CHAPTER II
The present study did not have the benefit of previous models of comprehensive diagnostic studies in Arabic. In spite of the efforts of the investigator he could not find any related work in this field in India and so previous models could not be reviewed. Certain research work has been done in Arabic literature and some comparative studies between Arabic and Arabi–Malayalam. (The Malayalam language written in Arabic script) have been undertaken. However, these studies cannot contribute much for the present study. So the above studies have not reviewed. The studies conducted abroad with reference to other languages, particularly English are however reviewed in detail. These foreign studies have been of great help in the diagnostic analysis.

The general overall deficiencies in other languages can be of help for the creative diagnostic analysis of this study. The studies are grouped under (1) diagnostic studies (2) different aspects of language learning—listening, speaking, reading and writing and (3) home back-ground and parental attitudes.
(1) **Diagnostic studies**

The study which paved the way for present study was conducted by Ammal¹ and diagnostically analysed the difficulties of secondary school pupils in Kerala in learning Hindi. This study was made with an overall approach to the specific weak points among various linguistic areas in Hindi.

The study consisted of two parts, (1) linguistic analysis and, (2) Analysis of conditions that contribute to backwardness in Hindi. Linguistic analysis was carried through: (a) a diagnostic test to locate specific difficulties of pupils; (b) process and product analysis of hand writing and spelling errors; (c) eliciting the responses of teachers and pupils through separate questionnaires and (d) observation and interview. The diagnostic test having lexical and grammatical items along with certain language skills testable through a written test, included twenty seven sub tests. It was administered to six hundred pupils from fifteen schools representing different zones, sexes, localities, and managements. The questionnaires to teachers were answered by 229 Hindi teachers from different parts of the state. For analysing spelling and product errors in handwriting, 222 boys and 225 girls were studied, and for studying the process errors in handwriting, fifty pupils were closely observed when they were engaged in writing. The test had its split-half reliability co-efficient equal to 84, and it had curricular and construct validity. After applying the

¹ M.S. Comathy Ammal, "A diagnostic study of the difficulties
diagnostic test, twenty seven areas of difficulty were located, of which two areas—translation and voice were taken for detailed diagnostic analysis. For this purpose, the answers of one hundred pupils with equal number of boys and girls were taken. The questionnaire to teachers intended to elicit details regarding methodological factors, administrative factors, curricular factors attitudinal factors, etc.

The major findings of the study were (i) relative difficulties among twenty seven different linguistic areas had been identified by the diagnostic test, and it showed in general that most pupils had hardly gone beyond the basic stage in Hindi; (ii) subsequent analytical study of errors, specially in respect of translation and voice, as also analysis of errors in spelling revealed serious difficulties of the pupils in learning Hindi; (iii) pupils who had the disadvantages in a number of personal factors and home conditions scored significantly less than the others; (iv) a vast majority of teachers (nearly 76 per cent) was of the opinion that the periods allotted for Hindi were not sufficient; (v) many pupils were also of the same opinion; (vi) method of teaching Hindi was not adequate and interesting; (vii) according to teachers, the major reason why pupils did not like learning Hindi was that it was not given due importance while allotting periods, and that the pupils were not aware

of the benefits of learning the language; (viii) parents discouraged pupils in learning Hindi, the foremost reason for parental discouragement being that learning Hindi would hinder the growth of Malayalam and that the importance of English would go down; (ix) most of the teachers opined that the evaluation approach was not suitable for languages; (x) different ways to give extra time to backward pupils were adopted only by an average of 10 per cent of teachers; (xi) among the four-fold skills in learning a language, teachers gave more importance to listening than to speaking and reading, and least weightage to writing.

Nair, N.S.² attempted to find out the common language difficulties in English of Secondary school children of classes VIII, IX and X in Kerala; (ii) to find out the causes of these difficulties and (iii) to suggest methods to prevent and correct these difficulties.

Pupils of forty six rural, urban, boys' and girls' and mixed schools spread over Kerala State were made to write a free composition on 'Our Country'. A few of the urban schools were English Medium Schools. Altogether 1762 scripts were corrected and errors were analysed and classified. The criteria followed in locating the common difficulties in English were (i) if a particular type of error was found common in 10 per cent or more of the script of a particular standard or class,

