

**LANGUAGE APTITUDE, SELECT ATTITUDINAL AND
MOTIVATIONAL VARIABLES AS CORRELATES
OF ACHIEVEMENT IN ENGLISH OF
SECONDARY SCHOOL STUDENTS**

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DECLARATION

I, Meera K.P., do hereby declare that the thesis **LANGUAGE APTITUDE, SELECT ATTITUDINAL AND MOTIVATIONAL VARIABLES AS CORRELATES OF ACHIEVEMENT IN ENGLISH OF SECONDARY SCHOOL STUDENTS** has not been submitted by me for the award of a Degree, Diploma, Title or Recognition before.

University of Calicut,
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CERTIFICATE

I, Dr. Kamala S. Pillai, do hereby certify that this thesis **LANGUAGE APTITUDE, SELECT ATTITUDINAL AND MOTIVATIONAL VARIABLES AS CORRELATES OF ACHIEVEMENT IN ENGLISH OF SECONDARY SCHOOL STUDENTS** is a record of bonafide study and research carried out by **Mrs. Meera K.P.** under my supervision and guidance. The report has not been submitted by her for the award of a Degree, Diploma, Title or Recognition before.

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MEERA K.P.

CONTENTS

LIST OF TABLES

LIST OF APPENDICES

CHAPTER	PAGES
I INTRODUCTION	1 - 14
II REVIEW OF RELATED LITERATURE	15 - 61
III VARIABLES, HYPOTHESES AND METHODOLOGY	62 - 113
IV ANALYSIS	114 - 224
V SUMMARY, FINDINGS AND SUGGESTIONS	225 - 265
REFERENCES	266 - 281
APPENDICES	

LIST OF TABLES

Table No.	Description	Page No.
1	Break-up of the basal sample	69
2	List of schools selected for the study	71
3	Blue-print of Achievement Test in English	93
4	Break-up of the final sample	99
5	Important statistical constants for the score distribution of independent and dependent variables for the total sample	116
6	Summary of Two-way ANOVA of Achievement in English by Language Aptitude by Attitude towards Education	124
7	Summary of Two-way ANOVA of Achievement in English by Language Aptitude by Attitude towards English	128
8	Summary of Two-way ANOVA of Achievement in English by Language Aptitude by Attitude towards English Teachers and Teaching	131
9	Summary of Two-way ANOVA of Achievement in English by Language Aptitude by Achievement Motivation	134
10	Summary of Two-way ANOVA of Achievement in English by Attitude towards Education by Attitude towards English	137
11	Summary of Two-way ANOVA of Achievement in English by Attitude towards Education by Attitude towards English Teachers and Teaching	140
12	Summary of Two-way ANOVA of Achievement in English by Attitude towards Education by Achievement Motivation	143
13	Summary of Two-way ANOVA of Achievement in English by Attitude towards English by Attitude towards English Teachers and Teaching	146

14	Summary of Two-way ANOVA of Achievement in English by Attitude towards English by Achievement Motivation	149
15	Summary of Two-way ANOVA of Achievement in English by Attitude towards English Teachers and Teaching by Achievement Motivation	152
16	Summary of Two-way ANOVA of Achievement in English (Total and Content wise) Total sample	155
17	Data and Results of Test of Significant difference in mean Achievement in English Scores (Total and content wise) between High- Language Aptitude, Average- Language Aptitude, Low- Language Aptitude Group (taken in pairs) in the total sample	158
18	Data and Results of Test of Significant difference in mean Achievement in English Scores (Total and content wise) between Favourable- Attitude towards Education Group, Moderately Favourable- Attitude towards Education Group and Less Favourable- Attitude towards Education Group	160
19	Data and Results of Test of Significant difference in mean Achievement in English Scores (Total and content wise) between High- Attitude towards English, Average- Attitude towards English and Low- Attitude towards English Group	163
20	Data and Results of Test of Significant difference in mean Achievement in English Scores (Total and content wise) between High- Attitude towards English Teachers and Teaching, Average- Attitude towards English Teachers and Teaching and Low- Attitude towards English Teachers and Teaching Group	166
21	Correlation of Achievement in English (Total and Content wise) with select independent variables for Total Sample	170
22	Correlation of Achievement in English (Total and Content wise) with select independent variables for Boys	177
23	Correlation of Achievement in English (Total and Content wise) with select independent variables for Girls	183

24	Correlation of Achievement in English (Total and Content wise) with select independent variables for Rural subjects	189
25	Correlation of Achievement in English (Total and Content wise) with select independent variables for Urban subjects	194
26	Correlation of Achievement in English (Total and Content wise) with select independent variables for students of Government school	200
27	Correlation of Achievement in English (Total and Content wise) with select independent variables for students of private school	206
28	Summary of the significant correlation obtained between Achievement in English- Vocabulary category, Grammar, Comprehension and Total and each of the select independent variable for Total Sample and sub samples based on sex, locale and Management of schools	212
29	Data regarding the Multiple R relating Achievement in English - Vocabulary with Language Aptitude and Attitude towards Education	215
30	Data regarding the Multiple R relating Achievement in English - Grammar with Language Aptitude and Attitude towards Education	217
31	Data regarding the Multiple R relating Achievement in English - Comprehension with Language Aptitude and Attitude towards Education	220
32	Details regarding the multiple R relating Achievement in English- Total with Language Aptitude and Attitude towards Education	222

LIST OF APPENDICES

Appendix IA	Draft test of Language Aptitude
Appendix IB	Item analysis data of the draft test of Language Aptitude
Appendix IC	Language Aptitude Test - Final form (English version) and Scoring Key
Appendix II	Norms for the Language Aptitude Test, Scale of Attitude towards English, Scale of Attitude towards English Teachers and Teaching and Achievement Test in English
Appendix III A	Draft Scale of Attitude towards English
Appendix IIIB	Item analysis data of the draft scale of Attitude towards English
Appendix IIIC	Scale of Attitude towards English-Final form (Malayalam version) and Score Sheet
Appendix IIID	Scale of Attitude towards English - Final form (English version)
Appendix IVA	Draft scale of Attitude towards English Teachers and Teaching
Appendix IVB	Item analysis data of the draft scale of Attitude towards English Teachers and Teaching
Appendix IVC	Scale of Attitude towards English Teachers and Teaching - Final form (Malayalam version) and Score Sheet
Appendix IVD	Scale of Attitude towards English Teachers and Teaching - Final form (English version)
Appendix VA	Draft test of Achievement in English
Appendix VB	Item analysis data of the Achievement test in English
Appendix VC	Achievement Test in English - Final form and Scoring Key
Appendix VI	Scale of Achievement Motivation and Score Sheet
Appendix VII	Scale of Attitude towards Education and Score Sheet

INTRODUCTION

K.P. Meera “Language aptitude, select attitudinal and motivational variables as correlates of achievement in English of secondary school students ” Thesis.
Department of Education, University of Calicut, 1999

INTRODUCTION

Need and significance of the study

Statement of the problem

Definition of key terms

Variables of the study

Objectives

Hypotheses

Procedure

Scope and limitations of the study

INTRODUCTION

Man's ability to communicate with others depends primarily on his being able to receive and sent messages and impressions either by gestures or symbols and to a large extent by speech, using a specific, distinct language. Man has been communicating by speech for more than one lakh of years and many distinct language groups are in existence today. Each new form of human speech introduces one into a new world of thought and life. The study of languages therefore provides the basis for understanding the nature and scope of social interaction and communication in human life. Since a child's language facility influences his/her cognitive, emotional and social development, the study of languages plays a significant role in the educational process. The study of language in the class room provides a micro perspective, and at the same time study of language in the educational process as a whole offers a macro prospective. This condition poses several issues regarding the number of languages to be studied in education, the choice of language as media of instruction or the learning of language as specialised subjects.

In India, after independence, the question of language for official purpose, medium of instruction at different educational level and the like was much discussed and debated. Because India's history is marked by conquest and re-conquest, the country has several major languages dominating different areas. Centuries of British domination made English an official language in the early years after India became a Republic. Although English is nowhere native, it is the second language of the

educated, the language of education and modern technology. The Government of India appointed different commissions from time to time and framed its language policy in consideration to the recommendation of these commissions. The University Education Commission (1948-49) insists that no student should be allowed to take a degree from the University, who does not acquire the ability to read English with facility and understanding. The National Integration Commission (1962) suggested the adoption of three-language formula. Education Commission (1964-66) also recommended three-language formula and suggested compulsory learning of English as a second language or as a third language for a duration of six years and three years in the non-Hindi speaking areas and Hindi speaking areas respectively. This recommendation had been incorporated in the New Educational Policy, 1986. The New Educational Policy, 1986 was implemented in all states in India, except Uttar Pradesh and Bihar. Subsequently, the Plan of Action, 1992, 10+2+3 pattern was introduced. Policies regarding English Language Teaching varied from state to state and from time to time according to the changing nature of the policies of the government. Malayalam being the mother tongue of majority of children in Kerala, it is treated as first language in the general education stream by the Government of Kerala. English has been approved as the second language and is introduced in standard IV of the lower primary level. Hindi as the third language is included in the general Education curriculum in standard V.

1.1 NEED AND SIGNIFICANCE OF THE STUDY

An important area of research and practice in Language Education is concerned with theories of the process of first language and second language acquisition and the identification of factors underlying both first language and second language learning. The acquisition of first language is a natural and spontaneous process. Learning of second or third languages often occurs in contrived situations. Successful learning of second or third languages demands a commitment from the learner and adequate support from the environment.

Bristol Language Project (1981) tried to study the inter relationship of First language development, Foreign language aptitude and Foreign language achievement. The three questions posed in the study were i) whether there is direct relationship between first language development variables, ii) between first language development and foreign language aptitude and iii) between foreign language aptitude and foreign language achievement. Some of the important results were that the capacity to learn language is not confined to children learning their first language. Whatever ability is involved in first language learning is deeply involved in second language learning. Aptitude is the second or foreign language equivalent of a first language learning capacity. The result also showed that the existing theories of language acquisition have been ignoring the existence of considerable differences in the rate of learning.

There are a number of theoretical models that explain the development of competence in a second language. They vary from psycho, socio, cultural model to cognitive theories of second language acquisition

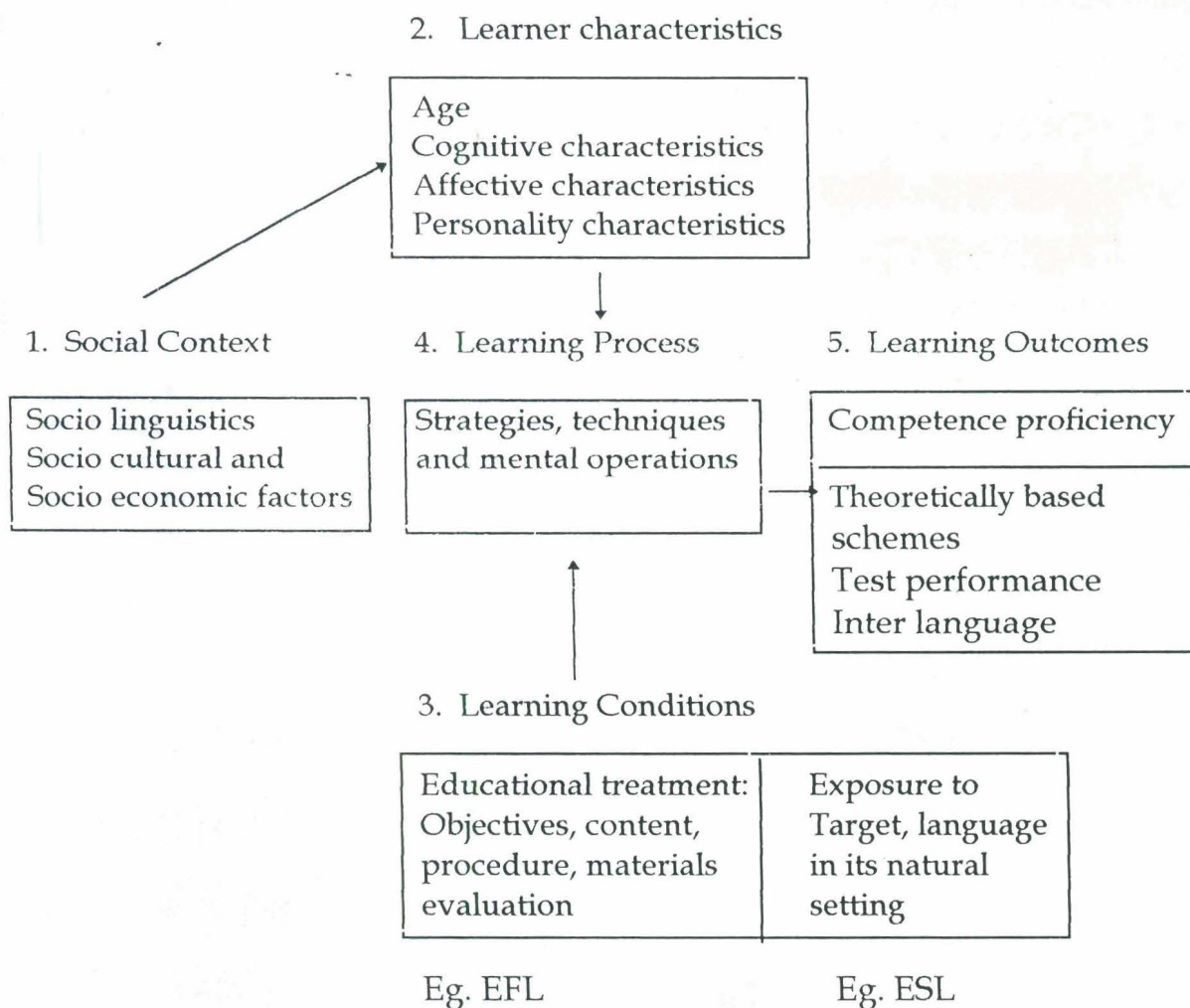
which viewed second language learning as a complex, cognitive skill. Various learning tasks must be practiced and integrated into fluent performance (Barry, 1987). Monitor model (Krashen, 1978, 1981) posits that there are two independent language systems, one conscious and the other sub conscious and that both can be activated in any language use situation. In this model, language acquisition refers to subconscious system and language learning is viewed as a conscious process of rule learning. Carroll (1981) proposed a model of language acquisition in terms of factors operating on the individual at the time he/she is faced with some new language material. Lambert's (1963, 1974) social psychological model of second language acquisition is a theory of self-identity modification and he establishes that linguistic distinctiveness is a basic component of personal identity. The development of proficiency in a second language has implications for the individual's self identity for second language acquisition.

Gardner and Lambert (1965) and Oller (1979) indicated that there are clear language ability components factorially linked with specific language skills which were independent of indices of intelligence. Gardner (1977) has argued that the concept of language aptitude is obviously important, at least in formal language learning contexts such as the class room learning. Schumann (1978) has identified a taxonomy of factors that influence second language acquisition. They include Social, Affective, Personality, Cognitive, Biological, Aptitude, Personal, Input and instructional factors. Further Schumann argues that only two factors namely social and affective

are subsumed by the larger concept of acculturation - the social and psychological integration of the learner with the target language.

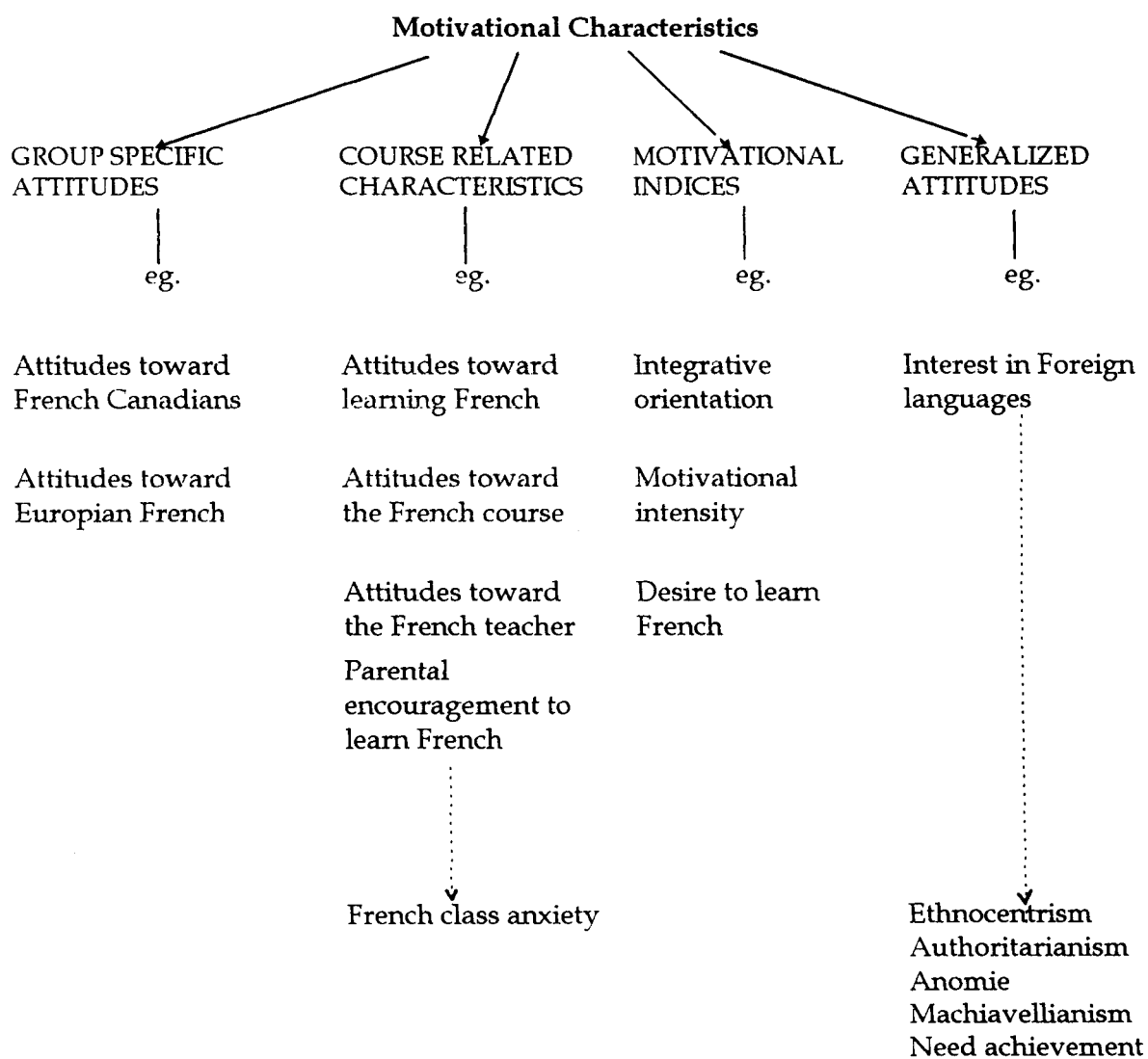
Titone (1973) considered that aptitude and certain personality variables are directly relevant to second language learning. From a review of wide variety of studies, Titone concludes that personality factors such as emotions, attitudes, social interest, anxiety may have tremendous influence on certain types of second language learners. Another line of interest in second language acquisition is concerned with the quality and quantity of second language teaching, the preparation of the teacher and the design and production of language and teaching materials (Daum, 1973).

Stern (1983) formulated a framework for second language learning and distinguished five sets of variables namely, social context, learner characteristics, learning condition, learning process and learning outcome. This has been schematically represented as follows:



While attempting to interpret the second language learner and learning researchers were emphasising more on the learning characteristics, especially the cognitive skills of the learner and the learning process (the learning and instructional strategies). Affective and personality factors have received much less attention. Gardner and Lambert (1972) conducted research over a period of twenty-five years in Canada and later by Gardner and his colleagues at the University of Western Ontario in London. These studies have focussed on learners' social attitudes, values and the

motivation of learners in relation to other learner factors and the learning outcome. This is schematically represented below.



After a careful study of the learner factors affecting second language achievement suggested by Stern (1983) and by Gardner and Lambert (1972) the investigator felt the necessity of studying the influence of select

cognitive and affective factors on second language achievement of secondary schools of Kerala. The investigator could not locate adequate studies in India especially regarding the influence of Language Aptitude or of the influence of other factors on second language achievement. The investigator being a student of English and English Education felt the necessity of studying how Language Aptitude and Select Attitude and Motivational variables relate to Achievement in English.

1.2. STATEMENT OF THE PROBLEM

The problem of present investigation is entitled as LANGUAGE APTITUDE, SELECT ATTITUDINAL AND MOTIVATIONAL VARIABLES AS CORRELATES OF ACHIEVEMENT IN ENGLISH OF SECONDARY SCHOOL STUDENTS.

1.3. DEFINITION OF KEY TERMS

The following terms are defined with a view to clarify the nature and scope of the present study.

1.3.1. LANGUAGE APTITUDE

Language Aptitude is defined as "the natural aptness or bent for the learning of a foreign language, often determined by prognosis tests" (Good, C.V., 1973).

1.3.2. ATTITUDE

Allport (1935) defined Attitude as 'a mental or neural state of readiness, organised through experiences upon the individual's response to all objects and situations with which it is related'. For the purpose of

present study, students' Attitude towards Education, Attitude towards English and Attitude towards English teachers and teaching were included as variables under this category.

1.3.3. MOTIVATION

It is the intensity of a student's efforts and desires to achieve a certain level of marks and a general educational objective.

Achievement Motivation is defined as a combination of psychological forces which initiate, direct and sustain behaviour toward successful attainment of some goal which provides a sense of significance.

1.3.4. ACHIEVEMENT IN ENGLISH

It is the tangible accomplishment or proficiency of performance in English as measured using a standardised test.

1.3.5. SECONDARY SCHOOL STUDENTS

The students who are studying in the secondary classes namely standard VIII, IX and X are called secondary school students.

1.4. DESIGN OF THE STUDY

1.4.1. VARIABLES OF THE STUDY

The variables selected for the study are categorised as independent and dependent variables and are presented below.

1.4.1.1. Independent Variables

The variables which constitute the independent variables were:

- i) Language Aptitude
- ii) Attitude towards Education
- iii) Attitude towards English
- iv) Attitude towards English teachers and Teaching
- v) Achievement Motivation

1.4.1.2. Dependent Variable

- vi) Achievement in English Vocabulary
- vii) Achievement in English Grammar
- viii) Achievement in English Comprehension
- ix) Achievement in English Total

1.4.2. OBJECTIVES

The present study was designed with the following objectives.

1. To find out the main effect of select independent variables on Achievement in English - Total and Content wise, namely, Achievement in English-Vocabulary, Grammar and Comprehension.
2. To find out the interaction effect of select independent variables on Achievement in English-Total and content wise namely, Achievement in English-Vocabulary, Grammar and Comprehension.
3. To estimate the extent of relationship between Achievement in English-Total and content wise and each of the independent variables selected for the study for total sample and sub samples based on sex, locale and type of management of schools.

4. To find out the best predictors of Achievement in English from among the select independent variables and to determine the relative weight with which each predictor variable contributes to Achievement in English of secondary school students.

1.4.3. HYPOTHESES

The hypotheses tested for the present study were the following:

1. There will be significant main effect of select independent variables on 'Achievement in English' - Total and Content wise.
2. There will be significant Interaction^{effect} of select independent variables on 'Achievement in English' - Total and content wise.
3. There will be significant and positive relationship between 'Achievement in English' - Total and Content wise and each of the independent variables for the whole sample and relevant sub samples.
4. Achievement in English of secondary school students can be predicted significantly with fewer number of variables selected from among the independent variables of the study.

1.4.4. SAMPLE

The target population for the study was secondary school students of Kerala. The accessible population was students of standard IX. Therefore the sample was drawn from students who have completed studies in class IX and just promoted to standard X of the secondary schools in Malappuram, Kozhikode and Palakkad districts of Kerala state. The

sample was selected using stratified random sampling technique and the size of the sample was 680.

1.4.5. TOOLS

The investigator used the following tools for the present study.

- i) Language Aptitude Test developed by the investigator (1996).
- ii) Scale of Attitude towards Education (Pillai and Ayshabi, 1983)
- iii) Scale of Attitude towards English developed by the investigator (1996).
- iv) Scale of Attitude towards English teachers and teaching developed by the investigator (1996).
- v) Scale of Achievement Motivation (Pillai and Salimkumar, 1992).
- vi) Achievement Test in English developed by the investigator (1996).

1.4.6. STATISTICAL TECHNIQUES

The following statistical techniques were used to process the data.

