KPVT - A SCREENING PICTURE VOCABULARY TEST IN KANNADA

Register No.8611

A DISSERTATION SUBMITTED IN PART FULFILMENT FOR THE DEGREE OF MASTER OF SCIENCE (SPEECH AND HEARING) TO THE UNIVERSITY OF MYSORE.

ALL INDIA INSTITUTE OF SPEECH AND HEARING: MYSORE - 570 006,

TO

MY FAMILY

CERTIFICATE

This is to certify that the Dissertation entitled: KPVT - A SCREENING PICTURE VOCABULARY TEST IN KANNADA is the bonafide work on part fulfilment for the Degree of Master of Science (Speech and Hearing) of the student with Register No.

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CERTIFICATE

This is to certify that the

Dissertation entitled: <u>KPVT - A</u>

<u>SCREENING PICTURE VOCABULARY TEST</u>

<u>IN KANNADA</u> has been prepared under

my supervision and guidance.

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<u>GUIDE</u>

<u>DECLARATION</u>

I hereby declare that this Dissertation entitled: <u>KPVT</u> - <u>A SCREENING PICTURE VOCABULARY TEST IN KANNADA</u> is the result of my own study under the guidance of Dr.Prathibha Karanth, Reader and Head, Department 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.

Mysore.

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<u>ACKNOWLEDGEMENT</u>

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INTRODUCTION

"If a thing exists, it exists in some amount,

If it exists in some amount, it can be measured".

E.L.Thorndike.

Children's knowledge of words has long served as an index of their language maturity. We communicate in a variety of ways but mainly we communicate verbally, by language. Language emergences demonstrate a highly predictable maturational dimension. Milestones of language behaviour emerge in a relatively invarient sequence and at roughly predictable ages, barring abnormal circumstances. A child seems to come into the world equipped with physical and physiological mechanisms necessary for intricate and complex sensory and motor integration involved in the most complex behaviour in existence - 'communication'.

For a present day child, in and out of school, the world is often a world of words. What a person speaks, hears, reads, writes, often what he visualizes and observes - the whole sensorium of man is expressed in words. Dale (1969) points out that words are the names we give to experiences. He further describes vocabulary as a key to concept development and notes that 'meaningful' word learning is an excellent eg. of permanent learning in children.

There has been much speculation about the origin and growth of language as a human achievement and the development of language skills by the individual. Investigators have based their judgements concerning progress in language development upon the age at which children first begin speaking intelligible words, the number of words they appear to know at any given age and their ability to define, use or indicate understanding of selected samples of words at various levels of difficulty (Johnson, Darley and spriestersbach, 1963). Our problem as clinitians is to select procedures that will give the most reliable and useful information about a given child's stock of words.

Assessment of child language is crucial to the understanding of child language disorders. A wide range of tools have been developed to gather information about the child's language and cognitive ability. The two main purposes of the language evaluation are: (1) to assess the discrepancies between the child's actual language development and expected development as suggested by normative studies. (2) to find out exactly what the child needs to have incorporated into his individual program of training. Information from the assessment allows the diagnostician to determine the management and treatment plan.

Vocabulary is a part of language system. Words are basic to learning process and they enable the child to move from concrete to abstract thought, in general, educators agree on the importance of vocabulary in most academic skills and social achievement. They note that size of a child's vocabulary correlates highly with scores on mental tests. As an index of language development, vocabulary skills excel most other factors. Johnson, 1965? Klare, 1963 note that success in academic subject matter depends to a great extent on the verbal associations that the student forms.

Meaningful vocabulary building is concept building. Therefore information on the size of a child's vocabulary has been of interest to both speech language pathologists and educators in the area of language development and hence it's measure is crucial in language assessment.

Need for the present study:

There are very few standardized tools available to measure semantic formulation in Indian children.

The present study attempts to design a screening test based on the vocabulary development of children in the age range of 3-6 years in Kannada language, such a screening vocabulary test would help in a quick evaluation of the

vocabulary development of young children in order to

identify delays if any. This aids us in the evaluation

of language disordered children and in therapy planning,

REVIEW OF LITERATURE

Of all the phases of child development, the learning
of language has traditionally attracted more attention
because of the complexity of language and apparent ease
and swiftness in learning.

Words which are basic to the learning process are the
components of language. There is need for some hard think-
ing about the role of words, the place of vocabulary deve-
lopment in the perceptual and conceptual structure of the
language learning. Today discussions on the role of voca-
bulary are less concerned with treating the subject as a
separate skill. It is generally viewed as part of the
language system. There is need to examine and evaluate
the special relationship of vocabulary to comprehension,
to critical listening, reading, observing and thinking
skills. Berlo (1960) reminds us that 'the major units of
thought are the units of language. Unless we can name an
object, a process, we may find it hard to internalize'. It
will be useful therefore to examine the use of words as
it relates to vocabulary and language growth.

Words may alter our conception of objects and ideas.
Lloyd and Warfel (1950) emphasize the significant role of

words and language in our lives - 'we see the world in
the terms that our language permits'. James Brown (1959)
says 'if our word supply is inadequate, our communication
is necessarily inadequate too.' Harris (1961) points out
that 'the words children can use and understand give us
a good insight into the development of their concepts and
ideas'. In general, success with words means success in
many areas.

Language Assessment: There is general agreement that the
two major dimensions which must be included in a complete
assessment of language are comprehension and production.

According to Hutchinson et al. (1979) approaches to
assessment and intervention can usually be clustered under
one or another of three different points of view on how
language is acquired and maintained. These categories are
not mutually exclusive, but merely place emphasis on diffe-
rent perspectives on the genesis of language. These cate-
gories are:

1) The grammatical perspective
2) The developmental perspective
3) The cognitive and semantic perspective

Semantics is considered to be an important dimension of
cognitive development.

Procurement of standared language sample: In order to
evaluate the language development and status we need to
obtain a sample of an Individual's speech that will lend
itself to 'rather' comprehensive analysis. Various
investigators like McCarthy (1930); Davis,(1937); Templin
(1957); Winitz (1959); Miller (1961); spriestersbach,
Darley and Morris, (1962); and others were of the opinion
that atleast fifty utterances must be elicited from each
child tested. The fifty utterance sample of the child's
connected speech will allow the tester to compare him with
his peers of like age and sex with respect to at least
three dimensions of language length of response, structural
complexity and size of use vocabulary.