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it was taken as a common difficulty of the pupils of that class; (ii) mistakes of the same type which were found common to the pupils of standard VIII, IX and X were considered as mistakes emanating from the difficulties in language that the pupils had experienced. The errors in different areas of English Language which are found in pupils' writings with a high percentage of frequency and diffusion had been classified as common language difficulties in English of the secondary school pupils. Though a strict classification was difficult as one kind of error merged into another, the common language difficulties as reflected by the errors were classified under the following headings: (1) difficulties with structures and patterns; (2) difficulties in the area of verbs and verb-forms (3) difficulties regarding vocabulary (with words, phrases and idioms; (4) difficulties with spelling; and (5) difficulties regarding punctuation. The analysis of the pupils writing revealed the following mistakes: (i) More than sixty five per cent of the total errors are committed in the area of grammatical structure; the most alarming mistakes belong to the area of verb and verb combination; the pupils try to do literal translation of their mother tongue into English; (ii) about twenty per cent of the total errors in the area of grammatical structure are of the use of articles; (iii) about fifteen per cent of the total errors is in the same area of preposition; (iv) nearly twenty six per cent of the total mistakes counted from the scripts are of spelling and the mistakes regarding the construction of the sentences are due to
the fact that the sequence of words in sentences have a different arrangement in their mother tongue from that in English Language; (v) pupils' understanding of the verb-form is quite shaky and the learning of the same is quite unsystematic; (vi) the difficulty regarding the proper use of articles is because of the fact that articles do not exist in their native language (Malayalam); (vii) the causes of the errors of prepositions are because of the inability of the pupils in fixing the prepositions in the groups of words, their inability to understand the function of the preposition in a group of words and the uncertainty of the idiomatic application of an individual preposition; (viii) the lack of sufficient vocabulary and ignorance of the proper use of words in sentences cause mistakes in writing; (ix) the inadequacy of reading material, defective methods of instruction in spelling, poor reading habit and lack of awareness of the importance of spelling contribute to difficulties of pupils in spelling; (x) the mistakes in punctuation reveal that no systematic teaching in this area is done but it is true that most of the pupils know the use and significance of the full stop. Comma and other marks of punctuation are not used properly; (xi) the pupils are ignorant of the proper use of 'object' after the transitive verb. These errors are committed because of the misapprehension among the pupils regarding the use of 'objects' in sentences. The wrong practices of correcting the mistakes as well as the desirable methods of correcting them are suggested in this investigation.
Vasantha Ram Kumar and Luke\textsuperscript{3} studied the difficulties in English grammar experienced by pupils of standard X in Quilon district of Kerala. The objectives of the study were (i) to survey the errors committed by pupils of standard X in English grammar; (ii) to obtain from experienced teachers of English the difficulties they encounter in the teaching of English; (iii) to obtain the opinions of experienced teachers of English on the difficulties experienced by the pupils in learning of English grammar; (iv) to determine the relationship between intelligence and achievement in English, to the errors committed in English grammar.

The major findings were (a) the test in English grammar was not too easy or too difficult for the student (b) pupils classified on the basis of sex could not be differentiated on the basis of the total test scores; (c) pupils in private and urban schools differed significantly from pupils in government and rural schools in their test scores. (i) Pupils classified on the basis of sex differed significantly in their scores only in the aspect 'NUMBER'. They did not differ in the other aspects of English grammar included in the test. (ii) Pupils classified on the basis of type of management of schools differed significantly in their scores on 'TENSE' only. They did not differ in their scores in the other aspects. (iii) Pupils

classified on the basis of locality of schools differ significantly in their test scores in 'Structures' only; they did not differ in their test scores in the other aspects.

**Teachers' Response**

The aspect of English grammar ranked as most difficult by teachers of English was 'interchange of voices' and the least difficult item was 'Number'.

**Pupils' difficulties as judged by teachers**

The aspect of English grammar found to be most difficult by pupils is 'Interchange of Voices' the least difficult item is 'Number'.

The main difficulties located by the Survey are: (i) the use of different tenses in active and passive voices proved to be the most difficult item. Pupils were particularly weak in the area of perfect and continuous tenses (ii) conversion of positive statements into negative forms come second in the order of difficulty (iii) the conversion of direct speech into reported speech comes next in the order of difficulty.

Dave, R.H. and Sha, S.N. studied the common errors in English at Higher Secondary level to locate (i) the common errors in English and (ii) to suggest remedial treatment.

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An attempt was made to analyse the errors, both quantitatively and qualitatively, of the English language paper I which were taken at random from the Higher Secondary Examination, Board of Education, Delhi. For the sake of convenience, the areas of investigation were restricted to errors of grammatical structures, errors of words, phrases and idioms, errors of punctuation and errors of spelling.

The important findings were as follows: Errors of grammatical structures were predominantly pronounced in these pupils' writing, with spelling errors coming next in frequency, the values being 45 per cent and 29 per cent of the total errors respectively. Lexical errors and misuse of usage and idioms formed the third place and constituted about nineteen per cent of the total errors. Comparatively speaking, errors of punctuation being five per cent of the total errors were not significant. The first three years of the teaching-learning process should be effectively and fruitfully utilised for ensuring consolidation of sentence patterns in pupils' minds. Efforts should be directed towards seeing that pupils' mistakes do not spill over into the Secondary Course.

2. Different aspects of language learning

Daniel C. Neale, Nod Gill and Warner Tismer \(^5\) of the University of Minnesota studied the relationship between

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attitudes of a group of sixth graders towards school subjects and school achievement. Significant positive correlations (P < .01) were observed for boys in social studies, arithmetic, and reading and for girls in reading. S.D. (Semantic Differential) ratings of school subjects at the beginning and end of the year were compared by analysis of variance procedure. For both boys and girls, attitudes were significantly less favourable for most subjects at the end of the year. Achievement at the end of the year was predicted from IQ, achievement and S.D. scores at the beginning of the year. S.D. ratings contributed significantly to predictions only in the case of Arithmetic for boys.