- i) Two-way Analysis of variance for unequal sample with 3x3 factorial design followed by post-hoc comparison of subgroups (Ferguson, G.A., 1981).
- ii) Pearson's Product Moment Coefficient of Correlation (Garrett, 1981).
- iii) Multiple Coefficient of Correlation (R) in terms of beta (β) coefficient (Garrett, 1981).

1.5. SCOPE AND LIMITATIONS OF THE STUDY

The main purpose of the present investigation was to explore how Language Aptitude, Select Attitudinal and Motivational Variables influence (either singly or in combination) achievement in English of secondary school students of Kerala. This study was directed to test the extent of association between the dependent variables and each of the independent variables. The study was also attempted to determine the relative weight with which each of the select predictor variable (selected from among the independent variables) contributed to Achievement in English. The study was conducted on secondary school students who have exposed to learning English for six years (that is, from standard IV to standard IX).

Some probable limitations of the present study are listed below:

1. The study was conducted in one class (ie. students who have been just promoted to standard X after successful completion of course in standard IX) at the secondary level and confined to Malayalam medium classes only.
2. The selection of the independent variables were confined to three major variables namely, Language Aptitude, Attitude (Group specific, course related, Generalised attitude) and Achievement Motivation.
3. Achievement Test in English was intended to measure the instructional objectives of cognitive domain only.

4. For measuring achievement in English in the select instructional objectives, the investigator used only objective type items for easy scoring and objective measurement.
5. Selection of the schools was not state wide, but was confined to three revenue districts of Kerala State namely Kozhikode, Malappuram and Palakkad.

REVIEW OF RELATED LITERATURE

K.P. Meera “Language aptitude, select attitudinal and motivational variables as correlates of achievement in English of secondary school students ” Thesis.
Department of Education, University of Calicut, 1999

REVIEW OF RELATED LITERATURE

Language Aptitude - Theory and related studies
Attitudinal Variables - Theory and related studies
Achievement Motivation - Theory and related studies
Conclusion

REVIEW OF RELATED LITERATURE

This chapter provides a brief review of literature relating to the main themes under study. The major variables selected for the study are Language Aptitude, Attitude towards three important psychological objects viz., Attitude towards Education, towards English and towards English teachers and teaching; and Achievement Motivation besides the dependent variable, Achievement in English. The review of literature therefore has been categorised under three sections as follows.

- 2.1. Language Aptitude -
 - i) Theoretical overview
 - ii) Measurement of Language Aptitude
 - iii) Related Studies

- 2.2. Attitude
 - i) Theoretical Overview
 - ii) Measurement of Attitudes
 - iii) Related Studies

- 2.3. Achievement Motivation - Theoretical Considerations and related studies.

2.1. LANGUAGE APTITUDE - MEANING AND DEFINITION

2.1.1. APTITUDE - DEFINED

The word Aptitude was originated from a Greek adjective 'aptos' means 'fitted for'. Aptitude is defined differently by different psychologists. In the Dictionary of Education (Good, C.V., 1973) aptitude is

defined as "a pronounced innate capacity for an ability in a given line of endeavour, such as a particular art, school subject, or vocation."

Aptitude is defined in the Encyclopaedia of Educational Research (1982) as "a construct refers to psychological characteristics of individuals that predispose and thus predict differences in later learning under specified instructional conditions."

Freeman (1962) defines aptitude as "a combination of characteristics indicative of an individual's capacity to acquire (with training) some specified Knowledge, skill or a set of organised responses such as the ability to speak a language, to become a musician, to do mechanical work."

Aptitude is a measure of probability of success of an individual with training in a certain type of situation - a job, in school or in such activities as playing the violin or learning a language.

Cronbach (1970) defines aptitude as any aspect of the individual, including some matters untouched by conventional ability and personality measures, can predict response to instruction and hence can be a source of aptitude. It can be any characteristic of a person that forecasts his probability of success under a given treatment.

In the various definitions there is a common agreement that, aptitude is a measure of future success in a given field.

A different definition of Aptitude was given by Carroll (1981). Accordingly, Aptitude is the amount of time required by the learner to attain mastery of a learning task.

All psychologists agree on the point that heredity plays a significant role in defining the limits of potentiality of an individual. Bingham (1942) states that one's potentialities at the period of his development are quite certainly the product of interaction between condition both innate and environmental.

Educators had first considered aptitude as unitary, that is a function of a single general trait or characteristic. But factor analytic technique indicates that an aptitude need not necessarily be the function of a single general trait. Modern research supports that aptitudes are pluralistic rather than unitary.

That aptitudes are fairly constant for a period of time is implicit in the measurement of aptitudes. Though conclusive evidence is still lacking on this conflicting issues, the general trend seems to be in the direction of assuming that aptitudes are within limits influenced by educational and other environmental factors.

2.1.2. LANGUAGE APTITUDE - DEFINITION

In the Dictionary of Education(Good, 1973), Language Aptitude is defined as the natural aptness or bent for the learning of a foreign language, often determined by prognosis tests.

2.1.3. LANGUAGE APTITUDE - THEORETICAL OVERVIEW

Following World War I, psychological testing of aptitude began to play much of the role formerly played by measures of educational accomplishment. American college admissions were based on the test

devised by Thurstone for the American Council on Education, and its successor, the College Board Scholastic Aptitude Test. Tests were given at about the ninth grade to identify pupils who should take algebra and foreign language, and so to embark on a college preparatory programme. Those who did not show advantage on these tests were not encouraged to aspire to higher education and sometimes were actively discouraged. After World War II, the British examinations at age 11 were allowed to predetermine the child's fortune in life. While there was little outright selection in either country at earlier stages, mental tests were used to identify especially promising beginners. So that the teacher could give them special encouragement.

Initial attempts to identify successful and unsuccessful second language students were focussed primarily on the concept of intelligence. Intelligence testing was popular in psychology and education, and the language programmes were highly academic in nature. Besides it would be expected that individual differences in intelligence would relate to achievement in most second language courses, as they would in most pursuits. Such relationships may be due to the fact that the more intelligent students will better understand the nature of the language learning task, more readily comprehend explanations provided by the teacher and are more likely to deduce principles and develop techniques to facilitate learning.

'The model of school learning' proposed by Carroll (1963) indicates that if students are normally distributed with respect to aptitude for some subject and all students are given exactly the same instruction (in terms of

amount and quality of instruction and learning time allowed) then achievement measured at the subjects completion will be normally distributed. Under such conditions the correlation between aptitude and achievement will be relatively high. Conversely, if students are normally distributed with respect to aptitude, but the kind and quality of instruction, learning time allowed are made appropriate to the characteristics and needs of each learner, the majority of students will achieve subject mastery.

Carroll proposed a model of School Learning which involves two main classes of Variables: those related to instruction, and those relating to individual differences. In the first category, time and instructional excellence are the two sources of influence. In the Second category-general intelligence, aptitude and motivation are the sources of influence. When a learner devotes more time for study, the levels of accomplishment will be high. Regarding instructional excellence, the level of pupil achievement will be high if the quality of instruction is good. Good quality teaching will consider differences in rate of learning, which enable weaker learners to avoid getting left behind by their more talented peers. Where there is a poor level of presentation, greater aptitude will help some students to cope with deficiencies in presentation. Those with less aptitude will not be able to go beyond the situation given to them. Some learners will take twice as long as others to master a particular point or acquire particular skill. The central feature of the Carroll model is that, it is an interactive model which takes into account time, excellence of presentation, verbal intelligence, aptitude and motivation.

Lambert (1967) argued that students learning a second language must be both able and willing to adopt various aspects of behaviour, including verbal behaviour, which characterise members of the other linguistic cultural group. Lambert emphasized that cognitive factors such as language aptitude and intelligence as well as affective factors such as attitudes and motivation are undoubtedly implicated in second language acquisition.

Carroll (1974) reports that language aptitude comprises the following four abilities.

- | | | |
|-----|-------------------------------------|--|
| (a) | Phonetic coding | ability to both code and assimilate phonetic material and hold it for long periods of time in memory |
| (b) | Grammatical sensitivity | awareness and appreciation of the functions of grammatical elements |
| (c) | Memory ability | Capacity to remember large amounts of material |
| (d) | Inductive language learning ability | ability to induce patterns of the language from the primary language data |

Schumann (1978) presents a taxonomy of factors that influence second language acquisition. These include social, affective, personality, cognitive, biological, aptitude, personal, input and instructional factors.

Carroll (1981) has proposed a model of language acquisition which is based on traditional learning theory and present day cognitive psychology

and is known as 'Conscious reinforcement model.' A major concept in this model is reinforcement. The traditional view treated reinforcement as an automatic strengthening of a response at the time it occurred if it resulted in a desired goal. But Carroll (1981) proposes that reinforcement involves an increment to an individual's perception of the appropriateness of the behaviour to a specific context. Knowledge of the whole world is reinforced, not a particular response.

In this model language learning begins when the individual has an intent to communicate something. This intent in combination with situational demands and information gathered from previous similar situations, operates on the individual's performance grammar to produce a response. The individual chooses what he considers to be the most appropriate response in that particular situation based on his knowledge, and if the response is instrumental in achieving the desired goal it is strengthened (reinforced).

Language acquisition is viewed as a complex decision-making process in the Conscious reinforcement model. The individual searches for appropriate responses in order to communicate. Those that achieve the goals are acquired and subsequently automatized. As these language habits become stronger, the role of deliberate attention to the act of communication decreases. Carroll feels that the situations and information would differ in natural and artificial language learning contexts. In the natural setting most of the information available to the learner is observational. In artificial contexts like second language class rooms, most attention is directed toward instruction. The learner in such situations has

very little opportunities to view others in communication settings or to experience self-rated communication.

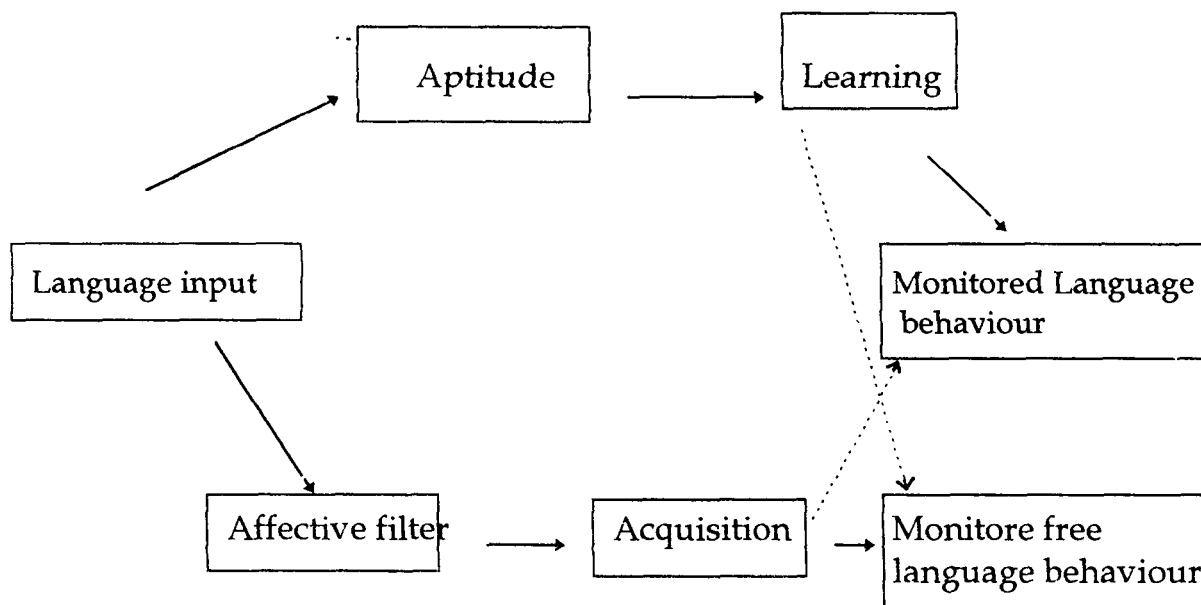
There are many models concerned with explaining the development of competence in a second language. Krashen's monitor model (Krashen, 1978; 1981; 1982) posits that there are two independent language systems—one conscious and the other sub-conscious, and that both can be activated in any language use situation. The monitor itself is viewed as a "conscious grammar". Krashen describes three aspects of monitor use. First, it needs time. When time is not available, the monitor can not generally be brought into play. It is activated where form and correctness of language are important to the user. Third, it reflects a direct application of language knowledge to language behaviour.

Krashen puts distinction between language acquisition and language learning. Language acquisition refers to the sub-conscious system. It requires meaningful interaction in the target language. Whereas Language learning refers to the conscious system. It involves error correction and the presentation of explicit rules. Language acquisition is a sub-conscious process that results from active use of the language whereas language learning is a conscious process of rule learning.

Krashen states that language aptitude relates more to conscious language learning while attitudes are involved primarily in sub-conscious language acquisition. Since language aptitude involves cognitive abilities it will relate highly to indices of second language proficiency involving monitoring or to any material acquired through rule learning. Thus according to Krashen any measure of proficiency which focuses on form

(eg., grammar tests, the cloze procedure) or any that tests school-taught-skills directly (eg: measures of vocabulary drills from the text book) should correlate more highly with measures of language aptitude. Affective variables should correlate more highly with monitor free measures of proficiency.

An important aspect of the model is that the good language learner is an acquirer who may or may not be a conscious learner and therefore, a monitor user. According to Krashen (1981) an acquirer is a person who is able to obtain a sufficient intake of the language and whose attitudes and motivations do not act to interfere with or filter out this intake. As Krashen states, the development of language proficiency begins with language input that is, language input that is understood. Aptitude will interact with this intake and facilitate conscious language learning. Attitudes and motivation will be most influential in unconscious language acquisition, because low levels of these attributes will act as affective filters on language intake. According to Krashen (1989), the acquirer is not aware of the process of acquisition of language. Acquisition produces what Chomsky Calls 'tacit competence' or a feel for language. Learning of rules and grammar is not acquisition. Acquisition appears to play a far more central role than learning in second language performance. Krashen suggests need for a comprehensive input. The major aspects of monitor model is presented below schematically.



2.1.4. MEASUREMENT OF LANGUAGE APTITUDE

The study of language aptitude and of the possibility of predicting achievement in language learning continued to be a matter of considerable academic and professional interest for the decade after the publication of prognosis test by Henmon *et al.* (1929). In the U.K. there were some beginnings of interest in prognosis in the Scottish Council for Research in Education Examination Inquiry (1934) which showed that, in French, University class marks were slightly better predictors of degree marks than were secondary school teachers estimates of the Leaving Certificate Examination, administered by the school.

Investigations by Henmon (1929) and Symonds (1929) demonstrated that in fact the tests were special in that they correlated more highly with achievement in a second language than did indices of intelligence.

During 1930s, efforts were made in the U.S.A. and other countries to develop prognostic test that would justify decisions to exclude unqualified students from high school foreign language classes. In the U.S.A. after the second World war, U.S.A government language programmes supported research in the assessment of language aptitude to improve selection techniques. While a study by one group of psychologists failed, later work by Carroll and colleagues led to the development of usable language aptitude tests, and contributed to the understanding of the nature of language aptitude.

Carroll started with an initial battery that contained 20 separate tests, each intended to check one of five factors of verbal ability: verbal knowledge, word fluency, fluency of expression, associative memory and naming. Also included was a phonetic discrimination task developed by Stanley Sapon that asked the subject to identify the odd sound out in a triad. Carroll tried several kinds of work-sample tests. One was an artificial language test in which subjects learnt the names of a simple foreign-language number system. Another was a tape-recording with accompanying film-strip that taught a simple artificial language. The third one presented a more formal artificial language through grammar lessons.

Foreign Language Prognosis Test, Form B (Symonds 1930; 1958) consisted of four sub tests. First sub test was word translation. Students were given 10 minutes to compare a paragraph written in Esperanto with

its English equivalent and based on this material, to identify the English equivalents of 30 Esperanto words. The second subtest was artificial language. It required 12 minutes, during which students read vocabulary items, grammatical rules, and four sample sentences, and then translated 20 sentences, 10 from English into the artificial language and 10 from the artificial language into English. Subtest three was sentence translation and twelve minutes were required to complete the test. Students examined 26 vocabulary items and then completed a multiple choice test in which they were given an English sentence and four possible Esperanto translations. As they progressed through the items, they were given additional information about Esperanto such as verb endings for tenses, rules for pluralizations, forms for interrogative and possessive pronouns. The subtest four was formation of parts of speech in English. This test allowed students 10 minutes to change 50 words to other parts of speech, such as verbs to nouns, nouns to adverbs.

Carroll (1963) reports that 28 validity coefficients for the Modern Language Aptitude Test (MLAT) for students at the high school level ranged from 0.25 to 0.78 with a median of 0.55 and that 25 coefficients obtained from college samples varied from 0.13 to 0.69 with a median of 0.44.

2.1.4.1 Popular Language Aptitude Tests in English

2.1.4.1.1 Foreign Language Prognosis Test, Form B

This test (Symonds, 1930) consisted of four sub tests. They are given below:

(a) Word translation: Students were given 10 minutes to compare a paragraph written in Esperanto with its English equivalent and, based on this material, to identify the English equivalents of 30 Esperanto words.

(b) Artificial Language: This required 12 minutes, during which students read vocabulary items, grammatical rules, and four simple sentences, and then translated 20 sentences, 10 from English into the artificial language and 10 from artificial language into English.

(c) Sentence translation: Students were given 12 minutes to complete this test. Students examined 26 vocabulary items and then completed a multiple choice test in which they were given an English sentence and four possible Esperanto translations. As they progressed through the items, they were given additional information about Esperanto such as verb endings for tenses, rules for pluralization forms for interrogative and possessive pronouns.

(d) Formation of Parts of Speech in English

This test allowed students 10 minutes to change 50 words to other parts of speech, such as verbs to nouns, nouns to adverbs.

Other foreign language prognosis tests were produced in the 1920s, but they are not used very much today. These include Iowa Foreign Language Aptitude Examination (Stoddard and Beke, 1925) and the Luria-Orleans Modern Language Prognosis Test (1928). In addition to these published tests, there are other such as the Barry Prognostic Language Test (1929) and the Todd Linguistic Aptitude Test (1929).

2.1.4.1.2 The Modern Language Aptitude Test (MLAT)

MLAT by Carroll and Sapon (1959) is appropriate to students as young as grade nine (14 years old). This test consists of five sub tests. They are given below.

(a) Number learning: The number learning test is described as a measure of both a memory component and general auditory alertness. Subjects hear a new language for numbers, and, after some practice using this language, are required to translate from the new language to English.

(b) Phonetic script: This test measures both phonetic coding and memory. In this test the subjects hear sets of four similar speech sounds which are paired with an orthographic script. Following a series of such tests, subjects are asked to indicate one speech sound which is repeated from each test.

(c) Spelling clues: It depends upon English vocabulary knowledge and phonetic coding ability. It looks like a vocabulary test in that the subjects must choose, from five alternatives, the word which is nearest in meaning to a test word, it is unique in that the test word is spelled as it is pronounced.

(d) Words in sentences: It assesses rote memory. Subjects are given a total of four minutes to memorize 24 'Kurdish-English pairs'. Retention is tested by means of a multiple choice test in which the Kurdish words are presented as stimuli and the response alternatives are five of the English words contained in the original test.

2.1.4.1.3 The Language Aptitude Battery

The Language Aptitude Battery by Pimsleur (1966) appears similar to the MLAT in many respects. It consists of six sections as follows:

- (a) Grade point average: It requires that subjects report their most recent year and grades in English, Mathematics, Science and History (or Social Science).
- (b) Interest: It is based on the student's self ratings on a five-point scale of their interest in studying a foreign language.
- (c) Vocabulary: This part consists of vocabulary test.
- (d) Language analysis: Here subjects are presented with a list of words and phrases in Kabardian (a fictitious language) and their English equivalents. From these, subjects must deduce how to say other things in Kabardian and select the correct answer from alternatives provided.
- (e) Sound discrimination: In this test, the subjects are taught, by means of a tape recording, three similar sounding words in a foreign language. They then hear sentences spoken in the language and must indicate which of the three words each sentence contains.
- (f) Sound-symbol test: Here, subjects hear a two- or three-syllable nonsense word and must indicate which of four printed alternatives it was.

Pimsleur assumes that the talent for language comprises three components. One, verbal intelligence, involves both familiarity with words and the ability to reason analytically about verbal materials. The second is motivation to learn the language and the third component is auditory ability.

2.1.4.1.4 The Modern Language Aptitude Test - Elementary Form (EMALT)

Carroll and Sapon in 1967 developed a language aptitude test for students in grades three to six which consists of four sub tests. These sub tests are very similar conceptually to subtests of the MLAT but the difficulty level is appropriate to younger children. The subtests are described briefly below.

(a) *Hidden words*: This test requires that the children find a synonym for words that are presented in their booklets in a kind of phonetic spelling. This test is similar to the spelling clues test of the MLAT and measures vocabulary knowledge and a sound symbol association ability.

(b) *Matching words*: Matching words test is comparable to the words in sentences test of the MLAT in that two sentences are presented, and students must identify the word in a sentence that has the same syntactic function as a particular word in the first sentence.

(c) *Finding rhymes*: In the Finding rhymes test, the student must select a word which rhymes with a stimulus word. There is no comparable test in the MLAT, but it is assumed that, this test measures sound discrimination, an ability tapped by the phonetic script test in the MLAT.

(d) *Number learning*: The number learning test requires students to learn the names of numbers in an artificial language and then write down the number when they hear it in the new language. The assumed underlying abilities are memory and auditory alertness.

The three tests are compared and are presented below:

MLAT/EMLAT		PLAB	
Ability assessed			
<i>Test task descriptions</i>	<i>Names of tests</i>	<i>Names of tests</i>	<i>Test task descriptions</i>
Learn words for numbers in an artificial language	<i>Number learning</i>	<i>Sound discrimination</i>	Learn phonetic distinctions and recognize them in different contexts
Listen to sounds and learn phonetic symbols for them	<i>Phonetic script</i>	<i>Sound-symbol association</i>	Associate sounds with written symbols
Decipher phonetically spelt English words and identify words with similar meanings	<i>Spelling clues</i>	<i>Rhymes</i>	List as many words as possible that rhyme with four given words
<div style="border: 1px solid black; padding: 5px;"> <p>The ability to discriminate, remember, interpret, and produce the phonic substance of another language. Auditory alertness. The ability to relate the phonology to forms of graphemic representation.</p> </div>			
Recognize the syntactic functions of words and phrases in sentences	<i>Words in sentences</i>	Language analysis	Make judgements with the help of translations about the meanings and rules of use of an unknown language
<div style="border: 1px solid black; padding: 5px;"> <p>The ability to pay attention to morphological syntactic, and semantic features of a language, to relate linguistic forms to each other, and to develop patterns, regularities and rules from linguistic materials: linguistic (grammatical-semantic) sensitivity and an inductive learning ability</p> </div>			
Learn and recall words in an artificial language	<i>Number learning paired associates</i>		
<div style="border: 1px solid black; padding: 5px;"> <p>Memory ability: the capacity to memorize and recall words in a new language. rote memory, MLAT/EMLAT only. Not tapped by PLAB</p> </div>			
		Vocabulary	Identify the meaning of different words
<div style="border: 1px solid black; padding: 5px;"> <p>Word knowledge, i.e., lexical competence in the first language tested in PLAB only.</p> </div>			
		<i>Grade-point average in academic areas</i>	Information gathered by tester
		<i>Interest in learning a foreign language</i>	Short questionnaire
<div style="border: 1px solid black; padding: 5px;"> <p>PLAB contains a general school achievement and motivational component, not considered in MLAT/EMLAT as part of the concept of aptitude</p> </div>			

Critics of language aptitude batteries have questioned the theoretical justification of the constituents of language aptitude tests. In some of the language learning models and discussions on language learning emphasis is given to the cognitive aspect and therefore deny the validity of specific language aptitude concept. In some recent discussions on language learning, the concept of special aptitude involves adaptation to new language systems and code switching. It is intelligible to say that second language learning involves general cognitive and learning skills as well as some special skills identified in the language aptitude test batteries. Language aptitude tests like MLAT/EMLAT or PLAB do not capture the intuitive and non-analytical aspects or the communicative and social features of language learning.

2.1.5 LANGUAGE APTITUDE - RELATED STUDIES

2.1.5.1. Language Aptitude and Achievement in Languages

Gardner and Lambert (1959) conducted a study on English-speaking high school students in Montreal who were studying French. These students were examined for language learning aptitude and verbal intelligence as well as for attitudes towards the French community and intensity of motivation to learn French. It was found that French achievement was dependent upon both aptitude and intelligence as well as upon a sympathetic orientation towards the other group.