The fifty utterances criterion led to controversies
as the question arises as to whether equally reliable infor-
mation can be obtained from an analysis of only fifty
responses.

It was Nice (1925) who first suggested the use of
mean length of response (MLR) as a measure of linguistic
achievement. He reported that thirty such sentences
ought to show a child's stage of speech development.

Darley and Moll (1960) studied speech samples of seven
different sizes - 5, 10, 15, 20, 25, 35 and 50 responses

collected from each of 150, five year old children. They
found that for a group of subjects, the means of mean
length of response and structural complexity score remain
essentially the same regardless of the number of responses
on which the scores are based. But' it was also found that
the fewer the number of responses obtained, the greater
the variability of the scores. They evaluated the relia-
bilities of the two language measures in relation to size
of language sample. They concluded that fifty responses
will yield MLR scores of adequate reliability for most
research purposes, but that the reliability of structural
complexity score values based on fifty responses may be
less than is desired in some situations.

Measures of verbal output : A number of useful measures of
verbal output can be calculated from a basic language sample.

1. Mean length of response - the procedure consists of
   counting the number of words in each response, totaling
   these numbers and dividing by the total number of
   responses, say fifty. The results are compared with
   the norms for MLR.

2. Mean of five longest responses - Davis (1937) first
   suggested that the mean of the five longest responses

produced by the child might serve as a good indicator
of child's linguistic skill. This measure can be
calculated by totaling the words in the five longest
responses and divided by five. The result is compared
with the norms compiled by Templin (1957).

3. Number of one word responses - Davis (1937) Templin
   (1957) and others were interested in a number of one
   word responses among the total of fifty produced by
   the child. A decreasing number of one word responses
   are taken as a good indication of increasing language
   maturity in children.

4. Mean morphological units - In 1973, a different approach
   was advocated by Brown who found that children acquire
   the different grammatical constructions at widely varying
   rates. Brown recommended that the number of morphemes
   be counted because almost every new bit of linguistic
   knowledge increases the number of morphemes. Many of
   the morphemes would not be acknowledged if only the number
   of words were counted for eg. with the plural inflectional
   feature a 'S' is added to a noun (i.e. boy-boys). When
   counting words for mean length of response, only one word
   is tallied. When counting morphemes, the result would
   be two morphs: boy and the plural 'S'. This supports
   Shriner's (1967) contention that MLR loses its significance

as a predictor beyond the age of sixty months because
of this age the child has acquired most of the gramma-
tical rules of his language. Therefore length of
tmtterance normally would not increase, but sentence
complexity might.

Layon and Stick (1979) in their study to determine
the adequate size of language sample report that as far
as fifteen sentences are adequate for determining a reliable
index of mean morphological unit(mmu).

Estimates of size of recognition vocabulary:

Investigators on the number of words known by children
have been made by several scholars in the field of vocabu-
lary. But the basic weakness of word lists such as Thondikes
and Dolchs is that they do not take into account semantic
variation and the multiple meanings of many words.

Another investigator who is a pioneer in the field of
vocabulary is Smith (1926). She constructed a 203 word test
and administered it to a sample of 273 childrens ranging in
age from two to six years. Here children were asked to name
the pictures. She reported that the number of words known
by the children increases as age increases.

Builders of vocabulary tests must grapple with a number
of knotty problems. The test builder must decide whether

the words 'know', 'knew' and 'known' are three separate
words or are to be lumped together as a single word, to
be counted as one in the total population of words.

He must also decide whether the test response shall
involve saying a word in response to a picture, pointing
to a picture in response to the aural stimulus of the word,
selecting the correct synonym in a multiple choice situa-
tion, defining the word, using the word in a sentence,
giving an illustration of the meaning of the word etc. He
must also select the basis of his sampling, including the
size of the dictionary providing the population of words
and the manner of choosing the words to be included in the
test whether on the basis of their position on the page,
or their appearance at given intervals in the total distri-
bution of words, or their demonstrated known difficulty as
determined through a pilot study.

Standardized semantic formulation tools are few in
number, limited in age range and limited in semantic concepts
tapped.

Some of the existing vocabulary tests are:
1. Full range picture vocabulary test Ammons and Ammons
   (1948) - two years to adult.
2. Peabody picture vocabulary test (PPVT) - Dunn (1965)
   two to eighteen years.
3. Assessment of children's language comprehension. - Foster
   et al. (1972)

4. Test of auditory comprehension of language - Carrow Woolfolk (1973) - Three to six years eleven months.

5. Test of language development scale - Newcomer and Hammill (1977) - Four to eight years and eleven months, etc.

In addition to these standardized procedures numerous nonstandsrdized procedures for assessing semantics have been reported in the literature such as the 'Basic Concept Inventory'.

A brief description of some of the tests mentioned above and a few others are given below:-

1. **The full range picture vocabulary test (FRPVT):** This test was developed by Ammons and Ammons (1948). The FRPVT measures verbal comprehnsion of single words from two years through adult levels. Test materials are composed of sixteen picture plates with each plate containing four cartoon like black and white line drawings. There are two forms A and B each having eightyfive test words listed according to chronological age. One additional plate includes the administration and scoring procedures. Answer sheets for each test form contain space for recording of the score obtained on each plate.

Test administration involves an examiner speaking a test word with the subject directed to point to the pictures which indicates what the word means. The FRPVT does require adequate vision but can be adopted for administration to motorically involved or hearing handicapped persons if they are able to read.

A basal and ceiling are determined for each test plate by passing or failing three consecutive point levels. The total raw score transmutes into a mental age or adult percentile rating if over sixteen years five months.

2. **Peabody Picture vocabulary test (PPVT):** It was developed by Dunn(l965). Author claims that the test conveniently measures the 'hearing vocabulary'.

The purpose of this test is to measure single word receptive vocabulary. The age range is 2.3 years to 18.5 years.

Test materials consist of a spiral bound booklet which contains 3 example plates and 150 test plates. The test plates are arranged in order of increasing difficulty. There are 4 black and white pictures on each plate. A manual contains administration and scoring procedures, general information and age, standard score, percentile equivalents and intelligence quotients.