Squire and others⁶ conducted a comprehensive study of weaknesses in the teaching of English and a suggested programme for improvement were reported. The report contained results from a number of recent studies that show why English is not taught better in all schools. Data indicated that no one level of the American educational system has sufficient qualified teachers of English. At the elementary level, one-fourth of the teachers have not been graduated from college. Available but not fully adequate data indicated that between 40 and 60 per cent of secondary English teachers "lack even the minimal training required for a major in English". Many who do have

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majors in English lack adequate preparation because there is an acute shortage of qualified college instructors in composition, creative writing, language, linguistics and methods of teaching English. Roy C. Donnell, William J. Griffian and Raymond C. Norris conducted a transformational analysis of written and oral grammatical structures in the language of children in grades 3, 5 and 7. Speech and writing samples from 90 children (30 in each of grades 3, 5 and 7) were analysed to identify differences in syntactic complexity of grammatical structures. Various constructions were compared for significant differences (05 level) by mode of discourse, grade and sex. Syntactic complexity as reflected in length of minimal terminable syntactic unit and member of sentence—combining transformations per unit, was found to be greater in speech than in writing for grades 3 and greater in writing than speech for grades 5 and 7. These measures of complexity show significant increases with advances in grade but show no consistent pattern of significant differences by sex. Peterson7 conducted a study among sixth formers to see how far is their genuine interest represent:

A questionnaire administered to pupils in their first term of sixth-form study asked them to state the subjects they were actually taking for the "A" level examinations and also

the subjects they would have selected under a free choice. It was pointed out that outside requirements such as University entrance might largely determine the combination of subjects actually taken, and pupils were asked to choose three subjects on the assumption that no such requirements existed. They were also asked to select one further subject on the assumption that all would have to study a fourth subject, but that this would not be examined.

The replies from sixth formers in a stratified random sample of boys; girls and co-educational schools (2322 replies in all) showed a marked contrast in pattern as between the first two questions. Whereas the percentages taking for the 'A' level examinations (i) arts subjects only (ii) science (including mathematics) only and (iii) a mixed arts/science combination were (rounded to the nearest integer) particularly among science specialists, some 75 per cent of whom now choose an arts subject. Results such as these would seem to challenge the traditional belief of interests among sixth formers exclusively on either the arts or science side. A number of considerations however suggest that they should be accepted at their face value.

The personal qualities of the teacher have always merited attention, and have been subjected to considerable research. Among the thousands of studies of this kind in the United States, that of Rayans 3 (1960) provides an example of

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3. D.G. Rayans, "Characteristics of Teachers: Their Descriptions, Comparison and Appraisal", American Council on...
the large scale kind of study which is seldom possible in
Britain, involving 6000 teachers, 1700 schools and 100 separate
researchers. The small scale studies usually conducted in
Britain have been quite numerous but have generally provided
contradictory findings. Thus although there has always been
strong support for the view that the real determinants of
success in teaching are qualities of personality, character,
and temperament, from a reading of the literature it is diffi-
cult to reach conclusions about which of these characteristics
is important.

Williams\textsuperscript{9} (1966) studied the relationship between
organisational structure (Non-graded and graded) and pupil
achievement. Comparing 38 pairs of third-graders Slower pupils
of a graded school achieved significantly higher than those of
a non-graded school. On the other hand, higher achievers
appeared to benefit more from the non-grades program. The
author qualifies this finding by indicating that the graded
school the average pupil/teacher ratio was 27 pupils per
teacher while in the non-graded school it was 45 pupils per
teacher. In all few differences was found between pupils
attending the non-graded and graded schools.

\textit{Education}, 1960, pp.120-125.
\textsuperscript{9} W. Williams, "Academic Achievement in Graded School and
Non-graded School", \textit{Elementary School Journal}, 1966-67,
pp.135-139. Quoted by B.H. Yarborough, In his article
"The Relationship between Intelligence Level and Benefits
from Innovative, Non-graded Elementary Schooling and
Traditional, Gradal Schooling", \textit{Educational Research
In the South Bay study, teachers were interviewed periodically over the school year in an attempt to develop an in-depth description of their conceptions of pupils. The findings suggest that teachers' organizational concepts are not rigid and unchanging. The teachers in this study exhibited an ability to use a range of concepts to organize their observations of pupils. Furthermore, the concepts used appeared to be responsive to the context in which the observations occurred. The specific aspects of context that seemed to be important in helping to shape teacher conceptions of pupils were Time of Year, Observational Setting and Curriculum—management System. There were also clear shifts in the types of categories used in different observational settings—general observations vs. observations in specific lessons. Although variations existed, individual teachers exhibited some stability in the types of categories formed which were interpretable, at least in part, in terms of characteristics of the curriculum management system the individual teachers used.

