of evaluating and analyzing adequate linguistic samples at the phonological, syntax and semantic levels. The test was designed originally a decade ago (Karanth, 1980a) in Kannada and was called as the "Test of psycholinguistic abilities in Kannada. The framework of

the test is such that, it can be easily constructed in any language. Over the last ten years, the test has been extensively used with clinical populations (both adults and children) and has been found clinically useful, both for evaluation and as a basis for rehabilitation and linguistic retraining of communicatively disabled (Karanth, 1980a and b; 1981; 1984; 1988; 1990; 1991). During this period the test has undergone some revisions. A parallel version of the test was developed in Hindi (Karanth, Pandit, Gandhi, 1986). Data on 200 normal adults and 123 stroke patients including aphasics and non-aphasics. (Karanth, Ahuja, Nagaraj, Pandit and Shivshankar, 1991) has been collected and analysed. A picturized version of the test for young children of 3-7 years of age has been constructed and field tested (UNICEF funded project RRTC, Madras and NIHH, Bombay) in seven Indian Languages including Kannada, Hindi, Tamil, Oriya, Gujrati, Marathi and Bengali. Though the test was developed for adult aphasics but recently it has also formed the basis for Language Acquisition Test. Normative data on 150 children in the age range of 6 to 11 years has already been collected in Kannada (Suchitra and Karanth, 1990) and from 11 to 14 years is in progress.

The LPT has 3 major sections including phonology, syntax and semantics respectively, with discourse forming the tail end of the third section. The choice of methods within these sections covers a wide range of tasks such as pointing, repetitions, naming, indication of grammatical and semantic

acceptability, listing of lexical categories, sentence completion, matching synonyms and antonyms etc. (Karanth, 1980 a and b).

The current study was taken up, as Telugu is a widely spoken language and there is a lack of normative data in Telugu for school going population.

METHODOLOGY

AIM: To establish normative data scores in Linguistic Profile test (LPT) on school going children in the age range of 6+ years to 15+ years.

SUBJECTS: Twenty children each from grade I to X ranging in age from 6+ years to 15+ years were the subjects in the current study.

These children were:

1. Healthy normal children with no physical or sensory disabilities.
2. Native speakers of Telugu.
3. Were studying in Telugu medium.
4. Studying in a Government school.
5. From upper middle socioeconomic strata.
6. Had attended the primary classes i.e., nursery and kindergarten before joining the first class.

More subject details are given in Table-1.

Table - 1: Age groups and the number of subjects in each group.

Age group (in years)	No. of subjects		
	Males	Females	Total
6+	10	10	20
7+	10	10	20
8+	10	10	20
9+	10	10	20
10+	10	10	20
11+	10	10	20
12+	10	10	20
13+	10	10	20
14+	10	10	20
15+	10	10	20

LINGUISTIC PROFILE TEST:

This test has three major sections (1) Phonology (2) Syntax (3) Semantics

(1) Phonology: There are two subsections in the phonology section.

(i) Phonemic discrimination in which there are 24 items. The subjects were asked to point out two pictures out of a set of four, on hearing the minimal pairs.

(ii) Phonetic expression in which there are 52 items. The subjects were asked to repeat the words after the tester.

(2) Syntax: There are ten subsections in the syntax section.

- a) Morphophonemic structures
- b) Plural forms
- c) Tenses
- d) PNG markers
- e) Case markers
- f) Transitives, Intransitives and Causatives
- g) Sentence types
- h) Conjunctions, Quotatives and Comparitives
- i) Conditional clauses
- j) Participial constructions.

A total of 130 items were tested under all these subsections. The subjects were asked to judge whether the given sentences were grammatically correct or wrong. This is known as grammatically judgement task which is a metalinguistic ability. "Metalinguistic ability" refers to one's ability to reflect upon one's language, appreciate and even talk about it. In making acceptability judgements, the individuals not only check for proper grammatical formulation of sentences but also semantic coherence of the same. Hence, it means that making language judgements - retrieving and making use of one's language judgements - retrieving and making use of one's intuitions is relatively hard, when compared to talking and understanding. This is because, in giving a language judgement, "one must take a prior cognitive process (linguistic performance) as the object of a yet

higher order cognitive process (reflection about language performance, or metalinguistic performance) which may have properties of its own" (Gleitman and Gleitman, 1979).

(3) Semantics: There are two major sub-sections in this section (a) Semantic discrimination (b) Semantic expression.

In the first sub-section, discrimination of colours, furniture and body parts was tested. The subjects were asked to point the colour, object or body part named. A total of 15 items were tested.

In the second subsection expression ability was tested under the following tasks:

- 1) Naming
- 2) Lexical category
- 3) Synonymy
- 4) Antonymy
- 5) Homonymy
- 6) Polar questions
- 7) Semantic anomaly
- 8) Paradigmatic relations
- 9) Syntagmatic relations
- 10) Semantic contiguity
- 11) Semantic similarity

The instructions for each task was given differently based upon the type of expressive ability being tested.

ADMINISTRATION AND SCORING

The testing was done in a quiet classroom situation.

The administration of 76 items of the phonology section of LPT entailed instructing the subject that he would hear a minimal pair in the phonemic discrimination task and he would have to point to the pictures presenting the pair out of a set of 4 pictures.

In the phonetic expression sub-section, the subjects were asked to repeat verbally after the tester. The total score of phonology section was 100.

In the 130 items of syntax section of LPT the subjects were instructed that they would hear a list of sentences/words; some of which structurally well formed while some were not. Each subject was given examples of both correct and incorrect sentences. The subject was asked to listen carefully to the items that would be auditorily presented and indicate whether each item was correct or incorrect. The test items were presented auditorily one after the other with adequate time between items for the child to respond. The total score of semantic section was 100.

In the 85 items of semantics section based upon the type of task involved, the instructions were given. The score of this section also summed up to 100.

ANALYSIS

The subjects responses were scored and tabulated and the mean and standard deviation of LPT scores for each age group under each section were computed. Further, one factor Analysis of Variance) was used to find out the significance of difference between means. The results are reported and discussed in the following chapters.