Administration of the test is a simple procedure. A test word is spoken by the examiner and the child indicates which picture best represents the word. The testee can indicate his response by pointing to the picture, saying the number of the picture or even by blinking his eye for a yes/no response. There are 2 forms of the PPVT. Each form has its own set of norm tables. A base and ceiling are established and the number of correct responses equals the raw scores. The scores can be converted into mental age, IQ, standard score equivalent and percentile equivalent. Administration and scoring time is approximately 15 minutes.

The PPVT is a standardized test with a minimum of 11 studies attesting to its reliability. It is a reliable instrument for both handicapped and average children. The PPVT and Stanford Binet correlated at 0.71 while the PPVT and the Wechsler correlated at 0.61. There is another report by Payne et al (1972) which states that the reliability coefficients ranged from 0.48 to 0.58 and validity coefficients ranged from 0.49 to 0.58 comparing the PPVT with the Stanford Binet.

Heriot et al (1973) modified PPVT to develop a measure of reading achievement which could be used with communication impaired children. Here the target words appeared in

print instead of their usual form. This task was given to children with learning disabilities along with the Wide Range Achievement Test which was administered conventionally as an oral word recognition test. The correlation between test scores, was 0.72. Author concludes that the PPVT may be useful in estimating reading comprehension.

Wilks (1975) reports that the PPVT has greater reliability for a hearing impaired population than for the normal hearing population upon which it was originally standardized. He states that the PPVT is a viable tool for measuring oral receptive vocabulary for a hearing impaired population and that progress can be measured periodically by using alternate forms.

Many investigators have suggested that performance on the PPVT may covary with socioeconomic background. Meline (1981) administered PPVT to children of various socioeconomic backgrounds. Results indicate that PPVT performance fails to show any significant relationship to socioeconomic status.

The ease and speed of administration and scoring have increased its popularity and hence it is the most popular instrument and is included as a basic item in many test batteries.

The limiting factor is that PPVT is a culturally biased test and can be used only is a measure of receptive vocabu-lary.

The present study has been based on the PPVT.

3. **Assessment of children's language comprehension(ACLC):** ACLC, developed by Foster, Giddan and Stark (1972) is concerned with a child's understanding of grammatical units. Age range is between 3-7 years. The test consists of 50 plates and the clinitian tells the child to point to pictures for items she will say. It provides information about the child's understanding of a core vocabulary and his ability to process an increasing number of critical elements.

4. **Test of auditory comprehension of language:** Carrow Woolfolk (1973): One of the first major attempts by a speech language pathologist to develop an auditory test of language comprehension was made by Carrow. The experimental version became available in 1969 and the revision appeared in 1973. The test consists of a set of plates, each with 3 black and white drawings. One drawing represents the referrent for the linguistic form being tested and other 2 are referrents

for contrasting linguistic forms. For eg. for the
stimulus 'the doll is in the box' a plate shows a
doll beside a box. one in a box and one on top of a
box. The child's task is to point to the referrent
for 'the doll is in the box', it requires no oral
expression and he gets one point for each correct
response.

The original version is for children aged 2.10 years
to 7.9 years. In 1973 edition, TACL has 107 plates
which tests comprehension of selected nouns, morphological
structures and principles of grammar and syntax. The
test takes about 20 to 30 minutes to administer.

Davis (1977) administered TACL two groups of hearing
impaired children. To the First group of children who
were educated by oral methods, the test was administered
in the usual manner and to the Second group of children
who were educated by total communication methods, the test
was simultaneously spoken and signed. Reliability of
responses was high for both groups (r = 0.96 for oral aural
and 0.90 for total communication children) and error
patterns were similar, so TACL appears to be an appropriate
and reliable instrument for use with hearing impaired children.

Other Vocabulary Tests are:

5. The Seashore - Eckerson English Recognition Vocabulary

test - It was designed for school age children and can be self administered by those who read with atleast moderate ease. The test booklet presents 3 sets of words: 173 general terms or basic vocabulary; a supplementary list of 40 proper names, geographical locations and rare words, and 46 derived terms. Each test word is followed by 4 alternative words or sets of words from which the subject tested is to select the one which is the test word's synonym or is related to the test words most common meaning.

6. Bangs (1958) has designed a battery of psychometric tests to delineate the assets and liabilities of children with speech and language problems. It is composed of a few well known standardized tests as well as subtest items selected from a variety of sources. The 4 factors explored by the test items are (a) Language (ideation, comprehension and usage) (b) Memory, attention (visual and auditory) (c) Visual motor perceptual skills and (d) social maturity.

Test items for comprehension of oral language are presented with oral instruction but do not require an oral response. The test items are selected from Antmons Bull Range Picture

Vocabulary Test, Binet Form L and M and Gesell. The age range is 2 to 6 years.

Vocabulary development in normal children:

Beckwith and Thompson (1976) selected a large number of vocabulary items for testing the vocabulary comprehension of children aged 17 to 30 months. The technique was using slides of real objects.

Results indicated significant stability over time as well as a significant relationship to maternal report. Analysis of errors suggested that comprehension develops similarly to production, in that simple nouns were the easiest items, verbs were more diffident and modifiers and locatives were the most deficient. There were no significant effects of sex or social status.

Goldin-Mendow et al (1976) report that in the course of vocabulary building around 2 years comprehension precedes production generally and this discrepancy is greater for verb like elements than for noun like.

Benedict studied the earliest phase of vocabulary growth and found that comprehension: production ratio to be around 5:1, with a 5 month gap between comprehension and production at the 50 word level.

Benedict (1979) compared lists of the first 50 words comprehended and produced by 8 infants between ages 0.9 and 1.8 years. Results indicate that comprehension develop-ment began earlier (around 0.9) and reached the 50 word level (age 1.1) earlier than production development (ages 1.0 and 1.6 respectively). And rate of word acquisition for comprehension was twice that of production, confirming the hypothesis that comprehension proceeds production for lexical development.

Dale's long term, in depth study 'The words we know: A National Inventory (1973) - a useful 45,000 word list of student's knowledge of words by grade level is a major contribution to the field of vocabulary development'.

In India, a study on vocabulary was carried out by Gururaj Rao (1969). The investigation was undertaken to find out the Kannada vocabulary content of 3½ years old children of Nursery school in Mysore City in relation to their parent's socio Economic Status, educational qualifi-cations, monthly income,and occupation.

Results showed that children whose parents had higher educational qualification and higher monthly income demonstrated

a higher vocabulary scores when compared with children whose parents were of middle or low socioeconomic status.