Tinker studied the rate of work in reading performance using standardized tests. Hundred high school freshmen


were tested with Form A of revised Iowa Silent Reading Test (Advanced). Only the first five parts and the total of these were employed. Each student was tested individually. The standard time limits listed for parts of the test were used. Empirical check revealed that only a few of the fastest workers just about completed the tests within the time limits. The readers were instructed to work rapidly and consistently, but not to sacrifice accuracy for speed. Each subject was allowed to work on a sub-test until the standard time had elapsed. At that point he was interrupted and a time drawn across the page below the last item attempted. Instructions were then given to complete the test and when the last item was finished the total time required for the whole sub-test was recorded.

An elaborate study on the experimental evaluation of a programme for the improvement of listening was done by Pratt.\textsuperscript{12} He gave training in listening skills each as keeping related details in mind; observing a single detail, remembering a series of details; following oral directions; using contextual clauses (i.e. the context often gives the meaning even when particular words are unknown); recognizing organisational elements: selecting the main ideas, drawing inferences, recognising subordinate ideas that support main ideas. In this study pupils of all grades of ability were found to have been are fitted.

Spearritt\(^{13}\) did a factorial analysis of listening comprehension which is the most important study in this area. One of concerns was to investigate this matter of whether there is separate listening facts or whether performance can be accounted for in terms of reasoning, verbal comprehension, attention and memory factors. By factorial analysis, the demonstrated the existence of such a factor in the first order domain, most closely associated with performance on verbal comprehension tests, and fairly closely associated with performance on span memory and inductive reasoning tests. He found that on the whole listening comprehension tests did not make more demands on memory than reading comprehension, in so far as rote memory and meaningful memory was concerned, but that they did so on span memory (ability to remember sequences), clearly because one cannot refer back in speech, in the way one can when reading.

Minsel\(^{14}\) investigated the effects of abundant use of audiovisual materials vs complete absence of such materials upon reading achievement and habits in two fifth grade classes equalled for reading achievement and intelligence. Significant


results favouring the experimental group were found on each of the Gates Basic Reading Tests although the control group exceeded the experimental group in the number of books read. The experimental group read well in the time it had for reading while working with some 361 audiovisual aids of all types during the school year.

Gates\textsuperscript{15} conducted a study on sex differences in reading ability. Mean row scores on reading speed, vocabulary and level of comprehension consistently favoured the girls, in most instances significantly so. A greater proportion of boys received low scores, and their scores were more variable than girls except in speed of reading the author believes that environmental rather than maturity factors are the more likely explanation of superior performance of girls.

Leon D. Radaker\textsuperscript{16} studied the effect of visual imagery upon spelling performance. The hypothesis was that children who receive training in the creation of images will score higher in spelling activities. Radaker reached the conclusion that imagery is successful in improving spelling performance over longer periods of time. In his study a period of one year elapsed between the two testings. The improvement in spelling suggests that it will also be effective in reading because of the effort devoted to word recognition and recall.


\textsuperscript{16} Leon D. Radaker, "The Effect of Visual Imagery upon
Brophy et al. 17 (1975) studied second and third grade teachers who were consistent in terms of the achievement of their students over four years on a standardised achievement test, observing the teachers four times the first year and 14 times the second year. The correlations among measures of teacher behaviour across whole class and reading group instruction and morning and afternoon were positive and low, with a number of these being statistically significant. There was greater consistency in the data from the second year, indicating the need for several observations to obtain consistent and reliable measures of teacher behaviour. In a general summary of the stability data for two years, the researchers included that "It appears that little or no systematic sense can be made out of certain variables, including many, that have been studied commonly in classroom interaction research, until and unless context differences are taken into account in the measurement and analysis of the data".

Using a small sample of third year pupils while still in school, the minimum context from Kelly 18 1955 of the repertory grid technique was used to ascertain how they construed


ten school subjects—art, craft—skills, English foreign languages, geography, history, mathematics, music, religion and science. This procedure involved printing the name of each school subject on a separate card and these were then presented in groups of three, known as triads, to each pupil who was asked to suggest in what way any two of the subjects appeared similar yet different from the third; different triads were presented until no more fresh constructs could be elicited from the pupil. The whole testing procedure was repeated with another group of pupils in the more informal surroundings of a youth club so that any possible inhibiting effects which the school situation may have exerted on the pupils could be countered.

In a study conducted by Lomax\(^{19}\) on the worst things about the class, reports that the class were grouped into two main areas. The most common complaint about the class was, however, to do with classmates' behaviour. 43 per cent of pupils noted that bad behaviour was the worst thing about the class. Although the majority of girls, perceptions were related to their classmates, a further 20 per cent of responses related class disillusionment to school matters and a further 5 per cent complained about atmosphere or physical conditions. Only 11 per cent of girls complained about the curriculum. The remaining girls argued that there was nothing wrong with the class.

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Peter et al.'s study, the independent study of attitudes towards learning German, involved a sample of 225 third-year pupils attending 11–18 comprehensive schools throughout England, all of whom were studying German as a first foreign language.

