Review of Related Studies
1. Studies on Error Analysis and Diagnosis-Remediation

A. STUDIES CONDUCTED ABROAD

Pressey (1925) carried out a statistical study of children’s errors in sentence structures by examining papers written by pupils in grades VII to XII. It is revealed that the highest percentage of the errors occurred in writing stringy sentences. It showed that agreement between subject and verb, use of wrong tense forms etc. are the areas of difficulties felt most by the pupils.

A study of errors made by Brennan (1966) revealed that the most frequent types of errors were those in spelling, punctuation and sentence structure.

Rusxova (1964) studied the sources of errors made by a homogeneous sample of Czech Adult Learners of English. Fifty postgraduate students who had sufficient knowledge of English were the subjects. The test was in writing on a given theme. Out of the total 1007 errors the investigator could not classify about a quarter of the errors since they defied all attempts of classification.

With a view to identifying and classifying lexical and structural errors Efstathiadia and King (1972) analyzed the free composition written by Greek learners of English. The study revealed that the two very important areas which presented problems were prepositions and adverbial particles. Another important error area was the use of tenses.
Victor Wyatt (1973) analyzed and classified the errors in composition written by IV class pupils for East African Certificate of Education Examination. The study showed that the error areas in the descending order of the percentage of incidence are spelling, sentence structuring, punctuation, verb groups and the non-verb groups. The sources of errors were identified.

Mohsen Chadassey (1976) analyzed twenty-five written assignments of the students learning English at Pahlavi University in Iran. His study proved that errors in morphology, construction and articles ranked higher than errors in other areas.

The gravity of errors was investigated by Carl James (1977). About fifty errors committed by foreign learners of English which fell into ten categories were presented to two groups of EFL teachers - one of natives and one of non-natives- who were asked to identify the errors, correct them and rate the mistakes. Non-native judges resented errors of cases and lexis and the natives resented errors in tenses and concord. Transformation, tense, concord, negation, article etc. were the error types considered to be the most serious.

The results of a pilot project on the effectiveness of proof reading exercise in reducing common errors were reported by Sheal and Susan Wood (1981). Errors in the use of tenses, concord and spelling were concentrated. Two groups of about 50 students of mixed ability taken from widely differing social backgrounds were the subjects. The results showed that there was small improvement and the students corrected a reasonable number of their errors by proof reading.

Scribner and Cole (1981) found that literate individuals who generally had experience in writing letters were able to compose more usable descriptions of the rules for playing a board game that were non-literate individuals. Though Scribner and Cole’s research does not directly address
the problem of literacy in a second language, it does suggest that individuals literate in their native language will have a head start on some second-language writing tasks.

Hume, working with London children mainly of the specifically backward kind, and basing her conclusions on teachers’ returns of backward orders, found that there was 2.5 percent of reading disability among pupils in a school population of 10,000.

Monroe, concluded from data relating to 370 backward readers of all kinds, backward and dull, that almost 12 percent of the school population have reading defects (i.e., disability sufficiently intense to require special help).

Graham and Guilford (1968) studied the language deficiencies of educationally subnormal children using a psycholinguistic approach. The focus was on investigating the linguistic abilities of the target group, in particular, their basic knowledge of linguistic forms - the linguistic competence. The results indicate that experimental techniques based upon and related to a theoretical analysis of language offer a promising way of developing measuring instruments that will assist in assessment and diagnosis and provide pointers for remedial treatment.

Squire et al. analyzed several earlier studies on the weaknesses in the teaching of English. The data revealed that at no one level in the American educational system is there sufficient number of qualified teachers of English. Between 40 and 60 percent of secondary English teachers lack even the minimal training required for a major in English. Many who have majored in English still lack adequate preparation because there is an acute shortage of qualified college instructors in composition, creative writing, linguistics and methods of teaching English.
Burning (1968) studied the effects of review and test-like events within prose materials presented for learning. He tested the effects of format and criterion-test (CT) relevance of within-learning review items in a factorial design. A 1500-word passage was given, divided into six sections, each followed by 3-7 statements of test-type review items. Test-type and CT-relevant groups showed significantly fewer errors ($P < .01$) than statement-type and CT-irrelevant groups respectively. CT-relevant testing reduced errors ($P < .01$) over both CT-irrelevant statements and a reacting control group. This indicates that testing independently facilitates learning from such materials. Also, the effects of testing and specific reviews were seen to be additive with CT-relevant testing, significantly reducing errors ($P < .01$) over both CT-relevant statement and CT-irrelevant tested review.

Reid (1968) investigated the grammatical complexity and comprehension of compressed speech. The specific issue studied was the effect of rate of presentation upon the comprehension of materials that differed in grammatical complexity. The comprehension of two forms of the Nelson-Deany Reading Test were rewritten to reduce grammatical complexity by (a) deleting extra words (b) using active voice (c) putting because / if / when clauses at the beginning and (d) keeping sentences short. The rate of presentation was varied from 175 words per minute to 275, 325, and 375 through the use of a Tempo Regulator. It was found that grammatical simplification resulted in increased comprehension with one test form, but not the other. Comprehension remained stable at rates from 175 to 325 words per minute, but dropped off sharply from 325 to 375. There was no significant interaction between rate and grammatical complexity.

Woodcock and Clark (1968) studied the comprehension of a narrative passage by elementary school children as a function of listening rate, retention period and I.Q. The study showed that listening rates of 228 to 328 words per minute appeared 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 better at the lower rate.
Bertha Thompson (1963) conducted a longitudinal study in order to determine the relation of auditory discrimination (A.D.) and intelligence test scores to success in primary reading. She concluded that auditory discrimination and intelligence are highly correlated with success in primary reading.

Pratt (1966) conducted an experimental study for the improvement of listening. He gave training in listening skills such as keeping related details in the mind; observing a single detail; remembering series of details; following oral directions; using contextual cues (for inferring meaning); recognizing organizational elements; selecting the main ideas, drawing inferences, recognizing subordinate ideas that support main ideas. The training based on such clear analysis was found to benefit pupils of all grades of ability.

McNeil and Stone (1965) of the University of California conducted a study on teaching children to hear separate sounds in spoken words. He was trying to test the hypothesis that children could identify sounds in spoken words better through practice with nonsense than with familiar words. 60 kindergarten children were divided into two matched groups, taught by self-instructional methods. One group received training that required responding to sounds as they appeared in nonsense terms, the other to sounds as they appeared in meaningful terms. Children trained with nonsense words made fewer errors during training period and did significantly better in identifying sounds found both in nonsense and in meaningful words.

Several studies have been conducted on theory-driven constructs in the analysis of errors and the way in which inter-language operates in inducing the errors and in creating forms. Sharwood Smith (1995) has shown that “gathering errors is an educationally inspired technique to see what has gone wrong"
In studying spontaneous languages Labov (1970) noted that if learners encounter serious problems in expressing meaning in the target language they may become too aware of the conditions under which they are performing and hence cease to be spontaneous. He referred to these problems as the observer’s paradox.

A study was carried out by Carsch (1994) on improving students’ essay writing. The study also sheds light on specific learning difficulties/dyslexia.

Daniels of the Nottingham University conducted a controlled experiment on children with reading difficulty. He chose two matched groups of 8-year olds (average reading age 5.3 years) who could hardly read a single word after a year’s remedial reading course. Training in oral analysis was given to the experimental group for one whole term, with no reading instruction. Then for two terms they were taught to read again with a set of readers phonetically based. The control group had three terms teaching by the same phonetically based scheme. At the end of the period the average reading age of the experimental group was 8.3 years compared with an average reading age of only 6.3 years by the control group. The sizeable mean difference of 2 years is inferred to be sufficient justification for this period of oral training.

Linder (1962, 1963) studied 50 cases of retarded readers at the psychiatric clinic for children and adolescents in Zurich by the use of medical, psychological and psychiatric methods of investigation. She found that only 10% showed normal personality adjustment; 44% were labile, nervous, inattentive and un-concentrated; 6% were over-reactive, wild, stubborn, disturbing and disobedient.

Malmquist (1967) studied the relationship between personality maladjustment and reading/writing disabilities, using a sample of 399 pupils.
Hew found significant difference between the poor and the good readers with regard to the following personality variables: self-confidence, ability to make social contacts, persistence, ability to concentrate, dominance-submissiveness, intelligence and stability-nervousness.

Betts (1952) and Dolch (1947) studied and classified major factors in reading disabilities. Both stressed premature instruction and inadequate instructional materials. Betts emphasized the individual nature of reading retardation, but called attention to certain common symptoms including low comprehension, aversion to reading activities, tension in reading situation, finger pointing, excessive eye movement and sub-vocalization.

Hansen (1969) investigated the impact of home literacy environment on reading attitude among 48 pupils in Grade 4 in a mid-Wisconsin community to test three hypotheses: (a) there will be significant relationship between the measure of the home literacy environment and the child’s reading attitude; (b) the relationship between the home literary environment and reading attitude will be greater than the relationship between test I.Q. and reading attitudes; and (c) the relation between the home environment and reading test achievement will be greater than the relationship between socio-economic status of the parents and reading test achievement. The first and third hypotheses were affirmed.

Gates (1962) investigated sex differences in reading ability. Girls were consistently superior to boys in reading speed, vocabulary and level of comprehension. A greater proportion of boys received low scores. Boys also revealed more variability in scores than girls except in speed of reading. But Gates believes that environment rather than maturity would best explain the superior performance of girls.
2. Education across cultures

Genese (1979) has brought out the reading skills of Canadian children who were literate in three languages (French, English and Hebrew) that there appears to be a specifically linguistic factor in bilingual literacy. Genese notes that tests of literacy in the three languages yielded higher correlation between French and English reading skills than between English and Hebrew reading skills. The fact that the Hebrew writing system is very different from that of English and French, this finding underlines the conclusion that differences in writing systems can make the acquisition of a second language more difficult.

Durojalye (1971) (Makerere University, Uganda) investigated the social context of immigrant pupils’ learning. Samples were drawn from three groups of secondary school pupils - Asian, West Indian and English, and information was collected on five areas of social activity related to English language learning. Considerable group differences in the use of school and public libraries, out-of-school activities, out-group choice of friends, job aspiration and parental encouragement. Some of these facilities seem to facilitate the English language learning of the Asian group.

Sue Leather, a teacher teaching associated with Excel Training Services in the Alettzerlauch, in her article on ‘Training across cultures: content, process and dialogue’ analyses the difference in the process of teaching across different cultures. After observing a class on Business English in Tblisi she makes clear the following features:

- In real life the teacher is lovely, very warm and friendly where as in the classroom she seemed to undergo a personality transformation.
- Errors are immediately corrected, no self correction, always teacher correction.
- All activities were done in plenary, so that all the students had to listen to everything.
- Teacher always ‘in control’, so that although the class was small enough for group and pair work to work well, there was none.
- All focus on ‘code’ none on ‘meaning’. No ‘real communication’.
• Vocabulary often decontextualised, and lots of role learning.
• Students were focused and responsive.

The teachers’ job was to transmit content, and as Widdowson (1993) points out, in transmission, input is equated with intake. There was a lot of emphasis on grammar and lexis, but little emphasis on practice driven by communicative needs. The lessons seemed to be very content focused.

Sue Leather compares the pedagogic practices observed across different cultures with that of hers in Netherlands:

a. The teachers operated very largely in the world of theory. They were well used to starting with abstract principles.
b. The teachers felt that training needs were primarily related to language and culture.
c. As teachers they were responsible for ‘giving the lesson’ not managing learning.
d. From the outset they said they were keen to learn new teaching ideas.
e. They had relatively little experience of teaching students who had immediate communicative needs. Linked to this was their focus on accuracy, not fluency.
f. They are not used to reflecting on their own practice. They had never observed each other, and had rarely been observed. Doubted from their reactions to my observation, whether they had ever experienced supportive observation.
g. They were not used to eliciting feedback from students.
h. Apart from ‘language’, they perceived their needs in terms of the equipment and materials they would provide them with.
i. The teachers did not personalize very much, nor did they spend much time on establishing and maintaining effort.
j. Most of them already had experience of teaching small groups of 8 – 12 students.
Lee (1959) examined whether the irregularity with which English is spelt can be an important cause of reading difficulty. For that purpose he analyzed the errors of 200 children in England and Ireland in reading specifically selected words in context and in isolation to determine the proportion of errors made on more regularly and less regularly spelled words. The data revealed slightly greater difficulty with the more irregularly spelled words in context. The tendency to error was increased slightly when words were presented in isolation. Lee concluded that irregularity in spelling was a cause but by no means a major cause of difficulty, particularly when words were taught initially be a ‘wholes method’.