Studies on vocabulary of language impaired children:

Grisword and Commings (1974) studied the vocabulary of 19 deaf preschool children and reports that their average expressive vocabulary is smaller than that of hearing children of the same age. Vocabulary size of these deaf preschoolers did not show a clear cut positive relationship to age, although length of time in preschool program and amount of total communication used in the home seem to be consistently and positively related to vocabulary size.

In composition, the vocabularies in the sample resembled those of hearing preschoolers in proportion of nouns and verbs, number and specific propositions used, use of numbers and specific question words used, while differing from them in relative lack of connectives, articles and auxiliary/model verbs.

Ishisawa et al (1978) examined vocabularies in 2 to 6 years old deaf children with 100 picture cards and compared the results with 3 year old normal children. They found that a) the higher the age and the slighter the hearing loss, the higher was the percentage of correct answers. However, in cases of the same age and the same grade of hearing loss, a larger variation of the percentage of correct answers were observed.

b) words which had a higher percentage of correct answers
in 3 year old normal children had a higher percentage
in deaf children. The words which had a percentage
above 75% in deaf children, had a percentage above 90%
in 3 year old normal children.

c) The percentage of correct answers to words was higher
in 3 year old normal children.

Bishop (1979) compared language disordered children
aged 6.3 years to 13.1 years with control children aged
3.9 to 13.2 years on the PPVT and on an experimental test
for Reception of Grammer (TROG). The majority of language
disordered children, including those classified as having
expressive disorders, performed below age level on both
tests, with girls doing more poorly than boys.

Prior and Halt (1979) compared autistic children with
retarded and normal control groups in a verbal comprehension
task using PPVT. The 3 groups were marched for their mental
age. Results showed that normal children correctly identi-
fied 84.6% of the target phrases, retarded children 80.4%
and autistic children 68.5%.

Giffner and Freeman (1980) gave the 'Assessment of
children's language comprehension (ACLC) to 65 six year

old deaf children. Results show that comprehension of word types (nouns, verbs etc.) and linguistic structure can be orderly, producing a hierarchy of complexity similar to that found in normally hearing children. However performance was about 3 years behind that of normal hearing peers.

Leonard et al (1983) used a picture naming task to examine word finding problems in language impaired children. The subjects included 20 language impaired children, 20 normal children matched to the language impaired for chronological age and 20 normal children matched to the language impaired children on a composite index of language age. The children were shown 64 pictures of objects and asked to name each as rapidly as possible. The principal findings were that (a) pictures of objects with more frequently occuring names were named more rapidly than pictures of objects with less frequently occurring names.
(b) Language impaired children named pictures less rapidly than their chronological age peers but more rapidly than their language age peers.
(c) The effects of frequency of occurance on naming time were comparable for all 3 groups of children.

To conclude, many speech language pathologists routinely attempt to evaluate language comprehension in children using various formal tests. However some recent questions have

been raised regarding the nature of formal comprehension tests and their ability to tap linguistic understanding. Some criticisms of comprehension tests are that they separate linguistic structure from communicative function, assess only literal meanings and assume adequate attention, memory and motivation (Muma, 1978; Rees et al. 1978).

But whatever may be the criticisms, it can be taken for granted that assessment of comprehension is an essential component in the battery of language tests.

METHODOLOGY

The aim of the present study was to construct a screening vocabulary test which would serve as a clinical tool to identify the language disordered children.

The present study is based on a vocabulary survey carried out by the Karnataka State Directorate of Education, Research, Training and Text Books.

The above mentioned survey is briefly described here:

It was observed that when a child initially learns to read, he associates a printed word with a visual symbol. So while teaching a new word to the child, it is essential to select it from a standard word list. This list should contain words in order of frequency of occurance. Therefore for the first time in Karnataka, it was decided by the Directorate of Education, Research, Training and Text Books to make a vocabulary list for children entering school in the age range of 3 to 6 years.

For the above purpose, a committee was organised which included linguists, educators and text book organizers. The committee prepared vocabulary lists for all the 3 age groups. Considering the dialectual differences, the state was divided into 4 divisions: Mysore, Bangalore, Mangalore and Dharwad.

20 teachers were selected from each division to carry out the project. The teachers were instructed to note those words in the lists which were nsed by the children and also to add those words into the lists which were uttered by the children but which were not present in the lists. If the child did not use the word in the list, teachers were asked to elicit the word from the child using descriptions, actions or with the display of teaching aids.

Subject Selection: Each teacher met one child at district level, one child at taluk level, one child from a larger village and two from a smaller village in each of the 3 age groups. Of the 5 children selected, 2 were chosen from a forward community and 3 from a backward community.

Based on the children's vocabulary lists prepared, the project investigators tried to determine the percentage of occurance of words with the help of the teachers. The lists from the four regions were compared and then they were compiled at the state level.

Methodology of the present study:

The study was conducted in the following steps:

1) Construction of the test

2) Establishment of norms

3) Statistical Analysis of the Normative data

4) Plotting the profile graphs for different
   age groups.

Construction of the test:

Words were selected from the vocabulary list for the Mysore division formed by the above mentioned survey, on the following criteria:-

1. The words selected should have a frequency of occurance of 40 to 60% in the respective age group considered. The 3 age groups considered were 3 to 4 years, 4 to 5 years, and 5 to 6 years.

2. The words should be discriminative enough, picturable and unambiguous.

Based on the above criteria, 30 target words were selected. Later for each target word 3 distractors were chosen on the following basis.

1. The frequency of occurance of each distractor should
   fall within ±5 of the frequency of occurance of the
   target word. This was to maintain the same difficulty
   level as far as possible.

2. The distractors should also be picturable.

3. Each of the distractors when pictured should not be
   ambiguous with the target word nor among themselves.

Description of the test material:

Test materials are compared of 30 picture plates with
each plate containing 4 black and white drawings. One among
the 4 pictures is the target picture. The test plates are
arranged in order of increasing difficulty. One additional
plate includes the administration and scoring procedures.
The test also includes individual test records. (Given in
Appendix-I).

Establishment of norms:

The test was administered to 120 normal school going
population in the age range of 3 to 6 years of Mysore City.
40 children (20 boys + 20 girls) were tested in each of
the 3 age groups.

The subjects selected were those –
1. Whose mother tongue was Kannada and studied in a Kannada
   medium school.