Results and Discussions

The aim of the present study was to develop a language test in Telugu for school going children between 6 to 15 years. The data obtained was subjected to the following statistical analysis:

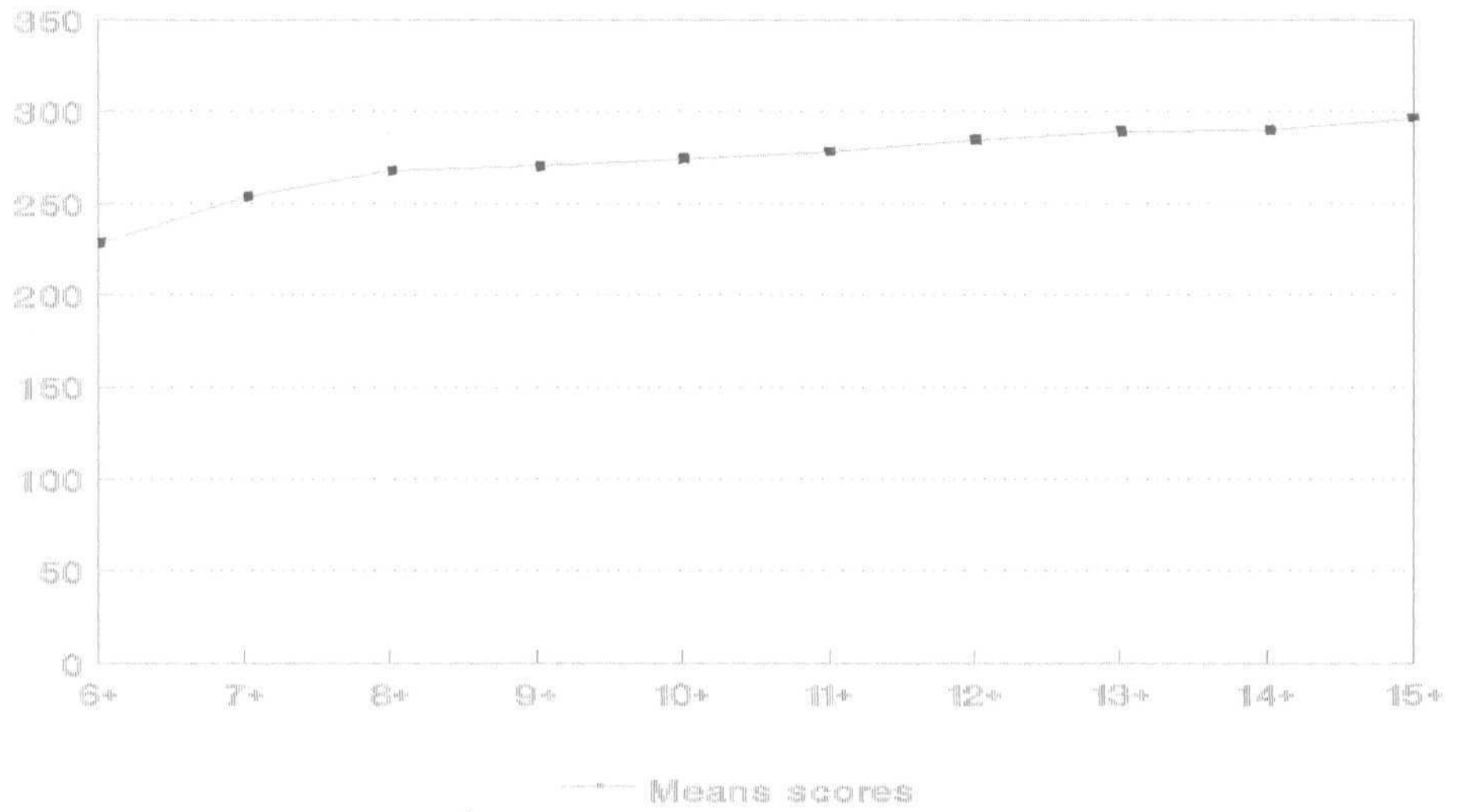
- 1) Mean
- 2) Standard deviation
- 3) ANOVA
- 4) Index of sensitivity.

The mean and standard deviation of total scores are given in Table 2 and are graphically represented in Graph I. The results indicated that the mean scores ranged from 227.92 to 296.32. The total scores increased from 6+ years to 15+ years.

Table - 2: Mean and S.D of LPT Scores:

Age groups (in years)	Means (total scores)	S.D
6 +	227.925	5.606
7 +	253.125	3.95
8 +	268.025	6.866
9 +	270.375	8.748
10 +	273.950	3.724
11 +	278.425	4.583
12 +	284.4	1.917
13 +	279.9	3.768
14 +	290.2	2.726
15 +	296.325	2.015

Graph I



The mean total scores and so of the three sections of LPT, namely phonology, syntax and semantics are given in Table 3 and are graphed in Graph 2. One way analysis of variance (ANOVA) was used to find out the significance of difference between means, the results of which are given in Table 4.

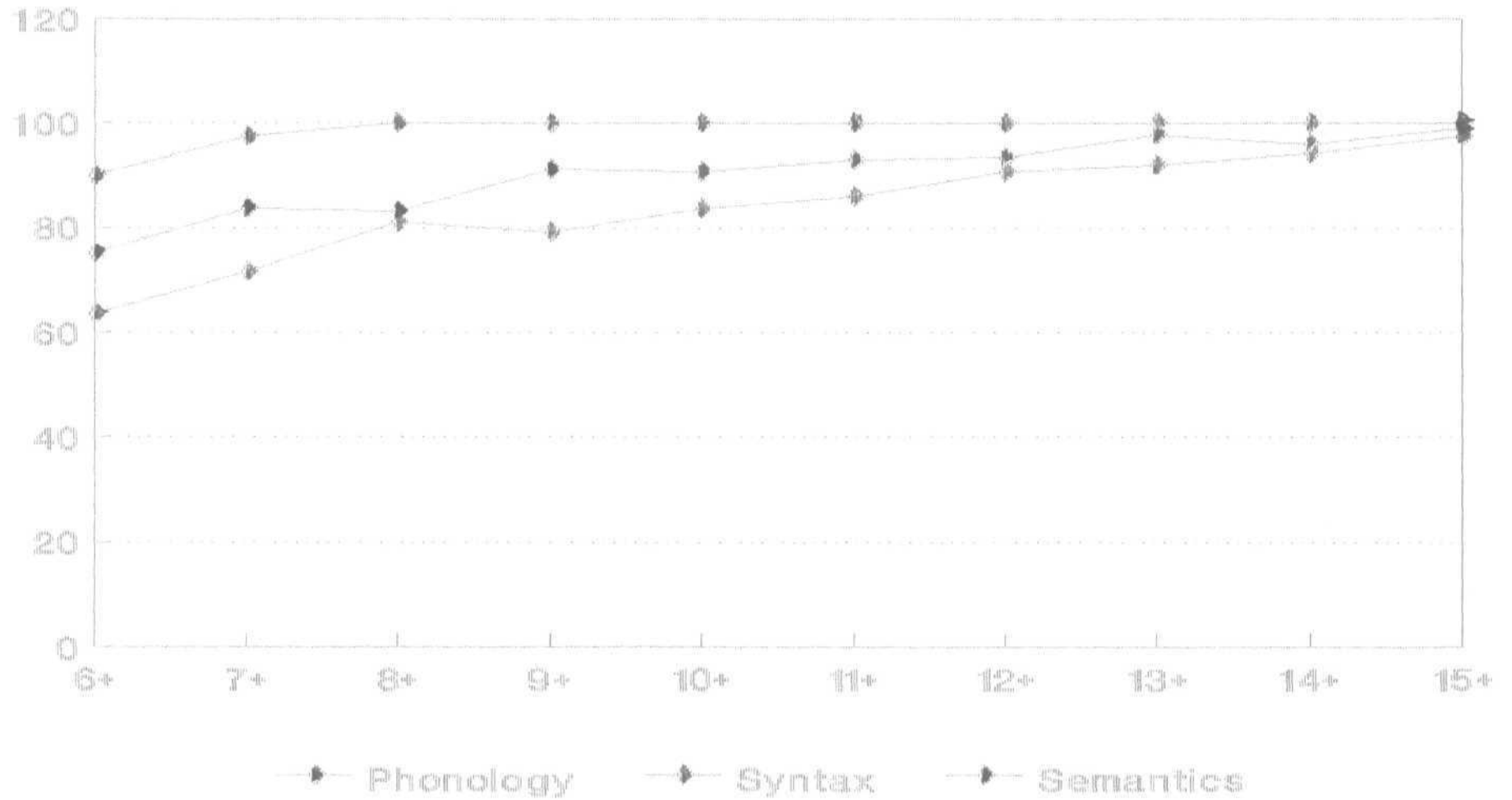
Table - 3: Mean and S.D for different age groups.