Coleman (1968) examined 87 children studying in Grades 1-6 having severe deficits in language arts and reading performance for visual and visual-perceptual dysfunctioning. He found that 70% of the group were boys. Refractive errors were found in 19 percent of the subjects-while visual-perceptual dysfunctions were found in 30%. From the high incidence of these defects, the author makes a plea for the early identifications and treatment of such conditions.

Lewis and Lewis (1964) made an elaborate analysis of the errors in the formation of manuscript letters by first grade children in order to find out which manuscript letters are difficult for them. They found (a) considerable variance in incidence of errors among the letter forms: errors were most frequent for q with g, p, y and j; (b) Incorrect size, incorrect relationship of parts and incorrect placement relative to the line were the most common type of errors; (c) most frequent errors were found in those letter forms in which the curves and vertical lines merge: J, U, f, h, j, m, n, r and u; (d) there was greater incidence of error in free writing than in copying letters.

Russell (1943) studied the relationship between spelling with other factors in the second grade. He found a correlation of 0.88 between spelling and word recognition and 0.80 between spelling and paragraph meaning.
Radaker (1963) investigated the effect of visual imagery upon spelling performance. The specific hypothesis tested in the study was that children who receive training in the creation of images will score higher in spelling activities. It was concluded that imagery is successful in improving spelling performance over longer periods of time.

Nancy Wood studied 100 case histories of children between the ages of six and nine years to test the relation between agraphia and backwardness. The cases observed included 69 boys and 31 girls supporting the earlier studies that such handicaps were more common among males. In activities such as writing or drawing, 73 were exclusively left-handed, 6 ambidextrous and 21 right handed. Reversals and/or inversions of writing symbols were found in 59, suggesting that cerebral dominance problems were prevalent in the cases studied. Delayed speech and language development was reported in 72 cases and 20 were reported as behaviour problems in school.

Tordrup (1966) studied the reversals in reading and spelling. He further investigated whether the same persons will make the same reversals in the same words when going through different reading and spelling processes. He found that reversals have been connected with instability of hemisphere dominance and with a ‘directional confusion’. The basis of the reversals is phonetic rather than motoric. The contributory factors to reversals ‘identified by him are: (a) dependence on the visual and auditory structure of words; (b) dependence on the presentation of the words, on the reading and spelling processes involved.

Schonell reports the calculation of English (as mother tongue) Quotient and Arithmetic Quotient, interpreted in relation to Intelligence Quotient. On the basis of such analysis he notes that whereas 7.2 percent of the backward pupils can be classified as dull (low in I.Q. too) 4.2 percent are supernormal in intelligence i.e., their intellectual powers are superior to their
scholastic achievement. Illness or emotional handicaps have prevented them from making school progress commensurate with their intellectual ability. They represent cases of improvable scholastic deficiency.

Retardation is a state of improvable scholastic deficiency. It may be found in dull, normal or supernormal children. Laziness, lack of interest, personal conflicts, lack of cooperation with the teacher, nervous tension, personal anxiety etc. are some of the forces preventing the child from realizing fully his intellectual potential. Retardation may be general or specific. The specific forms are most pronounced in bright children.

Deficiency in reading can be crucial because it can affect progress in all subjects. Hence Schonell devotes much attention to diagnosis of errors in reading. In the reading of English, and most other languages of the world, a left to right attack is a prerequisite to reading. But many pupils are lacking in this. Some even start at the middle and work either to right or to left in perceiving words. Schonell observes that, “Of all pupils who exhibit sub normality whether intellectual or emotional, within the school or without, the specifically backward appear to receive the least effective attention”. But it should also be understood that not all specific backwardness is curable.

Cyril Burt was one of the earliest to give a clear diagnostic analysis and modes of treatment for the Backward Child. His analysis of diagnosis of backwardness has been ably summarized by his followers, particularly Hughes and Hughes (1964) and others. The main factors in this diagnostic analysis are:

1. Child’s intellectual level (I.Q.)
2. All-round or specific backwardness
3. ‘Eye-minded’ or ‘ear-minded’
4. Child’s difficulty in remembering - immediately, after and interval
5. Bad home conditions (inadequate sleep, fatigue from excessive home duties, friction between parents, over-indulgence, undue severity etc.

6. Unsatisfactory physical conditions (under-nourishment, eye defects deafness etc)

7. Signs of a normal emotional tension (stammering, left-handedness twitching, excessive fears, lack of concentration, laziness, inability to play, crying easily)

8. Unsatisfactory school conditions (frequent absence from school, absence in critical times - e.g. when the first lessons in reading or writing were given, frequent changes of teacher, unwise promotion too rapid or too slow, unsuitable work.).

Brueckner and Bond (1935) have analyzed the factors associated with language difficulties categorized into: personal-social and instructional. The personal-social factors include:

a. physical immaturity and defects
b. low mental level and intellectual immaturity
c. low vocabulary and speech development
d. emotional tension and drawbacks
e. speech and expressional defects
f. lack of knowledge about specifics of written or oral expression, low comprehension, low spelling ability
g. limited background of social experiences
h. failure to appreciate social standards of expression
i. unfavourable environmental influences contributing to incorrect forms of speech.

The instructional factors include:
(a) non-inclusion of social situations that motivate the learning and expression of language

(b) content that is too difficult or ill arranged

(c) undue emphasis on formal aspects of expression (d) obsolete procedures, materials, content

(d) failure to use specifics that may be the source of difficulty (f) unskillful or ineffective teaching

(e) lack of proper diagnosis

(f) use of mass methods of teaching

(g) inadequate instructional materials

(h) goal not adjusted to capacity of learner.

Schonell’s contribution is analyzed in detail because after Cyril Burt, his contribution is most substantial. He sees the problem of backwardness in school as part of the larger problem of individual differences among children. Formerly inability to progress normally in schoolwork was attributed to laziness or lack of intelligence. More recent research suggests that the explanation is more likely to be found in a study of the pupil’s entire personality. The failure to maintain a standard of scholastic progress compatible with intellectual capacity is associated with intellectual, emotional, physical and environmental factors. Security, social contact and a measure of success are the usual nutritives for normal growth for the expressional life that is the principal force in child development. The factors stated above are interdependent. If a pupil is especially interested in a particular school subject, his output of intellectual energy in that subject is likely to be increased by virtue of the emotional incentive. Scholastic failure is regarded as a psychological failure.

Among the factors causing backwardness, intellectual factors are discussed first. While stating that degrees of intelligence could be included
under educational attainment and excluded from innate equipment, Schonell is quick to add that an open mind should be kept on the question of inheritance and acquirement of characteristics - physical, emotional and intellectual. Emotional attitudes once regarded as inborn have been shown to be simply conditioned states that can be traced to early environmental experience. In the matter of specific attitudes too the direct inheritance is of very doubtful certainty. Taking all factors into consideration, Schonell concludes that ‘specific educational disabilities do not very often result from inborn factors’. On the other hand some schools, particularly the behaviourists, tend to minimize or neglect the effect of inborn conditions upon the mental and physical make-up of the child. They tend to ignore the evidence that monozygotic or identical twins brought up in very different environments are alike in general intelligence.

Odlin also analyses contrasts in phonetics, phonology and writing systems. As the phonetic analysis will be too intricate for the present study, only the contrasts in writing systems is reviewed. He notes that much of the negative transfer evident in misspellings has its origins not in native language orthography, but in native language pronunciation. Successful reading and writing also presuppose a certain mastery of encoding and decoding skills. Such skills involve not only individual symbols but also systems of symbols. To become literate in an alphabetic system, one must come to recognize the correspondence (however rough) between letters and phonemes. To become literate in a syllabic system such as the Vai script in West Africa, one must recognize correspondence between written symbols and syllables (Scribner and Cole, 1981, received separately) and to become literate in a so-called ideographic system such as Chinese, one must recognize the correspondence between written symbols and morphemes (Coulmas, 1983).

Dulay and Burt (1974) and Krashen (1981) have argued that transfer plays only a minimal role in the acquisition of grammar and that second language acquisition is essentially not different from child language acquisition. Dulay and Burt saw in the results of their Spanish and Chinese
study evidence that universal cognitive mechanisms are the basis for the child’s organization of a target language and that it is the L2 system (target language) rather than L1 system (native language) that guides the acquisition process.

George and Louise Spindler’s (1994) study on “Getting along in Remstal” is reviewed here because it brings out the contrast between a simple entrepreunual culture and modernized, bureaucracy-preparatory culture - a typical problem faced by many Muslim pupils in school. Remstal is an area in Germany consisting of 21 communities ranging from very small villages to midsize towns, but it is rapidly urbanizing and modernizing. One tool used in the study consisted of some 30 line drawings of significant activities (occupations, houses, social situations, clothes, recreation and places) in which a person may engage or conceive of engaging in. These are clustered round two poles - traditional and modern increasingly urbanized way of life... The technique is *emic* in its evocative stimuli but the underlying model or theory of relations (*etic*) remains constant. The enduring self is clearly ideal-romantic represented in choices of Weingartner, Selbständiger (independent small shop owner), the Grossbauer (big farmer), the kleinbauer (the small farmer), the quiet evening at home, the traditional Fachwerk (open-beam structure house), Weiniese (grape harvest) etc. The pragmatic style is represented by the choices expressing the situated self, modern row house, white collar work, factory jobs, machinist and technical draftsman trades. The images and values associated with it are physical comfort, convenience, shopping, access to entertainment and medical care, regular income, paid vacations, less hardships and clean work. The Instrumental Activities Inventories (IAI) elicit data that seem relevant to concepts of self and personhood.

The cognitive management of these two opposing selves and supporting clusters (traditional versus modern) was the primary task the children learned in school and that the teachers and parents taught. The Spindlers think that the enduring self is related to the traditional Swaebish
culture in Reims valley. Children speak Swaebish at home, but can handle hoch Deutsch (high German). But teachers teach in hoch Deutsch except when speaking to very young children who have not yet been inducted to hoch Deutsch at home. Thus the school tends to orient children to the modernized culture and “instrumental competence” to cope with the new set-up. But minority children often fail to acquire instrumental competence in test-taking. They fail to understand the significance of time in testing, the need for hurry and tensed, focused excitement (even anxiety), the skills and motivations necessary for getting one’s control of the content to be tested (and then letting it drop), and the whole pervasive complex of configurations of test-taking in school (in quite artificial conditions). The Spindlers argue that cultural therapy is relevant in these conditions for both teachers and pupils, even in a changing culture.

Finnan presents a case, “Studying an Accelerated School: School-wide Cultural Therapy”. [In George and Louise Spindler (1994)], which is a success experience, eliminating the low track classes and helping everyone to do one’s best. The specific question with which the study opens is whether school culture is a barrier to school reform. School culture is understood as that web of understanding that is agreed upon by members of the school community, protects the status quo by blocking or watering down change efforts. This has been true especially when interventions have been designed to create specific changes, but not designed to work with the existing school culture. The present case is that of Calhoun Middle School, a school community interested in changing its own culture. The intervention attempted is that of The Accelerated School.

Greenfield (1972) presented a classification task (not dissimilar to the one used by Luria). Schooled and non-schooled children differed systematically in some of the ways they grouped objects together and how they talked about their grouping. Greenfield interpreted these differences as due to the schooled children’s capacity for context-independent, abstract thought. They linked this thinking to literacy by a series of propositions about
the nature of oral and written language: whereas oral language relies on context for the communication of messages, written language requires that meaning be made clear, independent of the immediate reference. Greenfield concludes that societies with written languages provide the means for abstract, decontextualized thinking.

3. **Cultural deprivation and Backwardness in Studies**

Deutsch (1963) in his examination of homes in depressed areas finds few educational objects and a general absence of parental stimulation appropriate for cognitive, perceptual or verbal development.

Deutsch (1967) found that lower class children, compared to middle class children become progressively less able in formal language skills. Structured language teaching can be particularly successful, at least in the short-term, with disadvantaged children.