Mowrer (1960) concluded from his study that the students with low aptitude and poor power of retention try to avoid all possible embarrassment to themselves and give up learning.

Titone (1973) in his study on "some factors underlying second language learning" found that some aptitude and personality variables closely related to language study.

Gardner, Smythe, Clement and Glikman (1976) confirmed that aptitude related much more to classroom skills (grades) than to communicative skills (speech) in French as a foreign language in grades 7 to 11 in various English speaking communities in Canada.

Gordon (1980) tested 129 standard six students (ages 11 to 15) selected at random from 17 schools. The tests administered included the Elementary form of the Modern Language Aptitude Test (Carroll and Sapon, 1967) and a modification of the Attitude/Motivation Test Battery. Ten measures of English proficiency were also obtained on each student. The initial analysis involved a factor analysis of the relations among aptitude, attitude and motivation measure. Four factors were obtained which were identified as language aptitude, integrativeness, motivation and attitude toward the learning situation. In order to assess the relation of attitudes, motivation and language aptitude to achievement in English, scores on the variables clearly defining each of these factors were summed to yield four measures. The correlations of these composite variables with five measures of English competence were determined. In each case the best correlate was language aptitude.

Skehan (1986) conducted a longitudinal study of language acquisition followed up for further information on the relationship between language acquisition, language aptitude and second language learning.

Contrary to other findings he found that language aptitude did not necessarily extend to second language achievement.

Brecht (1991) presented a preliminary report on a long term empirical investigation of advanced language acquisition in a study abroad environment. He found Modern Foreign Language Aptitude Test to be a valid predictor of success in developing reading and listening skills in Russian.

Ganschew (1992) examined results of a factor analysis on a battery of native language and foreign language aptitude tests administered to 80 high school students enrolled in first semester foreign language classes. Thirtysix students were identified as low risk, twenty nine as high risk and fifteen as learning disabled.

Sparks (1993) utilized a multisensory structured language approach with two groups of at-risk high school students, taught in either English or Spanish only. Foreign language aptitude improved for both groups.

Acone (1992) discusses the administration of the Test di Attitudine Linguistica per Bambini (TALB) to students 7-9 years of age. Correlations between the TALB and achievement tests administered at the end of the course were very high. It is concluded that aptitude is a main factor in successful learning of a foreign language.

Ushioda (1993) explored the relevance of acculturation theory to language fossilization in the advanced stages of second language learning and concluded that acculturation theory does not account for two important factors, language aptitude and language needs.

Sasaki (1993) in a supplement to his 1993 study where six of the same participants took different types of second language proficiency tests, a foreign language aptitude battery and an intelligence test. Results revealed differences in information processing between the high and low second language proficiency groups.

Sparks (1995) found out that language aptitude is the primary source of individual difference in foreign language achievement. It depends the Linguistic Coding Differences Hypothesis and suggests that difficulties exist with theories that attribute affective and social context variables in foreign language learning to causal factors.

2.1.5.2 Aptitude and Achievement in other subjects

Abraham (1969) in a study to determine the influence of the basic personality factors on academic achievement found that scholastic aptitude has the maximum influence on academic achievement.

Thakur (1972) conducted a study on Scholastic Achievement of secondary school pupils in Bihar and found out a positive correlation between science aptitude and achievement motivation.

Sreekumar (1972) made a comparative study of science aptitude, science interest and science achievement of science club members. In this study he found out a close relationship between science aptitude, science interest and science achievement.

Skaria (1984) in a study of the attainment of essential concepts in biology in relation to science aptitude found out that there is significant,

positive relationship between the two variables for the total sample, boys, girls, rural, urban and the three levels of science aptitude.

Thamby (1984) in a study of the interaction of 'Science Aptitude' and 'Attitude towards Science' on 'Biology Achievement' found out that there is substantial positive relationship between 'Science Aptitude' and 'Biology Achievement'.

A study conducted by Pillai (1986) on the relative efficiency of 'Science aptitude' and 'Intelligence' to predict 'Biology Achievement' reveals that intelligence contributes more to 'Biology Achievement' at secondary level than 'Science aptitude'.

Jose (1987) in a study of the Biology Achievement of High-, Average and Low Science Aptitude secondary school pupils found that Science aptitude highly influences Biology Achievement of secondary school pupils.

Pillai (1990) investigated that Biology achievement of secondary school pupils differ according to the difference in Science aptitude or attitude towards Science and shows no interaction effect of Science aptitude and attitude towards Science.

2.2 ATTITUDE - THEORETICAL OVERVIEW

The concept of attitude is complex and many definitions have been proposed to describe its essence. Allport (1954) states that, "an attitude is a mental and neural state of readiness, organized through experience

exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related."

Attitudes are attitudes about or towards something. Attitudes differ in terms of their specificity or generality. Some attitudes might be more relevant to the behaviour than others.

Definitions and theories of attitude

1. **The postual Response Theory:** This is the theory of neuro-muscular set, characterised by the behaviouristic approach. This theory implies an organic state of readiness accompanied by neuro-muscular adjustments which in turn develops acts of the inter stimulation of the individuals. An attitude, from this stand point, only includes the stimulus and response but even more so, the preparation for response set up in the neuro-muscular system. An attitude may be defined as preparation for action in certain direction. This theory has been supported by Allport.
2. **The theory of Mental set:** This theory is based on the 'conscious act' theory of behaviour. The conscious act differ from mechanical one, such as the neuro-muscular theory of behaviourism in that, it makes differences to the individuals experiencing it. A conscious act is prospective or intentional. Thus an attitude will determine, the general characters of the act. In this sense, an attitude is an indicator of a future act.
3. **The General Theories:** A third set of theories, usually named as *General theories* include the elements of "Set" (neural and mental) directionality (approach and avoidance tendencies) stressed by the

previous theories and add to it affective and cognitive elements that give attitudes a greater element of organisation.

Some of the definitions of attitude based on these theories are as follows:

Allport (1935) defined attitude as a mental or neural state of readiness, organised through experiences upon the individual's response to all objects and situation with which it is related.

Edwards (1969) defines an attitude as "the degree of positive or negative affect associated with some psychological object." He further elaborates that an individual who has associated positive affect or feeling with some psychological object is said to like that object or to have a favourable attitude towards the object. An individual who has associated negative affect with the same psychological object would be said to dislike that object or to have an unfavourable attitude toward the object.

Nunnally (1978) views attitude as one type of sentiments. He expresses that interests, values and attitudes are the three overlapping and widely investigated types of sentiments. According to him attitudes concern feelings about particular social objects. The feature that distinguishes attitudes from interests and values is that attitudes always concern a particular "target" or object. In contrast interests and values concern numerous activities.

2.2.1. MEASUREMENT OF ATTITUDES

An information form that attempts to measure the attitude or belief of an individual is known as attitude scale (Best and Khan, 1995).

Three methods have been commonly used to elicit the attitude of subjects.

2.2.1.1. Thurstone technique

Thurstone technique of scaled values (Thurstone and Chave, 1929) is the first method of attitude assessment. A number of statements are gathered that express various points of view toward a group, idea or practice. They are submitted to a panel of judges, each of whom arranges them in eleven groups ranging from one extreme to another in position. When there has been sharp disagreement among the judges in assigning a position to an item, that item is rejected. Retained items are given its median scale value between one and eleven. The list of statements is given to the subjects. They are asked to check the statements with which they agree. The median value of statements that they check establishes their score, or quantifies their opinion.

2.2.1.2. Likert Method

Likert Method of Summated Ratings can be done without a panel of judges. Likert type scale takes much less time to construct.

As a first step in constructing a Likert type scale, one has to collect a number of statements about a subject. The statements should express definite favourableness or unfavourableness to a particular point of view.

A trial test should be conducted to a number of subjects. Only those items that correlate with the total test should be kept.

The simplest way to describe opinion is to indicate percentage responses for each individual statement. For this type of analysis by item, three responses - agree, undecided and disagree are preferable to the usual strongly agree, agree, undecided, disagree and strongly disagree. The likert scaling technique gives a scale value to each of the five responses.

2.2.1.3. Semantic Differential (Osgood, 1957)

The Semantic Differential is similar to the Likert method. Here the respondent marks on attitude between two extreme choices. This method provides the individual with a seven-point scale with two adjectives at either end of the scale, like, clean-dirty; tall-short. The respondent is asked to rate a group or object on each of these bipolar scales.

2.2.2. Attitude - Related Studies

2.2.2.1. Attitude towards Education

Aiken (1961) while studying about the relationship between Achievement and attitudes reported that attitudes contributed to the prediction of achievement in Mathematics for females but not for males.

Studying the problem of over, under, and normal achieving students Pal and Saxena (1970) found that under-achievers and normal-achievers showed less positive attitude towards academic work.

Banreti (1987) in his study, "Attitude towards Education and effectiveness of the classroom teacher student teacher relationship"

concludes that there is positive correlation between attitude towards Education and effectiveness of learning.

Baby (1987) conducted a study on the relation between Attitude towards Education and Achievement in Malayalam of High- Average and Low Intelligence secondary school pupils and found that the relationship between attitude towards Education and achievement in Malayalm is significant for all these intelligence group and sub groups based on sex and locale.

Rejani (1991) in her study on the relationship of attitude towards Education and Achievement Motivation with social studies achievement of high school pupils found that positive and significant relationship exists between these variables.

2.2.2.2. Attitude towards English and other Languages

The studies by Hodgson, Lambert, Gardner and Fillenbaum (1960) reported that attitudinal differences associated with second-language achievement.

A study by Anisfeld and Lambert (1964) extended the experimental procedure to samples of Jewish high school students who were studying Hebrew and their attitude towards the Jewish culture and community as well as tests of verbal intelligence and language aptitude. The results indicated that both intellectual capacity and attitudinal orientation affected success in learning Hebrew.

Neidt and Hedlund (1967) assessed attitude toward learning three different subjects - English, German and Anatomy. Attitudes were assessed five times throughout the course. Hedlund concluded that there is an increasing congruence between attitude and achievement.

Wofford and Willoughby (1968) reported that a learner would attain better proficiency if he has a positive attitude towards the target language community.

Hernick and Kennedy (1968) suggest that forcing students to learn languages rapidly creates feelings of failure, and it is obvious that such dissatisfaction could generalize to attitudes towards learning the language among some students.

In his discussion on attitudinal aspects of second language learning, Spolsky (1969) comments that in a typical language learning situation, there are a number of people whose attitude to each other can be significant, the learner, the teacher and the learner's peers and the speakers of the language.

Various empirical studies by Manis and Dawer (1961) Shnayer (1969) and Vaughan (1973) have proved that reading material which is accepted with a positive attitude is more successfully comprehended than the material which is unfavourably viewed.

Brodie and Williams (1969) in their study found low but significant positive correlation between attitude towards school and class achievement.

Bartley (1970) found that the student's attitude toward learning is probably the important factor in academic success whether one refers to scholastic behaviour in general or to the particular area of foreign language learning.

Mueller and Miller (1970) found that attitudes toward French people correlated significantly with student grades. In another study conducted by Mueller (1971) it was found that attitude towards French speaking people were correlated with grades in English.

Adams and Wallace (1971) conducted a study of student attitude toward English as a second language in Puerto Rico found that there is an affirmative attitude in studying English. Information was gathered from students in grades five through eight that revealed student contact with English, amount of English used and parental and students attitude towards learning English.

Kapoor (1972) reported that the attitude of secondary school pupils towards English related significantly with their achievement in English.

Randhawa and Korpan (1973) reported that some aspects of the attitude are more highly related to achievement than others. They reported correlations between ratings of French achievement made by teachers of 100 grade seven and eight students and their four factors of attitudes towards learning French.

Burstall (1974) reported that if the learner does not have a positive attitude to learn, specially a second language he may not achieve success even with all other components of attitude.

Abraham (1974) in her study on some factors relating to underachievement in English of secondary school pupils, found that attitude towards the language affect achievement in English.

Burstall (1975) Gagon (1974) and Gardner and Smythe (1975) recognized that girls tend to demonstrate significantly more positive attitudes than boys to learn languages.

Oller and his colleagues (1979) looked at the relationship of Chinese, Japanese and Mexican student's achievement in English and their attitude towards the self and the native language group, their reasons for learning English and their reasons for travelling to the United States. One common finding emerged from the study was that a positive attitude towards self, native language group and the target language commonly fielded better proficiency in the language.

Sreemanunii (1987) reported that achievement in Malayalam is closely related to the pupils' attitude towards the language.

Ahmad (1989) conducted a study on the role of attitudes and motivation in teaching and learning foreign languages in Iraqi preparatory schools and obtained significant relationships between the variables.

Wilhelm (1995) conducted a study on the identification of LL (Language Learning) Back ground variables associated with university IEP success and found that attitude towards English class is closely related to success.

Unissa (1995) in his study on an investigation into factors leading to low achievement in English at the secondary level found that negative attitude of the learners contribute low achievement in English.

2.2.2.3. Attitude and Achievement in Other Subjects

A study by Lalithamma (1967) revealed that significant correlation exists between attitude towards academic work and achievement of high school subjects.

Rup Prakash (1968) found a positive relationship between attitude towards learning science and achievement in science in VIII standard students.

Sharma (1975) studied the variation in the achievement of eleventh grade urban students in four Indian states namely Hariyana, Punjab, Himachal Pradesh and Chandigarh and found that there exists a significant difference in the achievement of subjects.

Santhanam and Govinda (1977) in a review found that students with high aspiration and favourable attitude towards mathematics scored higher than their counter parts with low aspiration and unfavourable attitude towards mathematics.

Marjorbanks (1978) studied the relation between attitudes and academic achievement. The study found that attitudes influence the academic achievement of low social status children.

In a study by Good (1979) found significant relationship between attitude towards science and scientists and understanding of science by the subjects.

Pillai (1981) reported high school students show low correlation between achievement in biology and attitude towards science.

Sarah, Shantakumari, Williams (1983) after conducting a study on a sample of 3,000 cases, concluded that about 30 percent of the variance in science achievement was accounted for by one's attitude towards science and one's attitude towards science education.

Talton Evelyn and Lynn (1983) conducted a study on relationship of attitude toward class room environment with attitude towards science among 10th grade biology students and found that a causal relationship exists.

Sundararajan and Rajasekar (1988) in their study on attitude of the higher secondary students towards the study of Physics and their achievement in it reported that the attitude of the higher secondary students towards the study of Physics and their achievement in it are positively related.

Thondike (1991) studied the attitude toward Mathematics: Relationships to Mathematics Achievement, Gender, Mathematics course-taking plans, and career interests and found that attitude towards Mathematics was predictive of final mathematics coursegrade.

Gratz and others (1993) conducted a study on Attitudes and Achievement in Introductory psychological statistics classes: Traditional versus computer - supported Instruction and found out that positive attitude towards statistics increased over the course of the semester regardless of type of the class.

Debaz (1994) revealed in his study on Meta-Analysis of the Relationship between students' characteristics and Achievement and Attitudes toward science that positive relationships were found between the study's outcome measures and attitudinal indicators which included both attitudes toward science and attitudes toward science learning.

2.2.2.4. Attitude and Achievement - Studies Showing Lack of Relationship

A study conducted by Rahiman (1981) found that attitude towards academic work has no significant role in social studies achievement.

Gopinathan (1981) reported that attitude towards academic work has no influence on achievement in Malayalam.

Wong (1982) pointed out in his studies on the roles of Attitude and Motivation in second language acquisition among adolescent native Chinese speakers in the United States, that there was no significant relationship between the variables when he used large sample between attitude towards class room environment and attitudes towards science.

2.3. ACHIEVEMENT MOTIVATION - RELATED STUDIES

2.3.1. THEORY OF ACHIEVEMENT MOTIVATION

Motivation is derived from the Latin word 'Moveers' which means 'to move'. Thus in its literal sense motivation is the process of arousing movement in the organism.

Motivation may be defined as a combination of forces which initiate, direct and sustain behaviour towards a goal. Thus motivation not only

instigates behaviour, but also reinforces the ongoing behaviour. In the class room situation motivation is that which drives the student desirous of learning and apply himself to the task. Hence it is needless to emphasize that the level of motivation of the learner will affect his learning and achievement.

Motivation is the pivot in academic performance. Several investigators have tried to link motivation to over-achievement and under-achievement or to High-achievement or Low-achievement. The role of motivation can be seen in various research reports.

'Achievement Motivation' is the need for achievement, a wish to do all. It refers to the behaviour of an individual who strives to accomplish something to do his best to excel others in performance.

Mc Clelland (1961) has provided a theoretical base by arguing that achievement motivation develops in some people more than in others because in some people achievement motivation outcomes have positive affect that is, those outcomes are only of moderate discrepancy from what has been previously experienced. On the otherhand, for others, the outcomes are of great discrepancy and thus have negative avoidance affects on the individual.

Atkinson (1964) in his theory specified that achievement motivation is a special case of intrinsic motivation which differentiates out of the basic motivational propensity of needing to feel competent and self-determining in relation to the environment. The motive for success is simply one's need to match some standard of excellence. Probability of success is one's

expectancy of achieving the goal and it relates to both a person's ability and the difficulty of the task. According to him, there are, basically two types of people and each will act in an achievement - oriented fashion under different conditions. They are a) a person whom the need to achieve is greater than the fear of failure and b) the person for whom the fear of failure is greater than the need to achieve. Each of these individuals is motivated by the desire to achieve certain pleasant affect is in achieving, where as for the latter the pleasant affect is in avoiding a sense of failure.

Allen (1964) remarked that success equals intelligence plus achievement motivation. The excellence of success in life depends upon the potential endowments, in the form of intelligence and also the urge to succeed.

Deei's (1975) cognitive model of behaviour include five important elements. They are stimulus inputs, awareness of potential satisfaction, selection of goal, goal directed behaviour, and rewards and satisfaction.

Vidler (1977) defines achievement motivation as a pattern of planning, of actions and of feelings connected with striving to achieve some internalized standard of excellence as contrasted with the quest for power or control.

2.3.2. ACHIEVEMENT MOTIVATION STUDIES SHOWING RELATIONSHIP WITH ACHIEVEMENT

Mc David (1959) studied the relationship between social reinforcement and scholastic achievement and found that there is a positive correlation between scholastic attainment and social reinforcement.

After reviewing the literature Pimsleur (1962) posited that verbal intelligence and motivation are the two most important variables in second language learning.

Reed (1963) in the study of motivation of college students as related to voluntary drop out and Under- and Over- achievement found that there exist a positive relation between achievement motivation and academic achievement.

Singh (1965) focussing on the non-intellectual correlates of academic achievement found that motivation has positive relationship with performance.

McKeachi *et al.* (1966) noticed positive correlation between achievement motivation and academic achievement.

Sinha (1967) investigated the relationship of intelligence and personality factors to academic achievement of school students found that academic achievement is positively and significantly related to achievement motivation.

According to Vernon (1969) a high degree of achievement motivation necessarily leads to long term goal directed activity.

The studies of Spolsky (1969) Gardner and Lambert (1972) found a positive correlation between motivation and second language learning.

Dutt and Subramal (1971) noticed significant and substantial correlation between achievement motivation and academic achievement.

Atkinson and Raynor (1974) reported that achievement motivation has a positive relationship with performance.

Pathak (1974) investigated high school student's achievement motive and school performance and reported that achievement motivation has positive relationship with performance and attitude towards study.

Christian (1977) conducted a study relating fear of failure, hope of success, achievement motivation and anxiety and concluded that achievement motivation has a positive relationship with performance.

Kohlon and Uppal (1979) studied the discrepancy between aptitude and achievement in relation to achievement motivation on a sample of 364 standard IX students. The discrepancy between aptitude and achievement bears significant relationship with achievement motivation, high motivation going with positive discrepancy and low motivation accounting for negative discrepancy.

Zargar (1980) in a study to find out the relation between intelligence, creativity and scholastic achievement with n-achievement found out positive correlation between achievement motivation and achievement.

In another study on the attitude and motivation of Oriya-speaking Indian students towards learning English as a second language, Pramanik (1981) concluded that, the students had instrumental motivation. The main purpose of their learning English was to pursue higher education.

Sween (1984) made a study to ascertain the effect of n-achievement on students' performance. The sample of the study was 1401 students of

chandigarh city. Results of the study indicate a positive correlation between achievement motivation and achievement.

Gandhi (1985) studied the academic achievement and its relation to achievement motive, affiliation motive and power motive. The study showed that achievement motive significantly and positively related to academic achievement of high school students of both the sexes.

Ghosh (1985) conducted a study to find out the relationship of achievement in Chemistry and its determinants. He found positive correlation between achievement in Chemistry and academic motivation.

Fatmi (1986) in a study of achievement-related motivations among tribal and non-tribal high school students found that achievement motivation is positively related to achievement.

Narayanan (1987) studied the relationship of achievement motivation and achievement in Hindi of socially advantaged and disadvantaged secondary pupils and found positive relationship between achievement motivation and achievement in Hindi for the total sample.

Togonu (1988) conducted structured interviews with 40 teachers of deaf primary school pupils in Nigeria and 40 other teachers found the teachers identified the greatest challenge in society's weak acceptance of the legitimacy of deaf education and the greatest prospect was the high achievement motivation of deaf pupils.

Berndt (1990) examined the influence of friends' on school achievement motivation, each of 118 eighth graders was paired with a close

friend to discuss dilemmas concerning achievement motivation or an unrelated topic. Friends' decisions on motivational dilemmas were more similar after discussion than before.

Dohn (1991) conducted a study on drop-out in the Danish High School and found that dropping out was associated with lack of motivation.

Rejani (1991) in her study to find out the relationship of attitude towards education and achievement motivation with social studies achievement of high school pupils found that there is a marked relationship between achievement motivation and social studies achievement.

Stinnett (1991) conducted a study on Nine teachers from two schools rated third-through sixth-grade regular education students (n=97) using Teacher Rating of Academic Achievement Motivation (TRAAM) and Teacher Rating of Academic Performance. Initial analyses of TRAAM indicated the instrument has potential to become sound psychometric alternative assessment device for investigating academic achievement motivation in children.

Rhoneck (1991) in his study on psychological aspects of learning about basic electricity in rural and urban classes found that learning is related primarily to interest and motivation.

Gama (1991) conducted a study on the achievement in the Brazilian public schools and found that teachers low expectations and negative attributions produce lowered achievement motivation and self-esteem and negative school attitudes.

Anderman (1992) found that class room level practices heavily influence students' perceptions of what their schools value. When teachers foster a competitive class room environment, then students are likely to feel

that the entire school holds such values. On the other hand, when children feel that the school is task-focused, students are less likely to believe that the school values ability goals; however this negative relationship disappears in class rooms where teachers encourage challenging tasks.

Ford (1992) explored the influences of social, psychological and cultural determinants of underachievement as perceived by 148 intermediate grade African-American students in gifted, above average or average academic programs. Psychological factors played the greatest role in underachievement or poor achievement motivation.

Schultz (1993) reported that socio-economic advantage and achievement motivation are significant mediators of academic performance among minority children.

Jegede (1994) reported that if adequately motivated, the students are capable of mastering English. He conducted a study on 160 Nigerian secondary students to determine the influence of achievement motivation and gender on performance in English language learning.

Salimkumar (1994) conducted a study on the interaction of approaches to studying and achievement motivation on achievement in biology of secondary school pupils and found that the main effect of achievement motivation on Achievement in Biology was found to be significant at 0.01 level for knowledge category for the total sample.

Pollalis (1995) reported that group work and role taking can both increase motivation and improve learning. This finding is based on observations from teaching an undergraduate information - based organization course and builds on past research to explain the findings in

student issues, achievement motivation and small group effectiveness in information management teaching.

Valsala (1997) conducted a study on certain cognitive and affective correlates of process outcomes in Physics of university entrants and found that more than 63 percentage of variance of 'process outcomes in Physics' can be attributed to 'Achievement Motivation'.

2.3.3 ACHIEVEMENT MOTIVATION NOT RELATED WITH ACHIEVEMENT

Girija *et al.* (1975) studied the relationship of study habits with study skills, achievement motivation and achievement and found no conclusive evidence that achievement motivation is related to study skills and achievement.

Seshadri (1980) conducted a study on programmed instruction and reported that achievement motivation has no influence on achievement under certain conditions.

Shanmuga Sundaran (1981) in a study of academic achievement in relation to motivation and self concept found no positive relationship between achievement motivation and performance.

Rajput (1984) reported in a study of academic achievement of students in Mathematics in relation to intelligence and achievement motivation that in neutral class room conditions, the achievement of students in maths is not affected by their achievement motivation.