Age group (years)	Phonology		Syntax		Sem.		Total
	M	SD	M	SD	M	SD	
6+	89.8	2.462	63.47	4.0	75.05	2.224	
7+	97.55	1.468	71.675	2.29	83.625	2.27	
8+	100.00	0.0	81.05	5.61	83.125	18.643	
9+	100.00	0.0	79.225	6.336	91.225	2.68	
10+	100.00	0.0	83.6	2.794	90.65	2.053	
11+	100.00	0.0	86.0	3.376	92.925	2.472	
12+	100.00	0.0	90.775	2.221	93.625	1.157	
13+	100.00	0.0	92.125	3.371	97.8	1.735	
14+	100.00	0.0	94.3	2.238	96.0	1.328	
15+	100.00	0.0	97.55	1.45	99.05	0.945	

Note: Minimum score for each section is 100
Maximum total score is 300.

It was observed that the mean scores obtained for phonology was significantly higher than that for syntax and semantics. In all the three tasks there were sudden changes in performance between the age of 7-8 years and the scores in all the tasks increased as a function of age except in syntax

Graph II



for 9 years age group. Where the mean being less than that of 8 years age groups i.e., 8 years group had mean of 81.05 and 9 years group had mean of 79.225. All the age groups obtained highest scores in phonology followed by semantics and syntax respectively.

From the mean scores obtained by the children in these ten groups, it was evident that there was a gradual but consistent increase in scores with a sharp rise around the age of 7-8 year for phonology and syntax sections. This sharp rise was not found in the semantic section of LPT. The results showed a high level of phonological development through the age range studied.

Table - 4: Analysis of variance (ANOVA) results show:

1. Significant difference between the age groups in phonology section was observed only upto 7 years of age.
2. Significant difference between all the age groups was observed in syntax section except age groups 8 v/s 9, 12 v/s 13 and 13 - 14.
3. There was a significant difference between all age groups in semantics section except 7 v/s 8; 9 v/s 10, 11, 12; 10 v/s 11, 12; 11 v/s 12, 14; 12 - 14; 13 v/s 14, 15; 14 v/s 15.
4. There was a significant difference between all age groups in the total mean scores 8 v/s 9 and 11 v/s 13.

Table - 4: Significance of the difference between means of (ANOVA), * indicates significant difference at 95%.

Age groups	Total	Phonology	Syntnax	Semantics
6 v/s 7	*	*	*	*
6 - 8	*	*	*	*
6 - 9	*	*	*	*
6 - 10	*	*	*	*
6 - 11	*	*	*	*
6 - 12	*	*	*	*
6 - 13	*	*	*	*
6 - 14	*	*	*	*
6 - 15	*	*	*	*
7 - 8	*	*	*	-
7 - 9	*	*	*	*
7 - 10	*	*	*	*
7 - 11	*	*	*	*
7 - 12	*	*	*	*
7 - 13	*	*	*	*
7 - 14	*	*	*	*
7 - 15	*	*	*	*
8 - 9	-	-	-	*
8 - 10	*	-		*
8 - 11	*	-	*	*
8 - 12	*	-	*	*
8 - 13	*	-	*	*
8 - 14	*	-	*	*

contd...

Age groups	Total	Phonology	Syntnax	Semantics
8 - 5	*	—	*	*
9 - 10	*	-	*	-
9 - 11	*	—	*	-
9 - 12	*	—	*	-
9 - 13	*	—	*	*
9 - 14	*	-	*	*
9 - 15	*	-	*	*
10 - 11	*	—	*	-
10 - 12	*	—	*	-
10 - 13	*	—	*	*
10 - 14	*	-	*	*
10 - 15	*	—	*	*
11 - 12	-	-	*	-
11 - 13	-	-	*	*
11 - 14	*	-	*	-
11 - 15	*	—	*	*
12 - 13	*	—	*	*
12 - 14	*	—	-	-
12 - 15	*	-	*	*
13 - 14	*	-	*	-
13 - 15	*	-	*	-
14 - 15	*	—	*	-

In the earlier study (Karanth - 1984), children below 6 years were unable to carry out the task on section II syntax

which calls for judgement of syntactic acceptability of a given item. These children tended to accept or reject all given items without discrimination. At around 6 years of age, children were found to attempt the task and perform at a chance level of 50, gradually achieving about 95% proficiency by about 15 years of age, with a sharp rise in grammaticality judgement ability between 6 - 9 years of age. Similar study done by Monika Sharma (1995) in Hindi. The mean total scores in section II i.e., syntax ranges from (78.85 +/-7.53) to (93.77 +/- 1.88) from Grade I to Grade x with Grade VIII showing the maximum mean total scores. Improvement in mean total scores is evident from 8+ years onwards.

The mean total scores in section II i.e., syntax ranges from (63.47 +/- 4.0) to (97.55 +/- 1.45) from Grade I to Grade X.

Since chance factor is high in the younger age groups in grammatically judgement tasks, the grammatically sensitivity index (A') as given by Linebarger, Schwartz and Saffran (1983) was computed for each child in the present study. The grammaticality sensitivity index (A') is a nonparametric index of sensitivity based upon the estimated area under the Received Operating Characteristics (ROC) curve which is theritically equal to the proportion of correct responses attainable in a two alternate forced choice procedure and as such provides a pure measure of sensitivity.

Table - 5 : Mean scores of index of sensitivity (A') for different age groups.

Sl. No.	Items	Age Groups (Years)									
		6+	7+	8+	9+	10+	11+	12+	13+	14+	15+
A.	Morpho-phenomic structure	.67	.68	.76	.71	.75	.82	.85	.85	.82	.84
B.	Plural form	.66	.70	.74	.71	.80	.85	.82	.82	.84	.83
C.	Tenses	.74	.85	.88	.87	.95	.98	.91	.91	.91	.89
D.	PNG	.92	.93	.95	.97	.98	.99	.98	.99	.99	.99
E.	Case markers	.93	.97	.97	.97	.99	.98	.99	.99	.99	.98
F.	Transitive, Intransitive and Causatives	.86	.87	.98	.97	.98	.97	.98	.99	.98	.97
G.	Sentence types	.87	.88	.88	.86	.87	.90	.91	.93	.91	.91
H.	Predicates	.85	.86	.85	.84	.90	.90	.93	.95	.95	.95
I.	Conjunctions, Comparatives and Quotation	.80	.82	.84	.83	.85	.91	.91	.90	.93	.95
J.	Conditional clauses	.75	.75	.86	.82	.90	.93	.95	.95	.94	.95
K.	Participle construction	.75	.77	.83	.82	.95	.94	.91	.92	.90	.96
	X	.80	.82	.86	.85	.90	.92	.92	.92	.92	.93

The mean scores of index of sensitivity (A') obtained by the different age groups on the different syntactic structures in the current study is in Table 5.