The results of the independent study of attitudes towards learning German are important for two reasons. First, although the items pertaining to learning German were to some extent split between two factors, the results nonetheless corroborate the factor structure obtained in main study and provide further evidence for the validity of the questionnaire. Secondly, they show that the questionnaire can easily be adapted to measure attitudes towards learning other foreign languages besides French.

Taken together, the findings indicate that the questionnaire provides a robust and statistically valid measure of attitudes towards language learning. The results of the empirical validation support this view, and the questionnaire should prove to be an invaluable instrument in future research on attitudes towards language learning.

A questionnaire was constructed by Dr. Peter et al. for measuring the attitudes of school children towards learning foreign language (FRENCH). 938 pupils drawn from 11–18 or


21. Ibid.
equivalent comprehensive schools in and around York and Leeds were employed. The majority of these pupils were also in their third year. All of the pupils were between 13 and 14 years of age, and all were learning French as a first foreign language.

Factor analysis revealed a primary factor accounting for over 60 per cent of the total variance, and an empirical validation study showed that the attitudes of children who obtained high scores on teachers' ratings of attentiveness and enthusiasm were significantly better than those given low ratings.

Wig and Semel (1975) conducted a study to identify the relationship between potential school failures and oral language competence. This study was designed to explore the importance of incorporating an oral language measure in an early identification of reading readiness problems and oral language deficits among children designated as Learning Disabled. Specifically, the study examined. (i) the extent to which learning Disabled children scored poorly on a reading readiness test which was administered when they entered schools; (ii) The incidence of undiagnosed oral language deficits among these learning Disabled children and (iii) the predictive relationships between reading readiness skills and components of oral language.

This study was conducted over 22 learning Disabled children enrolled in remedial special education instructional programmes in an elementary school the average age of 7.5 years. None had been identified as having oral language problems. The test of language Development consisted of five principal linguistic subtests measuring receptive and expressive aspects of word and sentence meaning (Semantics) of sentence formation (Syntax) and of sound symbol relationships (Phonology).

The data were analysed by three procedures. Firstly the readiness scores were tabulated to determine percentage in the "high risk" category to ascertain the percentage of children who evidenced a deficit in oral language. Secondly the language scores were tabulated. Finally the Pearson's Product moment correlations were computed for scores obtained on the readiness and the language ability.

Listening Comprehension

Woodcock and Clark23 conducted a research on the comprehension of a narrative passage by elementary school children as function of listening rate, retention period and I.Q. The authors reported that listening rates of 228 to 328 words per minute appear to be more efficient in terms of both learning and

retention than the normal rate of 178 words per minute. Subjects from the lower I.Q. range performed best at the lower rate. The authors suggest the high speed listening medium for elementary school children.

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clues (i.e. the context often gives the meaning even when
particular words are unknown); recognising organisational
elements: selecting the main ideas, drawing inferences, recog-
nising subordinate ideas that support main ideas. In this
study pupils of all grades of ability were found to have bene-
fitted.

Foulke\textsuperscript{26} conducted a study on listening comprehension
in a function of word rate. He reported that speed of presenta-
tion did not appear to be a critical factor with rates upto
250-300 words per minute, but college students’ comprehension
decreased rapidly after that point. The author suggests that
comprehension apparently begins to decline when the available
perception time is no longer adequate.

Wilt\textsuperscript{27} conducted a study about teacher-awareness of
listening as a factor in elementary education. He examined
the class-room time spent by 530 elementary school children of
all levels and found that they were listening for 57\% per cent
of it, a daily average of two hours 38 minutes each.

\textsuperscript{26} Emerson, Foulke, "Listening Comprehension as a Function of
Word Rate", \textit{Journal of Communication}, 16, II C.2, September
1968, pp.198-206. Reviewed in the \textit{Journal of Educational

\textsuperscript{27} M.E.Wilt, "A Study of Teacher Awareness of Listening as a
Factor in Elementary Education", \textit{Journal of Educational
Research}, 43: 6-6-656.
Bertha Boya Thompson\textsuperscript{28} conducted a longitudinal study of auditory discrimination. The purpose of this study was to determine the relation of auditory discrimination (A.D.) and intelligence test scores to success in primary reading. The investigator arrived at the conclusion that auditory discrimination and intelligence are highly correlated with success in primary reading.

**Speaking**

The relationships of articulatory disorders to psychological, physiological, perceptual, and learning factors, were explored in different studies. Somers\textsuperscript{29} conducted an extensive study to investigate the effects of speech therapy and speech improvement programmes upon articulation and reading. It was found that (a) speech therapy did not significantly affect basic reading aptitudes and skills; (b) speech improvement did significantly improve such skills in children with normal articulation and those with misarticulation; and (c) a combination of speech therapy and speech improvement for children with misarticulation produced significant differences in reading.


comprehension in comparison to those children receiving speech improvement only.

Jones and Wepman\textsuperscript{30} gave specific attention to the study of aphasia of adults. They sought dimensions of language performance through factor analysis. Six factors were found from inter-correlation of 37 variables subjected to varimax factor solution. Four of these factors represented input-output transmission functions.