Hagborg (1992) compared school motivation, scholastic competence and intrinsic motivation of 9th and 10th grade students and found that on measures of scholastic competence and motivation orientation the High-group different from both the Medium- and Low groups.

SUMMARY OF RELATED STUDIES ON LANGUAGE APTITUDE

Study	Investigator	Result
Language Aptitude and Achievement in Language	1) Gardner and Lambert, 1959	Language Aptitude related to Achievement in language
	2) Carroll, 1962	
	3) Filone, 1973	
	4) Gordon, 1980	
	5) Brecht, 1991	
	6) Ganschew, 1992	
	7) Sparks, 1992	
	8) Acone, 1992	
	9) Ushiode, 1992	
	10) Citron, 1993	
	11) Sasaki, 1993	
	12) Sparks, 1995	
Aptitude and Achievement in other subjects	1) Abraham, 1969	Aptitude is related to Achievement
	2) Thakur, 1972	
	3) Sreekumar, 1972	
	4) Skaria, 1984	
	5) Thampy, 1984	
	6) Pillai, 1986	
	7) Jose, 1987	
	8) Pialli, 1990	
Language Aptitude not related with achievement	1) Skehan, 1986	Language Aptitude need not relate to achievement

SUMMARY OF RELATED STUDIES ON ATTITUDE

Area of Study	Investigator	Result
Attitude and Education	1) Pal and Saxena, 1970	
	2) Banreti, 1987	
	3) Baby, 1987	
	4) Rejani, 1991	

SUMMARY OF RELATED STUDIES ON ATTITUDE

Area of Study	Investigator	Result
Attitude and Achievement in Language	1) Whyte and Holmberg, 1956	Positive Attitude increases Achievement
	2) Hodgson, Lambert and Gordner and Fillenbaum, 1960	
	3) Anisfeld and Lambert, 1964	
	4) Neidt and Hedlund, 1967	
	5) Wofford and Willoughby, 1968	
	6) Hernick and Kennedy, 1968	
	7) Spolsky, 1969	
	8) Manis and Dawer, 1961 Shnayer, 1969 and Vaughan, 1973	
	9) Brodie and Williams, 1969	
	10) Bartley, 1970	
	11) Mueller and Miller, 1970	
	12) Adams and Wallace, 1971	
	13) Kapoor, 1972	
	14) Randhawa and Korpan, 1973	

	15) Burstall, 1974	
	16) Abraham, 1974	
	17) Burstal (1975) Gagon (1974) and Gardner and Smythe, 1975	
	18) Oller, 1979	
	19) Sreemanunni, 1987	
	20) Ahmad, 1989	
	21) Wilhelm, 1995	
	22) Unissa, 1995	
Attitude and Achievement in other subjects	1) Lalithamma, 1967	Attitude related to Achievement
	2) Sharma, 1975	
	3) Santhanam and Govinda, 1977 Marjorbemkes, 1978	
	4) Good, 1979	
	5) Pillai, 1981	
	6) Tarton, Evelyn and Lynn, 1983	
	7) Thorndike, 1991	
	8) Gratz and Others, 1993	
	9) Debaz (1994)	
Attitude and Achievement showing lack of relationship	1) Rahiman, 1981	
	2) Gopinathan, 1981	
	3) Wong, 1982	

SUMMARY OF RELATED STUDIES ON ACHIEVEMENT

MOTIVATION

Area of Study	Investigator	Result
Achievement Motivation and Scholastic Achievement	1) Mc David, 1959	Achievement Motivation related to Achievement
	2) Pimsleur, 1962	
	3) Reed, 1963	
	4) Singh, 1965	
	5) Mc Keachi <i>et al.</i> (1966)	
	6) Sinha, 1967	
	7) Vernon, 1969	
	8) Spolsky (1969) Lambert, 1972	
	9) Atkinson and Raynor, 1974	
	10) Pathak, 1974	
	11) Christian, 1977	
	12) Kohlan and Uppal, 1979	
	13) Zargar, 1980	
	14) Pramanik, 1981	
	15) Sween, 1984	
	16) Gandhi, 1985	
	17) Ghosh, 1985	
	18) Fatmi, 1986	
	19) Narayanan, 1987	
	20) Togonu, 1988	
	21) Berndt (1990)	
	22) Dohn, 1991	
	23) Rejani, 1991	
	24) Stinnett, 1991	
	25) Rhoneck, 1991	
	26) Gama, 1991	
	27) Anderman, 1992	

- | | | |
|-----|-----------------------------|--|
| 28) | Ford, 1992 | |
| 29) | Schultz, 1993 | |
| 30) | Jagede, 1994 | |
| 31) | Salimkumar, 1994 | |
| 32) | Pollalis, 1995 | |
| 33) | Valsala, 1997 | |
| | | |
| 1) | Girija <i>et al.</i> , 1975 | Achievement
motivation not
related to
Achievement |
| 2) | Seshadri, 1980 | |
| 3) | Shanmuga Sundaran, 1981 | |
| 4) | Rajput, 1984 | |
| 5) | Hagborg, 1992 | |
-

2.4. CONCLUSIONS

A thorough and extensive review of the related studies enabled the investigator to arrive at the following conclusions.

The review of studies relating to the relationship between Language Aptitude and Achievement revealed that in many studies these two variables are found to be related. But no relationship was reported between these two variables in one study (Ushioda, 1993).

Many studies reported showed positive relationship between attitude and achievement and at the same time negligible or no relationship were noted in certain other studies.

Studies showing the relationship between achievement motivation and achievement also reveal contradictory findings.

Most of the studies on Language Aptitude were conducted in European countries. Very few studies were conducted in India. Many of these were attempted at the master's level. The investigator intends to explore the main effect and interaction effect of Select Independent Variables on Achievement in English. Not many studies of this type have been located. It is hoped that the present study will have some theoretical as well as practical significance in the field of education.

VARIABLES, HYPOTHESES AND METHODOLOGY

K.P. Meera “Language aptitude, select attitudinal and motivational variables as correlates of achievement in English of secondary school students ” Thesis.
Department of Education, University of Calicut, 1999

VARIABLES, HYPOTHESES AND METHODOLOGY

Selection of variables
Objectives and hypotheses
Methodology

VARIABLES, HYPOTHESES AND METHODOLOGY

This chapter deals with the design of the study which has been described under the following heads.

- 3.1. SELECTION OF VARIABLES
- 3.2. OBJECTIVES AND HYPOTHESES
- 3.3. METHODOLOGY

3.1. SELECTION OF VARIABLES

The main aim of the present investigation is to explore the nature and extent of relationship of Language Aptitude, select Attitudinal and Motivational variables with Achievement in English of Secondary School Students.

A review of related studies has been made for collecting the various factors affecting achievement in different school subjects. These studies reveal that there are some factors which facilitate scholastic achievement, whereas others debilitate achievement. The major variables identified among these varied variables were classified and are presented below.

3.1.1.1 Cognitive Variables

This group includes variables belonging to the cognitive domain such as intelligence, aptitude, critical thinking, comprehension and interpretation and the like.

3.1.1.2 Affective Variables

This group contains variables belonging to affective domain such as attitudes, interests, adjustment, achievement motivation and personality factors like anxiety and neuroticism.

3.1.1.3 Social-Familial and Other Environmental Variables

This part refers to the level of education, profession and income of the parents, locale, facilities available at home, classroom environment and the like.

3.1.1.4 Study Habit and Approaches to Studying

This group contains the variables like study habits, learning styles, methods of work, note-taking behaviour, regularity in studies and use of reference material.

3.1.1.5 Instructional methods

This part refers to the variables like teaching and instructional methods and techniques, evaluation procedure, use of audiovisual materials, size of the class and co-curricular activities.

3.1.2 CRITERIA USED FOR THE SELECTION OF VARIABLES

After identifying the important factors associated with achievement in English, the investigator made a careful selection of the variables for the present study considering the following aspects:

- i) Standardised tests for the variables should be available or tests could be developed within a reasonable time.

- ii) Variables should be strongly related to achievement in Language in general and Achievement in English in particular.
- iii) Variables for which exploratory studies are not adequate enough to draw conclusion.
- iv) Data for the variables could be collected through group measurement.

Considering the above factors, the following variables were considered to be included for the present study.

3.1.2.1 Variables of the study

(1) Independent Variables

The variables included under this category are the following:

1. Language Aptitude
2. Attitude towards Education
3. Attitude towards English
4. Attitude towards English Teachers and Teaching
5. Achievement Motivation

(2) Dependent Variable

6. Achievement in English Vocabulary
7. Achievement in English Grammar
8. Achievement in Comprehension
9. Achievement in English - Total Score

3.2 OBJECTIVES AND HYPOTHESES

A review of related studies and personal experience of the investigator as a teacher of English enabled to select and formulate the objectives and hypotheses of the present study.

3.2.1 OBJECTIVES

1. To find out the main effect of select independent variables on Achievement in English - Total and Content wise namely, Achievement in English - Vocabulary, Grammar and Comprehension.
2. To find out the interaction effect of select independent variables on Achievement in English - Total and Content wise namely, Achievement in English - Vocabulary, Grammar and Comprehension.
3. To estimate the extent of relationship between Achievement in English - Total and Content wise and each of the independent variables selected for the study for total sample and sub samples based on sex, locale and type of management of schools.
4. To find out the best predictors of Achievement in English from among the select independent variables and to determine the relative weight with which each predictor variable contributes to Achievement in English of Secondary School students.

3.2.2 HYPOTHESES

The following are the hypotheses proposed and tested by the present study.

1. There will be significant main effect of select independent variables on 'Achievement in English' - Total and Content wise.
2. There will be significant interaction effect of select independent variables on 'Achievement in English' - Total and Content wise.
3. There will be significant and positive relationship between 'Achievement in English' - Total and Content wise and each of the independent variables for the whole sample and relevant subsamples.
4. Achievement in English of Secondary School Students can be predicted significantly with fewer number of variables selected from among the independent variables of the study.

3.3 METHODOLOGY

The methodology of the study has been described under the following heads:

3.3.1 SAMPLE FOR THE STUDY

3.3.2 TOOLS USED FOR THE STUDY

3.3.3 DATA COLLECTION PROCEDURE

3.3.4 SCORING AND CONSOLIDATION OF DATA

3.3.5 PROCEDURE FOR ANALYSIS OF DATA

3.3.1 SAMPLE FOR THE STUDY

The important aspects considered for the sample selection are described below.

3.3.1.1 Population of the study

Secondary school students of Kerala form the target population of the present study. But the accessible population for the study was students who have completed standard IX and just promoted to standard X.

3.3.1.2 Size of the Sample

Perhaps the most important factor in determining the generalisability of research results is the selection of the sample used in collecting the research data. Best (1989) suggests that the larger the sample, the smaller the magnitude of the sampling error. But Krech and Crutchfield (1968) remarked that a sample of 500 would give reasonably good results which would keep the error less than five percent. The size of the sample in the present study was fixed as 750 in order to undertake subgroup analysis as well.

3.3.1.3 Technique of Sampling

Stratified random sampling technique was used to select the sample for the study. As Guilford and Fretcher (1973) observed, stratification is a step in the direction of experimental control. This is applicable when the population is composed of subgroups or strata of different size, so that a representative sample must contain individuals drawn from each category or stratum in accordance with the size of the group.

3.3.1.4 Rationale for the various strata considered

The widely accepted and the popular procedure for stratification, recommended for use by Indian Social Science researchers was adopted for this purpose. Accordingly the most satisfactory representative sample of Secondary School students could be obtained by giving representation to the following aspects.

- (i) Sex of the subjects
- (ii) Locale of Schools (Rural/Urban)
- (iii) Instructional efficiency of Schools
- (iv) Type of management (Private/Government)

The above mentioned aspects were considered to ensure adequate representation for the different strata. Proportionate representation was decided by using the official statistics available at the Director of Public Instruction, Government of Kerala. For classifying the schools according to the instructional efficiency pass percentage in the Secondary School Leaving Certificate examination for three consecutive years was considered. The estimated ratios (roughly taken) were as follows:

Boys : Girls - 1:1 (Roughly)

Rural : Urban 2:1 (Roughly)

Government : Private 2:3 (Roughly)

Instructional efficiency

A : B : C - 1 : 3 : 1

The letters A, B and C stands for the following efficiency level of schools.

Level A - Superior - pass percentage above 75.

Level B - Average - pass percentage 40-60.

Level C - Low - pass percentage below 20.

Since the study warrants the use of analysis of the data of relevant sub samples and on the assumption that a final sample of about 700 will be available for final analysis the investigator decided to cover a basal sample of 750.

Based on the ratios fixed as above, the tentative break-up was roughly estimated as shown below.

Boys - 375

Girls - 375

Rural - 500

Urban - 250

Government - 300

Private - 450

TABLE 1

Break-up of the Basal Sample

Sex	Locale		Total
	Rural	Urban	
Boys	250	125	375
Girls	250	125	375
Total	500	250	750

It was decided to collect data from students who have completed studies in standard IX. Assuming that each class division has a strength of approximately 35-40 students, it was further decided to select students just promoted to standard X from 11 (eleven) schools. Each class was therefore considered as the unit.

The literacy rate in Kerala is very high and the number of School going children are almost equal in all the districts of the state. Considering these aspects and for the economy of time and effort, Kozhikode, Malappuram and Palakkad Revenue districts were selected for the study. It was decided to select eleven schools for the collection of needed data. The investigator assumed that the strength of the pupils in standard IX will be approximately 35. So it was decided to select two class divisions of standard X from nine schools and one division each from three schools.

The details of the schools selected for the study are presented in Table 2.

TABLE 2
List of Schools Selected for the Study

Sl. No.	Name of School	Rural/Urban	Govt./Private	Instructional efficiency	Districts of schools
1	St. Joseph's High School, Kozhikode	Urban	Private	A	Kozhikode
2	Govt. Ganapath Girls' High School, Kozhikode	Urban	Govt.	A	Kozhikode
3	Govt. High School, Calicut University Campus	Rural	Govt.	B	Malappuram
4	Ramanattukara High School, Ramanattukara	Rural	Pvt.	B	Malappuram
5	Govt. East High School, Ottapalam	Urban	Govt.	C	Palakkad
6	Chandan Brothers High School, Vallikkunnu	Rural	Pvt.	B	Malappuram
7	Madavanantham High School, Parappanangadi	Rural	Pvt.	B	Malappuram
8	Govt. High School, Cheruvannur	Rural	Govt.	C	Kozhikode
9	N.S.S. K.P.T. High School, Ottapalam	Urban	Pvt.	B	Palakkad
10	Koonathara High School, Koonathara	Rural	Govt.	B	Palakkad
11	Farook High School, Feroke	Rural	Pvt.	B	Kozhikode

A - Superior, B - Average, C - Low

3.3.2. Tools used for the study

Selection of valid and reliable tools for collecting data is an important aspect in the field of research. The different variables and the tools used in the present study are given below.

Independent Variables

(i) Language Aptitude Test

The independent variable, 'Language Aptitude' was measured by using Language Aptitude Test developed by the investigator (1996) in consultation with the supervising teacher and experts in Central Institute of English and Foreign Languages, Hyderabad.

(ii) Scale of Attitude towards Education

The independent variable, 'Attitude towards Education' was measured by using scale of Attitude towards Education developed by Pillai and Ayshabi (1983).

(iii) Scale of Attitude towards English

The independent variable 'Attitude towards English' was measured by using Scale of Attitude towards English developed by the investigator (1996).

(iv) Scale of Attitude towards English teachers and teaching

The independent variable 'Attitude towards English teachers and teaching' was measured by Scale of Attitude towards English teachers and teaching developed by the investigator (1996).

(v) Scale of Achievement Motivation

The independent variable 'Achievement Motivation' was measured by Scale of Achievement Motivation developed by Pillai and Salim Kumar (1993).

Achievement Test in English

The dependent variable 'Achievement in English' was measured using Achievement Test in English developed by the investigator (1996).

A brief description of the various tools used for obtaining the needed data is presented below.

3.3.2.1. Language Aptitude Test

Language Aptitude Test was developed by the investigator. It is modelled after Language Aptitude Test developed by Carroll (1959) and Pimsleur (1966).

Planning of the test

In the planning of the test, the investigator has studied the literature relating to concept of Language Aptitude and popular tools developed to measure Language Aptitude. It has been noted that many researchers in western countries have attempted to measure Language Aptitude.

The Language Aptitude Test of Carroll (1959) and Pimsleur (1966) are intended for students whose mother tongue is a European language. The letters and grammatical patterns of Malayalam, the mother tongue of Kerala, (a script language) is quite different from European languages. The investigator studied the component dimensions of Modern Language

ii) Words in Sentences

This is to test the ability of the examinee to identify the grammatical function of the specified word or words as it does in the key sentences and apply the same in the given sentence. Here, each item consists of a 'Key Sentence' with a word or phrase printed in capital letters, followed by another sentence with words and phrases underlined and numbered. The examinee is directed to pick the word or phrase in the second sentence which does the same function in that sentence as the capitalized words does in the key sentence.

Eg: (1) Different countries AND different races have different manners.

You can pick up the papers or throw them away

A B C D

Here, 'C' is the correct answer.

(2) We ARRANGED a trip to Mysore

The Crocodile took some of the fruits

A B C D

Here 'B' is the correct answer.

iii) Paired Associates

Here the rote memorization ability of examinee in English and a foreign language equivalents for a period of time is measured. The foreign language selected for this purpose is French. The examinee is directed to study a list of given French - English vocabulary equivalents for two minutes, in the next two minutes he has to practice recalling the English

meanings, and in the final four minutes he has to complete from memory a multiple choice test of the presented vocabulary.

Eg : Father - Vater

Chalk : Kreide

(iv) Language Analysis

Here the ability of the examinee measured is how he can deduce other forms of the sentence from a given sentence in foreign language. The examinee is given a number of sentence forms in French and their English equivalents. From these he has to conclude how other forms of the sentence can be deduced in French.

Eg: Un beau / Jour - a fine day

Une Jolie / petite / maison - a pretty little house

How would you say, a fine house

- A. Un beau / maison
- B. beau / Jolie / Jour
- C. Une / petite / Jour
- D. beau / Jour / maison

Correct answer is A.

Item Writing

It was decided to develop the Language Aptitude Test for a duration of 45 minutes with appropriate instructions. All the items were of objective type and the words were selected from the English curriculum prescribed

for detailed study for fifth, sixth, seventh, eight and ninth classes of schools of government of Kerala and were included in the English Reader.

The investigator has pooled initially 180 items under four sub tests. This test was given for expert criticism and scrutiny. The experts selected for scrutiny are the following:

Tharu, Jacob, Professor, Department of Evaluation, CIEFL,
Hyderabad

Desai, B.T., Professor, Department of Extension Services, CIEFL,
Hyderabad

David, Annie, Head, Department of Extension Services, CIEFL,
Hyderabad

Raja gopal, G., Head, Department of Methods, CIEFL, Hyderabad.

Sharma, V.B.B., Head, Department of Education, Osmania
University.

On the basis of expert criticism certain items were deleted and some were modified, thus the number was reduced to 150. The draft test comprising of seventy five items under 'Spelling Clues', forty two items under 'Words in Sentences', thirteen items under 'Language Analysis' and twenty items under 'Paired Associates' were prepared with appropriate instructions for responding together with scoring key. (The draft test is presented in Appendix IA). The draft test was administered on a sample of 120 students of standard X selected from the Schools of Palakkad and Malappuram districts for field testing. Time taken to finish the subtests

was noted. An average of 90 minutes was required to finish the test completely.

Item analysis was carried out, based upon the procedure suggested by Ebel (1973). The high and low groups consisting of the upper 25 percent and the lower 25 percent of the total group respectively were taken. The difficulty level and discriminating power were calculated by using the following two formulae.

$$1. \quad \text{Index of item difficulty} = \frac{U + L}{2N}$$

$$2. \quad \text{Index of item discrimination} = \frac{U - L}{N}$$

Where U, the number of correct responses in the upper group and L, the number of correct responses in the lower group, and N, the number of students in the Upper and lower group.

Details of item analysis is given in Appendix IB.

Items with difficulty value between 0.5 and 0.8 were selected readily. In order to get adequate number of items the investigator considered 27 items with difficulty index between 0.36 and 0.5 also. Likewise the items with a discriminating power above 0.4 were selected first. In order to get reasonable number of items in all sub tests the investigator considered 12 items with discriminating power above 0.26 as well. Items were presented in the increasing order of difficulty for the preparation of final test.

The final test consists of seventy four item - Forty items under 'Spelling Clues', twenty items under 'Words in Sentences' four items under 'Language Analysis' and ten items under 'Paired Associates'.

Estimation of validity and reliability

Validity

Content validity of the test was established by selecting the dimensions of well established popular language aptitude tests. Adequate sampling of test items were included in the four dimensions of the Test. Moreover, the scientific procedure of constructing a test was followed. Empirical validity was established by comparing the mean Language Aptitude Scores of two extreme groups - consistent High - Achievers in English (n=18) and consistent Low - Achievers in English (n = 34), of standard X identified on the basis of average marks obtained in class examinations in standard IX and X using mean and standard deviation as cut off point. The Language Aptitude Scores of these two extreme groups were compared using test of significant difference between means. The 't' value obtained is found to be 5.452, which is significant beyond 0.01 level of probability.

Reliability

The reliability of the test was found out by split half method. The test was divided into two equal and comparable halves by grouping together the odd numbered items and the even numbered items. Split half reliability was calculated for a sample of 50 students. The reliability coefficient of the full test was computed by using the Spearman-Brown

prophecy formula. Reliability coefficient for the half test is 0.897 and for the full test is 0.941.

The indices of validity coefficient and reliability coefficient show that, this test is a reasonably valid and reliable tool for measuring Language Aptitude of Secondary School Students.

The norms of the final test (decile norms) were worked out using the scores of the final sample selected for the study (N=680) and is presented in Appendix II.

3.3.2.2. Scale of Attitude towards Education

This is a Likert type three point scale developed and standardised by Pillai and Ayishabi (1983). The scale consists of thirty statements, measuring the degree of favourableness and unfavourableness towards the significance of present education in contributing to positive behaviour change in secondary school students. The scale has fifteen positive and fifteen negative statements. These statements have been written on the basis of component themes such as freedom from superstition, emotional control and balance, securing new information, promoting healthy social relationship, attaining self support, developing innate abilities, good habits and responsibilities, acquiring problem solving abilities and spending leisure time usefully. Against each statement, the subjects are to indicate their degree of favourableness/unfavourableness. The scale has no time limit.

A subject has to respond to each of the statements by choosing any one of the three alternatives 'Agree', 'Undecided', 'Disagree'. Scoring

procedure for the positive statement is 3, 2, 1 and for negative statement is 1, 2, 3.

The psychometric properties of the Scale of Attitude towards Education were reported by the investigators. As the scale was developed in 1983, the validity and reliability of the scale were re-established by the investigator. The scale was administered to a representative sample of 50 students of standard X. The validity of the scale was estimated by estimating coefficient of correlation of the scores of the scale with the average marks of standardised generalised achievement test in all the school subjects. The obtained co-efficient of validity is 0.51.

The reliability of the scale was established by test-retest method. The test-retest reliability coefficient of the scale is 0.78.

3.3.2.3. Scale of Attitude towards English

The scale of Attitude towards English was developed by the investigator in consultation with the guide. A brief description of the procedure of development of the scale is given below.

It was decided to develop a Likert type scale with three response categories viz., 'Agree', 'Undecided' and 'Disagree'. The investigator put no time restriction in taking the draft test. The test was intended for Malayalam medium students of Secondary classes. The Scale can be used for the students of standard VIII, IX and X. Hence items were written accordingly.

For the pooling of statements for the scale of Attitude towards English a thorough analysis of the literature related to attitude scale

construction and attitude of School students towards English was done. Besides, informal discussions with students were done. This enabled the investigator to identify the dimensions to be included in the attitude scale. The dimensions for the scale of Attitude towards English are the following.

- i) Value of English in society
- ii) Motivation in learning English
- iii) Anxiety towards English
- iv) Enjoyment in learning English
- v) Universalism

After deciding the dimensions, statements were written. Thurstone and Chave (1929), Likert (1932) and Edwards and Kilpatrick (1948) have suggested various informal criteria for editing statements to be used in the construction of attitude scales. Hence while writing and editing the statements the investigator followed certain criteria. The investigator has tried to (i) avoid statements that are factual or capable of being interpreted as factual, (ii) avoid statements that refer to the past (iii) avoid statements that are likely to be endorsed by almost every one or by almost no one; (iv) keep the language of the statements simple, clear and direct; (v) avoid statements containing universals such as 'all', 'always' 'none' and 'never' (vi) not to use words such as 'only', 'just', 'merely' etc., (vii) and to avoid the use of double negatives. Care was taken that each statement should contain only one complete thought.