2. Who did not show any physical or sensory deformities.

3. Whose speech and language was appropriate for the age (as reported by parents or concerned teachers).

Procedure for administration of the test:

As a first step, the tester converses with the child, makes the child feel comfortable and builds rapport.

Then the child is given the following instruction 'I will show you some pictures now. You should look at all the pictures carefully and point out the one which I will ask for'.

The parents or teachers who are with the child are told that they should not prompt or help the child and if the child does not perform well, they should not scold or help the child. If the child does not respond, the parents or teachers are asked to repeat the instructions in the same way as the tester does.

After the above instructions were given, the responses were elicited by (1) showing the picture plates one after another in order from 1 to 30.
(2) To motivate the subject to do his best, praise was given generously. Comments such as 'Goad': you are doing well' etc. have been found to be effective.

(3) Even when an incorrect response was made, encouragement was given to look again at all the pictures carefully and then to point out.

(4) The subject was given a reasonable amount of time per item to make his own selection. However, after approximately one minute, the child was encouraged to make a choice.

(5) When the child made his choice, the response was recorded on the scoring sheet.

Recording Responses:

For each item administered, the picture number (1, 2, 3 or 4) which the subject indicated is written in the appropriate space on the Individual Test Record.

Scoring the test: Each correct item was given a score of 1. The total raw score is the number of correct responses. So the maximum score is 30. The results obtained thus were compiled and analysed for developing norms in the form of percentile rank table.

By looking into the percentile rank table of the respective age group the total raw score obtained is converted into a percentile equivalent. With this value, we know whether the child's vocabulary is appropriate for his age.

A percentile rank of 50 and above is considered as normal. Below 50 is considered as below average and such children must be probed further.

Administration of the test takes around 15 minutes.

RESULTS AND DISCUSSION

The test was administered to 120 school children in the age range of 3 to 6 years. They were divided into 3 groups with one year interval. 40 children were tested in each of the 3 age groups. The test was scored on the basis of the frequency of occurance of correct responses.

The total score of the 120 sample was subjected to appropriate statistical analysis.

The 30 target items obtained scores in a hiararchy in all the 3 groups. It was seen that total number of correct responses increased as a function of age. The means and standard deviation of the scores of the 3 groups are given in Table-1.

Table-1

Age	3 - 4	4 - 5	5 - 6
Mean	20.38	24.20	27.35
S.D.	1.77	2.002	1.56

The performance of girls and boys in each age group were also compared. Results are given in Table-2.

Table-2

Age	3 – 4		4 – 5		5 – 6	
	Boys	Girls	Boys	Girls	Boys	Girls
Mean	20.6	20.15	24.4	24	27.2	27.5
S.D.	1.96	1.6	2.2	1.7	1.69	1.4

Using the 'percentile of ranks' method the scores of all the 3 groups were converted into percentile ranks. The percentile ranks are given in Tables 3, 4 & 5 for the 3 groups respectively.

Table-3 : Percentile ranks for 3 to 4 year group.

Scores	Percentile Rank
24	98.75
23	93.75
22	78.75
21	62.50
20	43.75
19	22.50
18	11.25
17	5.00
16	1.25

Table-4: Percentile ranks for 4 to 5 years group

Scores	Percentile Rank
28	98.75
27	30.00
26	77.50
25	63.75
24	45.00
23	31.25
22	17.50
21	5.00
20	1.25

Table-5: Percentile ranks for the 5 to 6 years group

Scores	Percentile Rank
30	95.00
29	83.75
28	65.00
27	38.75
26	20.00
25	10.00
24	2.50

The percentile ranks for the 3 age groups have been graphically represented in Fig.1, Fig.2, and Fig.3 respectively.

3-4 year group.