The average value A across the ten age groups can be seen to increase from 0.80 to 0.93 indicating an increase in grammatical sensitivity with an increase in age. However, the maximum sensitivity ($A' = 1.0$) was not attained even by the age of 15+ years.

The findings showed a differential rate of acquisition of grammatical sensitivity across these categories.

The sensitivity to PNG markers, case markers, was already high throughout. On the other hand, sensitivity to morphophonemic structure was lowest at age 6-7 years and increased gradually. In contrast sensitivity to conduction, comparatives and quotation was low in the age group of 6+ 7+ and 8+ years. Increased dramatically which in the next year (9+ year) and same was maintained across the older age groups. The other subcategories fall in between these extremes indicating differential sensitivity to different syntactic structures at various age.

Under the semantic section, better performance was observed for items in section III A - Semantic Discrimination than section III B - Semantic Expression. The mean total scores for most of the items in section III A (Semantic Discrimination) was highest (with scores reaching maximum

level even for the lowest age group when compared to scores in section III B (Semantic Expression) where differential performance was observed for the items across all age groups studied here.

The mean scores on item No.1 - naming, under section III B - semantic expression indicated gradual improvement in performance from 6+ years on this items (i.e., naming) with maximum scores being attained by 8+ years of age groups, and remained high throughout thereafter.

The performance on items No. 3 and 4 i.e., synonyms (matching pairs and identicals meaning) was upto 8+ years when compared to other items in the same section (i.e., semantic expression). After 9+ years, children obtained good scores.

Item No.5 i.e., homonyms (providing alternate meanings for words) - the scores were poor upto 13+ years. Few children from 14+ years age group did not obtain full scores. Whereas in the age group 15+ years children obtained full score.

An overall increase as better performance for all items was obvious across the age range studied i.e., with increase in age, the performance increased. Better performance was observed for items No. 6, 7, 8, 9, 10, 11 (i.e., polar questions semantic anomaly, paradigmatic relations, syntagmatic relations, semantic contiguity and semantic

similarity respectively and a comparatively poorer performance was observed for item No.2 (lexical category). Only 15+ age group children were able to perform better in this item.

Thus the finding in the semantic section of this study were similar to those in syntax section i.e., maximum scores were observed by older age groups studied (i.e., 15+ years). There was gradual improvement in performance of the children even in the semantic section.

Discussion:

The findings in the phonologic section are in agreement with the findings of the earlier study by Suchitra and Karanth (1990), Monika Sharma (1995) who had done a similar study in Kannada and Hindi respectively. Karanth and Suchitra (1990) confirmed the earlier observation that phonological development was almost complete by the time the child reaches 6 years and beyond this the same level was maintained. Monika Sharma (1995) found that the children in her study started with comparatively higher scores at 6 years age range than children in earlier study (Suchitra and Karanth, 1990) progress thereafter seen in following age groups and a maximum constant score maintained after 11 years of age, where as in earlier (Suchitra and Karanth, 1990) study children at 6 years of age started with a comparatively low scores and reached the maximum constant score by 11 years of age.

The scores in the present study agree with earlier studies (Monika Sharma, 1995) and (Suchitra and Karanth, 1990) except for, they observed that the maximum constant score maintained was after 8 years of age.

The findings of the syntax section of the current study confirmed the finding of the previous studies (Karanth, 1984) (Suchitra and Karanth, 1990) (Monika Sharma, 1995) and were in agreement with the conclusion of the earlier study that adult like sensitivity to grammatical judgement is acquired by adolescence. By 6-7 years children gradually able to make judgements more like adults which is also in agreement with the earlier observations of Bohannon (1976), School and Ryan (1980), Hakes (1980), Suchitra and Karanth (1990) and Monika Sharma (1995). The findings of this study are also in consonance with Karmeloff - Smith (1979) and Monika Sharma (1995) attained a more abstract level of linguistic competence with which he can without functional, semantic and pragmatic procedures of normal language usage. In a more recent study on grammatically judgement tasks, carried out in index, Vasantha, Shastry and Maruth (1989) report similar findings that an increase in grammatical judgement ability is seen from 4.5 to 8.5 years with a dramatic improvement around 6.5 to 7 years. Vasantha et al., conclude that by about the age of 8-8.5 years an asymptote is reached by which time the performance is almost adult like, however the results of the current study are in agreement with results of the earlier studies by Suchitra and Karanth

(1990) and Monika Sharma (1995) indicating that this might be true only of the particulars structures included in their studies. With the inclusion of more complex structures the increase in grammatical judgement ability can be shown to increase until 12-14 years of age (Karanth 1984) and current study maximum sensitivity (A-1.0) is attained by 15 years of age.

In the current study PNG markers and case markers tenses were the most sensitive in all the ten age groups and morphophonemic structures exhibited the lowest sensitivity which is in agreement to Monika Sharma's study (1990) whereas in study by Suchitra and Karanth (1990) plural forms were the most sensitive and perceptual construction were the least sensitive.

The findings in the semantic section, i.e., for items in section III A are in agreement with the study by Huttenlocher, Smiley and Ratner (1974) where in, it is reported that the object concepts seems to be among first "natural language concepts" to be acquired. Children comprehend and produce words which group perceptually similar objects, both animates and in animate by approximately 14 months (Goldin Maedow - et al, 1976, Huttenlocher, 1974). The information involved in the categorization is perceptual and may be representable in the form of prototypes as images of the average unit. This early emergence might be also due to their having been named more frequently than any other

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category (Huttenlocher, Smiley and Ratner, 1983). Istomia (1963) and Johnson (1977) from their study report that even though among the earliest adjectives in children's vocabulary are colour words, young children are notoriously bad at using colour words appropriately. However, in the current study even the children in the age group of 6 years scored maximum on colour words and this was maintained through all the age groups. This difference in the results of the studies can be attributed to the types of stimulation received by the children and frequency of the colour words being named. In the earlier studies body parts were acquired the last out of the three categories (i.e., colours, furnitures and body parts) i.e., in study by Suchitra (1990) scores on body parts reached maximum by 11 years age groups where as in study by Monika (1995) maximum score were not achieved even by 15 years age group. However in the present study the maximum score was achieved by 6 years age group and maintained through all the age groups. The reason for achieving so late may be attributed to constant use of English words to represent body parts than Kannada/Hindi in day to day life. In the previous studies the children faced problem in left and right identification. They were able to identify when spoken in English but could not do the same when asked in Hindi. However, in the present study children were able to identify left and right side in Telugu.

The findings for items in section III B agree with those of Bower (1974) where in earlier recognition of

performance of the different age groups in LPT suggesting that LPT (Telugu) is useful in age groups from 6+ years to 12 years of age than for 13 years to 15 years age group. Though it can be a useful tool in identifying a disordered language in older age group too.