The investigator pooled fifty five statements at first. After consulting with expert teachers and psychometricians certain items were deleted and

some were modified and the number of items were arranged logically according to the dimensions fixed earlier.

A student has to mark the response in the separate response sheet provided. Hence the scale was designed in such a way that three circles were given against each statements representing Agreement (A), Undecided (U) and Disagreement (D) respectively. Subjects have to mark their reaction towards each statement by marking 'X' inside the blank circle, which represents their attitude.

The attitude scale was designed as a three point scale. Extreme Agreement (SA) and extreme Disagreement (SD) were omitted. The Scoring procedure was 5,3 and 1 for a positive statement. For a negative statement the scoring scheme was reversed: 1,3 and 5 respectively for Agree, Undecided and Disagree. The sum of the scores of all the statements formed the Attitude towards English of that particular respondent.

Example of positive statements

I see English films because I want to hear spoken English

It is easy to get job abroad if we learn English

Example of negative statements

Talking English can be considered as a sign of vanity

Many of us would not have learn English, if it is not made compulsory in schools.

The draft scale of Attitude towards English thus consists of twenty six statements (thirteen negative statements and thirteen positive statements).

The scale was administered on a sample of 370 students of standard X in Palakkad and Malappuram district for field testing. The sample was selected using stratified random sampling technique. Scoring and the procedure of item analysis suggested by Edwards was followed. For this 27 percent of subjects with the highest total scores and also 27 percent of subjects with the lowest total scores were taken. In evaluating the responses of the high and low groups to the individual statements 't' values for scores of each statement was calculated using the formula,

$$t = \frac{X_H - X_L}{\sqrt{\frac{S_H^2}{n_H} + \frac{S_L^2}{n_L}}}$$

Where X_H = the mean score on a given statement for the high group

X_L = the mean score on the same for the low group

S_H^2 = the variance of the distribution of responses of the high group to the statement

S_L^2 = the variance of the distribution of responses of the low group to the statement

n_H = the number of subjects in the high group

n_L = the number of subjects in the low group

Statements for which the 't' value exceed 1.65 were selected for the final scale.

The item analysis table is given in Appendix IIIB.

The best twenty six items (thirteen positive items and thirteen negative items) were selected and the final scale was prepared. The positive and negative items were mixed in the final scale. The scale in the final form is presented in Appendix IIIC.

Validity and reliability of the scale was estimated.

Validity

Validity of the scale was estimated using teacher ratings as external criterion. The teachers teaching English of entrants in standard X were asked to rate the students for their attitude towards English. The teachers were requested to observe the students regarding their reaction towards value of English in society, motivation in learning English, anxiety towards English, enjoyment in learning English and their opinion regarding the universal nature of English for a period of one month. The ratings were done on five point scale provided to them and the ratings were converted into scores, (Scores from 1-5). The sample consists of 20 boys and 30 girls. The scores of the Scale of Attitude towards English of these subject were correlated with teacher ratings.

Correlation coefficient was found to be 0.45. The validity coefficient indicates that the scale is a reasonably valid measure of attitude towards English of secondary school students.

Reliability

Reliability of the scale was calculated using split-half method. Split-half reliability was calculated using a sample of 50 students. The reliability coefficient of the full test was computed by using the Spearman-Brown prophecy formula. Reliability coefficient for the half test is 0.870 and for the full test is 0.930.

The norms of the final scale (decile norms) were worked out using the scores of the final sample (N=680) is presented in Appendix II.

3.3.2.4 Scale of Attitude towards English Teachers and Teaching

The scale of Attitude towards English Teachers and Teaching was developed by the investigator in consultation with the guide. A brief description of the procedure of development of the scale is given below.

It was decided to develop a Likert type Scale with three response Categories viz., 'Agree' 'Undecided' and 'Disagree'. The investigator put no time restriction in taking the draft test. The test was intended for Malayalam medium students of Secondary classes. The scale can be used for the students of Standard VIII, IX and X. The items were written accordingly.

For the pooling of statements for the scale of Attitude towards English Teachers and teaching literature regarding attitude of School students towards English Teachers and teaching were referred. Besides, informal discussions with students were done to know their opinion regarding English teaching and English teachers. This enabled the investigator to identify the dimensions to be included in the attitude scale.

The dimensions selected for the scale of Attitude towards English teachers and teaching are the following.

- i) Teacher's Nature
- ii) Involvement of English teacher in teaching English
- iii) Teacher-student relationship in the class
- iv) Class room environment in English class
- v) Motivation in learning English

The statements were written after deciding the dimensions. Same procedure for developing the scale of Attitude towards English was adopted for editing the statements for this scale also.

Example of positive statements

The atmosphere in English classes is very calm and quite.

Examples of negative statements

No opportunity is given to us for mingling with the English teacher.

The final draft scale of Attitude towards English teachers and teaching consisted of thirty seven statements in Malayalam. Necessary instructions for responding to items and scoring key were also prepared.

For field testing, the Scale was administered on a sample of 370 students of standard X, the try out sample for the scale of Attitude towards English was used for this purpose also. After scoring, the item analysis procedure suggested by Edwards was followed. Response of individual items (total score) of upper 27 percent of subjects and lower 27 percent of

subjects were used for item analysis. The formula used for calculating t-value is as follows.

$$t = \frac{X_H - X_L}{\sqrt{\frac{S_H^2}{n_H} + \frac{S_L^2}{n_L}}} \quad (\text{Edwards, 1957})$$

Statements for which the 't' value exceed 1.65 were selected for the final scale.

The item analysis table is given in Appendix IVB.

The final scale consists of thirty four items (twenty positive items and fourteen negative items). The positive and negative items were mixed in the final scale. The scale in the final form is presented in Appendix IVC.

Validity

Validity of the scale was estimated using teacher rating as external criterion. The teachers teaching English of entrants in standard X (of the school for which validity for the scale of 'Attitude towards English' was estimated) were requested to rate the students for their classroom behaviour expressing attitude towards English teachers and teaching. The teachers were to observe such aspects as opinion of students regarding teacher's nature, teacher's involvement in teaching, extent of teacher-pupil relationship and nature of class room environment for learning English, etc. of the students for a period of one month. The ratings were done on a five point scale provided to them and the ratings were converted into scores

(Scores from 1-5). The sample consists of 20 boys and 30 girls. The scores on the scale of Attitude towards English teachers and teaching of these subjects were correlated with the teacher ratings. The correlation coefficient was found to be 0.50. The validity coefficient indicates that the scale is a reasonably valid measure of attitude towards English teachers and teaching of secondary schools.

Reliability of the test

Reliability of the test was calculated by split half method. Split half reliability was calculated using a sample of 50 students. The reliability coefficient of the full test was computed by using Spearman-Brown prophecy formula. Reliability coefficient of the half test is 0.680 and for the full test is 0.809.

The norms of the final scale (decile norms) were worked out using the scores of the final sample (N = 680) and is presented in Appendix II.

3.3.2.5. Scale of Achievement Motivation

Achievement Motivation of the students was measured by a scale of Achievement Motivation developed by Pillai and Salim Kumar (1993). This scale is modelled after the Cassidy-Lynn Achievement Motivation questionnaire which consists of seven factors namely "Work ethic", "Acquisitiveness" 'Dominance', 'Pursuit of Excellence', 'Competitiveness', 'Status aspiration' and 'Mastery'. Out of the 50 items 8 items belong to work ethic, 6 items of pursuit of excellence, 10 items of status aspiration, 6 items of Acquisitiveness, 4 items of mastery and 10 items of Dominance and

6 items of Competitiveness. Sum of the scores for individual items indicate Achievement Motivation of the subjects.

The scale is a three point scale with positive and negative statements. For positive statements the scores 2, 1, 0 was given for the response 'Yes', 'Undecided' and 'No' respectively and for negative statements the scoring was in the reversed order. Reliability of the scale was found out by estimating the internal consistency of test items by Alpha Coefficient method. The obtained Alpha coefficient for Work Ethic, Pursuit of Excellence, Status Aspiration, Mastery, Competitiveness, Acquisitiveness and Dominance are 0.68, 0.64, 0.84, 0.59, 0.62, 0.64 and 0.67 respectively. The scale was validated against a popular scale used for many research purposes in Kerala namely, the Kerala scale of Achievement Motivation. The validity coefficient was found to be 0.68 (N = 80).

3.3.2.6. Achievement Test in English

The dependent variable Achievement in English was measured by using Achievement test in English developed by the investigator.

Taking into account the feasibility for easy administration and scoring, only multiple choice items were included in the test. The procedure for preparing the test was based on the scientific procedure suggested by Ebel. The design adopted for the development of the test is described below.

Planning the test

a) *Weightage to objectives*

For preparing the test it was decided to include objectives under the cognitive domain proposed by Bloom (1979). The objectives included in the test were Knowledge, Comprehension and Application. Weightage assigned for various objectives are shown below.

Sl. No.	Objective	Percentage
1	Knowledge	58
2	Comprehension	24
3	Application	18
	Total	100

Weightage to content

The Achievement Test in English was prepared not strictly following the English Reader. The investigator decided to prepare a test of 50 items under Vocabulary, Preposition, Spelling, Tenses, Conjunctions, Question tag, Word order, Reported speech, Reflexive pronouns, Degrees of comparison of adjectives and Comprehension. The weightage assigned to the content is given below.

Sl. No.	Content	Percentage
1	Vocabulary including spelling	40
2	Grammer	
(a)	Preposition	8
(b)	Tenses	12
(c)	Conjunction	4
(d)	Question tag	8
(e)	Word order	8
(f)	Reported speech	4
(g)	Reflexive pronouns	6
(h)	Degrees of comparison	2
3	Comprehension	8
Total		100

A two dimensional blue-print of the test specifying the weightage assigned to the objectives and content was then prepared. The blue print of the test is presented in Table 3.

TABLE 3
Blue Print of Achievement Test in English

Sl.No.	Content	Objectives			Total
		Knowledge	Comprehension	Application	
1	Vocabulary	1 (12)			12
2	Spelling	1 (8)			8
3	Preposition		1 (4)		4
4	Tenses			1 (6)	6
5	Conjunctions	1 (2)			2
6	Question tag	1 (4)			4
7	Word order	1 (4)			4
8	Reported speech			1 (2)	2
9	Reflexive pronouns	1 (3)			3
10	Degrees of Comparison			1 (1)	1
11	Comprehension		1 (4)		4
					50

Item writing

Based on the design of the test, 120 items were pooled initially. Items were prepared in consultation with experts and subject specialists. Sources used for item development were question papers for various competitive Examinations, Question Banks and books of Lado (1971), Bloom (1979) and Mc Namara (1996). Items were prepared under different categories like meaning of words, opposites, one word for a group of words, suitable word that makes a sensible sentence, spelling, tenses, conjunction, question tag, sentence pattern, reported speech, reflexive pronouns, degrees of comparison of adjectives and two passages for comprehension. The investigator grouped the above items into three category; viz. vocabulary, grammar and comprehension. Under the category, vocabulary such items which measure the students knowledge of words, meaning, recognition of correct spelling and opposites, identification of one word for a group of words and the selection of word that makes a sensible sentence were included. Preposition, reported speech, question tag, reflexive pronouns and degrees of comparison of adjectives were grouped under grammar. Passages were given for testing comprehension.

The items were scrutinised by experts in the field of English teaching. Certain items were deleted owing to unclear ideas in the distractors. The items were then edited in the light of expert criticism. These items were then arranged according to the objectives and difficulty level of items. Thus the final draft test with 80 items (three-fourth times of items according to the Blue Print) together with instructions and separate response sheets were

prepared and printed for field testing. The final draft test is presented as Appendix VA.

The final draft test was administered to a representative sample of 400 students studying in standard X of selected schools of Kozhikode and Malappuram districts. All the response sheets were scored (one score for correct answer and no score for incorrect answer). Score sheets which are incomplete were eliminated. Out of the remaining sheets, 370 response sheets were taken by random rejection for analysis.

The test was then subjected to item analysis based upon the procedure suggested by Ebel (1972).

The response sheets were arranged in the descending order of scores from high to low. The upper 27 percent and lower 27 percent of the total group were taken and the percentage of correct responses of each items were found out. The difficulty index and discriminating power were calculated using the following formulae.

$$1. \quad \text{difficulty index} \quad = \frac{U + L}{2N}$$

$$2. \quad \text{Discrimination power} \quad = \frac{U - L}{N}$$

U = Number of correct responses in the upper group

L = Number of correct responses in the lower group

N = Number of students in any of the group

The details of the item analysis is presented as Appendix VB. Final selection of items was based on the psychometric characteristics of items. Items with difficulty index between 0.40 and 0.60 and discriminating power of 0.20 and above were selected. The item selection was done in such a way as to agree with weightages assigned to the content. So 50 items were selected for inclusion in the final test.

The final test is presented as Appendix VC.

Validity of the test

Content validity was ensured by including adequate sampling of test items under different objectives and content area; and by following the scientific procedure of constructing an achievement test such as preparation of a blue print, formulating objective type and multiple choice test items and estimating empirically the item suitability. Empirical validity was established by comparing the marks of test scores of two extreme groups - Consistent High- Achievers (n=18), and consistent Low Achievers (n =34) in standard X identified on the basis of average marks obtained in class examinations in standard IX and X. The Achievement test scores of the two extreme groups were compared using test of significant difference between means. The 't' value is found to be 10.096.

Reliability of the test

Reliability of the test was calculated using split-half method. Split half reliability was calculated using a sample of 50 students. Reliability coefficient for the half test is 0.7025 and for the full test is 0.825.

3.3.3. DATA COLLECTION PROCEDURE

After deciding the sample for the study (the students who have completed standard IX and just promoted to standard X i.e. entrants of standard X), the investigator prepared the test booklets and the answer sheets in the final form. Then the investigator contacted the Heads of the eleven institutions selected for the study. With the help of the Heads of the institutions a time schedule was fixed for testing. Two consecutive days were allotted for each school.

The investigator personally administered all the tests; and the time variation and methods of administration for each test was strictly followed in all the schools to create an ideal situation. The data collection was conducted in the months of June and July 1997.

In administering the tools, the conditions prescribed in the test manuals were followed. On the first day Language Aptitude Test, Scale of Attitude towards English and scale of Achievement Motivation were administered. Achievement Test in English, Scale of Attitude towards Education and Scale of Attitude towards English Teachers and Teaching were given on the second day. A brief description regarding the procedure for responding to the tools was given followed by distribution of response sheets for answering the tests. Then the students were familiarised with the mode of answering the tests. After this test book lets were given one after the other. The class teachers of the respective classes have assisted in the conduct of the tests.

3.3.4. SCORING AND CONSOLIDATION OF DATA

Scoring of the answer sheets were done according to the instructions given in the respective test manuals. Punched Scoring key was used for scoring. Scores in Achievement in English was totalled separately for vocabulary (items 1 to 20) grammar (items 21-46) comprehension (items 47-50) besides total score. Since the tests were conducted on two successive days data regarding some cases who had not taken the tests on both days, had to be discarded. Finally 680 cases that were complete in all respects were chosen for the final analysis. Break-up of the final sample is presented in Table 4.

TABLE 4

The Break-up of the Final Sample

Sl. No.	Name of School	Rural/ Urban	Govt./Pvt.	Instructional efficiency	District of the school	Number of students		Total
						Boys	Girls	
1	G.H.S.C.U.Campus	Rural	Govt.	B	Malappuram	41	53	94
2	G.V.H.S. Koonathara	Rural	Govt.	B	Palakkad	17	27	44
3	Farook. H.S.	Rural	Pvt.	B	Kozhikode	86	--	86
4	Ramanattukara H.S.	Rural	Pvt.	B	Malappuram	43	47	90
5	M.V.H.S. Ariyalloor	Rural	Pvt.	B	Kozhikode	11	25	36
6	C.B.H.S. Vallikunnu	Rural	Pvt.	B	Malappuram	37	39	76
7	G.V.H.S. Cheruvannur	Rural	Govt.	C	Kozhikode	--	49	49
8	St. Joseph's H.S. Calicut	Urban	Pvt.	A	Kozhikode	42	--	42
9	Govt. H.S. Ottapalam East	Urban	Govt.	C	Palakkad	24	21	45
10	N.S.K.P.T.H.S. Ottapalam	Urban	Pvt.	B	Palakkad	38	34	72
11	Govt. Ganapath H.S. Chalappuram	Urban	Govt.	A	Kozhikode	--	46	46
Level. A. Superior - Level. B. Average. Level. C. Low						339	341	680

The scores of these 680 subjects for different tests and other data relating to them were tabulated on a consolidated data sheet. Each subject was given a specific serial number and against this number data concerned with him/her was entered in the same line following a specific order. This consolidated data were subjected to analysis using appropriate techniques.

3.3.5. PROCEDURE FOR ANALYSIS OF DATA

Procedures used for analysis of data is described under the following heads.

3.3.5.1. Classification technique

(i) Classification based on Language Aptitude

The total sample ($N = 680$) was divided into three groups based on scores of Language Aptitude as High-Language Aptitude Group (HLG), Average-Language Aptitude Group (ALG) and Low-Language Aptitude Group (LLG). The conventional procedure of using σ distance for dividing the total sample was used on the assumption that Language Aptitude scores follow normal distribution. Subjects who scored $(M + \frac{1}{2}\sigma)$ and above were considered as High-Language Aptitude Group. The subjects who scored $(M - \frac{1}{2}\sigma)$ and below were considered as Low-Language Aptitude Group. Average-Language Aptitude Group were those who scored between $(M + \frac{1}{2}\sigma)$ and $(M - \frac{1}{2}\sigma)$. The mean Language Aptitude score was found to be 30.48 with a standard deviation of 9.01.

ii) Classification based on 'Attitude towards Education'

The total sample ($N = 680$) was divided into three groups based on scores of Attitude towards Education as 'Favourable Attitude towards

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Education Group', 'Moderately Favourable Attitude towards Education Group' and 'Less Favourable Attitude towards Education Group'. The procedure described under 3.3.5.1 using Mean and Standard deviation as cut off point was adopted for this purpose. Mean and Standard deviation of Attitude towards Education of the sample N=680 are 70.24 and 10.40 respectively.

(iii) Classification based on Attitude towards English

Based on the mean and standard deviation of the total sample (N=680) in the Scale of Attitude towards English, the sample was categorised into three subgroups namely 'Favourable Attitude towards English Group', 'Moderately Favourable Attitude towards English Group' and 'Less Favourable Attitude towards English Group'. Mean plus or minus half sigma was used for this classification. Mean and Standard deviation of Attitude towards English of the sample N=680 are 71.72 and 10.77 respectively.

(iv) Classification based on Attitude towards English Teachers and Teaching

Assuming that the scores on Attitude towards English Teachers and Teaching is normally distributed, the total sample (N=680) was categorised into three groups as 'Favourable Attitude towards English Teachers and Teaching Group', 'Moderately Favourable Attitude towards English Teachers and Teaching Group', and 'Less Favourable Attitude towards English Teachers and Teaching Group' taking mean and standard deviation as cut off point. Mean and Standard deviation of Attitude towards English

Teachers and Teaching of the Sample N=680 are 108.48 and 17.01 respectively.

(v) Classification based on Achievement Motivation

The sample (N=680) was categorised into three groups based on 'Achievement Motivation' score as 'High-Achievement Motivation Group', 'Average-Achievement Motivation Group' and 'Low-Achievement Motivation Group'. Mean and Standard deviation was used for this purpose. Procedure described under 3.3.5.1 has been adopted for identifying the subgroups.

3.3.5.2 Statistical Techniques

(i) Preliminary Analysis

For the preliminary analysis of the test scores, the important statistical constants such as Mean, Median, Mode, Standard Deviation, Skewness and Kurtosis of the variables were computed separately for the total sample.

(ii) Two-way Analysis of Variance

Analysis of Variance employing two independent variables involving two way classification is the two-way ANOVA. A researcher can test single effect (Main effect) of each of the independent variable and the first order interaction effect of the independent variables on the dependent variable by using this method.

The main effect and interaction effect of the select independent variables on the dependent variable, Achievement in English - total and

contentwise (Achievement in English - Vocabulary Achievement in English - Grammar Achievement in English - Comprehension) were studied employing two way ANOVA with 3x3 factorial design.

Each of the subjects in the sample was identified as belonging to different combination groups depending upon the different analysis of variance undertaken for the study. The number of subjects falling under each combination group is presented below

- 1) Groups based on Language Aptitude by Attitude towards Education Combination (Variable 1 by Variable 2)

	Favourable Attitude towards English	Moderately Favourable Attitude towards English	Less Favourable Attitude towards English	
High LA	83	95	34	212
Average LA	88	136	66	290
Low LA	43	65	70	178
	214	296	170	

	Mean	SD
Language Aptitude	30.48	9.01
Attitude towards Education	70.24	10.40

2) Groups based on Language Aptitude by Attitude towards English (V1 by V3)

	Favourable Att. towards English	Moderately Favourable Att. towards English	Less Favourable Att. towards English	
High LA	85	71	56	212
Average LA	78	116	96	290
Low LA	46	87	45	178
	209	274	197	

Attitude towards English : Mean : 71.72
SD : 10.77

3) Groups based on Language Aptitude by Attitude towards English Teachers and Teaching (V1 by V4)

	Favourable Attitude towards Eng. Trs. & Tng.	Moderately favourable Att. towards Eng. Trs. & Tng.	Less Favourable Att. towards Eng. Trs. & Tng.	
High Language Aptitude	86	69	57	212
Average Language Aptitude	75	116	99	290
Low Language Aptitude	40	70	68	178
	201	255	224	

Attitude towards English Teachers & Teaching: Mean : 108.48

SD : 17.91

4) Groups based on Language Aptitude by Achievement Motivation (V1 by V5)

	High Achievement Motivation	Average Achievement Motivation	Low Achievement Motivation	
High Language Aptitude	68	74	70	212
Average Language Aptitude	80	109	101	290
Low Language Aptitude	60	59	59	178
	208	242	230	

Achievement Motivation: Mean : 65.94

SD : 11.65

5) Groups based on Attitude towards Education by Attitude towards English (V2 by V3)

	Favourable Attitude towards English	Moderately favourable Att. towards English	Less Favourable Att. towards English	
Favourable Attitude towards Education	89	65	60	214
Moderately Favourable Attitude towards Education	89	126	81	296
Less Favourable Attitude towards Education	31	83	56	170
	209	274	197	680

6) Groups based on Attitude towards Education by Attitude towards English Teachers and Teaching (V2 by V4)

	Favourable Attitude towards English Trs. & Tg.	Moderately favourable Att. towards English Trs. & Tg.	Less Favourable Att. towards English Trs. & Tg.	
Favourable Attitude towards Education	80	82	52	214
Moderately Favourable Attitude towards Education	86	112	98	296
Less Favourable Attitude towards Education	35	61	74	170
	201	255	224	680

7) Groups based on Attitude towards Education by Achievement Motivation (V2 by V5)

	High Achievement Motivation	Average Achievement Motivation	Low Achievement Motivation	
Favourable Attitude towards Education	77	69	68	214
Moderately Favourable Attitude towards Education	90	109	97	296
Less Favourable Attitude towards Education	41	64	65	170
	208	242	230	

8) Groups based on Attitude towards English by Attitude towards English Teachers and Teaching (V3 by V4)

	Favourable Attitude towards English Trs. & Tg.	Moderately favourable Att. towards English Trs. & Tg.	Less Favourable Att. towards English Trs. & Tg.	
Favourable Attitude towards English	93	78	38	209
Moderately Favourable Attitude towards English	81	110	83	274
Less Favourable Attitude towards English	27	67	103	197
	201	255	224	

9) Groups based on Attitude towards English by Achievement Motivation (V3 by V5)

	High Achievement Motivation	Average Achievement Motivation	Low Achievement Motivation	
Favourable Attitude towards English	99	68	42	209
Moderately Favourable Attitude towards English	79	101	94	274
Less Favourable Attitude towards English	30	73	94	197
	208	242	230	

10) Groups based on Attitude towards English Teachers and Teaching by Achievement Motivation (V4 by V5)

	High Achievement Motivation	Average Achievement Motivation	Low Achievement Motivation	
Favourable Attitude towards English Trs. & Tg.	85	59	57	201
Moderately Favourable Attitude towards English Trs. & Tg.	80	93	82	255
Less Favourable Attitude towards English Trs. & Tg.	43	90	91	224
	208	242	230	

(iii) Test of significance of difference between Means for large independent sample

Analysis of variance, where significant F-values are obtained, further analysis namely comparison between homogeneous group formed on the basis of independent variables - Language Aptitude, Attitude towards Education, Attitude towards English, Attitude towards English Teachers and Teaching and Achievement Motivation (taken in pairs) in Achievement

in English - Total and Contentwise was attempted. t-test for mean difference was used to estimate this.