Trapp and Evans\textsuperscript{31} found that children with mild articulatory defects scored higher than those with severe defects on the Wechsler digit-symbol sub-test. From a population of 438 first grade children Snow\textsuperscript{32} decided that effective incisor teeth did not usually interfere with correct articulation of dental fricatives but that this condition was crucial for some children. Fletcher, Gastul and Bradely\textsuperscript{33} examined 1615 children from 6 to 18 years old and concluded that a subject with tongue-thrust swallowing was much more likely to have sibilant defects. Monge\textsuperscript{34} found a significant correlation

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\textsuperscript{34} Charles V. Monge, "Relationship between Selected Auditory
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between phonetic word synthesis ability and number of articulatory errors. Children with misarticulations also scored lower in pitch discrimination.

Reading

Bishop C.H. 35 studied the question of the significance of knowledge of component letter-sound relationships in reading new words. In her experiment the child's process of learning to read was stimulated by teaching adult subjects to read some Arabic words. The purpose to determine the transfer value of training with individual letters as opposed to whole words, and to investigate the role of component letter sounds associations in transfer to learning new words.

A three stage transfer design was employed. The letters were 12 Arabic characters, each with a one-to-one letter sound correspondence. There were eight consonants and four vowels, which were combined to form two sets of eight Arabic words. The 12 letters appeared at least once in both sets of words. A native speaker of the language recorded on tape the 12 letter sounds and the two sets of words. The graphic form of each letter or word was printed on a card.


The subjects were divided into three groups: the letter training group (L), the whole-word training group (W), and a control group (S). Stage one of the experiment was identical for all groups. The subjects learned to pronounce the set of words (transfer set) which would appear in stage 3 by listening to the recording and repeating the words. Stage 2 varied: group (L) listened to and repeated the 12 letter-sounds and then learned to associate the individual graphic shapes with their correct sounds. Group (W) followed the same procedure, except the eight words were given then to learn, rather than letters. Learning time was equal for the two groups. Group (C) spent the same time interval on an unrelated task.

Stage 3 was the same for the three groups. All subjects learned to read the set of words they had heard in stage (1), responding to the presentation of a word on a card by pronouncing it. This was the transfer stage on which the three groups were compared.

At the close of stage 3 all subjects were tested on their ability to give the correct letter-sound following the presentation of each printed letter. The letter training had more transfer value than word training, but word training did produce some transfer. The subjects of group (L) also knew, on the average, a greater number of component letter-sound correspondences, but some subjects in group (W) had learned all 12. Most of the subjects in group (L) reported that they had tried on learn by using knowledge of component correspondences. But so did 12 of the 20 subjects in group (W), and the scores of
these 12 subjects on the transfer task were similar to those of the letter trained group. The subjects who had learned by whole words and had not used individual correspondences performed no letter on the task than the control subjects.

Reading errors have been analysed by Weber. He reveals that, the "instances of correct syntactic matching of errors to the syntax of the part of the sentence which followed were much less frequent than matching to the syntax of the part which preceded, but that as many as two third, of the errors were acceptable to both preceding and following parts".

Recent experimental work in the field of reading showing the relation between reading disability, school failure and behaviour problems has done much to centre the attention of educators upon the seriousness of reading failure.

Manore et al. have classified reading disabilities into five areas. (i) Constitutional (ii) Intellectual (iii) Emotional (iv) Educational (v) Environmental.

Constitutional defects: (i) visual defects (ii) auditory defects (iii) difficulties in motor control (iv) physical defects.


1. Visual defects should be suspected and tested by examination when a child's reading shows the following:
(a) Excessive reversals  (b) Excessive skipping  (c) Extremely slow rate of reading  (d) Errors in words of similar configuration such as cat, cat, eat; band, hand, hard; etc.  (e) Evidences of eye strain during reading such as blinking, frowning, squinting, watering eyes, complaining of eyes, or headaches  (f) Unusual positions of holding the book very near, very far or turning head or book sideways.

2. Auditory defects

(a) Excessive errors in the vowel and consonant sounds of words
(b) Additions and omissions of sounds
(c) Speech defects in conversation and in oral reading
(d) Confusion of words which sound nearly alike
(e) Inability to use phonics as an aid to word recognition
(f) Inattention while others read aloud
(g) Misunderstanding oral directions

3. The difficulties in motor control which affect reading arise from many different causes. The following are observed:

(a) Excessive reversals and repetitions
(b) Line skipping and losing place
(c) Ejective, impulsive behaviour with frequent failure to attend to reading for more than brief periods
(d) Variations in the rate of reading such as very slow rate or impulsively rapid, jerky or spasmodic reading

(e) Stammering during oral reading

(f) Erective, uncontrolled eye-movement

4. Children who have suffered from some debilitating physical condition may find learning to read a difficult process as follow.

   (a) Inability to concentrate on reading
   (b) Apathetic, listless behaviour
   (c) Yawning, fatigue, sleepness
   (d) Irritability, hyperactivity nervousness

Due to intellectual factors children usually show the following characteristics.