Deutsch (1967) shows on the basis of studies that language is a mediator of intellectual and academic development as well as a consequence of mental growth and hence the limited language development of disadvantaged pupils impedes school learning. Results from an elaborate testing programme of 127 first graders and 165 fifth graders, stratified by race and by class, showed each of these stratification factors significantly related to linguistic competence more powerfully at Grade 5 than at Grade 1. These findings help to explain the ‘cumulative deficit phenomenon’ and suggest the need for testing the possible remedial effects of various compensatory language programmes.

Donna Richard et al (1988) conducted a project to determine factors that contribute to the academic success of educationally disadvantaged vocational students and to develop a plan that will enhance success of persistent non-achieving students in the future. Educationally disadvantaged students at Mountain View Community College (Texas) were divided into two
groups, namely, the Persistent Non-Achievers (PNAs; N=150) and the Persistent High Achievers (PHAs; N=192). Among the reasons given by PNSs for their low grade point average were poor time management and lack of good study habits.

Hunt (1967) presents evidence for early experience having a crucial effect on the later cognitive as well as emotional development of the human organism. He stresses the importance of learning experiences which will “foster the development of semi-autonomous central processes that can serve as imagery representative of objects and events and which can become the referents for the spoken symbols required... in spoken or written language.” By providing graded materials and learning tasks each child may select his activities on the basis of his intrinsic motivation and his level of ability.

Genesse (1994) presents immersion programmes which include second language instruction that is integrated with instruction in academic or other content matter. He presents the following three lessons for second language instruction that can be gleaned from those findings: (1) instruction which integrates content and language is most effective; (2) instruction that encourages active discourse among learners and between learners and educators is most effective; and (3) language development should be integrated with academic development to maximize language and learning.

Sawyer (1999) conducted an exploratory case study which examines the perceptions of parents, teachers, students and principals on eight factors of school effectiveness. Findings in the study confirm that the following characteristics are likely to result in high achieving school: strong parental involvement, strong school leadership, high teacher expectations, a safe and orderly environment, time on task and opportunity to learn, monitoring, school mission and resources. This includes bringing the entire community together to create a caring school community for students and parents from
disadvantaged backgrounds. Results also highlighted the importance of student self esteem, flexibility, commitment and group efficacy.

B. STUDIES IN INDIA

1. Studies on Error Analysis and Diagnosis-Remediation

Sankaran Nair (1956) carried out a study in Birmingham on the nature of spelling mistakes the native children made. The test was applied on similar lines to the children of Model High School, Thiruvananthapuram to make a comparison between the English and Indian children. He found that there was nobody who made no mistakes. Also, the average number of mistakes was about the same.

Srivastava (1957) collected 1500 mistakes in English usage made by L.T. students in essays written by them in a selection test. The study revealed that about 25 per cent of the mistakes were in the use of tenses, verb patterns, number etc.

Shah (1963) made a quantitative and qualitative study of the errors in 92 answer scripts of English Paper I of Higher Secondary Examination in Delhi. The analysis revealed that errors of grammatical structures were predominantly pronounced in those pupil’s writings.

An analysis of errors occurring in the answer scripts of pupils at the Higher Secondary level was made by Dave and Saha (1974). For convenience the areas of investigation were restricted to errors of grammatical structures, errors of words, phrases, idioms, errors of punctuation and errors of spelling. It was found that errors of grammatical structures were predominantly pronounced in the pupils’ writing with spelling errors coming next. Misuse of idioms and usage and lexical errors found the third place.

The common language difficulties in English of Secondary school children in Kerala were studied by Nair (1974). Pupils of 46 schools were
selected and 1762 scripts of free composition on the subject ‘Our Country’ were collected. The analysis revealed that more than 60 per cent errors occurred in the grammatical structure. The cause of the errors was found to be the influence of the mother tongue.

Sinha (1974) carried out a project with a view to identify exactly which areas of English language needed most attention for remedial at the Pre-University and first year stages. About 1000 scripts of the candidates of intermediate and higher secondary classes were analysed. The errors were in the areas of verb formal patterns, verb usage, prepositions, determiners, etc.

In the composition of Hindi speaking first year B.A. students aged 17+, Bhatia (1974) made an analysis of errors. In the mechanical error category (i) verb form and tense sequence (ii) articles (iii) agreement (iv) preposition were ranked in the descending order of percentage. Drills based on repetition, substitution and transformation have been suggested to remedy deficiencies.

Padmanabhan and Visvesvaran (1975) conducted a diagnostic study of the common errors committed in the questions in English. The sample of the study was students of standard XI. It was found that questions which involve the use of ‘do, does or did’, questions which open with ‘need, dare, ought’ etc. are wrongly formed by the pupils. They suggest corrective measures also.

Paulose (1975) made a study to locate common errors in written English committed by secondary school pupils. He concluded that lexical errors showed the highest percentage of incidence and that girls commit significantly less errors than boys.

A study was undertaken by Parasher (1977) to identify some of the errors made by a group of 100 first year students of Madhyapradesh in the
selected areas of English grammar. A total of 216 errors were recorded in the omission of one or more of major constituents; 178 violation of subject verb agreement rules were discovered; errors in verb forms and patterns, errors in the use of auxiliary, tense etc. were ranked according to their relative frequency. It was observed that verb forms and patterns, tense usage, auxiliaries and articles usage showed a large number of errors than other areas.

Martha (1977) conducted a study with a view to find out the different types of errors, their relative frequency, the social background of the pupils and its relations to the errors etc. Khasi speaking learners were the subjects of the study. Errors describable in terms of the tense, inflections of verb, inflections of nouns and the concord between the headword and the modifier constituted a very high percentage.

As a result of the study conducted on the Punjabi speaking learners of English, Bakshi (1978) concluded that in error analysis inter language is a broader theory as it is the only hypothesis which can account for inter-lingual, intra-lingual and developmental errors. It was observed that the students over generalized the rules of English syntax owing to inter-lingual and intra-lingual interference. Apart from grammatical errors, the students also made errors in expressing the pragmatic notion of time, place, direction, etc. It was also noted that students employed the studying of simplification and the process of backsliding.

Philip (1980) carried out a study of the types of errors committed by secondary school pupils with reference to certain selected structures in English, with a view to determine the nature and incidence of errors and to classify them. His study revealed that there is significant relationship between sex of the pupils and magnitude of errors committed in the case of majority of the structures. It was observed that there is no significant relationship between (a) location of schools and magnitude of errors, (b) type of management and magnitude of errors.
The results of a psycholinguistic experiment carried out by Anasuya Pal (1982) is reported. The experiment was carried out to teach remedial English to a class of 37 college students from Telugu medium class in Hyderabad. The known areas of weakness for the students of English as foreign language were taken. The areas were (1) simple present / present progressive, (2) present perfect / simple past and (3) simple past / past perfect. The class was divided into two groups for a diagnostic test and they were taught separately by deductive and inductive approaches. The group taught by Deductive method was found to be performing better.

Mohammed (1983) conducted a diagnostic study of errors in the written English of pre-degree students. The major objectives were to find out the percentage of incidence in the select seventeen grammatical areas of English and to suggest corrective and remedial measures. The study revealed that the proportion of errors in the written English of an unselected sample of Pre-degree pupils are significantly influenced by the following three categories of variables (i) Institutional variables, (ii) Educational variables and (iii) Personal variables. It is also found that the proportion of errors has negative correlation with (i) English language achievement (ii) Intelligence (iii) Socio-economic status, (iv) Domestic facilities in learning English. The highest percentage of errors is in the area of English Tenses (82.28%) as revealed by the study.

A study by Desai (1986) of diagnosis of defects in language ability of children studying in standard IV has been reported. The major findings are (1) most of the defects in language learnt during the first three years of the primary school comprised errors of spelling, missing letter while writing, bad handwriting, faulty pronunciation, wrong forms of tenses in verbs and of participles and lack of knowledge of how to transform sentences (2) It was observed that weak teaching or total neglect of teaching in some schools was the main cause of wrong learning.
Surajbabu (1986) conducted a study on the effectiveness of programmed instructional materials in teaching English grammar at the B.Ed, degree level. In order to find out the areas of weakness, a diagnostic test was administered to 100 B.Ed. students. The scores of the diagnostic test revealed that the students were very weak in the areas of tenses, participial phrases, passive voice and co-ordination. The students committed a very high percentage (76.00) of error in the use of tenses.

Supriya (1986) made an analysis of errors in the written English of secondary school Pupils. The main objectives were (i) to find out the percentage of incidence of errors in written English committed by secondary school pupils and to rank them for the total sample and sub samples (2) to compare the percentage of incidence of errors of relevant sub-samples. The findings were reported as (1) of the nine English structures and one each in the language skill and lexical item selected for the study, question tag was found to be the most difficult item for secondary pupils, (2) locale of the secondary pupils and the medium they opt for the course of study were found to be associated with committing errors. Urban and English medium subjects were found to be committing less errors in written English than their counterparts, and (3) sex of the pupils is found to have no association with the incidence of errors.

In 1986 Leela Devi Amma conducted a ‘Study of the Errors committed by secondary school pupils in written Hindi with reference to certain selected structure. The main objectives of the study were (i) to identify the errors committed by students of standard IX in 18 structures included in the study with respect to the total sample and the relevant sub-sample (ii) to arrange the structures in the order with respect to the incidence of errors and (iii) to compare the incidence of errors among the relevant sub-samples. The major findings were:

i) Incidence of errors were found with respect to the structure voice (87.77%). The minimum error was seen in the case of spelling (24.79%), (iii)
For the total sample, one out of the 18 structures selected falls under the category of extreme seriousness. Five structures fall under the category of average seriousness.

Ramani (1987) carried out a diagnostic study of errors in written Hindi committed by the university entrants and the results revealed that the maximum percentage of incidence of errors was observed with respect to ‘translation’ (79.6%) and the minimum error was seen in the case of imperatives (17.4%). Errors in ‘voice’ and ‘auxiliary’ are second and third respectively.

In her study, Devaki (1988) has pointed out that conjugation is the most difficult area in Sanskrit for the secondary school pupils. Also the percentage of incidence of errors is high in all areas for the total sample as well as for the sub-samples.

Vasudevan Nair (1989) conducted a diagnostic study of the errors in written Hindi by the upper primary students with the main objective to identify the percentage of errors in the select scripts, structures and translation in written Hindi for the total sample and the sub-samples. The findings revealed that the percentage of errors for the total sample ranges from 52.5 to 11.4. The percentage of errors in ‘Post position’ is found to be the highest and in ‘scripts’ the lowest.

A study of local errors in the Kashmir region in the undergraduate English courses was carried out by Aslam (1989). The categories of errors studied were concord, preposition, spelling, articles, syntax and relative clauses. In the use of simple past and simple present tense there were high percentages of errors.

Nandakumari (1991) carried out a diagnostic study of errors in written Hindi. The subjects were the secondary school students of the central schools in the Madras region. The major objectives of the study were
identification of major errors, classification of the errors to functional, grammatical sub-skills, determination of the source and cause of the errors and finally suggesting remedial measures. The results revealed that in the area of parsing the students had made 97.5% error. Use of verb patterns and change of voice are other major areas with high percentages of errors.

Ghosh (1977) carried out a study of backwardness in English in the secondary schools of West Bengal among the pupils of Classes II to IX involved (i) Construction, standardization and administration of an attainment cum diagnostic test in English; (ii) Finding the teachers’ rating on the causes of backwardness and (iii) Understanding case study of randomly selected samples to determine the causes of backwardness. The study concluded that 32 to 34% of children of West Bengal schools were backward in English. Backwardness in different aspects of English in order of their intensity were noted in the use of capital letters and punctuations, comprehension, usage, spelling, vocabulary and sentence construction. The causes of backwardness were identified as unscientific curriculum, lack of attention at home, unsuitable teaching method, poverty, absenteeism, want of necessary books and teaching aids and substandard attainment in English at primary stage.

The ‘result of a psycho-linguistic experiment carried out by Anasuya (1982) is reported. The experiment was carried out to teach remedial English to a class of 37 college students from Telugu medium class in Hyderabad. The known areas of weakness for the students of English as foreign language were taken. The areas were (i) Simple present - present progressive; (ii) present perfect - simple past and (iii) simple past - past perfect. The class was divided into two groups for a diagnostic test and they were taught.