The difference in the mean achievement scores was tested for significance by finding out the critical ratios. The results were interpreted using two tailed test of significance for appropriate degrees of freedom.

(iv) Pearson's Product Moment Coefficient of Correlation

Pearson's Product Moment Coefficient of correlation was used to estimate the extent of association between the dependent variables (Achievement in English - Total and Contentwise) and each of the independent variables (Language Aptitude, Attitude towards Education, Attitude towards English, Attitude towards English teachers and teaching and Achievement Motivation) for the whole sample. The obtained 'r' was interpreted as follows:

- i) Standard error of coefficient of correlation and the limits of confidence interval (Guilford & Fruchter, 1973).
- ii) Verbal Interpretation (Garrett, 1981).
- iii) Shared Common Variance (Fox, 1969).

(v) Multiple coefficient of correlation (R) in terms of beta (β) coefficient (Garrett, 1981)

Multiple coefficient of correlation gives the correlation between a criterion (dependent) variable and a set of predictor (independent) variables.

The input data for this analysis were means and standard deviations of the criterion variables and predictor variables in the study and the zero order correlation matrix of the select variables. Multiple R^2 in terms of beta coefficient was calculated (Garrett, 1981), which gives the proportion of variance of the criterion measure attributable to the joint action of the select predictor variables.

The formula is

$$R^2_{1(23)\dots n} = \beta_{12.34\dots n} r_{12} + \beta_{13.24\dots n} r_{13} + \beta_{1n.23\dots(n-1)} r_{1n} \quad (\text{Garret, 1981})$$

The standard error of 'R' was calculated using the formula,

$$SE_R = \frac{1 - R^2}{\sqrt{N - m}} \quad (\text{Garret, 1981})$$

Significance of Multiple 'R' is calculated by the formula,

$$R \pm SE_R \times 1.96$$

The criterion variables selected for the study are Achievement in English Vocabulary, Achievement in English Grammar, Achievement in English Comprehension and Achievement in English - Total category.

The analysis and interpretations are presented in Chapter IV.

ANALYSIS

K.P. Meera “Language aptitude, select attitudinal and motivational variables as correlates of achievement in English of secondary school students ” Thesis.
Department of Education, University of Calicut, 1999

ANALYSIS

Preliminary analysis of test scores
Investigation of Main effect and Interaction effect of
Independent variables on Achievement in English
Investigation of Group Differences
Correlation analysis
Multiple Coefficient of Correlation
Conclusions and Interpretations

ANALYSIS

Analysis of the data of the present study is described under the following main heads.

- 4.1 PRELIMINARY ANALYSIS OF TEST SCORES
- 4.2 INVESTIGATION OF THE MAIN EFFECT AND INTERACTION EFFECT OF THE INDEPENDENT VARIABLES ON ACHIEVEMENT IN ENGLISH - TOTAL AND CONTENT WISE
- 4.3 INVESTIGATION OF GROUP DIFFERENCE IN ACHIEVEMENT IN ENGLISH
- 4.4 ESTIMATION OF RELATIONSHIP BETWEEN ACHIEVEMENT IN ENGLISH AND THE SELECT INDEPENDENT VARIABLES - TOTAL SAMPLE AND SUB SAMPLES
- 4.5 PREDICTION OF ACHIEVEMENT IN ENGLISH - TOTAL AND CONTENT WISE - USING SELECT INDEPENDENT VARIABLES
- 4.6 CONCLUSIONS AND INTERPRETATIONS

Each of these main heads are described in detail.

4.1 PRELIMINARY ANALYSIS OF TEST SCORES

A preliminary analysis of the scores of the independent and dependent variables of the present investigation were studied to know the basic properties of the test scores for the total sample. In order to make more valid interpretations of the statistical indices used in the study the investigator has taken up this analysis.

The score distributions of the select independent variables namely, 'Language Aptitude', 'Attitude towards Education', 'Attitude towards English', 'Attitude towards English Teachers and Teaching' and 'Achievement Motivation'; and the dependent variables 'Achievement in English' (Total) and its content wise categories namely 'Vocabulary', 'Grammar', 'Comprehension' were studied for the nature of the score distribution. The important statistical indices namely Mean, Median, Mode, Standard deviation, Skewness and Kurtosis of the score distributions for the total sample is presented in Table 5.

TABLE 5
Important Statistical Constants for the score distribution of
Independent and Dependent Variables for the Total Sample (N = 680)

Sl. No.	Variables	Mean	Median	Mode	Standard Deviation	Skewness	Kurtosis
1	Language Aptitude	30.476	29.000	28.000	9.000	0.858	0.872
2	Attitude towards Education	70.244	69.000	69.000	10.400	1.555	0.685
3	Attitude towards English	71.721	72.000	76.000	10.770	0.119	1.191
4	Attitude towards English Teachers and Teaching	108.481	109.000	116.000	17.910	-0.202	0.064
5	Achievement Motivation	65.943	66.000	62.000	11.647	-0.257	0.035
6	Achievement in English - Vocabulary	7.303	7.000	7.000	2.457	-0.162	0.580
7	Achievement in English - Grammar	18.556	19.000	21.000	5.865	0.061	0.486
8	Achievement in English - Comprehension	2.600	3.000	3.000	1.170	-0.095	0.490
9	Achievement in English - Total	28.459	29.000	30.000	8.243	0.042	0.638

The statistical constants of the independent and dependent variables as presented in Table 5 shows that the values are close approximations to the values expected for normal distribution. The values of Skewness and Kurtosis for the distribution also indicate that the distribution fairly approximate to the distribution expected for normal curves. Thus the sample selected for the present study can be regarded as a fairly representative sample of the population.

4.2 INVESTIGATION OF THE MAIN EFFECT AND INTERACTION EFFECT OF THE INDEPENDENT VARIABLES ON ACHIEVEMENT IN ENGLISH

This section of the analysis was taken up to investigate the main effect and interaction effect of the select independent variables namely, 'Language Aptitude', 'Attitude towards Education', 'Attitude towards English', 'Attitude towards English Teachers and Teaching' and 'Achievement Motivation' on 'Achievement in English' (Total and Contentwise). For this purpose, two-way analysis of variance was used to study the single effect and interaction effect of the select independent variables on each of the four dependent variables (three content-wise achievement in English and Achievement in English - Total). ANOVA was done for the total sample.

The analysis of data was done using 3x3 factorial design of two-way analysis of variance. As described in Chapter III, the total sample (N=680) was first classified into three on the basis of 'Language Aptitude' as High-Language Aptitude Group, Average-Language Aptitude Group and Low-Language Aptitude Group. Further the sample (N=680) was classified into

three groups on the basis of 'Attitude towards Education' as Favourable-Attitude towards Education Group, Moderately Favourable-Attitude towards Education Group and Less Favourable-Attitude towards Education Group. The sample (N=680) was also grouped into three as Favourable-Attitude towards English Group, Moderately Favourable-Attitude towards English Group and Less Favourable-Attitude towards English Group on the basis of 'Attitude towards English'. The sample was further categorised into three as Favourable-Attitude towards English Teachers and Teaching Group, Moderately Favourable-Attitude towards English Teachers and Teaching Group and Less Favourable-Attitude towards English Teachers and Teaching Group. On the basis of 'Achievement Motivation' the sample was grouped into High-Achievement Motivation Group, Average-Achievement Motivation Group and Low-Achievement Motivation Group.

The data on Achievement in English - Total and Contentwise - was analysed separately for the total sample. The entire computation process was carried out using the computer facility with the help of the software, Statistical Package for Social Sciences (Nie *et al.*, 1975). Due to unequal number of cases in the cells, the programme for unequal numbers was used for processing. Thus ten ANOVA was done to study, the main effect and interaction effect of select independent variables namely 'Language Aptitude', 'Attitude towards Education', 'Attitude towards English', 'Attitude towards English Teachers and Teaching', 'Achievement Motivation' on Achievement in English - Total and Contentwise taking two independent variables at a time. The results of the two way analysis of

variance and interpretation of results has been taken up and described in the following order.

- i a. Two-way ANOVA of 'Achievement in English Vocabulary' by 'Language Aptitude' by 'Attitude towards Education'.
- i b. Two-way ANOVA of 'Achievement in English Grammar' by 'Language Aptitude' by 'Attitude towards Education'.
- i c. Two-way ANOVA of 'Achievement in English Comprehension' by 'Language Aptitude' by 'Attitude towards Education'.
- i d. Two-way ANOVA of 'Achievement in English - Total' by 'Language Aptitude' by 'Attitude towards Education'.
- ii a. Two-way ANOVA of 'Achievement in English Vocabulary' by 'Language Aptitude' by 'Attitude towards English'.
- ii b. Two-way ANOVA of 'Achievement in English Grammar' by 'Language Aptitude' by 'Attitude towards English'.
- ii c. Two-way ANOVA of 'Achievement in English Comprehension' by 'Language Aptitude' by 'Attitude towards English'.
- ii d. Two-way ANOVA of 'Achievement in English' - Total by 'Language Aptitude' by 'Attitude towards English'.
- iii a. Two-way ANOVA of 'Achievement in English Vocabulary' by 'Language Aptitude' by 'Attitude towards English Teachers and Teaching'.

- iii b. Two-way ANOVA of 'Achievement in English Grammar' by 'Language Aptitude' by 'Attitude towards English Teachers and Teaching'.
- iii c. Two-way ANOVA of 'Achievement in English Comprehension' by 'Language Aptitude' by 'Attitude towards English Teachers and Teaching'.
- iii d. Two-way ANOVA of 'Achievement in English - Total' by 'Language Aptitude' by 'Attitude towards English Teachers and Teaching'.
- iv a. Two-way ANOVA of 'Achievement in English Vocabulary' by 'Language Aptitude' by 'Achievement Motivation'.
- iv b. Two-way ANOVA of 'Achievement in English Grammar' by 'Language Aptitude' by 'Achievement Motivation'.
- iv c. Two-way ANOVA of 'Achievement in English Comprehension' by 'Language Aptitude' by 'Achievement Motivation'.
- iv d. Two-way ANOVA of 'Achievement in English - Total' by 'Language Aptitude' by 'Achievement Motivation'.
- v a. Two-way ANOVA of 'Achievement in English Vocabulary' by 'Attitude towards Education' by 'Attitude towards English'.
- v b. Two-way ANOVA of 'Achievement in English Grammar' by 'Attitude towards Education' by 'Attitude towards English'.
- v c. Two-way ANOVA of Achievement in English Comprehension by 'Attitude towards Education' by 'Attitude towards English'.

- v d. Two-way ANOVA of 'Achievement in English - Total' by 'Attitude towards Education' by 'Attitude towards English'.
- vi a. Two-way ANOVA of 'Achievement in English Vocabulary' by 'Attitude towards Education' by 'Attitude towards English Teachers and Teaching'.
- vi b. Two-way ANOVA of 'Achievement in English Grammar' by 'Attitude towards Education' by 'Attitude towards English Teachers and Teaching'.
- vi c. Two-way ANOVA of 'Achievement in English Comprehension' by 'Attitude towards Education' by 'Attitude towards English Teachers and Teaching'.
- vi d. Two-way ANOVA of 'Achievement in English - Total' by 'Attitude towards Education' by 'Attitude towards English Teachers and Teaching'.
- vii a. Two-way ANOVA of 'Achievement in English Vocabulary' by 'Attitude towards Education' by 'Achievement Motivation'.
- vii b. Two-way ANOVA of 'Achievement in English Grammar' by 'Attitude towards Education' by 'Achievement Motivation'.
- vii c. Two-way ANOVA of 'Achievement in English Comprehension' by 'Attitude towards Education' by 'Achievement Motivation'.
- vii d. Two-way ANOVA of 'Achievement in English - Total' by 'Attitude towards Education' by 'Achievement Motivation'.

- viii a. Two-way ANOVA of 'Achievement in English Vocabulary' by 'Attitude towards English' by 'Attitude towards English Teachers and Teaching'.
- viii b. Two-way ANOVA of 'Achievement in English Grammar' by 'Attitude towards English' by 'Attitude towards English Teachers and Teaching'.
- viii c. Two-way ANOVA of 'Achievement in English Comprehension' by 'Attitude towards English' by 'Attitude towards English Teachers and Teaching'.
- viii d. Two-way ANOVA of 'Achievement in English - Total' by 'Attitude towards English' by 'Attitude towards English Teachers and Teaching'.
- ix a. Two-way ANOVA of 'Achievement in English Vocabulary' by 'Attitude towards English' by 'Achievement Motivation'.
- ix b. Two-way ANOVA of 'Achievement in English Grammar' by 'Attitude towards English' by 'Achievement Motivation'.
- ix c. Two-way ANOVA of 'Achievement in English Comprehension' by 'Attitude towards English' by 'Achievement Motivation'.
- ix d. Two-way ANOVA of 'Achievement in English - Total' by 'Attitude towards English' by 'Achievement Motivation'.
- x a. Two-way ANOVA of 'Achievement in English Vocabulary' by 'Attitude towards English Teachers and Teaching' by 'Achievement Motivation'.

- x b. Two-way ANOVA of 'Achievement in English Grammar' by 'Attitude towards English Teachers and Teaching' by 'Achievement Motivation'.
- x c. Two way ANOVA of 'Achievement in English Comprehension' by 'Attitude towards English Teachers and Teaching' by 'Achievement Motivation'.
- x d. Two-way ANOVA of 'Achievement in English - Total' by 'Attitude towards English Teachers and Teaching' by 'Achievement Motivation'.

The results of the Two-way ANOVA and the interpretation of results are discussed in this section.

4.2.1.1 Main effect and Interaction effect of Language Aptitude and Attitude towards Education on Achievement in English (Total and Contentwise) for the Total Sample

The main effect and interaction effect of 'Language Aptitude' and 'Attitude towards Education' on 'Achievement in English' (Total and Contentwise) were studied for the total sample. The sum of squares along with their degrees of freedom, variance estimates and the F-values were calculated. The summary of ANOVA is presented in Table 6.

TABLE 6
**Summary of Two-way ANOVA of
 Achievement in English by Language Aptitude (V₁) by Attitude towards Education (V₂)**

Source of Variation		Achievement in English - Vocabulary V ₆	Achievement in English - Grammar V ₇	Achievement in English - Comprehension V ₈	Achievement in English - Total V ₉
Language Aptitude	SS	673.899	5378.331	103.769	11670.349
	df	2	2	2	2
	MSS	336.949	2689.165	51.884	5835.174
	F	69.104 **	106.183 **	43.135 **	121.686 **
Attitude towards Education	SS	41.394	184.047	3.031	493.410
	df	2	2	2	2
	MSS	20.697	92.024	1.516	246.705
	F	4.245 *	3.634 *	1.260 NS	5.145 **
Language Aptitude X Attitude towards Education	SS	5.850	111.165	2.509	180.984
	df	4	4	4	4
	MSS	1.462	27.791	0.627	45.246
	F	0.300 NS	1.097 NS	0.521 NS	0.944 NS
Within Cells	SS	3271.786	16993.644	807.095	32176.278
	df	671	671	671	671
	MSS	4.876	25.326	1.203	47.953
Total	SS	4097.594	23355.876	929.200	46138.847
	df	679	679	679	679
	MSS	6.035	34.397	1.368	67.951

Note: ** denotes significant at 0.01 level * denotes significant at 0.05 level; NS - not significant. (N = 680)

Main effect

The main effect of 'Language Aptitude' on Achievement in English Vocabulary was examined. As per Table the F-value is 69.104. The obtained F value for 'Language Aptitude' for the corresponding degrees of freedom 2,671 is greater than the tabled value 4.62 set at 0.01 level of significance.

The main effect of 'Language Aptitude' on 'Achievement in English Grammar' was examined. As per table the F-value is 106.183. The obtained F-value is greater than the tabled value (4.62) set at 0.01 level of significance for the degrees of freedom 2,671. For the main effect of 'Language Aptitude' on 'Achievement in English - Comprehension', F-value obtained is 43.135. This value is also greater than the tabled value (4.62) set at 0.01 level of significance for the degrees of freedom 2,671. The obtained F value for the main effect of 'Language Aptitude' on Achievement in English - Total is 121.686 which is greater than the tabled value set at 0.01 level of significance for degrees of freedom 2,671. These results show that the scores on Achievement in English - Total and Content wise differ significantly with the difference in Language Aptitude of pupils.

For the main effect of 'Attitude towards Education' on 'Achievement in English Vocabulary' the F value obtained is 4.245. This value is greater than the tabled value (3.00) set at 0.05 level of significance for df 2,671. The obtained F value for the main effect of 'Attitude towards Education' on 'Achievement in English Grammar' is 3.634, which is greater than the tabled value (3.00) set at 0.05 level of significance for df 2,671. F-value obtained for the main effect of 'Attitude towards Education' on

Achievement in English Comprehension is 1.260. This value is less than the tabled value for degrees of freedom 2,671 set at 0.05 level of significance. The F-value obtained for the main effect of 'Attitude towards Education' on Achievement in English - Total is 5.145 which is greater than the tabled value (4.62) set at 0.01 level of significance for degrees of freedom 2, 671. This result shows that the scores on Achievement in English Vocabulary, Grammar and Achievement in English - Total differ significantly with the difference in 'Attitude towards Education'.

Interaction effect

According to Table 6, the obtained F-value for the interaction effect of 'Language Aptitude' and 'Attitude towards Education' on 'Achievement in English Vocabulary' is 0.300. This value is less than the tabled value (2.38) set at 0.05 level of significance for degrees of freedom 4,679. For the interaction effect of 'Language Aptitude' and 'Attitude towards Education' on 'Achievement in English Grammar', 'Comprehension' and Total, the obtained F-value is found to be 1.097, 0.521 and 0.944 respectively. These values are much below the critical value set even at 0.05 level of significance. These results reveal that Achievement in English - Total and Contentwise is not influenced by 'Language Aptitude' and 'Attitude towards Education' combined.

4.2.1.2 Main effect and Interaction effect of Language Aptitude and Attitude towards English on Achievement in English - Contentwise and Total - for the Total Sample

The sum of squares, variance estimates and F-values calculated to study the main effect of Language Aptitude and Attitude towards English on Achievement in English is summarised and presented in Table 7.

TABLE 7
 Summary of Two-way ANOVA of
 Achievement in English by Language Aptitude (V₁) by Attitude towards English (V₃)

Source of Variation		Achievement in English - Vocabulary V ₆	Achievement in English - Grammar V ₇	Achievement in English - Comprehension V ₈	Achievement in English - Total V ₉
Language Aptitude	SS	757.787	5854.036	117.567	12895.974
	df	2	2	2	2
	MSS	378.893	2927.018	58.783	6447.987
	F	77.828 **	114.949 **	49.054 **	133.651 **
Attitude towards English	SS	2.296	40.470	1.324	47.148
	df	2	2	2	2
	MSS	1.148	20.235	0.662	23.574
	F	0.236 NS	0.795 NS	0.552 NS	0.489 NS
Language Aptitude X Attitude towards English	SS	50.066	162.297	7.226	431.084
	df	4	4	4	4
	MSS	12.517	40.574	1.806	107.771
	F	2.571 NS	1.593 NS	1.507 NS	2.234 NS
Within Cells	SS	3266.667	17086.090	804.086	32372.441
	df	671	671	671	671
	MSS	4.868	25.464	1.198	48.245
Total	SS	4097.594	23355.876	929.200	46138.847
	df	679	679	679	679
	MSS	6.035	34.397	1.368	67.951

Note: ** denotes significant at 0.01 level; * denotes significant at 0.05 level; NS - not significant. (N = 680)

Main effect

As per Table-7, the obtained F value for the main effect of 'Language Aptitude' on 'Achievement in English Vocabulary' is 77.828. This value is greater than the tabled value (4.62) set at 0.01 level of significance for df 2,671. F value obtained for the main effect of 'Language Aptitude' on 'Achievement in English Grammar' is 114.949 which is greater than the tabled value set at 0.01 level of significance. The obtained F value for the main effect of 'Language Aptitude' on Achievement in 'English Comprehension' is 49.054, is also greater than the tabled value set at 0.01 level of significance. F-value obtained for the main effect of 'Language Aptitude' on Achievement in English - Total is 133.651. This value is greater than the tabled value set at 0.01 level of significance. This indicates that the scores on 'Achievement in English' - Total depend upon the scores of Language Aptitude.

For the main effect of 'Attitude towards English' on Achievement in English Vocabulary, Grammar, Comprehension and Achievement in English - Total, the 'F' values are 0.236, 0.795, 0.552, 0.489 respectively. The values obtained are less than the tabled value (3.00) set at 0.05 level of significance for degrees of freedom 2,671. This indicates that the scores on Achievement in English - Contentwise and total do not depend upon the scores of 'Attitude towards English' of the sample.

Interaction effect

As per Table 7, the obtained F-values for the interaction effect of 'Language Aptitude' and 'Attitude towards English' on 'Achievement in English Vocabulary', 'Achievement in English Grammar', 'Achievement in

Comprehension' and 'Achievement in English -Total' are 2.571, 1.593, 1.507 and 2.234 respectively. The obtained F-values are less than the tabled value (2.38) set at 0.05 level of significance for degrees of freedom 4,671. This result shows that the scores on Achievement in English - Contentwise and Total is not influenced by the combined effect of 'Language Attitude' and 'Attitude towards English'.

4.2.1.3 Main effect and Interaction effect of 'Language Aptitude' and 'Attitude towards English Teachers and Teaching' on Achievement in English - Content wise and Total

Summary of the ANOVA specifying the details of main effect and interaction effect of Language Aptitude and Attitude towards English Teachers and Teaching on Achievement in English is presented in Table 8.

TABLE 8
**Summary of Two-way ANOVA of Achievement in English by
 Language Aptitude (V₁) by Attitude towards English Teachers and Teaching (V₄)**

Source of Variation		Achievement in English - Vocabulary V ₆	Achievement in English - Grammar V ₇	Achievement in English - Comprehension V ₈	Achievement in English - Total V ₉
Language Aptitude	SS	749.290	5762.458	115.975	12696.868
	df	2	2	2	2
	MSS	374.645	2881.229	57.988	6348.434
	F	76.248 **	114.119 **	48.211 **	131.652 **
Attitude towards English Teachers and Teaching	SS	11.898	302.495	0.366	447.522
	df	2	2	2	2
	MSS	5.949	151.247	0.183	223.761
	F	1.211 NS	5.991 **	0.152 NS	4.640 **
Language Aptitude X Attitude towards English Teachers and Teaching	SS	10.188	45.178	5.200	46.705
	df	4	4	4	4
	MSS	2.547	11.295	1.300	11.676
	F	0.518 NS	0.447 NS	1.081 NS	0.242 NS
Within Cells	SS	3296.943	16941.184	807.069	32356.447
	df	671	671	671	671
	MSS	4.913	25.248	1.203	48.221
Total	SS	4097.594	23355.876	929.200	46138.847
	df	679	679	679	679
	MSS	6.035	34.397	1.368	67.951

Note: ** denotes significant at 0.01 level; * denotes significant at 0.05 level; NS - not significant. (N = 680)

Main effect

According to Table 8, F-value obtained for the main effect of 'Language Aptitude' on Achievement in English Vocabulary, Grammar, Comprehension and Achievement in English - Total are 76.248, 114.119, 48.211 and 131.652 respectively. These values are greater than the tabled value (4.62) set at 0.01 level of significance for degrees of freedom 2,671.

F-values obtained for the main effect of 'Attitude towards English Teachers and Teaching' on 'Achievement in English Grammar' and 'Achievement in English -Total' are 5.991 and 4.640 respectively. These values are greater than the tabled value set at 0.01 level of significance. The F-value obtained for the main effect of 'Attitude towards English Teachers and Teaching' on 'Achievement in English Vocabulary' and 'Comprehension' are 1.211 and 0.152 respectively. These values are not significant even at 0.05 level. The results indicate that single effect of 'Language Aptitude' on 'Achievement in English - Vocabulary, Grammar and Achievement in English - Total' are significant. But significant single effect of 'Attitude towards English Teachers and Teaching' were noticed only on Achievement in English Grammar and Total Score.