If the children of 6+ years and 7+ years age group who are not willing to undergo this list picturised version of the test (RRTC test battery) could be used.

LPT can be used for evaluating children above 6 years of age , the difference of scores in these age groups being statistically significant for the total scores as well as for the three sections of LPT.

LPT can also be used as a basis for therapeutic programme i.e., the performance of an individual with reference to items within each section can be looked into by the therapist.

familiar persons and objects in many different orientations and context by about 6-7 months has been reported stating that cognitive abilities that are a pre-requisite for learning proper names are present well before speech.

The results of studies on similar items as lexical category, synonym, antonym, polar questions, semantic anomaly, paradigmatic relations, semantic contiguity, semantic similarity of LPT indicate that the findings are on similar lines with that of the present study. Howe and Hillman (1973) found in their study that even 4 year old children show some ability to discriminate between sentences that violate selectioned restrictions and ones that do not. Research also suggest that this ability increased considerably during middle childhood and even beyond (Kessel, 1970) (Schultz and Pilon, 1973). The performance of 6 year olds was poor for all kinds of ambiguities tested. Howe and Hillman (1973) and James and Miller (1973) studied acceptability tasks involving semantic restrictions. Results indicated that both 5 and 7 year old children were capable of distinguishing between meaningful and anomalous sentences involving animate as and human selection. The results of the current study are in agreement with the studies of Howe and Hillman (1973), James and Miller (1973) and Suchitra and Karanth (1990). The youngest age group in the study have correctly judged the sentence No.3 of item 7 (i.e., semantic anomaly) where as poor performance in terms of judging and explaining the ambiguity is found for sentences No. 1, 2, and

5 at the same item. According to de Villiers and de Villiers (1982) words that specify relationships between people objects and events occur quite early in child's language but the meanings of most rational words are not acquired in all their complexity until the child is 4 or 5 years of age. However in the present study its not so, the maximum scores were obtained after 7 years of age i.e., from 8 years of age.

The children performed poorly for homonyms (item No.5). The maximum score was obtained only after 13 years. This is in accordance with the study done by Sack and Derlin (1971) an Monika Sharma (1995).

Semantic contiguity and semantic similarity was poor upto 8 years of age after which there was a gradual improvement and maximum scores being attained at 9 years of age.

The findings that children in all the age groups in all the 3 sections of LPT (i.e., phonology, syntax and semantic) in the current study have scored better than the earlier study in Kannada (Suchitra and Karanth, 1990) and in Hindi (Monika Sharma 1995) can be probably attributed to the improving change in the environment of the children, type and frequency type of stimulus they are getting at home, academic differences and social status.

Results of ANOVA carried out for the three sections of LPT, determine significant of difference between the

performance of the different age groups in LPT suggesting that LPT (Telugu) is useful in age groups from 6+ years to 12 years of age than for 13 years to 15 years age group. Though it can be a useful tool in identifying a disordered language in older age group too.

If the children of 6+ years and 7+ years age group who are not willing to undergo this list picturised version of the test (RRTC test battery) could be used.

LPT can be used for evaluating children above 6 years of age , the difference of scores in these age groups being statistically significant for the total scores as well as for the three sections of LPT.

LPT can also be used as a basis for therapeutic programme i.e., the performance of an individual with reference to items within each section can be looked into by the therapist.

Summary and Conclusion

The present study was undertaken to establish Telugu normative data on linguistic profile test for school going children in an age range of 6+ years to 15+ years. Here, the 3 components of language i.e., phonology, syntax and semantics were tested on a group of 200 subjects (both males and females). Who were all native speakers of Telugu coming from literate middle class families. When comparing this study with the earlier studies done in Kannada by Suchitra and Karanth 1990 and in Hindi by Monika Sharma 1995; the results show that the scores obtained in the present study agree with earlier studies except for the observation that the maximum constant score maintained was after 8 years of age for phonology section. In syntax, PNG markers, tenses and case markers were the most sensitivity while morphophonemic structures exhibited the lowest sensitivity.

In semantics - the children performed poorly for (item No.5). the maximum score was obtained only after 8+ years. Synonyms, anatomys, semantic contiguity and semantic similarity were poor up to 8 years of age and their was gradually improved with age.

In conclusion, it can be said that linguistic profile test (Telugu) is a very useful tool in identifying various language disorder across the age groups of 6+ to 15+ years. The profile can also be used for re-evaluation of case's problem and progress and also as a basis for therapeutic programme.

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APPENDIX

SECTION I : PHONOLOGY

Section I-A: Phonemic Discrimination

Instructions: Place the pictures representing each minimal pair in front of the subject. Read aloud the word the minimal pair (one after another) and ask the subject to point out to the appropriate picture. If the subject fails to do so give him the written forms of the minimal word pair and ask him to match them with the appropriate pictures. Score for each correctly identified picture. Allow correction once only, if the subject is certain his earlier response was wrong. Repeat once if required.

Sl. No.	Minimal pair	Stimulus		Response		Accuracy Response
		Verbal	Graphic	Verbal	Graphic	
1	కణ్ణ - కణ్ణ					
2	అమ్మలు - అమ్మలు					
3	తల - కల					
4	పాట - చాట					
5	అన్న - అన్న					
6	పాప - చాప					
7	వారు - గారు					
8	కుప్ప - ధుప్ప					
9	టటప్ప - నటప్ప					
10	సన్నం - సన్నం					
11	కొండలు - మండలు					
12	మల్ల - బల్ల					
13	యెన్న - యెన్న					
14	కుక్క - చుక్క					
15	కణ్ణ - అణ్ణ					
16	పల్ల - యల్ల					
17	చుట్ట - చుట్ట					
18	యోలు - గోలు					
19	దుట్ట - సట్ట					
20	అరు - అరు					
21	వేలు - అవేలు					
22	పూడ - కూడ					
23	చుక్క - అచుక్క					
24	పల్ల - బల్ల					

Maximum Score 10
Patients Score

SECTION I-B: Phonic Expression

Instructions: Ask the subject to repeat each word clearly after you. If the subject is unable to repeat the word give him the written form of the word and ask him to read it aloud. If he fails to do so then give him the appropriate picture and ask him to name it. Score 1 for each correctly repeated/read/named target sound, Errors involving phonemes other than the target phoneme should not be scored but taken into account durings qualitative analysis.