Rekha’s (1995) investigation into the Errors committed by Vocational Higher Secondary Students in the use of English tenses with a sample strength of 400 students reveals that (1) in all the tense form uses there is a
high percentage of errors (i.e. 55.05% for past continuous to 71.21% for future perfect tense). 71% of the sample commits errors in the use of English tenses. (2) Family related variables including good facilities for learning English are found to have negative influence on the proportion of errors.

She proposes the following remedial suggestions:

1. Teachers should be aware of the remedial instructions to perfect the process of learning and they should have clear-cut instructional objectives.

2. The acquisition of second language skills is a sequential and cumulative task. So the students also must co-operate with the remediation programmes.

3. Cognitive approaches and mastery learning approaches are to be practiced.

Rajappan Nair (1961) analyzed 400 papers of pupils of Chalai High School, Trivandrum from the point of view of errors in Hindi. The major findings arising from his studies are:

1. There is negative correlation between spelling disability and achievement in Hindi.

2. There is no correlation between the number of words used and the number of spelling mistakes committed.

3. Girls are superior in spelling ability, both among pupils studying in Malayalam medium and Tamil medium.

4. Tamil pupils are not handicapped in studying Hindi, but they have some peculiar difficulties.

5. Substitution of letters is the major type of error in all the groups.
GCPI, (1981) conducted a diagnostic study of the errors committed by Grade VI students in oral reading of Hindi language and to suggest possible remedial measures to improve upon them. The sample of the study consisted of ten students of grade VI who had scored very low in the oral reading examination. Data were collected with the help of records of the students’ scores in half yearly examination, eight remedial test papers for different stages and appendices from the text books for Grade III, IV, V and VI which included content for all ability levels. The students’ oral reading ability was tested on the basis of results of tests results for speed, fluency, punctuation, pronunciation, meaning, emphasis and stress, accent etc.

A study was conducted by Kelu (1989) on some socio-familial correlates of basic language skills in the mother tongue of secondary school pupils of Kerala. It was revealed that socio-familial variables are correlates of basic language skills.

Three Indian studies are singled out and presented separately because they are closely related to the present study. Some of the analyses, approaches and tools were helpful in suggesting the methodology for the present study.

2. Studies on the Disadvantaged

Sachchidananda in his Trend Report in the Fourth Survey of Research in Education (Buch (ed) 1997) reviews earlier research (besides doctoral / project studies) on the tribals and other disadvantaged sections. He cites Professor Fürer Haimendorf (Indian Journal of Social work, 5:2, September 1994) pointing out the need for educational programmes for tribals to be in consonance with their habitat, economy and culture and the anthropologist Chattopadhyay’s (Man in India, 33:1) laying special emphasis on linking agriculture with education in the school curriculum at the elementary stage and discussing the problem of medium of instruction, script, methods of teaching, types of schools, training of teachers etc, for tribal education.
Singh (1981) concluded from a study that the majority of scheduled caste students suffered from anxiety, uncertainty about future, unpleasant dreams, inferiority, in decision, concern about retention of scholarship etc. The teachers also felt that they suffered from inferiority complex. The study suggests that special scholarships be given on the merit-cum-economic basis.

Shivashankara’s (1981) study of the psychological factors and academic achievements of socially disadvantaged yielded the following as the variables that influenced the socially non-disadvantaged group: study habits, achievement motivation, intelligence, adjustment and school adjustment, whereas the variables which influenced the socially disadvantaged group were intelligence, personality adjustment and school adjustment.

Koul (1983) conducted case studies of scheduled tribes failure students and arrived at the implication that teachers working in the tribal areas of the state should be trained “to identify tribal children with low intelligence and low creative thinking to form sub groups which are homogeneous with respect to cognitive abilities and to make use of instructional materials which have been found to be effective in the development of combinatory thought processes underlying intellectual development.” He also recommends that

1. school curriculum should be related to cultural needs and aspirations of tribal communities in order to prevent alienation through the process of education.

2. more incentives in the form of stipends, scholarships, free books, clothes and mid-day meals need to be extended to tribal children for their retention in schools for longer duration by reducing the burden as parents and resisting the temptation to them to avail of the services of their children at home during school hours.
3. efforts should be made to establish community education centres in the tribal areas with facilities of radio, television and newspaper, along with reading materials to compensate for poor home environment.

The findings of John (1963) lead her to conclude that the acquisition of more abstract and integrative language seems to be hampered by the living conditions in the homes of lower class children. This is supported by Bernstein (1962) who finds less language facility among the lower class.

When the culturally deprived child goes through school, his deficit relative to his middle-class counterparts becomes cumulatively greater. Krugman (1961) and Deutsch (1964) have provided evidence for the accumulation and worsening of the deficit. Schooling tends not to improve the situation by providing the necessary skills, attitudes and values upon which learning is based, rather the deficit becomes greater and greater as the years of education proceed.

C. THREE STUDIES DIRECTLY LEADING TO THE PRESENT STUDY

1. In her study on *the Effectiveness of Graded Reinforced practice as Remedial Instruction with Reference to Errors of word order in English of Standard X Students*, Manju (1996) noted that high school pupils even of the 10th std do not have effective control over some of the simplest syntactical structures, such as

   (1) **Noun** → **Verb** sentence pattern
   (2) same with adjective before noun;
   (3) same with article before noun;
   (4) Same with **article** → **adjective** before noun;
   (5) **Noun** → **Verb** → **complement**
   (6) **Noun** → **Verb** → **object**
   (7) **Noun** → **Verb** → **adverb**
In patterns 5, 6, and 7 above the Malayalam word order is different and hence errors in these can be understood on the basis of contrastive structures. But many children made mistakes even in the simplest Noun Verb pattern which is identical with Malayalam. This can be understood as the pupil getting completely confused by the very discrepant word order met with in English, that he loses even what is identical in Malayalam. Hence graded materials were used as experimental intervention in her study. Even the simplest NV structure had to be brought back using cricket examples which the boys fully understand.

“Srinath bowls”, ‘Azharuddin bats’; Tendulkar is short”

For children even the words like subject (noun), verb etc. do not give clear meaning, these examples give functional meaning immediately, because the cricket fever has caught up in Kerala. They have no difficulty in putting the person first and then action (bowls) next. Gradually the practice with sentence using the context of the English text book were introduced in the intervention programme so that pupils were brought close to the text books prescribed for their study.

The method adopted for the intervention programme was different from the usual practice of classroom learning. Unlike the traditional classroom where teacher was speaking most of the time, in the experimental class action was designed in such a way that most of the time the pupils will be doing some activity both mentally and physically. For each bench a cardboard was given with slits where pupils were able to fit in thick strips. For the noun-verb construction of sentences, they were given two sets of strips, one having a series of nouns and the other a series of verbs. The multiple series in the noun set and the verb set and the mixed up order of words forced the pupils to think, try to understand the meaning and do the matching. The words were drawn from familiar everyday life situations and quite easy ones, pupils were able to work with them with involvement and meaning and match them correctly without much difficulty. Any pupil making
mistakes was corrected immediately by a brighter pupil in the same bench or by one of the three persons observing the pupils at work. Later textual content was also introduced in the game. When they matched each item correctly they were asked to write them down so that they get reinforced practice in the examination—like tasks and natural writing. Here the ‘little linguist in the head of the peoples as Sharwood Smith points out is active and helps to reach the target.

The sample for the experimental study included 83 students from two divisions of Standard VIII of St. Joseph’s H.S. Mathilakam. For the final study a sample 32 students of Standard X of the same school was chosen. The following are the findings of the study.

1. **Background analysis:** Preliminary to the experimental procedure some observations were noted at through informal analysis and surveys.

   a. There is a sudden leap in structural and vocabulary load in English from standard VI when many teachers started giving the situational approach and resorted to question-answer drill as the major device.

   b. Teachers tend to cover the portions with a quick reading of the text followed by question-answer, usually written on the blackboard as preparation for examination.

   c. There does not seem to be any progress in the functional command of English as the student goes up the grades.

   d. Bulk memorization of complex matter without reinforcement doesn’t help in ensuring progress. The methods of rote memory seem to fit the memorization of nonsense syllables, and not meaningful learning, for which Ebbinghaus formulated the laws of remembering.
e. In the ordinary class only the few pupils who could give some answer seem to get a feedback. There is no diagnostic analysis, and feedback is not available for the weak pupils who really need it.

f. There is a focus on total product learning, there is very little emphasis on process. The practice of breaking up complex units into steps which the weaker children can master is conspicuous by its absence.

g. In the average classroom there is very little time for the teacher to give graded reinforced practice.

h. Even when the pupils practise, they do it without real involvement in the task.

2. In the light of the background analysis given above graded structures were identified with reference to word order were subject-verb-object; noun-verb-article-object; noun-verb-preposition-noun-noun-modal verb-verb; noun-verb-adverb; and noun-verb-article-adjective-noun.

3. The error patterns in the most basic structure noun - verb include:
   N - V → V - N, N - Art – V, V - Art – N, V - N – Art, Art – V – N etc. This involves inversion as well as unnecessary addition. Similarly the larger variances of errors branching from the longer structures are analyzed and presented in tables in Chapter V.

4. It is also discovered that the maximum reduction of errors is with reference to the simplest structure - Noun – Verb; Noun- Verb (be) – Adjective and the most difficult item Noun (subject) – verb – Noun (object) Adverb.

5. The admission of the attitude questionnaire revealed that the pupil were interested in and happy and satisfied with the nature of the programme conducted. They found it useful and helpful in understanding simple sentence structures as well as in developing confidence to construct simple sentences. They expressed their willingness to attend such
classes again. Nearly 95% of the pupils expressed a favourable attitude towards the programme conducted.

In the final experimental study Manju found that the post-test scores were significantly higher in terms of reduction of errors. Besides the quantitative result from the statistical analysis, qualitative analysis of the curves revealed criminality in the post-test graph, revealing sudden improvement and fast coverage of cumulative deficiency.

2. Christina Augustine’s study (2002) on Development of models of effective study habits of high school students with special reference to disadvantaged sections is reviewed in more detail than the studies reviewed so far because it embeds most of the theories and practices adopted in the present study.

She starts with the definition of ‘the student’ as one who is able to study independently. But in actual practice ‘learning to learn’ skills are neglected in schools. The school deliberately trains the pupils in dependency in learning. The undue concern with showing results in the final examination further aggravates the situation and changes the schools into coaching shops. Thus almost every pupil becomes disadvantaged from the point of study habits. But even these coaching methods do not work with the disadvantaged pupils. They go out of the school as failures, alienated persons. Even their self-concept is shattered through the experience of schooling. It is this existential situation that triggered the selection of this problem for investigation.

Following the practice of most theorists in the area, ‘study habit’ is used to cover a family of habits including motives, habits, skills, values, strategies and other relevant factors.
The study uses a high density of qualitative approaches in addition to the two major surveys. It is from the participatory analysis that some of the most effective constructs were developed for overcoming the cumulative backwardness of the disadvantaged sections. Some of Manuel’s constructs in English, Mathematics and chemistry were tested in this study. In geography the investigator herself developed all the major constructs.

Two major quantitative surveys were also conducted (1) using a schedule administered to pupils incorporating a questionnaire and four scales (motivation, self-concept – general and academic, and alienation (N_adv = 488, N_disadv =1000); and (2) observation of teaching procedures from the point of view of using modern constructs (N = 100 observers (teacher educators/student-teachers briefed towards common understanding and observation frames)

The Findings of the study are grouped under three categories:

A. Disadvantages in study habits to be compensated (4 Categories)

1. The School Administration Factors include lack of facilities and equipment; non-use of even the available equipment; large strength; high proportion of low-achieving pupils, with several grade levels below the class where they are.

2. The Curriculum (specific) is highly abstract in science; mathematics and geography, taught in a ‘non-honest’ form relevant for the ordinary pupil in the ordinary school. Project work, even when given in the textbook is generally skipped by teachers. Many pupils find it difficult to cope with English, the problem more complicated by the type of books used for over a decade. The type of examination coaching rather than teaching complicates the issue further. So real competence is not developed in the vast majority. Animatory approaches are rarely attempted even in Malayalam.
3. Most of the General factors in curriculum transaction in the class (from observational data – Teacher schedule) presents a bleak picture with reference to modern approaches. Teaching is centred round the teacher, syllabus, textbook, final examination and questions given at the end of the lesson. It is least centred round student activity and growth, group interaction or life applications. The school trains the pupil to depend on the teachers, printed notes, question-answers copied from the blackboard or from other pupils.