Interaction effect

The F-values obtained for the interaction effect of 'Language Aptitude' and 'Attitude towards English Teachers and Teaching' on 'Achievement in English Vocabulary', 'Achievement in English Grammar', 'Achievement in Comprehension' and 'Achievement in English - Total' are 0.518, 0.447, 1.081 and 0.242 respectively. These values are less than the tabled value (2.38) set at 0.05 level of significance for df 4,671. The result

shows that Achievement in English - Content wise and Total is not influenced by the combined effect of 'Language Aptitude' and 'Attitude towards English Teachers and Teaching'.

4.2.1.4 Main effect and Interaction effect of 'Language Aptitude' and 'Achievement Motivation' on Achievement in English - Content wise and Total

Summary of the ANOVA specifying the details of main effect and interaction effect of Language Aptitude and Achievement Motivation on Achievement in English is presented in Table 9.

TABLE 9
**Summary of Two-way ANOVA of
 Achievement in English by Language Aptitude (V₁) by Achievement Motivation (V₅)**

Source of Variation		Achievement in English - Vocabulary V ₆	Achievement in English - Grammar V ₇	Achievement in English - Comprehension V ₈	Achievement in English - Total V ₉
Language Aptitude	SS	777.362	6089.618	115.307	13306.039
	df	2	2	2	2
	MSS	388.681	3044.809	57.654	6653.020
	F	78.894 **	119.142 **	48.080 **	136.850 **
Achievement Motivation	SS	1.712	47.864	4.759	29.978
	df	2	2	2	12
	MSS	0.856	23.932	2.379	14.989
	F	0.174 NS	0.936 NS	1.984 NS	0.308 NS
Language Aptitude X Achievement Motivation	SS	11.538	92.868	3.273	199.861
	df	4	4	4	4
	MSS	2.884	23.217	0.818	49.965
	F	0.585 NS	0.908 NS	0.682 NS	1.028 NS
Within Cells	SS	3305.780	17148.124	804.603	32620.835
	df	671	671	671	671
	MSS	4.927	25.556	1.199	48.615
Total	SS	4097.594	23355.876	929.200	46138.847
	df	679	679	679	679
	MSS	6.035	34.397	1.368	67.951

Note: ** denotes significant at 0.01 level; * denotes significant at 0.05 level; NS - not significant. (N = 680)

Main effect

As per Table 9, F-value obtained for the main effect of 'Language Aptitude' on 'Achievement in English - Vocabulary', Grammar, Comprehension and Achievement in English - Total are 78.894, 119.142, 48.080 and 136.850 respectively. These values are greater than the tabled value (4.62) set at 0.01 level of significance. This result indicates that the scores on Achievement in English - Total and Contentwise is depend upon the scores of 'Language Aptitude'.

For the main effect of 'Achievement Motivation' on 'Achievement in English Vocabulary', 'Achievement in English Grammar', 'Achievement in Comprehension' and 'Achievement in English - Total', the F-values obtained are 0.174, 0.936, 1.984 and 0.308 respectively. These values are not significant even at 0.05 level. This result indicates that the scores of Achievement in English - Contentwise and Total do not vary with the variation in the scores of 'Achievement Motivation'.

Interaction effect

The F-values obtained for the interaction effect of 'Language Aptitude' and 'Achievement Motivation' on 'Achievement in English Vocabulary', 'Achievement in English Grammar', 'Achievement in Comprehension', 'Achievement in English - Total' are 0.585, 0.908, 0.682 and 1.028 respectively. These values are less than the tabled value (2.38) set at 0.05 level of significance. This result shows that the scores on 'Achievement in English' - Contentwise and Total is not influenced by the combined effect of 'Language Aptitude' and 'Achievement Motivation'.

4.2.1.5 Main effect and Interaction effect of 'Attitude towards Education' and 'Attitude towards English' on Achievement in English - Content wise and Total

Summary of the ANOVA specifying details of the main effect and interaction effect of Attitude towards Education and Attitude towards English on Achievement in English is presented in Table 10.

TABLE 10
Summary of Two-way ANOVA of
Achievement in English by Attitude towards Education by Attitude towards English

Source of Variation	Achievement in English - Vocabulary V ₆	Achievement in English - Grammar V ₇	Achievement in English - Comprehension V ₈	Achievement in English - Total V ₉
Attitude towards Education				
SS	133.733	766.911	15.632	1898.054
df	2	2	2	2
MSS	66.866	383.456	7.816	949.027
F	11.545 **	11.721 **	5.813 **	14.830 **
Attitude towards English				
SS	10.747	147.629	0.127	226.167
df	2	2	2	2
MSS	5.373	73.814	0.063	113.083
F	0.928 NS	2.256 NS	0.047 NS	1.767 NS
Attitude towards Education x Attitude towards English				
SS	54.618	382.690	11.007	862.284
df	4	4	4	4
MSS	13.655	95.672	2.752	215.571
F	2.358 NS	2.924 NS	2.047 NS	3.369 **
Within Cells				
SS	3886.169	21952.822	902.238	42939.162
df	671	671	671	671
MSS	5.792	32.717	1.345	63.993
Total				
SS	4097.594	23355.876	929.200	46138.847
df	679	679	679	679
MSS	6.035	34.397	1.368	67.951

Note: ** denotes significant at 0.01 level; * denotes significant at 0.05 level; NS - not significant. (N = 680)

Main effect

As per Table 10, the F-values obtained for the main effect of 'Attitude towards Education' on 'Achievement in English Vocabulary', 'Achievement in English Grammar', 'Achievement in Comprehension' and 'Achievement in English - total' are 11.545, 11.721, 5.813 and 14.830 respectively. The obtained values are greater than the tabled value (4.62) set at 0.01 level of significance. This result shows that there exists significant single effect of Attitude towards Education on Achievement in English Content wise and Total Score.

The obtained F-values for the main effect of 'Attitude towards English' on 'Achievement in English Vocabulary', 'Achievement in English Grammar', 'Achievement in comprehension and 'Achievement in English - Total' are 0.928, 2.256, 0.047 and 1.767 respectively. These values are not significant even at 0.05 level. This result shows that the scores on Achievement in English-Content-wise and Total- is not influenced by 'Attitude towards English'.

Interaction Effect

The F-value obtained for the interaction effect of 'Attitude towards Education' and 'Attitude towards English' on Achievement in English vocabulary and comprehension are 2.358, and 2.047 respectively. The obtained values are not significant even at 0.05 level. The F-value obtained for the interaction effect of 'Attitude towards Education' and 'Attitude towards English' on Achievement in English Grammar and Total are 2.924 and 3.369. These values are significant at 0.05 level. This result shows that the scores on Achievement in English total and Grammar are influenced by

the combined effect of 'Attitude towards Education' and 'Attitude towards English'. But the scores on Achievement in English vocabulary, and comprehension are not influenced by the combined effect of 'Attitude towards Education' and 'Attitude towards English.'

4.2.1.6. Main effect and Interaction effect of Attitude towards Education and Attitude towards English teachers and Teaching on Achievement in English-Content wise and total for the total sample

Summary of the ANOVA showing the main effect and Interaction effect of Attitude towards Education and Attitude towards English Teachers and Teaching on Achievement in English is given in Table 11.

TABLE 11
**Summary of Two-way ANOVA of Achievement in
 English by Attitude towards Education by Attitude towards English Teachers and Teaching**

Source of Variation	Achievement in English - Vocabulary V ₆	Achievement in English - Grammar V ₇	Achievement in English - Comprehension V ₈	Achievement in English - Total V ₉
Attitude towards Education				
SS	125.430	688.402	15.303	1727.756
df	2	2	2	2
MSS	62.715	344.201	7.652	863.878
F	10.726 **	10.547 **	5.634 **	13.425 **
Attitude towards English Teachers and Teaching				
SS	20.542	422.722	0.432	655.348
df	2	2	2	2
MSS	10.271	211.361	0.216	327.674
F	1.757 NS	6.477 **	0.159 NS	5.092 **
Attitude towards Education x Attitude towards English Teachers and Teaching				
SS	7.826	162.77	1.659	195.330
df	4	4	4	4
MSS	1.956	40.692	0.415	48.833
F	0.335 NS	1.247 NS	0.305 NS	0.759 NS
Within Cells				
SS	3923.166	21897.649	911.281	43176.934
df	671	671	671	671
MSS	5.847	32.634	1.358	64.347
Total				
SS	4097.594	23355.876	929.200	46138.847
df	679	679	679	679
MSS	6.035	34.397	1.368	67.951

Note: ** denotes significant at 0.01 level; * denotes significant at 0.05 level; NS - not significant. (N = 680)

Main Effect

As per Table-11, F-values obtained for the main effect of 'Attitude towards Education' on 'Achievement in English Vocabulary', 'Achievement in English Grammar', 'Achievement in Comprehension', 'Achievement in English - Total' are 10.726, 10.547, 5.364 and 13.425 respectively. The obtained values are significant at 0.01 level. This result indicates that the scores on Achievement in English-content wise and total depend upon the scores of 'Attitude towards Education'.

The obtained F-values for the main effect of 'Attitude towards English Teachers and Teaching'; on 'Achievement in English Grammar' and 'Achievement in English'. Total are 6.477 and 5.092 respectively. The obtained values are significant at 0.01 level. The F-values for the main effect of 'Attitude towards English Teachers and Teaching' on 'Achievement in English Vocabulary' and 'Achievement in Comprehension' are 1.757 and 0.159 respectively. These values are not significant even at 0.05 level. The results indicate that scores of 'Achievement in English Vocabulary' and 'Achievement in English Comprehension' are independent of the scores of 'Attitude towards English Teachers and Teaching' and the scores on 'Achievement in English Grammar' and 'Achievement in English Total' are depend upon the scores of 'Attitude towards English Teachers and Teaching'.

Interaction Effect

According to Table 11, the F-values obtained for the interaction effect of 'Attitude towards Education' and 'Attitude towards English Teachers and Teaching' are 0.335, 1.247, 0.305 and 0.759 respectively. The obtained

values are not significant even at 0.05 level. This result suggests that the scores on Achievement in English-Content wise and total are not influenced by the combined effect of 'Attitude towards Education' and 'Attitude towards English teachers and teaching'.

4.2.1.7. Main effect and Interaction effect of Attitude towards Education and Achievement Motivation on Achievement in English-Content wise and total for the total sample

Summary of ANOVA showing the main effect and Interaction effect of Attitude towards Education and Achievement Motivation on Achievement in English is presented in Table 12.

TABLE 12
**Summary of Two-way ANOVA of
 Achievement in English by Attitude towards Education by Achievement Motivation**

Source of Variation	Achievement in English - Vocabulary V ₆	Achievement in English - Grammar V ₇	Achievement in English - Comprehension V ₈	Achievement in English - Total V ₉
Attitude towards Education				
SS	150.911	868.693	17.626	2133.685
df	2	2	2	2
MSS	75.455	434.347	8.813	1066.842
F	12.904 **	13.135 **	6.591 **	16.475 **
Achievement Motivation				
SS	7.765	274.201	7.815	34.562
df	2	2	2	2
MSS	3.882	68.550	3.907	17.281
F	0.664 NS	2.073 NS	2.922 NS	0.2 NS
Attitude towards Education x Achievement Motivation				
SS	20.060	274.201	8.344	543.105
df	4	4	4	4
MSS	5.015	68.550	2.086	135.776
F	0.858 NS	2.073 NS	1.560 NS	2.097 NS
Within Cells				
SS	3923.709	22187.716	897.214	43449/945
df	671	671	671	671
MSS	5.848	33.067	1.337	64.754
Total				
SS	4097.594	23355.876	929.200	46138.847
df	679	679	679	679
MSS	6.035	34.397	1.368	67.951

Note: ** denotes significant at 0.01 level; * denotes significant at 0.05 level; NS - not significant. (N = 680)

Main Effect

As per Table-12, F-value obtained for the main effect of 'Attitude towards Education' on 'Achievement in English' content wise and total are 12.904, 13.135, 6.591 and 16.475. The obtained values are significant beyond 0.01 level. This result shows that the scores on Achievement in English-total and Content wise changes significantly with changes in the scores of Attitude towards Education.

The F-values obtained for the main Effect of 'Achievement Motivation' on 'Achievement in English-' Content wise and total are 0.664, 2.073, 2.922 and 0.267 respectively. These values are not significant even at 0.05 level. This result shows that the scores on Achievement in English-Content wise and total do not depend upon the scores of 'Achievement Motivation'.

Intereaction Effect

The F-values obtained for the interaction effect of 'Attitude towards Education' and 'Achievement Motivation' on 'Achievement in English' - content wise and total are 0.858, 2.073, 1.560 and 2.097 respectively. These values are not significant even at 0.05 level. The result shows that the scores on 'Achievement in English' - total and content wise are not influenced by the combined effect of 'Attitude towards Education' and 'Achievement Motivation'.

4.2.1.8. Main Effect and Interaction effect of Attitude towards English and Attitude towards English Teachers and Teaching on Achievement in English - Content wise and total

The sum of squares, variance estimates and F-values calculated to study the main effect and interaction effect of Attitude towards English and Attitude towards English Teachers and Teaching on Achievement in English is summarised and presented in Table 13.

TABLE 13
**Summary of Two-way ANOVA of
 Achievement in English by Attitude towards English by Attitude towards English Teachers and Teaching**

Source of Variation	Achievement in English - Vocabulary V ₆	Achievement in English - Grammar V ₇	Achievement in English - Comprehension V ₈	Achievement in English - Total V ₉
Attitude towards English				
SS	25.101	268.833	0.123	470.424
df	2	2	2	2
MSS	12.551	134.417	0.062	235.212
F	2117 NS	4.041 *	0.045 NS	3.572 *
Attitude towards English Teachers and Teaching				
SS	43.200	622.436	0.757	1069.903
df	2	2	2	2
MSS	21.600	311.218	0.378	534.952
F	3.643 *	9.356 **	0.277 NS	8.124 **
Attitude towards English x Attitude towards English Teachers and Teaching				
SS	52.463	159.996	10.710	443.660
df	4	4	4	4
MSS	13.116	39.999	2.677	110.915
F	2.212 NS	1.202 NS	1.958 NS	1.684 NS
Within Cells				
SS	3978.857	22319.991	917.411	44185.936
df	671	671	671	671
MSS	5.930	33.264	1.367	65.851
Total				
SS	4097.594	23355.876	929.200	46138.847
df	679	679	679	679
MSS	6.035	34.397	1.368	67.951

Note: ** denotes significant at 0.01 level; * denotes significant at 0.05 level; NS - not significant. (N = 680)

As per Table 13, F-values obtained for the main effect of 'Attitude towards English' on Achievement in English-Grammar and Achievement in English-Total are 4.041 and 3.572 respectively. The obtained F value is greater than the tabled value (3.00) set at 0.05 level of significance. The F-values for the main effect of 'Attitude towards English' on Achievement in English-Vocabulary and Achievement in English-Comprehension are 2.117 and 0.045 respectively. These values are less than the tabled value (3.00) set at 0.05 level of significance. The result suggests that the scores of Achievement in English-Grammar and Achievement in English-Total only changes with changes in scores of Attitude towards English.

The F-value obtained for the main effect of 'Attitude towards English Teachers and Teaching' on 'Achievement in English Grammar' and 'Achievement in English - total' are 9.356 and 8.124 respectively. The obtained F-values are significant beyond 0.01 level. The F-value obtained for the main effect of Attitude towards English Teachers and Teaching on English vocabulary is significant at 0.05 level, F-value being 3.643. The result indicates that the scores of Achievement in English-Vocabulary, Grammar and Achievement in English-Total Changes with changes in scores of Attitude towards English Teachers and Teaching.

Interaction effect

The F-values obtained for the interaction effect of 'Attitude towards English' and 'Attitude towards English Teachers and Teaching' on Achievement in English-Vocabulary, Grammar, comprehension and total are 2.212, 1.202, 1.958 and 1.684 respectively. The obtained values of F do not show significance even at 0.05 level. The result indicates that the scores

of Achievement in English-Content wise and Total is not influenced by the combined effect of 'Attitude towards English' and 'Attitude towards English Teachers and Teaching.'

4.2.1.9. Main effect and Interaction effect of Attitude towards English and Achievement Motivation on Achievement in English content wise and total

Summary of ANOVA showing the main effect and Interaction effect of Attitude towards English and Achievement motivation on Achievement in English is given in Table 14.

TABLE 14
**Summary of Two-way ANOVA of
 Achievement in English by Attitude towards English by Achievement motivation**

Source of Variation	Achievement in English - Vocabulary V ₆	Achievement in English - Grammar V ₇	Achievement in English - Comprehension V ₈	Achievement in English - Total V ₉
Attitude towards English				
SS	25.090	250.138	1.384	450.486
df	2	2	2	2
MSS	12.545	125.069	0.692	225.243
F	2.076 NS	3.644 *	0.509 NS	3.338 *
Achievement motivation				
SS	4.930	21.950	7.078	23.251
df	2	2	2	2
MSS	2.465	10.975	3.539	11.625
F	0.408 NS	0.322 NS	2.604 NS	0.172 NS
Attitude towards English x Achievement Motivation				
SS	13.939	176.464	9.963	399.318
df	4	4	4	4
MSS	3.485	44.116	2.491	99.830
F	0.577 NS	1.292 NS	1.833 NS	1.479 NS
Within Cells				
SS	4055.651	22904.009	911.837	45276.930
df	671	671	671	671
MSS	6.044	34.134	1.359	67.477
Total				
SS	4097.594	23355.876	929.200	46138.847
df	679	679	679	679
MSS	6.035	34.397	1.368	67.951

Note: ** denotes significant at 0.01 level; * denotes significant at 0.05 level; NS - not significant. (N = 680)

Main Effect

As per Table-14 the F-values for the main effect of 'Attitude towards English' on 'Achievement in English grammar' and 'Achievement in English-Total' are 3.644 and 3.338 respectively. The obtained F-value is greater than the tabled value (3.00) set at 0.05 level of significance. The F-values for the main effect of 'Attitude towards English' on 'Achievement in English - Vocabulary' and Comprehension are 2.076 and 0.509 respectively. These values are less than the tabled value (3.00) set at 0.05 level of significance. The result suggests that the scores of Achievement in English Grammar and Achievement in English-total only changes with changes in scores of 'Attitude towards English.'

The F-values for the main effect of 'Achievement Motivation' on Achievement in English-content wise and total are 0.408, 0.322, 2.604 and 0.172 respectively. The obtained values of F are less than the tabled value (3.00) set at 0.05 level of significance. The result indicates that the scores of Achievement in English content wise and total do not change significantly with changes in the levels of 'Achievement Motivation'

Interaction Effect

The F-values obtained for the interaction effect of 'Attitude towards English' and 'Achievement Motivation' on Achievement in English vocabulary, Achievement in English Grammar, Achievement in Comprehension and Achievement in English total are 0.577, 1.292, 1.833, 1.479 respectively. The obtained values of F are not significant even at 0.05 level. The result indicates that the scores of Achievement in English-

Content wise and total is not influenced by the combined effect of 'Attitude towards English' and 'Achievement Motivation'.

4.2.1.10. Main effect and Interaction effect of Attitude towards 'English teachers and teaching' and 'Achievement Motivation' on Achievement in English-Content wise and total for the total sample

Summary of ANVOA showing the main effect and Interaction effect of Attitude towards English Teachers and Teaching and Achievement Motivation on Achievement in English is presented in Table 15.

TABLE 15
**Summary of Two-way ANOVA of
 Achievement in English by Attitude towards English Teachers and Teaching by Achievement Motivation**

Source of Variation	Achievement in English - Vocabulary V ₆	Achievement in English - Grammar V ₇	Achievement in English - Comprehension V ₈	Achievement in English - Total V ₉
Attitude towards English Teachers and Teaching				
SS	47.051	605.904	1.948	1085.336
df	2	2	2	2
MSS	23.525	302.952	0.974	542.668
F	3.913 *	9.003 **	0.722 NS	8.142 **
Achievement Motivation				
SS	8.792	24.114	7.008	58.620
df	2	2	2	2
MSS	4.396	12.057	3.504	29.310
F	0.731 NS	0.358 NS	2.599 NS	0.440 NS
Attitude towards English Teachers and Teaching x Achievement Motivation				
SS	13.897	144.479	16.375	317.578
df	4	4	4	4
MSS	3.474	36.120	4.094	79.395
F	0.578 NS	1.073 NS	3.036 *	1.191 NS
Within Cells				
SS	4033.731	22580.228	904.861	44723.821
df	671	671	671	671
MSS	6.012	33.652	1.349	66.652
Total				
SS	4097.594	23355.876	929.200	46138.847
df	679	679	679	679
MSS	6.035	34.397	1.368	67.951

Note: ** denotes significant at 0.01 level; * denotes significant at 0.05 level; NS - not significant. (N = 680)

As per Table 15, the values for the main effect of 'Attitude towards English Teachers and Teaching' on 'Achievement in English - Vocabulary, Grammar and Total' are 3.913, 9.003 and 8.142 respectively and F-values obtained are significant at 0.01 level. The F-values obtained for the main effect of 'Attitude Towards English Teachers and Teaching' on 'Achievement in English - Comprehension' is 0.722. This value is not significant even at 0.05 level.

According to Table 15, the F-values for the main effect of 'Achievement Motivation' on Achievement in English -Vocabulary, Achievement in English Grammar, Achievement in Comprehension, Achievement in English - Total are 0.731, 0.358, 2.599 and 0.440 respectively. The obtained value is less than the tabled value (3.00) set at 0.05 level of significance. The result shows that the scores on Achievement in English - Contentwise and Total are not influenced by the scores of Achievement Motivation.

Interaction Effect

The F-values for the interaction effect of 'Attitude towards English teachers and teaching' and 'Achievement Motivation' on Achievement in English Vocabulary, English Grammar, Comprehension, Achievement in English - Total are 0.578, 1.073, 3.036, 1.191 respectively. The obtained F-value for the interaction effect of 'Attitude towards English Teachers and Teaching' and 'Achievement Motivation' on Achievement in Comprehension is significant at 0.05 level. This result indicates that the scores on Achievement in Comprehension alone is influenced by the

combined effect of 'Attitude towards English Teachers and Teaching' and 'Achievement Motivation'.

Comment

To study the single effect and interaction effect of select independent variables, namely, Language Aptitude, Attitude towards Education, Attitude towards English, Attitude towards English Teachers and Teaching, Achievement Motivation on Achievement in English - Total and content wise, 40 ANOVA was conducted, taking two independent variables at a time. Overall summary of the two way ANOVA is presented in Table 16.

TABLE 16
**Summary of Two-way ANOVA of
 Achievement in English - (Total and Content-wise) - Total Sample N = 680**

Sl. No.	Category	Source of variation		F-values of Achievement in English			
				Achievement Total V ₉	Vocabulary V ₆	Grammar V ₇	Compre-hension V ₈
1	Language Aptitude by Attitude towards Education	Language Aptitude Attitude towards Education	ME	121.086 **	69.104 **	106.183 **	43.135
			ME	5.145 **	4.246 **	3.634 **	1.260
			IE	0.944	0.300	1.097	0.521
2	Language Aptitude by Attitude towards English	Language Aptitude Attitude towards English	ME	133.651 **	77.828 **	114.949 **	49.054 **
			ME	0.489	0.236	0.795	0.552
			IE	2.234	2.571	1.593	1.507
3	Language Aptitude by Attitude towards English Teachers and Teaching	Language Aptitude Attitude towards English Teachers and Teaching	ME	131.652 **	76.248 **	114.119 **	48.211 **
			ME	4.640 **	1.211	5.991 **	0.152
			IE	0.242	0.518	0.447	1.081
4	Language Aptitude by Achievement Motivation	Language Aptitude Achievement Motivation	ME	136.850 **	78.894 **	119.142 **	48.080 **
			ME	0.308	0.174	0.936	1.984
			IE	1.028	0.585	0.908	0.682
5	Attitude towards Education by Attitude towards English	Attitude towards Education Attitude towards English	ME	14.830	11.545 **	11.721	5.813
			ME	1.767	0.928	2.256	0.047
			IE	3.369 **	2.358	2.924	2.047
6	Attitude towards Education by Attitude towards English Teachers and Teaching	Attitude towards Education Attitude towards English Teachers and Teaching	ME	13.425 **	10.726 **	10.547 **	5.634 **
			ME	5.092 **	1.757	6.477 **	0.159
			IE	0.759	0.335	1.247	0.305
7	Attitude towards Education by Achievement Motivation	Attitude towards Education Achievement Motivation	ME	14.830 **	11.545 **	11.721 **	5.813 **
			ME	0.267	0.664	2.073	2.922
			IE	2.097	0.858	2.073	1.560
8	Attitude towards English by Attitude towards English Teacher Teaching	Attitude towards English Attitude towards English Teachers and Teaching	ME	3.572*	2.117	4.041 **	0.045
			ME	8.124**	3.643 **	9.356 **	0.277
			IE	1.684	2.212	1.202	1.958
9	Attitude towards English by Achievement Motivation	Attitude towards English Achievement Motivation	ME	3.338 *	2.076	3.644 *	0.509
			ME	0.172	0.408	0.322	2.604
			IE	1.479	0.577	1.292	1.833
10	Attitude towards English Teachers and Teaching by Achievement Motivation	Attitude towards English teachers and Teaching Achievement Motivation	ME	8.142 **	3.913 *	9.003 **	0.722
			ME	0.440	0.731	0.358	2.559
			IE	1.191	0.578	1.073	3.036 *

Note: ME - Main Effect; IE - Interaction Effect; ** - Significance at 0.01 level; * - Significance at 0.05 level.