   (a) Reading achievements are at the same level on the mental ages.
   (b) Poor comprehension is shown in Arithmetic and other school subjects as well as reading.
   (c) Scores in tests of the mechanics of reading, oral reading and word-recognition are sometimes slightly higher than silent-reading tests for comprehension. Such children learn routine skills with repetitive work but fail to utilize the skill intelligently.
The child is no more sensitive to his retardation in reading than to his general adequacy in all subjects.

Using a three way ANOVA model, the department variables of pupils reading attainments and attitudes were analysed in relation to the independent variables of treatment (i.e. having experienced remedial teaching of reading in primary schools or not) sex and type of secondary school (Catholic or secular) at the age 13-14 years. The short term effects of the remedial teaching of reading in primary school were assisted at the time of transfer to secondary school. The findings indicated that, (i) pupils in the treatment group had significantly higher word recognition reading ages than pupils in the control group at the time of transfer to secondary schools (ii) At follow up, using tests of word recognition and reading comprehension, significant.

Reading

Tobin et al. conducted a sample study of 75 second year secondary school pupils all of whom had received remedial teaching in reading for a minimum of twenty months whilst attending junior schools in socially disadvantaged areas, was compared

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in terms of reading attainments and attitude to reading with a sample of 75 pupils for whom no junior school remedial provision had been made.

Using a three way ANOVA model, the different variables of pupils' reading attainments and attitudes were analysed in relation to the independent variables.

In a preliminary study Gilbert\textsuperscript{40} (1957) using 68 'Ss', it was found that when two words were flashed on the screen for 1/24 of a second and followed immediately by nonsense letters (letters typed in a random order and in a manner to avoid this formation of sense material), on same place on the screen, only 3.68 per cent of the words were correctly reported. Only one 'S' reported correctly as many as 20 per cent of the words. Since the writer was interested in measuring the speed with which the readers could avoid the influence of interfering stimuli on perception of sense material, these nonsense letters seemed to constitute a good test of interference.

Fernald\textsuperscript{41} made a study of seventy eight (78) cases of extreme reading disability and found that in all cases except four, these children had no history of emotional instability


before they entered school. In all cases other than these four, teachers and parents stated that the child had begun his school life joyfully, eager to learn to read and write, and that the emotional upset occurred only as the child's desire was thwarted by his inability to learn as other children did.

Walter Hill\(^42\) conducted an I.R.I. (Informal Reading Inventory) test to eighth grade students on reading. Ten or more questions measuring significant literal and inferential facts and ideas were prepared for each of the three graded sets of selections. One set was read to the students to determine his functional listening level—the highest level at which he can answer 75 per cent of questions correctly. The second set was read silently by the student. A comprehension of 90 per cent or more is considered adequate for independent level reading. The third set of selections is read orally by the students. An experienced teacher of reading, using an error coding system can study the students word pronunciation and oral reading patterns at the several levels and gain insight into his grasp of sound letter correspondences and his syntactical strengths and weakness. Oral reading fluency and comprehension can be used to confirm functional reading levels.

Reid\textsuperscript{43} conducted an investigation on grammatical complexity and comprehension of compressed speech. He studied the effect of rate of presentation upon the comprehension of materials that differed in grammatical complexity. The comprehension sections of two forms of the Nelson-Denny Reading Test were re-written to reduce grammatical complexity by (a) deleting extra words (b) using active voice (c) putting because-if-when clauses that the beginning and (d) keeping sentences short. Rate of presentation was varied from 175 words per minute to 275, 325 and 375 through the use of a Tempo Regulator. Grammatical simplification resulted in increased comprehension.

A study of Ruddell\textsuperscript{44} at the fourth grade level, examined the effect on reading comprehension of written patterns of language structure which occur with high and low frequency in children's oral language. By controlling the vocabulary difficulty, sentence length and subject matter content in a series of reading passages, the relationship between reading comprehension and pattern complexity was examined. Reading


comprehension scores on passages written with high frequency patterns of language structure were found to be significantly superior to comprehension scores on passages written with low frequency patterns of language structure.

In a study of reading comprehension by Reid\(^45\) she selected nineteen sentences, which, she thought might cause reading difficulty and matched each one with a syntactically simpler sentence conveying the same information. Subjects were given binary choice comprehension questions on either the (A) original sentence or on the (B) rewritten version. The results were strongly in favour of the rewritten sentences; on eleven test items, the comprehension scores were between 10 and 47 per cent better for the (B) than the (A) version of the eleven items, only two had easy versions which were shorter than their difficult counterpart; eight of the easy revised sentences were longer than the originals.

R.J.Riding et al.\(^46\) conducted a study of comprehension in the groups of 70-10-12 and 15 years old children, to a prose passage delivered at either slow or a fast speech rate and structured either with related pieces of information adjacently

\(^{45}\) J.F.Reid, "Children’s Comprehension of Syntactic Features found in some Extension Readers". \textit{Educational Review}, Vol.32, Number 2, 1980, p.158.

positioned or separated by several other sentences. All children received a recall test immediately after testing the passage. It was found that (i) recall was best for both boys and girls following slow presentation of the passage structured with the related sentences adjacently positioned; (ii) at all ages the girls were superior to the boys on the passage arranged with the related details separated when the speech rate was slow, but they were inferior at the fast rate; (iii) while speech rate produced a large difference in recall for young and old children, at ten or twelve years there was only a slight difference, suggesting that above this age the analysis strategy used by the children changed; (iv) girls were more greatly affected by speech rate at 15 years than at any other age. The findings were discussed in terms of their application to the practical learning situation.