4. Factors Specific to Disadvantaged Pupils (pupil schedule) include the following:

1. Lack of basic facilities in the home for storage of books, adequate lighting etc.

2. Lack of factors encouraging study at home, such as, elders who could clear doubts, helpful books. Time to do home work or to study, quiet atmosphere etc.

3. Need to work inside or outside home to supplement family income.

4. Active discountenance/ disturbance emanates from smaller children, elders, quarrels at home and in the neighbourhood, drunken father, even child abuse.

5. Inability to concentrate - due to non-understanding of the subject, worry about problems at home, feeling of tiredness, want of determination to study.

6. Extra classes in school in the morning and evening to improve results do not help them. They are irregular in attending school even during normal school hours on account of work at home and outside, financial worry, laziness, roaming about in peer company, intimidating attitude of teachers.

7. They are very irregular in doing home work regularly, the reasons being: various tasks at home, having none to clear their doubts and to show how to do the work, laziness, and the feeling that the teacher won’t check the note book. If they do the homework at all, it is largely by copying from others’ note books.
8. They have low job aspiration and low educational aspiration and achievement.

9. They have negative emotional correlates accompanying study - anxiety, disappointment, fear, sorrow etc. rather than hope, confidence, sense of achievement, positive expectation and joy while studying. [Qualitative participant observation showed the negative emotional correlates more intensely than the quantitative analysis of the written self-reports of the pupils.]

10. In classroom transaction they do not feel confident to ask the teacher if they have doubts and they have less chance of getting someone whom they can ask and clear their doubts (as compared to the advantaged group).

11. They have more chances of being the butt of some hurting remarks or scolding from teachers, or of being totally ignored as hopeless.

12. They do not follow effective study methods (such as SQ3R).

13. They are totally at sea with the subjects, especially the failure prone, difficult, abstract and symbolic ones. They depend on copying the exercises from others.

14. They have low self-motivation to study.

15. They have no interest in studies.

16. They have little sense of enjoyment which successful study can bring.

17. Most of them have low general self-concept.

18. Almost all of them have low academic self-concept.

19. They stand alienated from school. They believe that the school was not created for the like of them.

B. Types of the very disadvantaged for Focused study

1. Those coming from hilly area, some subject to earthquake, with even their habitat and existence threatened any time.

2. Those who have to cross steep hills and valleys, streams, rivers and lakes, traverse irregular paths over difficult terrain to reach school.
3. Those who have to travel long distances
4. Those living close to the sea-coast subject to sea erosion, with their huts threatened by the wind and the wave.
5. Those whose traditional means of livelihood are threatened by the development process (hill tribes, fishermen using traditional crafts and tools).
6. Those who have set up small huts near river banks, canal banks and even gutter banks, and who are marginalized in every way.
7. Those living in isolated areas - remote hill areas, islands reachable only by boats ('canal boat children; e.g., Kuppapuram, Aleppey).
8. Those who live in huts or low-cost houses - separately, in colonies, or in marginal extension of colonies - in city slums or in coastal slums, with poor sanitary conditions - where conflicts and drunken bouts are a daily feature,
9. Children of scheduled castes, still bearing the scars of oppression over the centuries, and now exploited in new ways - unable to set workable aspirations (vocational and educational) in the new set-up.
10. Children of scheduled tribes, bearing the effects of isolation, now being displaced from their natural habitats, and being exploited in different ways, and who have not adjusted adequately to the larger culture.
11. The culturally and linguistically disadvantaged.
12. Children of indifferent parents, of constantly quarrelling parents, in broken homes, of drunken fathers, of single parents, orphans.
13. The culturally different, e.g., Muslim children (especially the poor) who have not been able to integrate the bilingual (Arabic and Malayalam) schooling even from the outset - other educationally backward groups.
14. Children of migrant families, floating population, roadside workers etc.
15. Children of parents working abroad, getting adequate remittances, but not getting adequate discipline and guidance in the marginalized set-up.

16. Other cases of children and youth engaged in roaming about without purpose or wasting time in gossip etc.

17. Children in orphanages, especially those who are not able to adjust there.

18. Children in juvenile homes.

19. The girl child who has to bear the burden of domestic work, sibling care, and sharing the burden of severe family stress with the mother.

20. Children who work during the schooling period to supplement family income - or for their pocket money.

21. Children suffering from acute poverty, who don’t get even one square meal a day, particularly poor girl children who work most at home and get served last but one (mother) if anything remains.

22. Those living in politically turmoil zones - in the school itself, or in the immediate neighbourhood.

23. Children of marginal groups in state borders - sometimes employed in smuggling or other antisocial activities by underworld elements.

24. The physically and mentally handicapped are also given a glimpse.

C. **Models and Episodes**

The most important contribution in the study is the models of helping the disadvantaged through informal experimental interventions based on the positive constructs implied in the table given above, and now found to be neglected. The interventions are reported in the thesis as episodes. They were found to work in almost every case. The models which follow are given as the heading and the episodes/ data/ source below.
1. **General study habits as background model**

The basic ideas gleaned from Hedwig, Maddox, Menzel, Robinson, Riessman and others were interpreted in the Kerala context and applied in clinical encounters with disadvantaged pupils according to the situations that were offered.

2. **Humanistic models:**
   b. Confidence instilling models – setting the questions to pupil’s level/answer in the case of very weak students.
   c. Descending to pupils’ level and raising them up - use of specially prepared material in English, use of prerequisite texts (of the lower classes too) and specially prepared materials in mathematics.

3. **Learning Theory-oriented Models**
   a. Skinner’s operant conditioning and graded progress
   b. Progress by jumps, insights (Gestalt principles of similarity, contrast, contiguity, wholes).
   c. Advance or progressive organiser
   d. Patterns - Alexandra Kornhauser
   e. Piaget’s theory - construction of by the child himself of schemas.
   f. Environmental cognition experts going beyond Piaget, using child’s environment.
   g. Bruner’s presenting structure of the discipline in ‘honest forms’ - enactive - iconic - symbolic sequence, relevant for ordinary pupil in ordinary school.
h. Tolman’s theory of latent learning - years of futile rote learning suddenly showing a spurt when some meaningful organisation emerges.

4. _Linguistic and Cultural Gap – bridging models_: constructs to bridge gaps due to inconsistency in Malayalam terms, between Malayalam term and symbol or abbreviation.

5. _Animatory and creative models_: SINGLISH, enactive, dramatising models.

6. _Compensatory or therapeutic models_: drawn from child’s environment when possible.

7. _Compensatory social models_: to cover extreme poverty, drunken father, anti-social elements - harnessing social action.

8. _Activated / integrated primary education_: developing quality education from below

3. The study of Manuel (2004) conducted for the Centre for Technology and Development (CETED) a study on *Diagnostic study of the educational backwardness in tribal areas, with development of remedial models*, drawn wherever possible from their own environment and culture is the closest to the present study and is therefore reviewed most elaborately. The study was conducted with a project funded by the Scheduled Tribes Department of the Government of Kerala, because the results of the scheduled tribes students were much below that of the general populace in spite of the heavy investment put in by the Department.

The study was comprehensive, covering several causative factors and remedial; steps in the administrative, academic, cultural, economic and other fronts. In this review the general factors are curtailed to the minimum, and
only the factors dimensions directly relating to backwardness in English is focussed.

About two decades ago many of these children had to walk long distances to reach school from their colonies. The boys above eight and even earlier had to help their fathers in sundry occupations in the hilly terrain. The girls had to look after younger children and take up various domestic tasks. There was no one to help them in the home or in the community to help them with the academic tasks, especially in English. Then they started hostels, first for the girls and then for the girls too. First hostel life was found unpalatable, especially by the boys. Later they adjusted to it and now there is even demand for hostels. Even for the day scholars incentives such as lump sum grants, books, Guides, and other incentives were provided. Much of this money was used to meet the cost of the father, or for the whole family to go to cheap cinema. Later books were presented in kind. Then too some managed to sell them at a lower price. Hence economic incentives alone did not help.

Then tutorial system was provided in the hostels. Other coaching schemes were provided in the schools and camps. Many of them were based on crude models of pedagogy, not based on sound psychology or even on common sense. Results did improve, but more due to unbelievably liberal modes of evaluation than by the schemes. The directions of the Department of Education gave negative prescriptions such as: Cover the portions quickly, conduct extra classes, give more and more of drill etc., mostly designed to promote rote memory than to develop academic competencies in pupils.

Manuel’s study made a careful analysis and attempted to go to where the pupil was and invited him/her to construct his/her own learning based on minimal generative units. The models of Christina Augustine in collaboration with Manuel (see four to two pages back) were effectively put into operation in this study.
The study uses a high density of qualitative approaches: studying the pupil in the natural setting, contextualisation, using participative techniques, thick description, equality in research relationship, and design flexibility. Participant observation, interviews, case studies, analysis (documentary and situational), construction, criticism, informal experimental tryouts and synthesis were done. Validity and reliability are not tested through statistical coefficients; rather it uses notions of relevance, trustworthiness, transferability and authenticity. Validation is established through triangulation. Besides fairness, educational, tactical, catalytic and ontological authenticity was realised. The research also takes the shape of action research backed by deep theory and reflection.

The use of quantitative approaches was minimal. But purposive analysis of the text, other learning material, various contextual factors (which could act as scaffold to induce learning – like cricket for English) and other relevant facts in the pupils were carried out. Based on such analysis a vast amount of self-learning materials of a generative as well as graded type were prepared and kept ready for use as the context demanded – so that the cumulatively backward pupil could start from where he is and take up the responsibility for his own learning. This is quite in contrast to the prevalent coaching model in school where some expected examination-oriented items drawn from bazaar notes or other sources are drilled indiscriminately without necessarily drawing the pupil into the task or caring whether then pupil can internalise it.

Plenty of such success stories are available for science (especially chemistry), mathematics, geography and English. Of these some experiences from English alone are reported in this review. The specific findings, which worked with pupils who had cumulative deficiency carried over six or seven years, are reported later.

While Manuel was successfully developing methods which were working with cumulatively deficient pupils to learn English and other subjects
on their own, the cruder methods of coaching promoted by the State Education Department and the Teachers' Unions were taking a serious turn, especially in the tribal areas, fixing a dysfunctional coaching ritual which had the effect of preventing the student from learning by himself. The liberal grants for the Tribal Department and contributions from local sources enabled the running of coaching camps for three weeks or even more, where pupils will be provided with free food, stay and accommodation, electric light and other facilities to study. But a series of classes were fixed from early morning to late night to engage for which different teachers were paid by the hour liberally. Most of them gave talks, which is not the most effective mode for enabling pupils to learn to face an examination independently at this stage. Students who preferred to learn by themselves were pressurised to attend the camps, in which the Student Learning Time (as against Teacher-Utilised Time) was reduced to the minimum. Manuel had already developed a model in which self-learning bridge materials were provided for pupils to work by themselves and thence go to the real text. This was appreciated by many from the Tribal Department including E.G. Joseph, Tribal Development Officer, Mananthavady and Dr C.V. Ananda Bose, Principal Secretary to Government. But if they discouraged the camps as such, they would be misunderstood as not caring for the tribals. So Manuel himself wrote to Headmaster in the second week of February 2004 on study counselling especially in the camp. The main points are given below:

1. As the examination date approaches, it would be more effective to reduce the teacher input and encourage the pupils to take over. It would be most advantageous if teacher input is reduced to the minimal summaries or generative elements (from which pupils can themselves construct more items) or memory devices, and tips to answers, to be followed up by practice.

2. Many teachers, in their great concern for the pupils, find themselves talking for most of the time. The short span of time left for pupils, when divided by the number of pupils in the class will leave only a few minutes of actual practice time for most pupils and none at all for some. In fact about this time each pupil must be practising by his self-initiation to the extent of eight to ten hours a day with judicious pauses in between. Our concern to help them should not result in reducing the pupil’s practice time.

3. One reason why teachers find themselves explaining elaborately even till the end is that the response from the pupils to teachers’ questions is very poor.
But mass teaching for the n\textsuperscript{th} time followed by prompted reply in chorus, may not indicate learning, especially on the part of the very pupils who are lacking in the learning. In the SSLC examination, pupils will have to give answers individually to a written stimulus from the question paper without any prompt from the teacher. Practice in this kind of situation will help more effective use of camp time.