Sl. No.	Stimulus word	Repeitition	Subject's Reading	Responses Naming	Accuracy of Response
---------	---------------	-------------	-------------------	------------------	----------------------

- | | | | | | |
|----|-------|--|--|--|--|
| 1 | అక్షం | | | | |
| 2 | అక్ష | | | | |
| 3 | అక్ష | | | | |
| 4 | అక్ష | | | | |
| 5 | అక్ష | | | | |
| 6 | అక్ష | | | | |
| 7 | అక్ష | | | | |
| 8 | అక్ష | | | | |
| 9 | అక్ష | | | | |
| 10 | అక్ష | | | | |
| 11 | అక్ష | | | | |
| 12 | అక్ష | | | | |
| 13 | అక్ష | | | | |
| 14 | అక్ష | | | | |
| 15 | అక్ష | | | | |
| 16 | అక్ష | | | | |
| 17 | అక్ష | | | | |
| 18 | అక్ష | | | | |
| 19 | అక్ష | | | | |
| 20 | అక్ష | | | | |
| 21 | అక్ష | | | | |
| 22 | అక్ష | | | | |
| 23 | అక్ష | | | | |
| 24 | అక్ష | | | | |
| 25 | అక్ష | | | | |
| 26 | అక్ష | | | | |
| 27 | అక్ష | | | | |
| 28 | అక్ష | | | | |
| 29 | అక్ష | | | | |
| 30 | అక్ష | | | | |
| 31 | అక్ష | | | | |
| 32 | అక్ష | | | | |
| 33 | అక్ష | | | | |
| 34 | అక్ష | | | | |
| 35 | అక్ష | | | | |
| 36 | అక్ష | | | | |
| 37 | అక్ష | | | | |
| 38 | అక్ష | | | | |
| 39 | అక్ష | | | | |

Sl. No.	Stimulus word	Repetition	Subject's Reading	Responses Naming	Accuracy of Response
---------	---------------	------------	-------------------	------------------	----------------------

- 40 లోడి
- 41 బల
- 42 బాస
- 43 ఆవు
- 44 నాంటి
- 45 పశువు
- 46 సజ్జు
- 47 బస్సు
- 48 వాంస
- 49 సహాయము
- 50 ప్రాణములు
- 51 సజ్జు
- 52

Maximum Score 10
Patients Score

SECTION I-C: Running Speech

Instructions: Read the following passage slowly and clearly. Ask the subject to repeat it after you. Later the subject to read the passage aloud. Use aspiration wherever necessary. Further, ask the patient to answer the question at the end of the passage. The questions must be asked orally. If the patient fails to answer the questions graphemically and ask the patient to respond verbally. If the patient fails to provide very response ask the patient to answer by writing or by gestural mode. Analyse the subject's performance on section in terms of his performance on Section I-B. Also pay particular attention to clusters and take observational notes.

హైదరాబాదు ఆంధ్రప్రదేశ్ రాష్ట్ర రాజధాని. ఈ పట్టణము చాలా చక్కటి దుర్గవేదికమైన స్థలము. ఈ పట్టణంలో చార్లినారు, గోల్కొండ వంటి చారిత్రాత్మక కట్టడములు ఉన్నవి. మంచి నైజాముల పరిపాలనలో కట్టించినారు. ఇవి కాక సాలార్జంగ్ మ్యూజియం, హుస్సేన్ సాగరు, ఆర్కా మందిరం, మ్యూజియం మరియు ప్లానెటేరియంలు కూడా ఉన్నాయి. మరొకటి కాక హైదరాబాదు ముత్యాలకి చాలా ప్రసిద్ధి చెందినది. అందువలన దీనిని సందర్శించడానికి చాలామంది వేరువేరు స్థలాలనుండి వస్తుంటారు.

Sl. Test Item No.	Stimulus		Response		Accuracy of Response
	Verbal	Graphic	Verbal	Graphic	

- 1 ఆంధ్రప్రదేశ్ రాష్ట్ర రాజధాని ఏది?
- 2 ఈ పట్టణంలో చూడదగిన స్థలాలు ఏమిటి?
- 3 చార్లినార్ మరియు గోల్కొండ ఎవరు కట్టించారు?
- 4 హైదరాబాదు ఏ ఆకరణానికి ప్రసిద్ధి చెందినది?

SECTION II: Syntax

Instructions: Instruct the subject that the following list of words and sentences contains both correct and incorrect forms. Ask the subject to listen carefully and indicate whether each item is correct or not. Illustrate with one or two examples if need be. Read the items in the list one by one. Repeat once if necessary. If the subject fails to respond; give him the test items in the written form. Accept correction once. Score for each accurate response in subsections A, B, C and D and I for each accurate response in subsections E, F, G, H, I, J, and K. Make a note of the stimulus modality used, and also the modality in which the subject responds.

A. Morphophonemic Structures:

Sl. No.	Test Item	Stimulus Modality		Subject's Response			Accuracy of Response
		Verbal	Graphic	Verbal	Graphic	Gestural	

- 1 ఎడమ చెయ్యి
- 2 నిజా
- 3 అబ్బాయిలొ
- 4 రాళ్లలమ్మ
- 5 అంటలో
- 6 మిళ్లు
- 7 నిరతిప రాధి
- 8 సదోపయోగము
- 9 అదిదానంధం
- 10 సూర్య ఉడయము
- 11 విద్యాభ్యాసము
- 12 మనోమకాలం
- 13 ఉచ్చారణ
- 14 పుష్పాలు
- 15 ప్రతిబింబము
- 16 పళ్లు
- 17 నిరదయము
- 18 మహా దేవధము
- 19 అతమది
- 20 పీతాంబరము

Maximum Score: 10
Patient's Score:

B. Plural Forms

Sl. No.	Test Item	Stimulus Verbal	Modality Graphic	Subject's Response			Accuracy of Response
				Verbal	Graphic	Gestural	
1		అవ్వలు					
2		నలు కిళ్ళ					
3		చిట్లు					
4		కుట్టలు					
5		నిళ్ళలు					
6		పండ్లు					
7		పన్నెలు					
8		కళ్ళలు					
9		పుస్తకాలు					
10		చోలులు					

Maximum Score: 5
Patient's Score:

C. Tenses

Sl. No.	Test Item	Stimulus Verbal	Modality Graphic	Subject's Response			Accuracy of Response
				Verbal	Graphic	Gestural	
1		నేను అతింతు					
2		వాడు అడుచున్నాడు.					
3		తాను నిన్న వస్తున్నాడు.					
4		నేను రేపు చచ్చాను.					
5		నీల బుట్టాకి పాట పాడుతుంది					
6		నేను చిట్టాని అంటుంది తెల్లను.					
7		అయి అచ్చు వచ్చుంది					
8		వాళ్ళు చిట్టాని					
9		నేను అచ్చు వచ్చుంది					
10		నిన్న తాను చిట్టాని					

Maximum Score: 5
Patient's Score:

D. PNG Markers

Sl. No.	Test Item	Stimulus Verbal	Modality Graphic	Subject's Response			Accuracy of Response
				Verbal	Graphic	Gestural	
1		నేను చెక్కెనాను					
2		నేను బాసులాను					
3		మేము పెట్టాము					
4		అను రానాడు					
5		అను మొట్టలులాడు					
6		నువ్వు పాడు					
7		నీల పాడు					
8		నేను అవిచున్నాను					
9		నువ్వు అవు					
10		నేను అవు					
11		నేను వెళ్ళామా?					
12		నువ్వు అవునట్లు అవు					
13		నాళ్ళు అవునట్లు					
14		రాము కొట్టె					
15		నీల పాడు					
16		నేను చదువు అవు					
17		అను కుర్చున్నాడు					
18		మనము రేపు అవు					
19		అను అవునట్లు					
20		అను కుర్చు అవు					