Writing

Leon D. Radakar\(^47\) studied the effect of visual imagery upon spelling performance. The hypothesis was that children who receive training in the creation of images will score higher in spelling activities. Radakar reached the conclusion that imagery is successful in improving spelling performance.

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over longer periods of time. In his study, two experiments were carried out by Margaret L. Peters\textsuperscript{48} to test the hypothesis that different methods and different media in the teaching of reading given rise to different kinds of spelling error. Comparisons were made between children taught to read by look-and-say and by phonic methods, and between children taught in traditional orthography (t.o.) and the initial teaching alphabet (i.t.a.). When methods were ranked for vulnerability to particular types of error, a trend is revealed in which i.t.a. produces the fewest omissions, insertions and perseverations, faulty auditory perceptions and homophones. Between these two extremes, lies the phonic method which gives fewest transpositions, vowel substitutions and the greatest number of reasonable phonic alternatives. Differences between the look-and-say and phonic methods are fully consistent with the differential emphasis placed upon their 'perceptual' and 'rule-following' aspects. Differences between t.o. and i.t.a. are consistent with differences in economy of form. It is concluded that though overall spelling attainment is not affected, perceptual and rule-following skills influence spelling in a way which may have important implications for remedial teaching.

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In 1937 Russell[^49] studied the relationship between spelling and reading abilities in the second grade. He found a correlation of 0.86 between spelling and word recognition and 0.80 between spelling and paragraph.

Nancy E. Wood[^50] studied 100 selected case histories of children between the ages of six and more years to see the relationship agaphia and backwardness. Of the 100 cases studied, 69 were males and 31 were females, giving a ratio supported previous conclusion that there is a higher incidence of males in handicap populations.

In activities such as writing or drawing, 73 used the left hand exclusively, six were ambidextrous, and 21 were right handed. Reversals and/or intercisions of writing symbols were found in 59 Ss.

This information suggested that problems in cerebral dominance were prevalent in that sample population.

Delayed speech and language development was reported in 72 cases and 20 Ss had been classified as behaviour problems in school, indicating that the histories of these children require careful consideration even though an actual speech


disorder seemingly does not exist.

Leslie Quan$^51$ made an attempt to show how various factors modify the legibility of handwriting. The data were derived from an objective study of the eye-movements of subjects as they read paragraphs of handwriting. In this study legibility is regarded as a composite made up of simpler elements. i.e. (1) letter formation (2) spacing (3) alignment (4) slant and (5) quality of line. In order that the difficulty of the content of the selections would remain constant throughout the study, the standardized paragraphs, "Peter's Dream" were used.

The major findings were:

1. Handwriting is less legible than print.

2. Good letter formation is the most important factor in determining the legibility of handwriting; poor letter formation reduces legibility more than any other single factor considered in this investigation.

3. The compactness of handwriting affects its legibility. Reduction of spacing between letters and between words appears to improve legibility but the evidence is not conclusive.

4. Evenness of alignment apparently is not an important factor in legibility.

5. The regularity of slant of letters is important; when the slant becomes irregular, legibility is decreased.

Hilda Lehman and Luella C. Pressey conducted an experiment to find out the efficacy of drill to increase the legibility of handwriting, based on the diagnosis of each child's illegibilities by means a chart prepared by them. By directing teaching effort straight at specific faults of legibility, not only was legibility strikingly increased but both speed and quality of handwriting were also very definitely increased.

3. Home Backgrounds and Parental Attitudes

J.R. Birine and E.A. Hewitt of the University of Birmingham studied the effect of home background upon achievement in English. The purpose of the study was to find out whether an adverse home background is significantly related, at the grammar school level, to under-achievement in English. The results obtained were consistent with (1) the hypothesis that under-achievement in English is associated with a relationship between parent and child based upon authority rather than reason and (2) the view that under-achievement in English is associated with inadequate parented co-operation with the school. The results also showed that under-achievement in English is probably more closely associated with parental


education and occupation than with the other factors investigated.

Evidence of the importance of parental attitudes was provided by Sandford, Couper and Griffins54 (1965) in the study of social class influence in higher education. In a sample of 97 students drawn from a college of science, they found that while 37 had received active encouragement from their parents to pursue their studies, only five students had experienced parental opposition. The college at which this study was carried out had a larger proportion of working class students than would usually be found at a provincial university and few of the parents had experienced further education. The inability of the parents to give educational and vocational guidance may have been associated with a general lack of confidence in career choice found amongst the students.

The review of the related literature helped the investigator to formulate the appropriate methodology and dimensions of analysis for the study.