4. By this time the teacher would be well advised to be satisfied if a good proportion of pupils get a command of what he is explaining – even among the crucial points. Instead of repeating the points not-understood-by-all, and being satisfied with chorus answers, it may be a better strategy to divide the pupils into heterogeneous groups in which the weakest pupils will get individual attention and even the better pupils, the ‘teachers’ in the small groups, will get more practice, and mastery of the matter.

5. All pupils, the weak as well as the strong, would benefit by practice in trying to ‘seize’ a question, seen in print or in writing, trying to respond to it \textit{de novo} without referring to the answer written out already, and then checking with the answer that has been written out already. In observing students memorising question-answers, I (and some discerning wardens too) have noted that many pupils attempt to commit questions and answers separately to their memory register. It would be a better practice for them [after one or two intelligent reading of question and answers] to look at the question, cover the answer and attempt to recall the answer, and check with the old answers uncovered. If the pupils have answered at least partially correct first, it would be partial reinforcement. Even if the first attempt was a total blank, the pupil may study the answer with focus in the question-context. This is what a student is expected to do in the final examination – for which most students don’t have adequate practice. Their practice is often to a real or imagined teacher reinforcement – which is different from the examination context.

6. In fact pupils should be given practice detached from teacher support and related to written question stimuli [with self-check from past answers – teacher support called in as the last resort]. Use of camp time on such lines – of course with teacher initiation at first and general supervision by teacher - will help the pupils to achieve more, with less ‘teaching strain’ for the teacher. The teacher may use the time thus saved to observe how children learn and help them in their study habits and ‘test-response’ habits. This will help all children. The pupils will also help one another.

7. For this kind of practice, the short answer (and long question) type is most convenient. This is most natural in the ‘content subjects’ – science and social studies – but even in the predominantly skill subjects – maths and languages, pupils’ notebooks contain a number of such questions with short answers. They may read each question first, attempt to recall the answer, and then look at the answer and get the satisfaction of getting the right answers themselves. In the second attempt the whole chain of questions can be covered by this recall and check method.

8. Later the same technique may be adopted with longer answers. In English and Hindi special attention may be paid to the short segment in the answer that is not embodied in the question, and storing it in memory. In English there will be the additional difficulty that the position of this short answer to the question word may occur at a different point. If the pupil trains himself in looking at the question and getting the answer – reinforcing by reference to
the original, the points which often let down the pupil at the examination can be mastered.

9. With mastery in the short answers, the study of the essays can also be made easy, because the pupil would by now have mastered sentences, and note that some sentences repeat themselves in different essays. Thus larger segments also can be mastered and the pupil may be trained to intelligently tackle questions.

10. The same principle of pupils’ independent practice and reinforcement is even more necessary in skill learning, particularly in languages and mathematics.

11. In learning long answers in science, many pupils tend to memorise whole sentences without understanding. They may be advised to focus the principles and key points.

12. In mathematics, some pupils tend to group the formulae, identities etc. together and memorise them, often by rote. They often do not know which symbol stands for what. Some mnemonic connection of symbols, and applicational practice will help.

13. Symbolic understanding and storage is the most economic form, especially in science. It is worth devoting some time to master the symbols in economic ways – even at this stage.

14. Practice with diagrams and maps – including concept maps – is also a powerful help.

15. Pupils may be trained in quick overview of questions, starting with the best known and quickly answerable ones, in attempting all questions without much waste of time, and in effective and quick revision.

Some of these points would be relevant even under the new scheme (from SSLC 2005). But some additions will need to be made in the light of the possibilities and the distortions in the new scheme. Manuel’s preference is for generative approaches. But this is most effective with individual and small group approaches. In coaching large numbers – full class and more – some kind of behaviourist analysis with reinforcement model could be helpful. At the moment teachers talk, but do not get effective response from the pupils who most need to respond and get the needed reinforcement. But even such response-reinforcement materials, if graded and organised carefully in a way that evokes generation from within the child, can help the movement towards the higher models of learning – insight, constructivism etc.

English is perhaps the subject in which most pupils used to fail up to SSLC for want the minimum of 20%. It is assumed by many that low-achieving pupil were capable only of the lowest methods of learning and
incapable of exercising their higher mental powers. Hence select questions and answers are memorised without understanding in the prevalent coaching practice. Grammar exercises are also learnt by rote without understanding the transformation principles. All these would come to several thousand units to be kept in memory. Rote memory is promptly forgotten. Even the passing pupils need to repeatedly relearn these after forgetting. The failing pupils do not retain this ‘huge’ load – though this is much simplified from the original load implied in the curriculum.

In this rote memory model pupils are memorising much that is in the question paper itself. If they had learnt how to transform a question structure into the appropriate answer structure, he could reduce the memory load. It is enough if he learnt the ‘short answer with some cues to understand the purport of the question. But these transformations in the English language are slightly more complicated than what one finds in Malayalam or Hindi. E.g. To the question voh kaise chaltā hai? the answer voh dīre se chaltā hai maintains the same structure as the question, the effective answer dīre se coming exactly where the question word kaise occurs. In English How does he walk? is answered by He walks slowly. [Spoken English too does not require full sentence answers, but in the former examination style this was an obvious load (even now it has not ceased completely)]. The opening word ‘he’ has to be picked up between the broken form of the verb (which unites in the answer) and the answer to the opening word ‘how’ comes at the end. In the natural language acquisition these transformations are got naturally, almost unconsciously. That is the ideal method and that is what is intended in the present curriculum. But the vast majority of teachers are at sea with this approach. They too have not ‘acquired’ English naturally; they have just learnt formally. If there is sufficient time at the tenth class it would be possible to make the correction even through natural methods of teaching a foreign language. But in a set-up where natural English has been eliminated and the work consists almost entirely of pupils just memorising thousands of formal questions and answers, even formal teaching of the transformation structures
can be condoned as being only a desperate remedy offered to cure a desperate malady.

Thus the thousands of questions and answers memorised with pain (and mostly forgotten) are reduced to about twenty transformation structures. If the pupil can remember the small portion which constitutes the short answer, s/he can copy the rest from the question paper itself with the minimal transformations.

Manuel has organised the question forms in English into about 20 types of transformations starting with one structure (which may be counted as two treating 'who' and 'what' as different signals) where the short answer to the question word is substituted at the exact point where the question word occurs and the rest are to be taken exactly as in the question. This form is the starting point, noted as I (a) and I (b) transformations. In each case the transformation is shown in a diagrammatic form so that the principle can be seized cognitively. But many pupils especially those who do not have an insight into their own grammar may not understand the principle in this from. But many teachers can. But even if pupils do not understand the principle 'from above' – in the symbolic form, they can be put to work at the exercises. Since there are more than 20 exercises for the same transformation the pupil well gradually (perhaps 'suddenly') get the principle 'from below' (from specific examples). But Manuel adds that this should not be used as a teaching method. It can be treated as a desperate remedy for a desperate malady.

[Note: These materials are not to be taught formally, but used freely by pupils in multiple ways in consonance with the new curriculum and to develop a sense of structure and transformation to the extent that it has not formally developed through informal acquisition procedures. It can also be used for remedial work in case of extreme backwardness and for promoting confidence and independent work by pupils]
REMEDIAL SELF-LEARNING PACKAGE: STANDARD X ENGLISH
QUESTION→ANSWER TRANSFORMATION IN GRADED STEPS

ANSWERS AND HINTS TO TEACHERS

Type I (a): ‘Who?’ demands the Subject – There is no change in word order

<table>
<thead>
<tr>
<th>Question</th>
<th>Short answer (noun)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: 1. Who bought cherries in the Mussoorie bazaar?</td>
<td>Rakesh</td>
</tr>
<tr>
<td>Full answer: Rakesh bought cherries in the Mussoorie bazaar.</td>
<td></td>
</tr>
<tr>
<td>2. Who lived with his grandfather on the outskirts of Mussoorie</td>
<td>Rakesh</td>
</tr>
<tr>
<td>3. Who advised Rakesh to plant the last cherry seed/Grandfather</td>
<td></td>
</tr>
<tr>
<td>4. Who entered the garden and ate all the leaves?</td>
<td>A goat</td>
</tr>
</tbody>
</table>

Type I (b): ‘What?’ demands the Subject – No change in word order

<table>
<thead>
<tr>
<th>Question</th>
<th>Short answer (noun)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What came early that year to make walking difficult in Mussoorie?</td>
<td>Monsoon rains</td>
</tr>
<tr>
<td>2. What sprang from the trunk of trees?</td>
<td>Ferns</td>
</tr>
</tbody>
</table>

From this point onwards word order will change from question to answer

Type II (a) | Complement is asked; end noun comes first as subject; The ‘noun’ or ‘noun phrase’ which answers ‘what’ is put at the end after ‘is/was/are/were’
Note:  N can be either a noun or noun phrase (group of words equal to a noun).
E.g. Question: What is a longing? Answer: A longing is an earnest desire.
Do not forget to write ‘is’, ‘was’, ‘are’ or ‘were’ after N₁ (noun or phrase)
Sometimes the answer takes the form of a whole sentence followed by ‘This is…
Write the answers in full sentences:

<table>
<thead>
<tr>
<th>Question</th>
<th>Short answer (*)will usually come at the end</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is a cherry?</td>
<td>a tree bearing a small, soft, fleshy, round fruit, with a hard seed</td>
</tr>
<tr>
<td>Full answer: A cherry is a tree bearing a small, soft, fleshy, round fruit with a hard seed</td>
<td></td>
</tr>
<tr>
<td>2. What is blackberry?</td>
<td>a fruit from a kind of wild bush</td>
</tr>
<tr>
<td>*3. What was Rakesh’s grandfather?</td>
<td>a retired forest ranger</td>
</tr>
</tbody>
</table>

Type II (a) [Complement is asked; end noun comes first as subject; The ‘noun’ or ‘noun phrase’ which answers ‘who’ is put at the end after ‘is’]

Question: Who is/was/are/were N₁
Answer: N₁ is/was/are/were N₂

Do not forget to write ‘is’, ‘was’, ‘are’ or ‘were’ after N₁ (noun or phrase)
Write the answers in full sentences:

<table>
<thead>
<tr>
<th>Question</th>
<th>Short answer (*)will usually come at the end</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Who was Rakesh?</td>
<td>a boy of six living in the outskirts of Mussoorie</td>
</tr>
<tr>
<td>2. Who was the cherry’s first visitor?</td>
<td>a bright green praying mantis</td>
</tr>
</tbody>
</table>

Type III (a) Yes or No question beginning with is/was/are/were::

Question signalled by Is/was/are/were Noun Complement?
For ‘Yes’ Answer, the full sentence form is
Noun Is/was/are/were Complement?
For ‘No’ Answer, the full sentence form is
Noun Is/was/are/were not Complement

e.g.,

<table>
<thead>
<tr>
<th>Question</th>
<th>An</th>
<th>Booker</th>
<th>a Negro?</th>
<th>Was</th>
<th>Booker</th>
<th>white?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Booker was</td>
<td>a negro.</td>
<td></td>
<td>Booker was not</td>
<td>white.</td>
</tr>
</tbody>
</table>

[Note: In spoken English, it is enough if short answer is given, which may be: Yes, he was, or No, he wasn’t [was not]  [In oral practice, use this style only]
But in a written answer detached from the question it will be helpful for many pupils
1. to write the Noun (not changing to pronoun) in the answer; 2. to write in full sentence [Yes or No is noted in the last column to help you]

Then they may add question tags to some of these sentences, now they must change noun to pronoun

Sometimes a whole group of words will come instead of a noun: they are underlined to help you [by grouping the noun phrase] in the first few questions.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes/no</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is winter a cold season?</td>
<td>Yes</td>
</tr>
<tr>
<td>Full answer: Yes. Winter is a cold season: oral practice: Yes, it is.</td>
<td></td>
</tr>
<tr>
<td>2. Is winter a hot season?</td>
<td></td>
</tr>
<tr>
<td>No, winter is not a hot season. Oral practice: No, it isn’t [No, it is not]</td>
<td></td>
</tr>
<tr>
<td>3. Was Grandfather happy listening to Rakesh reading the newspaper?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Type III (b) Here the verb is double – a modal verb (can, could, will, would, shall, should, must etc.) and a main verb which expresses the action.