PERCENTILE RANKS

SCORES

FIG. 1

A "DIAMOND" PRODUCT

4-5 year group

PERCENTILE RANKS

SCORES

FIG-2

5-6 year group

FIG-3

A "DIAMOND" PRODUCT
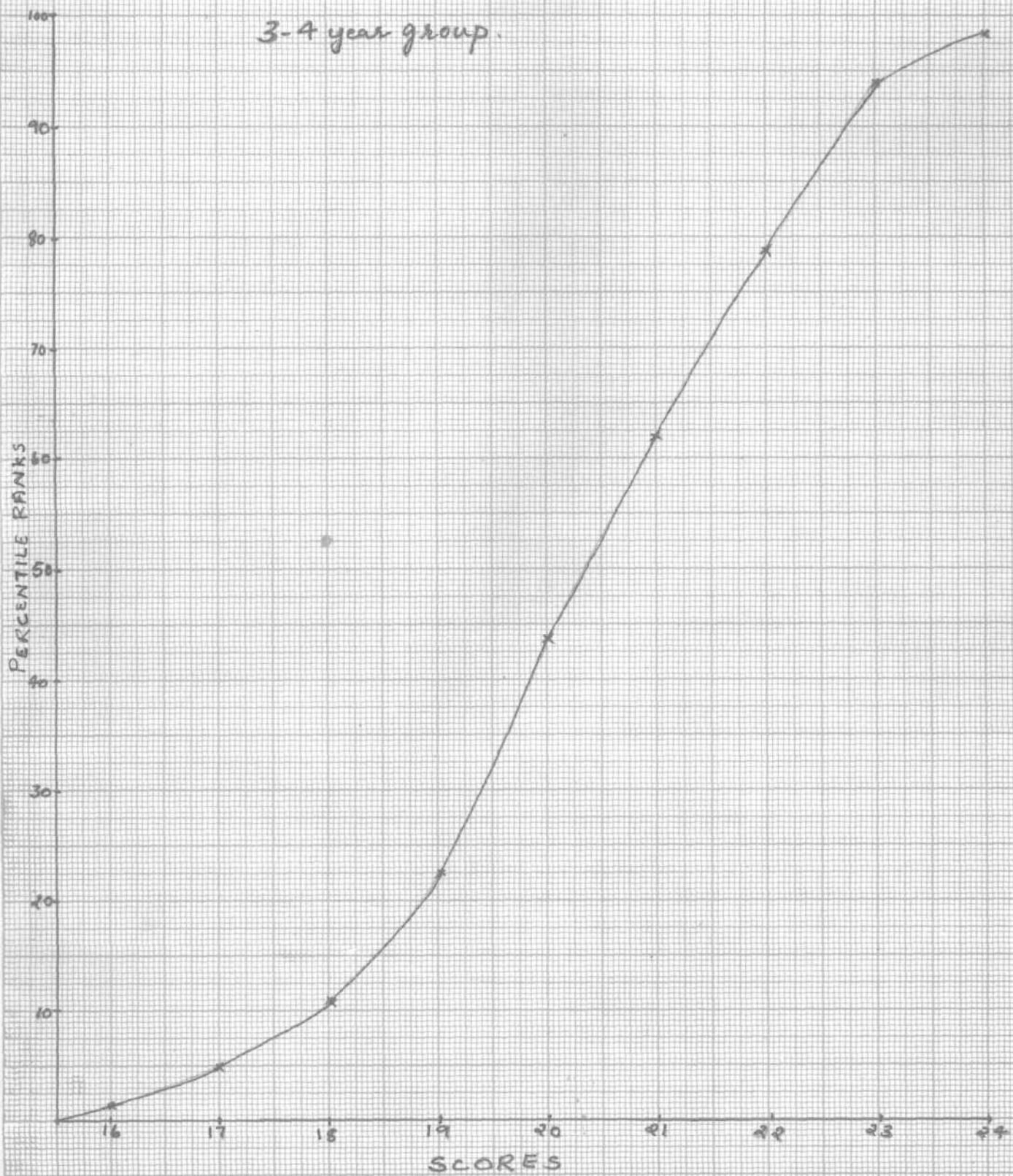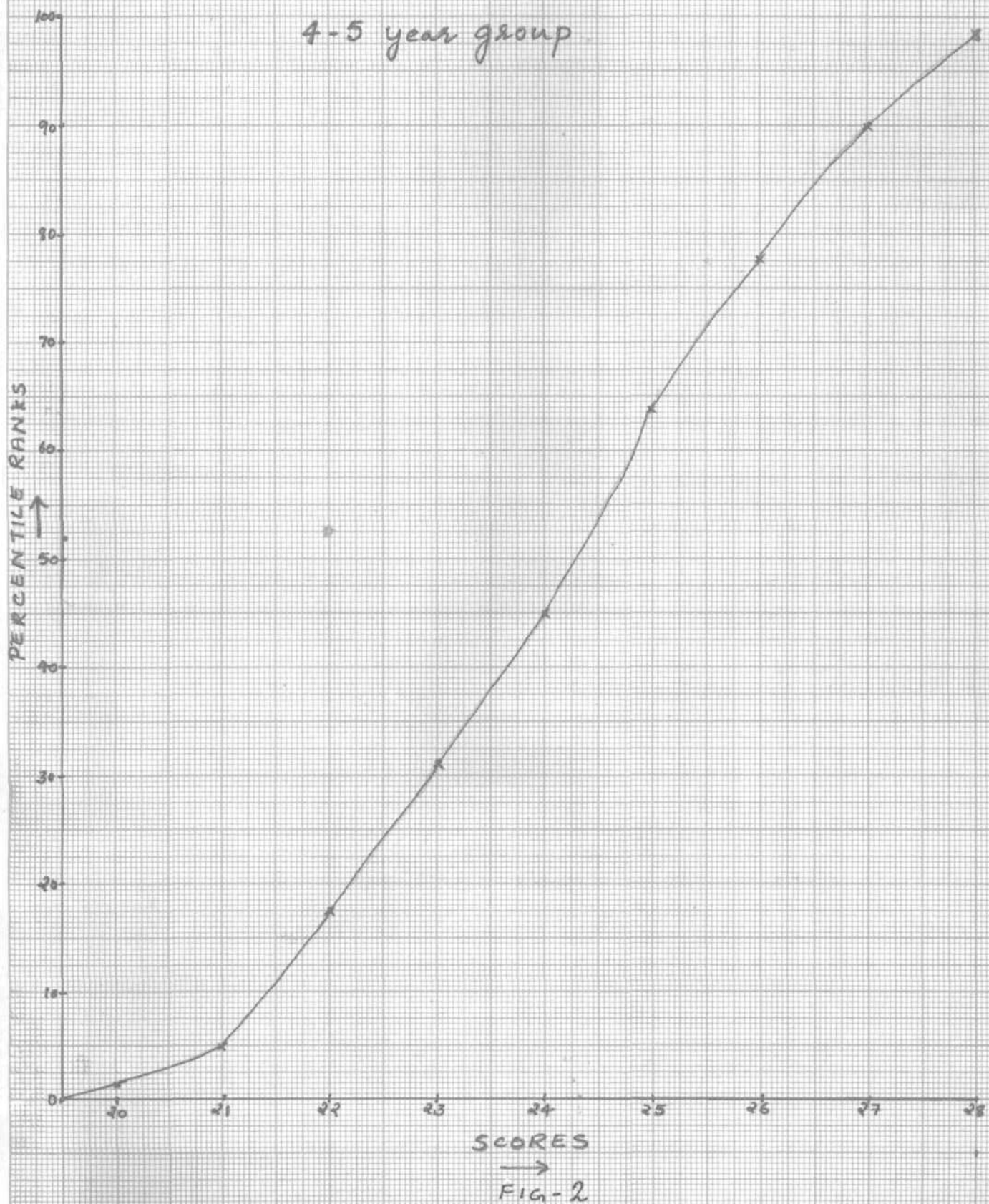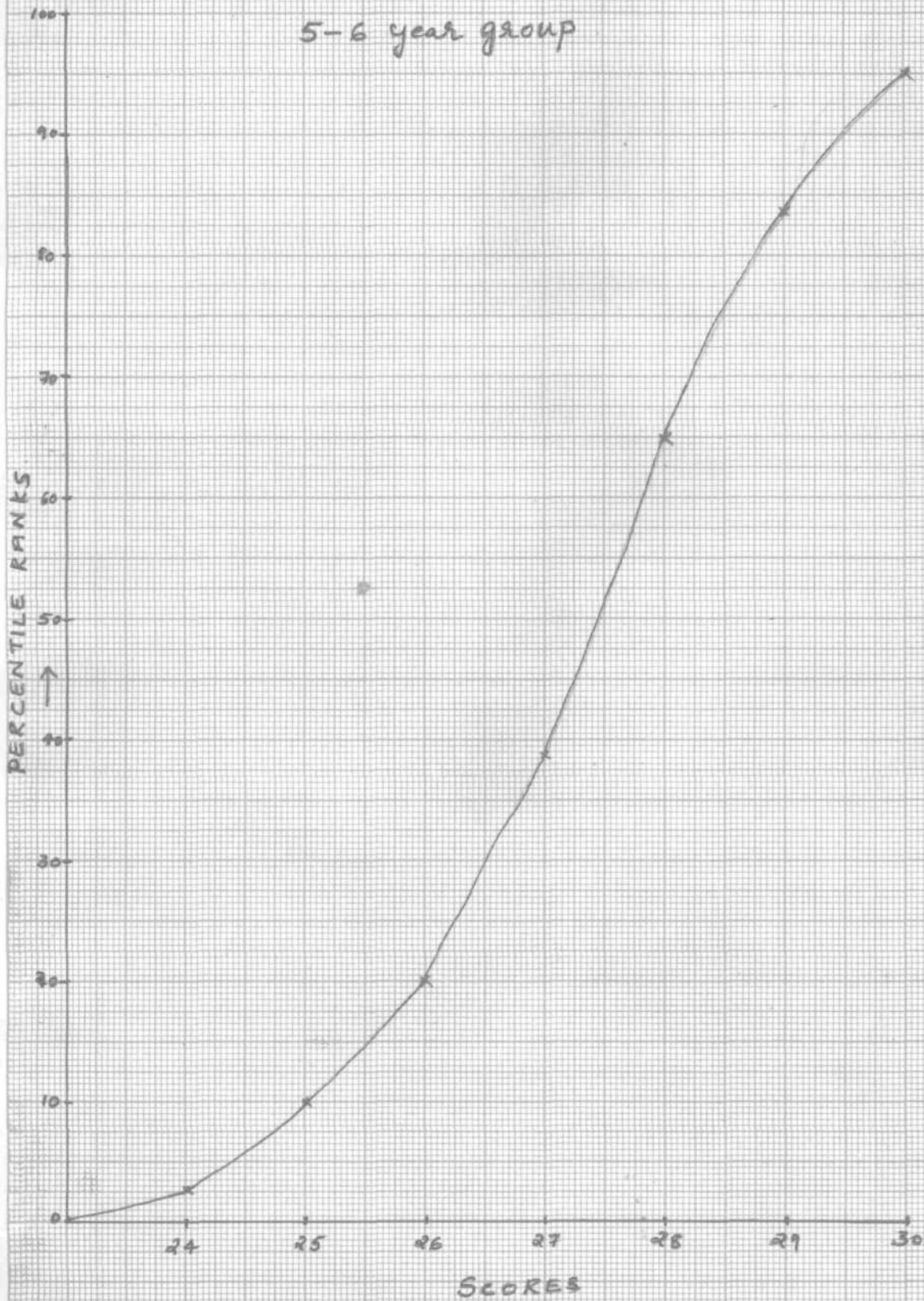
By looking into the above given tables of the respective age groups, the total raw score obtained is converted into a percentile equivalent. With this value, we know whether the child's vocabulary is appropriate for his age. tor eg. a child aged between 3 to 4 years scores 22 out of 30, then his percentile rank is 78.75 which means he is above average. A percentile rank of 50 and above is considered as normal. Below 50 is considered as below average and such children must be probed further.