Maximum Score: 10
Patient's Score:

E. Case Markers

Sl. No.	Test Item	Stimulus Verbal	Modality Graphic	Subject's Response			Accuracy of Response
				Verbal	Graphic	Gestural	
1		రాము అను అవు					
2		నీల అవునట్లు					
3		నాకు అవునట్లు					
4		నీళ్ళు అవు					
5		అను అవునట్లు					
6		కుర్చు అవు					
7		అవునట్లు					
8		నేను అను అవు					
9		మనము అను అవు					
10		అవు అవు					

Maximum Score: 10
Patient's Score:

F. Transitives, Intransitives and Causatives

Sl. No.	Test Item	Stimulus Verbal	Modality Graphic	Subject's Response			Accuracy of Response
				Verbal	Graphic	Gestural	
		1 గొట్టాలు నీళ్ళు తాగుతారు.					
		2 రాముడు చదివారు.					
		3 అమ్మాయి పరుగెత్తుతారు.					
		4 గొమ్మాయి నిద్రపోయారు.					
		5 కుక్కని అరుము.					
		6 నేను నిన్న పాట వాణెను.					
		7 తిను పిల్లలని చదివిస్తుంది.					
		8 మేము నీళ్ళు పాతం చెప్పిస్తాము.					
		9 రాము శౌముడితో పని చేస్తారు.					
		10 రాణి పిల్లలకి నిద్రపోయారు.					
		Maximum Score: 10					
		Patient's Score:					

G. Sentence Types

Sl. No.	Test Item	Stimulus Verbal	Modality Graphic	Subject's Response			Accuracy of Response
				Verbal	Graphic	Gestural	
		1 ఇది బెంగుళూరు కోట.					
		2 వారు నాళ్ళ పని మేము చూడము.					
		3 నువ్వు నీ నోచుకి వెళ్ళు.					
		4 నేను అవని చూస్తాను ఇచ్చేస్తాను.					
		5 నేను పాప నీయని.					
		6 మోకు తెలుగు నేస్తుంది.					
		7 నీగుడు మోక్షునికి నువ్వు వస్తావు?					
		8 అయి క్షేత్రం చూసి నవ్వండి.					
		9 అవను కాఫీ తాగుదు.					
		10 దొంగ పోతావు చేతి కట్టుకట్టు.					
		Maximum Score: 10					
		Patient's Score:					

H. Predicates

Sl. No.	Test Item	Stimulus Modality		Subject's Response			Accuracy of Response
		Verbal	Graphic	Verbal	Graphic	Gestural	
1	ఇది నా ప్రస్తుతము						
2	ఈ గౌను క్రమం						
3	నే గడ ఎవరూ						
4	నా కళ్ళకు కిక్కి పట్టడం						
5	ఆ పాపం అయి						
6	నాకు గుర్తులు వేసినా వరకెట్లు						
7	నిన్న పాటు పాడిన ఆమె నా బెల్లెలు						
8	ఈ ఇల్లు ఎవరిది!						
9	ఆ బోక రమ్మడు						
10	ఈ సాక్షి బెల్లెలు						

Maximum Score: 10
Patient's Score:

1. Conjunctions, Comparatives and Quotatives

Sl. No.	Test Item	Stimulus Modality		Subject's Response			Accuracy of Response
		Verbal	Graphic	Verbal	Graphic	Gestural	
1	రాము మరలను శాపం పుకలక వెళ్ళారు						
2	రాముడు లక్ష్మణుడు నెళ్ళినప్పుడు నీలం అవకలి కూడ వెళ్ళడం! -						
3	పెన్సిల్ గాని కలముగాని యివ్వగా.						
4	గీత సురేష్ కన్న చిన్ననాడు.						
5	సుధకి నీల పొడుగు						
6	ఈ ఇల్లు అన్ని యిళ్ళాడ పట్టడం.						
7	మావ్వులు నాలు సారము నేర్చులావని బెట్టారు.						
8	రాముడు సాయం (అయి వర్షం వస్తాయని బెట్టారు.						
9	రాముడు పని బెట్టినానని బెట్టారు						
10	అల సాక్షి కంట, మళ్ళి కంట అయి గాళ్ళుంటుంది						

Maximum Score: 10
Patient's Score:

J. Conditional Clauses

Sl. No.	Test Item	Stimulus Verbal	Modality Graphic	Subject's Response			Accuracy of Response
				Verbal	Graphic	Gestural	
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10

Maximum Score: 10
Patient's Score:

K. Participial Constructions

Sl. No.	Test Item	Stimulus Verbal	Modality Graphic	Subject's Response			Accuracy of Response
				Verbal	Graphic	Gestural	
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10

Maximum Score: 10
Patient's Score:

SECTION III: Semantics

Section III-A: Semantic Discrimination

Instructions: Ask the subject to point out to the colour, object and body part named. Name the items one by one. If he fails, give him the written words and ask him to match them with the corresponding items. Repeat item once if necessary. Accept correction once. Score 1 for each item identified correctly.

Sl. No.	Test Item	Subject's Response		Accuracy of Response
		Naming	Matching	

Colours

- 1 ఎరుపు
- 2 అకుపచ్చ
- 3 నలుపు
- 4 పసుపు
- 5 నీలం

Furniture

- 1 కుర్చీ
- 2 బల్ల
- 3 అలపు
- 4 మంచము
- 5 కిటకొ

Body Parts

- 1 ముక్కు
- 2 నాలుక
- 3 కుడి చెయ్యి
- 4 కుడి కన్ను
- 5 ఎడమ చెవి

Maximum Score Patient's Score

Colours	5
Furniture	5
Body Parts	5

SECTION III-B: Semantic Expression

1. Naming

Instructions: Ask the subject to name the object presented. If he fails to do so check whether he can write the name, or explain its use through gestures. Score 1 for each correctly named (oral or written response) or for correct recognition of objects (as seen through gestural explanations). Accept mild paraphasies.

Sl. No.	Test Item	Subject's Response			Accuracy of Response
		Phonic	Graphic	Gestural	

- | | |
|----|---------------|
| 1 | పండ్లు |
| 2 | బాక్స |
| 3 | పుస్తకపు వల్ల |
| 4 | లాగో |
| 5 | గడియారం |
| 6 | పుగలు |
| 7 | పుస్తకపు |
| 8 | బెంచా |
| 9 | బంతి |
| 10 | సోఫా |
| 11 | పెన్సిల్ |
| 12 | లాగో బెంచ |
| 13 | పుస్తకపు |
| 14 | లాగో |
| 15 | లాగో |
| 16 | పుస్తకపు వల్ల |
| 17 | కత్తి |
| 18 | సోఫా |
| 19 | కలం |
| 20 | కలం |

Maximum Score: 20
Patient's Score:

2. Lexical Category

Instructions: Ask the subject to list the names of all the animals that he knows, for one minute. If he is unable to name them check whether he can write them. Give him an example or two if need be. Score 1 for each correctly named animal.

Maximum Score: 15

Patient's Score:

Response Mode:

3. Synonymy

Instructions: Instruct the subject to match pairs with identical meaning in the following sets of words. Test items to be given verbally or graphically. Score 1 for each correctly matched pair.