In Yes/No question the modal verb alone goes before the noun.

In ‘Yes’ answer, ‘can’ jumps over the noun and stands near the main verb.

In ‘No’ answer, in addition to the jump, ‘not’ is added between mod verb and main verb (e.g., cannot fly, could not write could not reach etc.)

E.g.,

<table>
<thead>
<tr>
<th>Question</th>
<th>Can Birds fly?</th>
<th>Can Pigs fly?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer</td>
<td>Birds ✗ Can fly.</td>
<td>Pigs ✗ Cannot fly.</td>
</tr>
</tbody>
</table>

In spoken English, the short forms, ‘Yes, they can’, ‘Yes, it can’, ‘No, she can’t’, ‘No, he can’t’ etc. would be the preferred forms. But those who have not mastered the sentence structures in formal English would find it useful to practise writing full sentence answers as preparation for the written exam.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes/no</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Could the cherry tree live after all its leaves were eaten by a goat?</td>
<td>Yes, it could</td>
</tr>
<tr>
<td>Formal answer: Yes, the cherry tree could live after all its leaves were eaten by a goat.</td>
<td></td>
</tr>
<tr>
<td>2. Could the cherry tree survive after it was cut into two by a woman?</td>
<td>Yes</td>
</tr>
<tr>
<td>3. Could Rakesh eat the first fruit of the cherry tree with pleasure?</td>
<td>No, he couldn’t</td>
</tr>
<tr>
<td>4. Could birds relish the first fruits?</td>
<td>Yes, they could</td>
</tr>
<tr>
<td>5. Could Rakesh enjoy the fruits produced next year?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Type III c: Modal verbs (could/can etc) as in III (b) and ‘existence verbs’ (is/was/are/ were) will go before the noun to form questions. But simple action verbs (love, killed etc.) will not go before the noun to form questions. We can’t ask.

“Planted Rakesh a seed?” We ask, “Did Rakesh plant a seed”. Here the simple action
verbs create modal verbs do, does or did, and these alone goes to the front (before the subject; loved =
love did; loves = does love; love = do love. Examples of Q→ A
Type III (c) continued↓
If the answer is No, the transformation here is just as in III (b) Do pigs fly? Pigs do not fly.
If answer is Yes, Did+verb → V+ed or irregular past form (eat → ate, go → went, leave → left etc. Does+V → V+s/es; Q 27-30: Do+V=V
Did people love Antonio? Yes, people loved Antonio [Did→ d or ed after main verb]
Did people love Shylock? No, people did not love Shylock?
Does the vale overflow with her song? Yes, the vale overflows with her song [Does → s or es after verb]
Does the poet know what she sings? No, the poet does not know what she sings
Do children cry when they are hungry? Yes, children cry when they are hungry
[Do→ φ]
Do children cry when mother has fed them? No, children do not cry when mother has fed them

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes/no</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Did Rakesh read the newspaper to Grandfather?</td>
<td>Yes</td>
</tr>
<tr>
<td>Formal answer: Yes, Rakesh read the newspaper to his grandfather. Spoken English: Yes, he did.</td>
<td></td>
</tr>
<tr>
<td>2. Did the tree after a woman cut the tree in two?</td>
<td>Yes</td>
</tr>
<tr>
<td>Formal written answer: No, it did not die after it was cut in two by a woman. Spoken English: No, it didn’t.</td>
<td></td>
</tr>
<tr>
<td>3. Did Rakesh go home to his village to help his father and mother?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Type IV (a)

Question: Who did N1 [transitive] N2

Answer: Who did N1 [transitive] N2

Type IV (a) continued↓

Who did Brutus kill (transitive verb)? Brutus killed Caesar
[*Transitive verb is a verb which takes an object – sakarma kriya – e.g. go, walk etc are not transitive verbs; eat (rice), play (cricket) etc are transitive verbs]
Note that: 1. the verb after ‘did’ is the subject and comes first in the answer
2. ‘did’ + Verb → ‘Verb-ed’ or past form (V2) of irregular verbs
3. ‘Who?’ in this case demands ‘Object’ (karmam) put after ‘Verb + ‘ed’ or other V2 forms.
This is the most frequent type which appears in written examination and so if the student has not mastered it naturally, this should be consciously mastered, paying attention to position shift. [Formerly the object-demanding word was ‘whom’; now ‘Who did Noun verb’ is common; ‘Whom’ can be used in formal language.]
<table>
<thead>
<tr>
<th>Question</th>
<th>Short answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Who did Rakesh read the newspaper to?</td>
<td>Grandfather</td>
</tr>
<tr>
<td><strong>Full answer</strong>: Rakesh read the newspaper to Grandfather.</td>
<td></td>
</tr>
<tr>
<td>2. Who did grandfather tell interesting stories to?</td>
<td>Rakesh</td>
</tr>
<tr>
<td>3. Whom did Rakesh help during the monsoon?</td>
<td>his father and mother</td>
</tr>
</tbody>
</table>

**Type IV (b)**

**Question:**

What → did → N₁ → Verb (transitive or object-taking) → Extra

**Answer:**

N₁ → Verb + ed → N₂ → Extra

Cases of *had N V, can N V in Q → N had V, N can V* in Answer as done in III (b)

<table>
<thead>
<tr>
<th>Question</th>
<th>Short answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What did Rakesh buy in the Mussoorie market?</td>
<td>Cherries</td>
</tr>
<tr>
<td><strong>Full answer</strong>: Rakesh bought cherries in the Mussoorie bazaar.</td>
<td></td>
</tr>
<tr>
<td>2. What was Rakesh eating as he was walking home?</td>
<td>cherries</td>
</tr>
<tr>
<td>3. What did he plant in the garden?</td>
<td>A cherry seed</td>
</tr>
</tbody>
</table>

**Type IV (c): Whose? Answer: Rakesh’s, Sullivan’s, -N- of the burglar**

*Note that a noun will follow*

<table>
<thead>
<tr>
<th>Question</th>
<th>Short answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Whose house was destroyed by a bomb during the war?</td>
<td>The Nicola family’s</td>
</tr>
<tr>
<td>2. Whose hard earnings helped to pay the medical bill of Lucia?</td>
<td>Nicola’s and Jacopo’s</td>
</tr>
</tbody>
</table>

**Type V (a)** In this type *What* is followed by *did/does/do*, then *noun* and then *do*. The first ‘do’ form (*did/does/ do*) just indicates the tense and interrogation (question). The second ‘do’ demands the action (+ complement). Find the action verb and put it in the tense of the first *did/does/do form* – which is omitted in the answer.

**Question:**

What → did → Noun N₁ → do → Extra

**Answer:**

Noun N₁ → Verb + ed → Noun N₂ → Extra
**Question** | **Short answer**
---|---
1. What did Rakesh do to give the cherry plant privacy? | circled it with pebbles
2. What did the woman cutting grass do to the cherry tree? | cut it in two
3. What did the goat do to the tree? | ate all its leaves
4. What did Rakesh do for Grandfather? | read newspaper

**Type VI** This type also is like type IV (b). The noun after ‘did’ is the subject and comes first in the answer. *Did+ verb* combine to become ‘*Verb-ed*’ [Did+ask= asked; Did +request=requested; BUT Did+say=said; Did+ tell=told.] In Q IV (b), this combined verb, e.g. ‘arrested’ was followed by the object, ‘Roucolle and the Pole’. In Q VI also the combined verbs will be followed by an object. But this object will be not a noun, but a noun clause. It may begin with that, whether, if, why, what followed by a sentence expressing the idea. It can be a noun phrase of ‘to+infinitive’ in reply to request or order.

**Question:**

<table>
<thead>
<tr>
<th>What</th>
<th>did</th>
<th>Noun</th>
<th>Say/ask/think/tell etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun</td>
<td>Verb</td>
<td>ed</td>
<td>Noun clause/phrase</td>
</tr>
</tbody>
</table>

Write full answers for all. Five examples are worked out for you.

<table>
<thead>
<tr>
<th>Question</th>
<th>Q 1-5; Full answer; others: short answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What did Rakesh ask Grandfather?</td>
<td>whether cherry seeds were lucky</td>
</tr>
<tr>
<td>Full answer: Rakesh asked Grandfather whether cherry seeds were lucky</td>
<td></td>
</tr>
<tr>
<td>2. What did Grandfather reply?</td>
<td>that if he wanted luck he must put it to some use</td>
</tr>
</tbody>
</table>

**Type VII**

**Question:**

<table>
<thead>
<tr>
<th>What kind of*</th>
<th>Noun</th>
<th>was</th>
<th>Noun N2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non N2</td>
<td>was</td>
<td>An/a</td>
<td>adjective</td>
</tr>
</tbody>
</table>

* What kind of (or what sort of) demands an adjective. Supply a suitable adjective, or adjectives. The qualified noun from the question will also carry over. The answer will be usually according to I (b) structure; or IV(b)

<table>
<thead>
<tr>
<th>Question</th>
<th>Short answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What kind of trees do cherry trees produce?</td>
<td>small, soft, fleshy, round</td>
</tr>
<tr>
<td>Full answer: Cherry trees produce small, soft, fleshy, round fruits.</td>
<td></td>
</tr>
<tr>
<td>2. What kind of trees are cherries?</td>
<td>tough/ sturdy</td>
</tr>
</tbody>
</table>
3. What kind of boy was Rakesh?  
   hard-working, dutiful, imaginative. Nature-loving

4. What kind of person was Grandfather?  
   nature-loving, creative, independent, nurturing

5. What kind of bark does the cherry tree have?  
   smooth

**Type VIII**

**Question:**

Where did Noun N1 Verb + ed Noun N2

**Answer:**

To indicate ‘where,’ Malayalam and Hindi put the vibhakti particle after the noun, e.g., mespar. English places the preposition before the noun: on the table

<table>
<thead>
<tr>
<th>Question</th>
<th>Short answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Where was Gandhiji born?</td>
<td>in Porbandar</td>
</tr>
<tr>
<td>Full answer: Gandhiji was born in Porbandar</td>
<td></td>
</tr>
<tr>
<td>2. Where is Venice?</td>
<td>in Italy</td>
</tr>
<tr>
<td>3. Where is Milan?</td>
<td>in Naples</td>
</tr>
</tbody>
</table>

**Type IX**

**Question:**

When did Noun N1 Verb + ed Adverb Phrase or clause

**Answer:**

This also follows the same principles as Type VIII: ‘Where questions’, usually with prepositions (showing time) going before noun. When stating actions happening at a specific time use on +day || in+Month/Year || at+precise time.

To state Gandhiji’s day of birth 2-10-1869, we may say
Gandhiji was born in 1969/… in October 1869/ … on October 2, 1869
Exercise: 1. State Nehru’s date of birth in three ways.
2. State the date on which India became a Republic in three ways.
3. State India’s date of getting independence in three ways.

“**When questions**” are answered not only by stating, a day, year or month, but also by a phrase or time clause starting with when, before, after, as soon as, since etc.

Some “time words” and phrases do not take a preposition, e.g. every morning

Time questions also sometimes begin with **How long**.

Now answer the following text questions:

<table>
<thead>
<tr>
<th>Question</th>
<th>Short answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When did the new leaves appear on the cherry tree?</td>
<td>towards the end of the rainy season</td>
</tr>
<tr>
<td>Full answer: New leaves appeared on the cherry tree towards the end of the rainy season.</td>
<td></td>
</tr>
<tr>
<td>2. When did Rakesh’s birthday come off?</td>
<td>in February</td>
</tr>
<tr>
<td>3. When did Rakesh go home to help his parents?</td>
<td>during the monsoon</td>
</tr>
</tbody>
</table>
Type X
Question: Why did Rakesh not pull out the little cherry plant?
Answer: because he recognized that it had sprouted out of the seed which he had planted

Instead of a ‘because/ since/ as’ clause, a phrase beginning with ‘to’ or ‘in order to’ can be used

Form 2 State,

<table>
<thead>
<tr>
<th>Question</th>
<th>Short answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Why did Rakesh not pull out the little cherry plant?</td>
<td>because he recognized that it had sprouted out of the seed which he had planted</td>
</tr>
<tr>
<td>2. Why was Rakesh thinner but stronger when he returned to his grandfather?</td>
<td>because he had done manual work at his home helping his father and mother in planting, ploughing and sowing</td>
</tr>
<tr>
<td>3. Why did Grandfather choose the shade of the cherry tree for taking rest in the afternoons?</td>
<td>because it had the right amount of shade there, and because he loved looking at the leaves</td>
</tr>
<tr>
<td>4. Why did Rakesh read newspaper for Grandfather?</td>
<td>because Grandfather’s eyesight was poor</td>
</tr>
</tbody>
</table>

Type XI (a)
How is sometimes answered by simple description; e.g. How does the weaver bird build its nest? This type is often suitable for an essay question. The long forms are not presented here.