Children with various language disorders are likely to get a percentile rank below 50. So using this test, children can be easily screened for a deficient vocabulary development.

Administration of the test takes around 15 minutes.

Overall performance of the   groups:

We see a significant difference in performance between the groups as age increases. This supports the view that vocabulary increases as a function of age.

The overall performance of all the 3 groups is pretty good. A most acceptable reason for this is probably that in the original survey at the state level, the response expected was a verbal one and naturally speech production is involved here. In the present study, the child's task

was to identify the target picture. Here only comprehen-
sion of the meaning of the word is involved and we know
from various studies in literature that comprehension is
comparitively better in any child than production. One
more important factor that has probably contributed to the
easy identification of items is that here the target words
were picturized where as in the original survey these words
were elicited from the children during the course of a gene-
ral conversation. So these 2 factors have made the present
test 'somewhat' easy.

Performance of males versus females:-

Here we find that in the groups 3 to 4 years and 4 to
5 years, the mean values for males is comparitively higher
than females. This questions the generally held assumption
that female children have a larger vocabulary at early ages.
Conversely, in the 5 to 6 year old group the mean values
of females is higher than males. Hence to arrive at any
conclusion regarding the sex factor in vocabulary develop-
ment, further elaborative study needs to be conducted.

To conclude this is a screening test and it takes only
15 minutes to administer. It gives a quick and easy measure
of whether a child is deficient in language acquisition if
yes, then the child will have to be assessed in greater
detail. Given that there is such a paueity of tests in terms

of language acquisition for preschool children in India, it has definite value as a clinical and research tool. However, to use it as a diagnostic test more number of items will have to be included considering the factor of relative ease discussed earlier and tested out in the same manner over a larger population.

SUMMARY AND CONCLUSION

The present study was designed to construct a screening picture vocabulary test in Kannada. It is hoped that this test would help in screening the vocabulary age of the language disordered children brought to the speech and hearing clinics.

This test is based on the vocabulary lists constructed by the Karnataka State Directorate of Education, Research, Training and Text Books.

The test consists of 30 picture plates with each plate containing 4 black and white drawings. The test plates are arranged in order of difficulty.

The response expected of the subject was to point out to the picture which is asked for by the tester, i.e. the target picture.

For obtaining normative data, the test was administered to 120 Kannada medium school children in Mysore City. The age range considered was 3 to 6 years. Hence there were 3 groups (3 to 4 years, 4 to 5 years and 5 to 6 years) consisting of 40 children in each group. In each group 20 boys and 20 girls were tested.

The data for each group was statistically analysed. Mean and standard Deviation were obtained for each group.

The results are provided in the form of percentile ranks.

After the administration of the test, the child's score has to be compared with the normative data to obtain his percentile rank. This tells us whether the child is deficient in vocabulary development compared to his peers. The normative data obtained reveal that vocabulary of children increase as a function of age. The profiles drawn depict this increment.

It can be concluded that the present test would be found helpful in screening language acquisition of Kannada speaking children, identify those children with compre- hension deficiencies and may be an aid in therapy planning for such children.