Sl. No.	Test Item	Stimulus		Response		Accuracy of Response
		Verbal	Graphic	Verbal	Gesture	

1 రాబో	1 సూయం చేయవారు
2 ఉద్యోగము	2 సాధనము
3 కౌశలము	3 చిట్ట
4 ముగ్ధుడు	4 అక్షయము
5 చిన్న	5 అవినయము
	6 దుష్టుడు

Maximum Score: 5

Patient's Score:

4. Antonymy

Instructions: Instruct the subject to match the opposite pairs in the following sets of words given verbally or in writing. Score 1 for each correct pair.

Sl. No.	Test Item	Stimulus		Response		Accuracy of Response
		Verbal	Graphic	Verbal	Gesture	

1 తిరుగు	a తిరుగు
2 మంచి	b ముప్పు
3 కష్టము	c సుఖము
4 చిన్న	d పెద్దవాడు
5 పుస్తకము	e పాఠశాల
	f కుంభము

5. Homonymy

Instructions: Ask the subject to give alternate meanings for the following words, Test items may be given verbally or graphically. Score 1/2 each for all correct responses.

Sl. No.	Test Item	Stimulus		Response		Accuracy of Response
		Verbal	Graphic	Verbal	Gesture	
1	చెట్టులి					
2	పన్ను					
3	బంగారు					
4	యీరు					
5	యోటి					

Maximum Score: 5
Patient's Score:

6. Polar Questions

Instructions: Instruct the subject to answer the following questions with either 'yes' or 'no'. The questions may be given orally or in writing. Fill in the subject's name in the blank space in item number(2). Accept corrections only if the subject is very certain. Score 1 for each correct response.

Sl. No.	Test Item	Stimulus		Response		Accuracy of Response
		Verbal	Graphic	Verbal	Graphic	
1	యా పేరు కృష్ణా?					
2	యా పేరు _____ ?					
3	ఈ డోరు పేరు ప్రాచీనాలా?					
4	అది యీ ఇల్లా?					
5	ఈ గది అలంకరణ యిది ఉన్నదా?					
6	నీళ్లలో నాలు నలుచునుందా?					
7	నాలు నీళ్లలో నుండులు కలిపిస్తాడె?					
8	అరటి నుండుల తోక్రలు పాటా అంటావా?					
9	సింహుని చుట్టూ కంటి పెట్టెదా?					
10	చెట్టుని గార్డెలలో వరక వచ్చునా?					

Maximum Score: 10
Patient's Score:

7. Semantic Anomaly

Instructions: Instruct the subject to indicate whether each of the following sentences is meaningful or not and explain why, if not meaningful. Test items to be given orally or in written, Score 1 for each correct explanation.

Sl. No.	Test Item	Stimulus Verbal	Modality Graphic	Subject's Response			Accuracy of Response
				Verbal	Graphic	Gesture	

- 1 మా అన్నయ్య నాకన్నా చిన్నవాడో?
- 2 రష్యన్ మా బెల్లెలు
- 3 కుళ్ళి వేనగా కడిగివేయండి.
- 4 మంట బల్లగా ఉంటుంది.
- 5 నూర్మల్ ఉదయం ఉత్సాహం.

Maximum Score: 5
Patient's Score:

8. Paradigmatic Relations

Instructions: Instruct the subject to explain the meaning of the following terms given verbally or graphically. Score 1 for each correct explanation.

Sl. No.	Test Item	Stimulus Verbal	Modality Graphic	Subject's Response			Accuracy of Response
				Verbal	Graphic	Gesture	

- 1 అల్ల-మొమ లాల్ - (అమ్మమ్మ)
- 2 బెండుకాయ-కూర బ్రాక్లీ - (వండు)
- 3 చిలక - వడ్డీ సింహము - (చిలుక)
- 4 అబ్బాయి - అమ్మాయి బాబాయి - (బిచ్చ)
- 5 బియ్యం - ధాన్యం ముద్దె - (పుస్తకం)

Maximum Score: 5
Patient's Score:

9. Syntagmatic Relations

Instructions: Instruct the subject to fill in the missing Slot. Test items to be given verbally or graphically. Score for each correct response.

Sl. No.	Test Item	Stimulus Modality		Subject's Response			Accuracy of Response
		Verbal	Graphic	Verbal	Graphic	Gesture	
1	పండ్లుకలు - నలుపు	పాలు	(బిల్లు)				
2	సింహము - గర్జన	కుక్క	(మొరగడం)				
3	పక్షి - ఎగరడం	చీప	(కొరడం)				
4	అక్షం - అనడం	నీరు	(లాగడం)				
5	పంచవతి - నెల	గురువారం	(రాజు)				

Maximum Score: 5

Patient's Score:

10. Semantic Contiguity

Instructions: Instruct the subject to match and explain the relationship between the following groups of given verbally or graphically. Score 1 for every correct pairing.

Sl. No.	Test Item	Stimulus		Response		Accuracy of Response
		Verbal	Graphic	Verbal	Gesture	
1	యెన్నే	(a) చపాటి				
2	దూరము	(b) కూర				
3	నోళ్ళువలులు	(c) కెల్ల				
4	మట్టి	(d) బిట్లు				
5	చిత్తనం	(e) చెట్లు				
		(f) పళ్ళులు				

Maximum Score: 5

Patient's Score:

11. Semantic Similarity

Instructions: Instruct the subject to match and explain the relationship between the following groups of given verbally or graphically. Score 1 each for every correct pairing.

Sl. No.	Test Item	Stimulus		Response		Accuracy of Response
		Verbal	Graphic	Verbal	Gesture	
1	అడు	(a) అడు-శ్శం				
2	పాడు	(b) పాడు				
3	కాడు	(c) అడు				
4	అను	(d) అను				
5	మొట్టాడు	(e) పాడులు (f) పరిగెత్తు				

Maximum Score: 5

Patient's Score:

SUBJECT PROFORMA - LINGUISTIC PROFILE TEST

Section	Possible Total Score	Subject's Score			Total Scores of Sections
		Stimulus		Response	
		Verbal	Graphic	Verbal Graphic Gestural	
Section I (Phonology)					
Phonemic Discrimination	48				
Phonetic Expression	52				
Section II (Syntax)					
Morphophonemic Structures	10				
Plural Forms	5				
Tenses	5				
PNG Markers	10				
Case Markers	10				
Transitives, Intransitives and Cusatives	10				
Sentence Types	10				
Predicates	10				
Conjunctives, Comparatives and Quotatives	10				
Conditional Clauses	10				
Participial Constructions	10				
Section III (Semantics)					
Semantic Discrimination					
1. Colours	5				
2. Furniture	5				
3. Body Parts	5				
Semantic Expression					
1. Naming	20				
2. Lexical Category	15				
3. Synonymy	5				
4. Antonymy	5				
5. Homonymy	5				
6. Polar Questions	10				
7. Semantic Anomaly	5				
8. Paradigmatic Relations	5				
9. Syntagmatic Relations	5				
10. Semantic Contiguity	5				
11. Semantic Similarity	5				
Grand Total	300				