But some of the short questions learnt here, when made into a chain, will form the answer to a ‘how question’ demanding an essay type answer. Among the short answer ‘how’ questions, there are three main forms:

3. by adding an adjective, adverb or adverb phrase
Q: How did the flowers look? A: The flowers looked lovely.
Q: How do you go to school: A. I go to school by walk/ by bus/ by bicycle

(b) by stating the way it is done in one or more sentences. This may or may not be followed by “Thus” and the usual transformation of Q structure to A structure.
school during the period of monsoon rains? How was he dressed? in raincoat and gum boots

6. How did the cherry plant grow up at first? very slowly

**Type XI (c) Descriptions can be signalled by ‘Describe’ What happens/ed? Some ‘how’ forms etc.**

<table>
<thead>
<tr>
<th><strong>Question</strong></th>
<th><strong>Answer</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How did his friends and teachers treat Swami after the day of the burglar incident?</td>
<td>Everyone congratulated Swami the next day. His classmates looked at him with respect. His teachers patted him. The headmaster said that he was a true scout.</td>
</tr>
</tbody>
</table>

Who killed Bhishma? Arjuna killed Bhishma.

What danced beside the daffodils? The waves danced beside the daffodils.

(Appendix IIa presents the self-learning graded Q-->A Transformation series.

In working with the weakest pupils we start with this most non-violent transformation. All that the pupil had to do is to substitute the answers ‘Arjuna’ in the place of ‘Who’ and ‘The waves’ in the place of ‘What’. These principles are presented in the form of transformation structures with arrows. It is considered that there is no harm if the teacher uses Malayalam to explain – in brief – the transformation and the contrastive grammar to tap the ‘interlanguage’ component, provided the pupil is put back to work with the English materials. (The danger in Malayalam comes when it begins to be used as the only communication medium and as the main ‘stuff’ rather than as a catalyst and the space for English in the English class is very much reduced.) If the pupil does not understand the cognitive input – the transformation principle - after all these, there is no point in explaining the principle frontally. The pupil is put to work with the self-learning materials, which contain a series of questions on the same structure followed by the short answer in the next column, The method of substituting may be explained at the desk of the pupil with focus on the answer sheet. The pupil
will work through mechanical substitution in the first few cases, and suddenly develop an understanding. Many Skinnerian educators will be satisfied with pupils getting the right answers in a long chain even on pure R-S principles.

These are remedial approaches which could be explained even to a whole class of low-achieving pupils, and with the help of printed self-learning material, the whole class can be put to work all the time. In many coaching classes the teachers find themselves talking too much because pupils do not seem to understand. The teacher-utilised time may be high but pupil-utilised time is low. With the help of self-learning materials used properly student learning time can be increased a hundred-fold – which is most need in preparation for examination as well for real learning.

Among the very low-achieving pupils, there were some who could not even read English. Some people think that English should be easier to read because it has only 26 letters most of which are simpler in shape than Malayalam letters. But then different combination of letters signal different sounds, and even that is not uniform. Different letter combinations and contexts signal different phonemes, and that too with several exceptions. Still there are certain typical phonemes signalled by certain letter combinations: e.g., i: sound is signalled by ee (see), ea (sea), ie (believe), ei (receive) – rarely eo (people) etc.

To some extent preferred rules can be given, but the longest and least productive route is to recite around each letter sound and then sound the whole word: e.g., el, ai, jee, hech, tee -> lait (sound) [for the word light].

For the weakest pupils, presenting in columns typical spelling phoneme patterns works with the weakest pupils: light, sight, might, fight sight, right, slight flight, fright etc.

Appendix 2 presents a series of different spelling patterns which can signal the same phoneme (starting with the most common spelling pattern.)
Total inability to decipher the English spelling-phoneme non-correspondence is rarely met with at Class 10 level in this project, but a case presenting a high proportion of such disability was personally handled by the Investigator over two sessions, and the candidate finally passed without difficulty, because she was strong in the other dimensions. It is here that the discouraging remarks of teachers and others on seeing the child making peculiar mistakes (with other equally bad readers joining in the derisive laughter to reinforce the teacher) create the maximum damage. Really much of the fault lies with the English language itself, which Bernard Shaw did his best to correct and failed. It would be encouraging, on behalf of these non-starters in English reading to recall Bernard Shaw’s joke at the language, challenging some English experts to read the ‘English’ word coined by him: ‘ghoti’. He explained later that it was ‘fish’ (gh as in rough, o as in women, ti as in motion!)

When very absurd mistakes are made by low achievers in the elements of English reading, Bernard Shaw’s joke would come to the rescue of the child and encourage the remedial teacher to persist with the child patiently, starting with the limited regularities which English still possesses to establish the confidence of the child and then proceed with the more eccentric English forms (such as people).

In an earlier experiment, where a committed remedial instruction group in a small rural catholic convent handed over to the investigator two cases, their own servants appearing for SSLC, but lagging far behind all the others. Special spelling-phoneme patterns were prepared for them and the investigator himself initiated them into reading in a two-hour session and handed over the charts and the way to work with it and follow up to then mother superior, who herself spent about four hours per day sitting with them and patiently eliciting their right response. In a week they suddenly declared ņanna-e kannu turannu (our eyes have opened). They could now read ‘the sounds’ of English approximately. Now the meaningless drill they were
having still at the dyslexic stage, suddenly acquired meaning. Both of them passed. A thanking letter was received from the mother superior for ‘opening their eyes’. She should also have felt that “there is greater joy in heaven over two such low achievers suddenly turning the corner and succeeding” than over the other twenty who were doing better right from the beginning.

In almost all the interventions in the schools there was positive response from the pupils after some initial groping period about these ‘new’ approaches, expecting every pupil to do something, instead of the usual practice of listening to the teacher patiently, the pupils started responding, increasing the proportion of right answers in course of time. Copies of such materials were given to each. It is expected that many of the teachers would have followed up and this would have been one of the inputs in improving the results of the schools. No attempt was made to follow it up statistically. The very fact that the ‘awakening’ and positive responses of the long slumbering pupils was noted with satisfaction by the teachers, headmasters and sometimes senior superintendents was considered sufficient validation of the new approaches. They were tried in about fifteen general schools in tribal areas (covering more than 30 class divisions), about ten higher secondary schools (covering over 20 classes), and six model residential schools. In almost all the cases there was positive and even enthusiastic response from the schools and the staff and with the expectation of some kind of follow up.

Similarly about ten hostels were visited and long sessions were had with pupils with a high prognosis of failure and long and patient sessions resulted in initiating the pupils to active self-learning approaches. But there was a feeling that the hostel culture, the tuition set-up and the general school procedures encouraged a kind of ‘things being done for the pupil’ rather than expecting him/her to rise up to the challenge. The slow awakening experience with even pupils considered as impossible through long, sustained, encouraging study counselling had some useful lessons irrespective of final results. A situation comparable to ‘operation successful, but no sustained nursing’ was sensed. Hence the final hostel result on the
whole was not encouraging. It must be added that in 2003-04, no formal meeting with the tutors could be arranged. In 2004-05 the TDO, Mananthavadi could arrange a meeting with tutors and wardens and the result was encouraging. This should be followed up. Even the failure experiences in some hostels present cases for analysis on cultural therapy case models on the lines set by George and Louise Spendler.

Suggestions to the Department and to others trying to find improved models:

Quality remedial education (for the disadvantaged low achievers)

- may continue with existing schemes of coaching and tutorial work for some time more, but as transitional modes only;
- will not waste time telling what the tutor knows, but impart what the pupil needs;
- will be based on effective diagnosis of causative factors – in the school, hostel, home and community factors, in the pupil him/herself;
- will not harp on those factors that are not under our control, but operate on those that can be controlled;
- will take into account the negative effect of past experiences at home and in the school, but will not be obsessed with it; will gently draw the pupil away from the hang-over of the past; will utilise the present to the maximum, looking forward to the future;
- with very low achievers, will offer the task at a level in which the child can do something right and offer words of encouragement, then gradually lift the pupil up;
- will analyse the tasks carefully, and offer the learning in graded steps, with reinforcement at each step;
- will gradually eliminate external reinforcement and encourage pupil him/herself to take responsibility for the learning;
- will leave spaces for the pupil to display phases of learning in jumps or in large insightful sweeps instead of slow steps;
- will make learning exciting and enjoyable;
- will not be teacher talk for all or most of the time, will expect the child to react, respond, and even give creative alternatives;
- will not expect immediate response always; will give the pupil time to reflect, get sudden insights, develop new mental schema that can help to solve a host of problems;
• will try to identify generative key ideas with which the pupil will be able to construct hundreds of new items on his own
• will conduct specially devised tests to monitor the attainment of desired levels of learning at appropriate intervals
• will enable the effective shift of focus from teaching to learning through the provision of self-learning and interactive learning materials
• will gradually transform ‘coaching’ and even ‘teaching’ into real ‘tutoring’ and guiding learning, building up capacity in the child to take charge of his own learning.
• will ensure a conducive and challenging learning environment in the hostels, and if possible even in ‘learning centres’ in tribal colonies
• will institute a system of personal and educational guidance, maintaining individual profiles of children’s academic, emotional, physical, social and personal growth
• will ensure an adequate follow-up for the activity curriculum now followed up to Class 9 in tribal hostels and in select tribal centres; will fill up the gaps in systematic learning components that incidentally arise from integrated learning; will help children themselves to systematise the chunks of knowledge extracted from integrated pedagogy
• will ensure the follow-up of the computer work in the school in tribal hostels and in select tribal communities, and help to use the computer for emancipatory learning;
• will draw upon relevant theory, even develop new theory relevant to our conditions, in the area of psychology of learning, personality, intelligence (especially fluid intelligence and culture-fair testing), cross-cultural teaching and assessment, and more recent developments in educational anthropology and cross-linguistic learning (cultural awareness, therapy, interlanguage etc.)
• will undertake educational remediation activities with the assistance of expertise developed through relevant research or pilot projects from universities, NGOs, workers in the cause of Education of the Disadvantaged, tribal development functionaries, and tribal animators

To encourage maximisation of achievement and follow-up quality education will

• encourage pupils at all levels not to be obsessed with avoiding failures or be content with a pass, but to reach the maximum potential that one is capable of.
• understand maximisation of potential, not merely in academic terms, but to cover different types of talents – sports, music, dance, art etc.;
apply in practice the theory of multiple intelligence to attain maximum all-round growth;

- guide the achieving students at +2 level to enable them to compete with reasonable success in entrance tests; [if necessary use the coaching provisions in the transition phase, but in the long run arrange learning and training programmes that will draw out the full intelligence, independent and creative thinking and problem-solving];

- enable outstanding students from backward tribal communities to get admitted in schools of repute, and meet the educational costs

Much of what has been presented so far is based on the work done in the SSLC model up to March 2004. The curriculum introduced up to Class 10 in 2004-05 implies a challenge, especially communicative/interactive English and investigative science, which really need sound functional theory – general as well as specific to the disciplines. To the extent that teachers and the system are not able to cope with the demands of the new syllabus and adopt shortcuts – not transacting the communicative or investigative curriculum at all, but copying the answers to tasks from some printed notes and copying in the practice book, copying even projects from printed notes instead of doing them. In that case the real standard of the pupils will be even lower than before and diagnostic-remedial approaches even more analytical than what have been attempted in this project, - starting from a lower level than before – will be needed. Such approaches combined with judicious use of Save A Year (SAY) programme could be helpful; *To make the best use of SAY and help tribal pupils to overcome their deficiencies in the transitional phase, the tribal hostels (Or at least some of them) will have to be kept open in May. Many pupils who are predicted to fail and do fail, may pick up in the SAY period, work concertedly and pass.*