Limitations of the test:

1. First of all this vocabulary test is only a screening test.
2. It is applicable to only those children whose mother tongue is Kannada and reside in a Kannada speaking environment.
3. The test considers only the receptive aspect of vocabulary.
4. The age range considered is limited.

Recommendations for further research:

1. This test can be used to develop a comprehensive diagnostic vocabulary test in Kannada by including more number of items.

2. The validity of the present test should be checked by administering it to a large group of language disordered children.

3. The efficacy of the present test should be judged by its use in speech and hearing clinics.

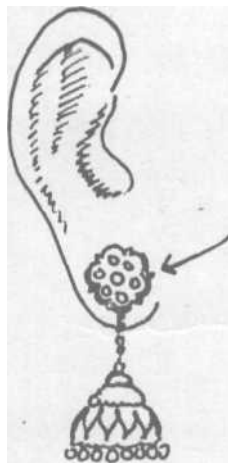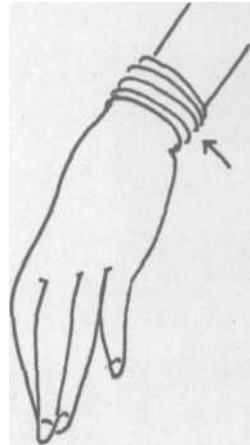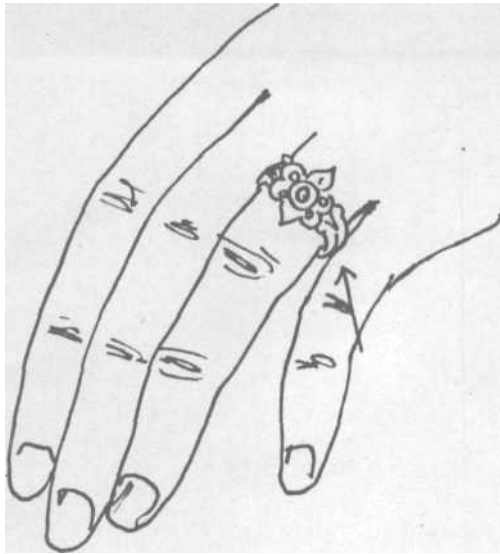4. The age range of the test can be further extended.

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           orders. The C.V.Mosby Company, London.

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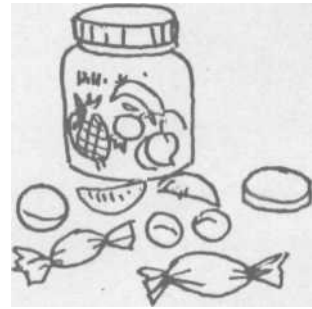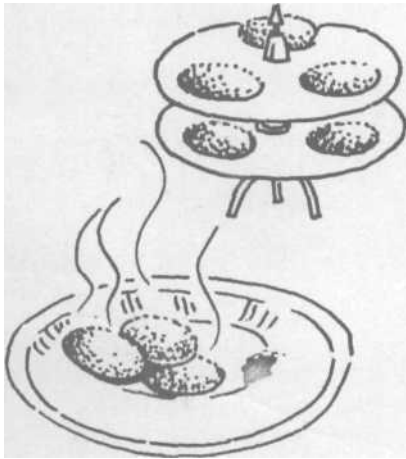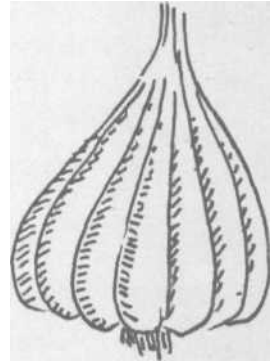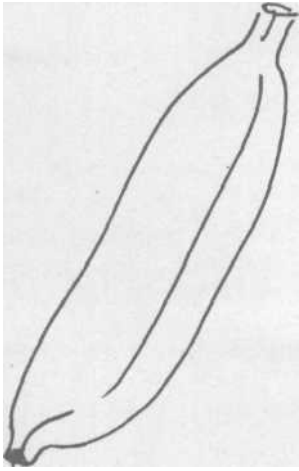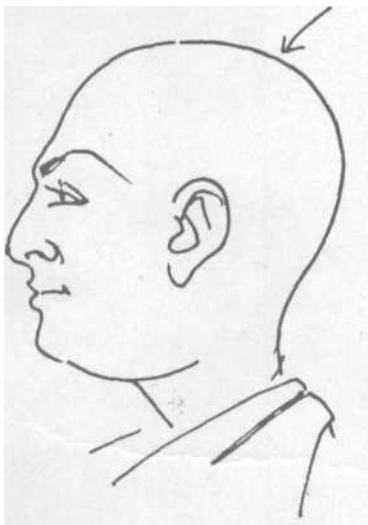   vocabularies in deaf children. Otol.Fukuoka.
           24(2), 182-88.

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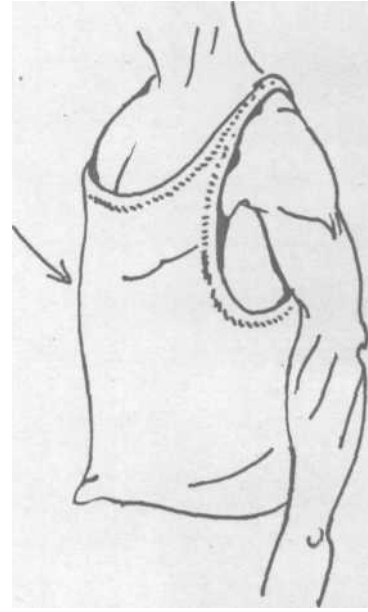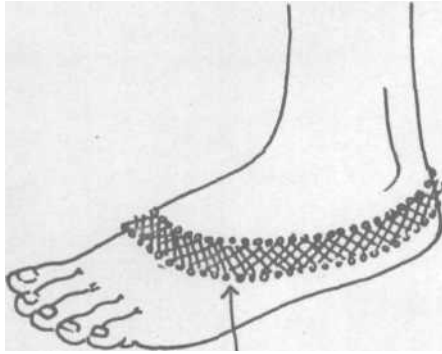Wilks, (1975): PPVT - An assessment of alternate forms. High Lights, 54 (1).

APPENDIX

THE TEST MATERIAL

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