When the summary of two-way ANOVA was studied, it was revealed that in sixteen out of sixteen ANOVA, the main effect of 'Language Aptitude' on 'Achievement in English' - (Total and Content wise) is significant beyond 0.01 level. The main effect of 'Attitude towards Education' on 'Achievement in English' is found significant in fifteen out of sixteen ANOVA studied. F-values for the main effect of 'Attitude towards English' on 'Achievement in English' was found to be significant only in four out of sixteen ANOVA undertaken. The main effect of 'Attitude towards English Teachers and Teaching' on 'Achievement in English' is found significant in ten out of sixteen ANOVA studied. No significant single effect of 'Achievement Motivation' on 'Achievement in English' is noticed in any of the sixteen ANOVA undertaken. Therefore group differences in 'Achievement in English' for homogeneous groups formed on the basis of relevant independent variables was investigated.

4.3. INVESTIGATION OF GROUP DIFFERENCE

Group difference in Achievement in English-Total and content wise was investigated wherever significant F-values are obtained in the two way analysis of variance. The homogeneous groups identified and studied for differences using Test of significant Difference between Means of Achievement in English are the following.

- | | | |
|----|----------------------------|---|
| 1. | Language Aptitude | Achievement in English Vocabulary, Grammar, Comprehension and Total |
| 2. | Attitude towards Education | Achievement in English - Vocabulary, Grammar, Comprehension and Total |

- | | | |
|----|--|--|
| 3. | Attitude towards English | Achievement in English - Grammar and Total |
| 4. | Attitude towards English Teachers and Teaching | Achievement in English - Vocabulary, Grammar and Total |

For comparison of mean Achievement in English, t-values were computed. The obtained t-values were interpreted using two-tailed test of significance. The details of the comparison are presented in the following section.

4.3.1. Investigation of Group Difference in Achievement in English For Groups Formed on the basis of Language Aptitude

The three groups formed on the basis of Language Aptitude are High-Language Aptitude Group, Average- Language Aptitude Group, Low-language Aptitude Group. The data and results obtained for the comparison of mean scores of Achievement in English-total and content wise of these groups are presented in Table 17.

TABLE 17

Data and Results of Test of Significant difference in mean Achievement in English Scores (Total and Content wise) between High- Language Aptitude, Average- Language Aptitude, Low- Language Aptitude Group (taken in pairs) in the total sample N= 680

Sl. No.	Variables of Achievement in English	1. High-Language Aptitude N-178		2. Average Language Aptitude N = 290		3. Low-Language Aptitude N= 212		Critical Ratio		
		Mean	SD	Mean	SD	Mean	SD	I VS 2	I VS 3	2 VS 3
1	Achievement in English - Vocabulary (V ₆)	9.051	1.926	6.931	2.274	6.353	2.353	10.792	12.50	2.80
2	Achievement in English - Grammar (V ₇)	23.320	5.044	17.796	4.969	15.594	5.173	11.555	28.623	4.791
3	Achievement in English Comprehension (V ₈)	3.252	1.056	2.510	1.082	2.174	1.144	16.071	9.723	33.446
4	Achievement in English - Total Score (V ₉)	35.533	6.697	27.282	6.919	24.127	7.243	19.781	16.140	4.912

Note : The values of critical ratios for all the 12 comparisons are significant beyond 0.01 level.

It can be noted from Table 17 that the values of critical ratios of Achievement in English vocabulary, Grammar, Comprehension and Total between High- Language Aptitude Group and Average- Language Aptitude Group; High- Language Aptitude Group and Low- Language Aptitude Group; (Extreme groups) and Average-Language Aptitude Group and Low-Language Aptitude Group are well beyond the critical values set for 0.01 level of probability (greater than 2.58).

Since high means are associated with High- Language Aptitude Groups for all the eight group pair comparisons, High- Language Aptitude Group can be considered to have advantage in Achievement in English-Total and Content wise over Average- Language Aptitude Group and Low-Language Aptitude Group. It can also be noted that Average- Language Aptitude Group have advantage over Low- Language Aptitude Group as high means are associated with Average- Language Aptitude Group.

4.3.2. Investigation of Group Difference in Achievement in English for Groups Formed on the Basis of Attitude towards Education

The F-values obtained for the two-way Analysis of variance of main effect of 'Attitude towards Education' on 'Achievement in English-Total' and content wise were found to be significant in fifteen out of sixteen ANOVA. Comparison of means of 'Achievement in English - Total and Content wise' was therefore taken up between homogeneous groups formed on the basis of 'Attitude towards Education'. The three groups formed are 'Favourable-Attitude towards Education Group', 'Moderately Favourable - Attitude towards Education Group' and 'Less Favourable-Attitude towards Education Group'. The data and results obtained for the comparison of means of these groups are presented in Table 18.

TABLE 18

**Data and Results of Test of Significant
difference in mean Achievement in English Scores (Total and
Content wise) between Favourable - Attitude towards Education Group
Moderately Favourable Attitude towards Education Group and Less Favourable
Attitude towards Education Group (taken in pairs) in the total sample N = 680**

Sl. No.	Variables of Achievement in English	1. Favourable Attitude towards Education N = 170		2. Moderately favourable Attitude towards Education N=296		3. Less Favourable Attitude towards Education N = 214		Critical Ratio		
		Mean	SD	Mean	SD	Mean	SD	I VS 2	I VS 3	2 VS 3
1	Achievement in English - Vocabulary (V ₆)	8.082	2.357	7.152	2.355	6.892	2.542	4.109**	1.174	6.592**
2	Achievement in English - Grammar (V ₇)	20.511	5.570	17.993	5.805	17.780	5.852	8.500**	4.670**	0.406
3	Achievement in English Comprehension (V ₈)	2.858	1.152	2.543	1.007	2.472	1.247	2.976**	3.160**	0.698
4	Achievement in English - Total Score (V ₉)	31.488	7.797	27.658	7.990	27.158	8.368	5.058**	5.231**	0.678

Note : significant beyond 0.01 level.

As per Table 18, critical ratio for Achievement in English-vocabulary, Grammar, Comprehension and Total are found to be significant beyond 0.01 level when Favourable-Attitude towards Education Group and Moderately-Favourable Attitude towards Education Group are compared. When Favourable Attitude towards Education Group and Less-Favourable Attitude towards Education Group are compared, except in Achievement in English Vocabulary (CR = 1.174) the other three critical ratios are significant beyond 0.01 level. But for the comparison of Moderately-Favourable Attitude towards Education Group with Less-Favourable Attitude towards Education, the group pair is found to be significantly different only in Achievement in English-Vocabulary (CR = 6.592). Thus it can be noticed that eight out of twelve group pairs show significant difference in Achievement in English, when homogeneous groups based on 'Attitude towards Education' were compared.

Since high means are associated with Favourable-Attitude towards Education in seven out of eight group pairs compared, it can be concluded that Favourable-Attitude towards Education group have significant advantage over Moderately Favourable-and Less Favourable Attitude towards Education group.

4.3.3. Investigation of Group Difference in Achievement in English for Groups Formed on the Basis of Attitude towards English

The F-values for the two way ANOVA of main effect of 'Attitude towards English' were found to be significant only on Achievement in English-Grammar and on Achievement in English-Total. Comparison of means was therefore taken up between homogeneous groups formed on the basis of 'Attitude towards English' only for 'Achievement in Grammar' and

Total. The three groups formed are Favourable Attitude towards English Group, Moderately Favourable-Attitude towards English Group and Less-Favourable Attitude towards English Group. The data and results obtained for the comparison of means of these groups are presented in Table 19.

TABLE 19

**Data and Results of Test of Significant difference in mean
Achievement in English Scores (Total and Content wise) between High- Attitude
towards English, Average- Attitude towards English and Low- Attitude towards English N= 680**

Sl. No.	Variables of Achievement in English	1. High-Attitude towards English Group N=197		2. Average Attitude towards English Group N = 274		3. Low Attitude towards English Group N=209		Critical Ratio		
		Mean	SD	Mean	SD	Mean	SD	I VS 2	I VS 3	2 VS 3
1	Achievement in English - Grammar (V ₇)	18.329	5.911	19.262	5.847	17.842	5.767	1.644	0.840	2.666 **
2	Achievement in English - Total Scores (V ₉)	28.142	8.167	29.394	8.249	27.531	8.217	1.635	0.798	2.465 *

Note : ** significant at 0.01 level * significant at 0.05 level.

As per Table 19 it can be noticed that critical ratios obtained are significant only for comparison of homogeneous pair namely Moderately Favourable-Attitude towards English Group and Less Favourable- Attitude towards English Group. Critical ratio obtained for Achievement in Grammar (CR = 2.666) is beyond 0.01 level and for Achievement in English-Total (CR=2.465) is significant beyond 0.05 level only. The critical ratio obtained for the other four groups compared ie. Favourable-Attitude towards English Group versus Moderately Favourable-Attitude towards English Group and Favourable-Attitude towards English Group versus Less-Favourable Attitude towards English Group are not significant even at 0.05 level.

The groups formed by 'Favourable Attitude towards English' and 'Moderately Favourable-Attitude towards English'; and 'Favourable-Attitude towards English' and Less Favourable-Attitude towards English are identical in Achievement in English Grammar and Comprehension.

4.3.4. Investigation of Group Difference in Achievement in English For Groups Formed on the Basis of 'Attitude Towards English Teachers and Teaching'

The F-values obtained for the two-way ANOVA of main effect of 'Attitude towards English Teachers and Teaching' on Achievement in English - Vocabulary, Grammar and Achievement in English - Total only are found to be significant. Comparison of means was therefore taken up between homogeneous groups formed on the basis of 'Attitude towards English Teachers and Teaching' for these variables. The three groups formed are Favourable - Attitude towards English Teachers and Teaching

Group, Moderately Favourable-Attitude towards English Teachers and Teaching Group and Less Favourable-Attitude towards English Teachers and Teaching Group. The data and results obtained for the comparison of means of these groups are presented in Table 20.

TABLE 20

**Data and Results of Test of Significant difference in mean
Achievement in English Scores (Total and Content wise) between Favourable-Attitude
towards English Teachers and teaching, Moderately Favourable- Attitude towards English Teachers and
teaching and Less Favourable-Attitude towards English Teachers and teaching Group in the total sample N= 680**

Sl. No.	Variables of Achievement in English	1. Favourable Attitude towards English Teachers and Teaching N= 201		2. Moderately Favourable Attitude towards English Teachers and Teaching N= 255		3. Less Favourable Attitude towards English Teachers and Teaching N=224		Critical Ratio		
		Mean	SD	Mean	SD	Mean	SD	1 VS 2	1 VS 3	2 VS 3
1	Achievement in English - Vocabulary (V ₆)	7.611	2.305	7.278	2.496	6.990	2.537	1.519	2.633**	1.197
2	Achievement in English - Grammar (V ₇)	19.857	5.692	18.184	5.910	17.577	5.766	5.942**	1.104	4.100**
3	Achievement in English Total (V ₈)	3.133	7.900	28.054	8.400	27.104	8.142	2.794**	1.223	4.990**

Note: ** denotes significance at 0.01 level.

As per Table 20 it can be noted that critical ratios obtained for the comparison of groups - Favourable Attitude towards English Teachers and Teaching and Less Favourable-Attitude towards English Teachers and Teaching for Achievement in vocabulary is 2.633. The obtained critical ratios is significant at 0.01 level. The critical ratios obtained for the other groups compared ie. Favourable-Attitude towards English Teachers and Teaching and Moderately Favourable-Attitude towards English Teachers and Teaching; Moderately Favourable Attitude towards English teachers and teaching and Less Favourable-Attitude towards English Teachers and Teaching- are not significant even at 0.05 level.

The critical ratios obtained for the groups Favourable - Attitude towards English Teachers and Teaching versus Moderately Favourable-Attitude towards English Teachers and Teaching; Moderately Favourable-Attitude towards English Teachers and Teaching versus Less Favourable-Attitude towards English Teachers and Teaching for Achievement in English Grammar is 5.942 and 4.100 respectively. These values are well beyond the values set for 0.01 level of probability. For the extreme groups the critical ratio is found to be only 1.104 which is not significant even at 0.05 level. The Achievement in English total of Favourable - Attitude towards English Teachers and Teaching versus Moderately - Favourable - Attitude towards English Teachers and Teaching and Moderately Favourable - Attitude towards English Teachers and Teaching versus Less-Favourable-Attitude towards English Teachers and Teaching showed significant mean difference, critical ratios being 2.794 and 4.990 respectively. While the extreme groups showed no significant group

difference in Achievement in English-Total, the critical ratio being only 1.223.

Since high means are associated with Favourable-Attitude towards English Teachers and Teaching, this group can be considered to have more advantage over other groups.

4.4 ESTIMATION OF RELATIONSHIP BETWEEN ACHIEVEMENT IN ENGLISH AND THE SELECT INDEPENDENT VARIABLES FOR THE TOTAL SAMPLE AND SUB SAMPLES

This part of the analysis was taken up with a view to seek answer to the second objective set for the study. For this purpose the relationship between Achievement in English (total and contentwise) and each of the select independent variables for the total sample sub samples based on sex, locale and type of management of schools were calculated using Pearson's Product Moment Coefficient of Correlation; 'r'.

To test whether the obtained values of 'r' are significant, SE_r were calculated using the formula $(1/\sqrt{N}) \times 1.96$, where N = size of the sample. The obtained values of 'r' greater than $(1/\sqrt{N}) \times 1.96$, were considered significant at 0.05 level. Similarly if the obtained values of 'r' are greater than $(1/\sqrt{N}) \times 2.58$, the relationship were considered significant at 0.01 level.

The obtained values of 'r' were further interpreted by estimating the population value. The 0.05 confidence interval for 'r' was worked out using the formula $r \pm SE_r \times 1.96$ where $SE_r = (1-r^2)/(\sqrt{N-1})$ (r = the value of correlation coefficient and N = size of the sample). The interval gave an

indication of the interval within which equivalent population would lie at the 0.05 level of probability.

The value of 'r' were verbally interpreted by the classification suggested by Garrett (1981) as follows:

- (i) 'r' from 0.00 to ± 0.20 denotes 'indifferent' or 'negligible' relationship.
- (ii) 'r' from ± 0.20 to ± 0.40 denotes 'low' correlation, present but slight.
- (iii) 'r' from 0.40 to ± 0.70 denotes 'substantial or marked relationship'.
- (iv) 'r' from 0.70 to ± 1.00 denotes 'high to very high relationship'.

The obtained values of 'r' were interpreted by determining the percentage overlap of variables. To get the percentage overlap, the square of 'r' was expressed as percentage i.e., $r^2 \times 100$ (Fox, 1969). This gives an idea of the percentage of variance that is common for the two variables correlated.

The extent of the correlation between Achievement in English (total and content wise) and each of the independent variables for the total sample and subsamples were examined separately and discussed in section 4.4.1 to 4.4.7.

4.4.1 CORRELATION OF ACHIEVEMENT IN ENGLISH - TOTAL SCORE AND CONTENT WISE WITH SELECT INDEPENDENT VARIABLES FOR TOTAL SAMPLE

The coefficient of correlation obtained between Achievement in English - (Total score and Content wise) and each of the five independent variables together with the details of 'r' such as limits at 0.05 confidence interval and shared variance are presented in Table 21.

TABLE 21

**Correlation of Achievement in English (Total and
Content wise) with Select Independent Variables for Total Sample N = 680**

Sl. No.	Independent Variables	Dependent variable	Correlation coefficient 'r'	$SE_r = (1-r^2)/\sqrt{N}$	Limits of population value at 0.05 level		Percentage overlap $r^2 \times 100$
					Lower Limit	Upper Limit	
V ₁	Language Aptitude	V ₆	0.4474 **	0.0306	0.3875	0.5073	20.016
		V ₇	0.5591 **	0.0263	0.4992	0.6106	31.259
		V ₈	0.3489 **	0.0336	0.2840	0.4147	12.173
		V ₉	0.5766 **	0.0256	0.5265	0.6267	33.246
V ₂	Attitude towards Education	V ₆	0.1870 **	0.0370	0.1145	0.2595	3.496
		V ₇	0.1631 **	0.0373	0.090	0.2362	2.661
		V ₈	0.1279 NS	0.0377	0.0541	0.2017	1.635
		V ₉	0.1902 **	0.0369	0.1179	0.2625	3.617
V ₃	Attitude towards English	V ₆	0.0259 NS	0.0383	-0.0491	0.1009	0.0670
		V ₇	0.0238 NS	0.0377	-0.05	0.1976	0.0560
		V ₈	0.0158 NS	0.0383	-0.0592	0.0908	0.0249
		V ₉	0.0258 NS	0.0383	-0.0592	0.1	0.0665
V ₄	Attitude towards English Teachers and Teaching	V ₆	0.0774 *	0.0381	0.0028	0.152	0.5990
		V ₇	0.1274 **	0.0377	0.0536	0.2012	1.6230
		V ₈	0.0128 NS	0.0383	-0.0622	0.0878	0.0163
		V ₉	0.1186 **	0.0378	0.0446	0.1926	1.4065
V ₅	Achievement Motivation	V ₆	-0.0214 NS	0.0428	-0.1052	0.0624	0.0457
		V ₇	0.0006 NS	0.0383	-0.0744	0.0756	0.000036
		V ₈	0.0482 NS	0.0382	-0.0266	0.123	0.2323
		V ₉	0.0095 NS	0.0383	-0.0655	0.0845	0.0090

Note: V₆ - Achievement in English - Vocabulary
V₇ - Achievement in English - Grammar
V₈ - Achievement in English - Comprehension
V₉ - Achievement in English - Total

** - Significance at 0.01 level

* - Significance at 0.05 level

NS - Not Significant

The results of the correlation analysis for the total sample (N = 680) are interpreted variable wise and are presented below.

4.4.1.1 Relationship of Language Aptitude and Achievement in English

The values of 'r', as per Table 21, for the relationship between 'Language Aptitude' and 'Achievement in English - Vocabulary'; 'Achievement in English - Grammar'; 'Achievement in Comprehension'; and 'Achievement in English - Total' are found to be 0.4474, 0.5591, 0.3489 and 0.5766 respectively. As the values of 'r' are greater than 0.098 ($1/\sqrt{680} \times 2.58$) the relationship can be considered significant beyond 0.01 level. The confidence intervals at 0.05 level were calculated for each 'r'. These values show that the population 'r's are expected to fall within the corresponding limits at 0.05 level of probability. The value of all the obtained 'r's are found to be positive which indicate the relationship of these two variables increase or decrease together.

The correlations were again interpreted using the descriptive categories suggested by Garrett. The relationship of 'Language Aptitude' with Achievement in Vocabulary category, Grammar category and Achievement in English - Total can be considered 'marked' or 'substantial' as the values exceed 0.40. For Achievement in English - Comprehension category the relationship can be considered as 'low'. The overlap of Achievement in English with each of the independent variables were calculated. The shared variance were found to vary from 13 percent (Language Aptitude and Achievement in Comprehension) to 33 percent (Achievement in English - Total).

4.4.1.2 . Relationship between 'Attitude towards Education' and 'Achievement in English'

For 'Attitude towards Education' and 'Achievement in English' - 'Achievement in English Vocabulary', 'Achievement in English Grammar' and 'Achievement in Comprehension' and 'Achievement in English - Total', the values of 'r' obtained were 0.1870, 0.1631, 0.1279 and 0.1902 respectively. The values of 'r' are greater than 0.0988 ($1/\sqrt{680} \times 2.58$) for the four correlations i.e., relationship between 'Attitude towards Education' and 'Achievement in English Vocabulary', 'Attitude towards Education' and 'Achievement in English Grammar' and 'Attitude towards Education' and 'Achievement in English Comprehension' and 'Achievement in English - Total' is significant beyond 0.01 level. Even though the values of 'r' are found to be significant, the relationship can be verbally considered only as 'negligible'. The confidence intervals at 0.05 level were calculated for each 'r'. The population 'r's were expected to lie within the corresponding limits at 0.05 level of probability. The obtained 'r's for 'Attitude towards Education' and Achievement in English Vocabulary, Grammar, Comprehension and Total are positive which indicate that the relationship of these two variables increase or decrease together.

The overlap of Achievement in English with the independent variables were calculated and they were found to vary from three percent (Attitude towards Education and Achievement in English - Comprehension) to four percent (Attitude towards Education and Achievement in English - Total). Only three to four percent of the variance of Achievement in English can be attributed to be shared by Attitude towards Education.

4.4.1.3 Relationship between Attitude towards English and Achievement in English

The values of 'r' for 'Attitude towards English' and 'Achievement in English' - Vocabulary, Grammar, Comprehension and Total scores are found to be 0.0259, 0.9238, 0.0158 and 0.0258. The values of 'r' for 'Attitude towards English' and 'Achievement in English grammar', 'Achievement in English Vocabulary', 'Achievement in English Comprehension' and 'Achievement in English - Total' were not significant even at 0.05 level, as the values of 'r' are less than 0.0751. Hence the results were not interpreted further.

4.4.1.4 Relationship between Attitude towards English Teachers and Teaching and Achievement in English

The obtained values of 'r' for 'Attitude towards English Teachers and Teaching' and 'Achievement in English Grammar' and 'Achievement in English - Total' are 0.1274 and 0.1186 respectively. These values are found significant at 0.01 level since the values exceed 0.098. The relationship between 'Attitude towards English Teachers and Teaching' and 'Achievement in English Vocabulary' is significant at 0.05 level (> 0.0751). The relationship of Achievement in English - Comprehension with Attitude towards English Teachers and Teaching is not significant as the obtained r (0.128) is less than 0.0751. Even though the values of 'r' are significant the relationship can verbally considered only as negligible. The obtained 'r's for 'Attitude towards English Teachers and Teaching' and Achievement in English Vocabulary, Grammar, Comprehension and Total are positive

which indicate that the relationship of these two variables increase or decrease together.

The overlap of Achievement in English with the independent variable was calculated and they were found to vary from 1 percent to 2 percent. Only one to two percent of the variance of Achievement in English only can be attributed to be shared by the variables of the select independent variables.

4.4.1.5 Relationship between 'Achievement Motivation' and 'Achievement in English'

The values of 'r' for 'Achievement Motivation' and Achievement in English Vocabulary, Grammar, Comprehension and Achievement in English - Total are 0.0214, 0.0006, 0.0482 and 0.0095 respectively. Since these values are not significant even at 0.05 level, further interpretations were not attempted.

The independent variables which are significantly related to Achievement in English - Vocabulary Category for the total sample are presented below in the descending order of importance based on percentage of shared variance.

Variables	Shared variance
Language Aptitude . . .	20.016
Attitude towards Education . . .	3.496
Attitude towards English Teachers and Teaching ...	0.599

The variables which are related significantly to Achievement in English - Grammar category are rearranged on the basis of the magnitude of the percentage overlap and presented below in the descending order.

Variables	Shared variance
Language Aptitude ...	31.259
Attitude towards Education ...	2.661
Attitude towards English Teachers and Teaching ...	1.623

Of the five independent variables selected for the study, only one variable namely, Language Aptitude is seen significantly related to Achievement in English - Comprehension category.

Variables	Shared Variance
Language Aptitude ...	12.173

The variables which are related to Achievement in English - Total category, for the total sample are rearranged on the basis of the magnitude of the percentage overlap and presented below in the descending order.

Variables	Shared Variance
Language Aptitude ...	33.246
Attitude towards Education ...	3.617
Attitude towards English Teachers and Teaching ...	1.406

4.4.2 CORRELATION OF ACHIEVEMENT IN ENGLISH - TOTAL SCORE AND CONTENT WISE - WITH SELECT INDEPENDENT VARIABLES FOR BOYS

The details of the correlation, that is, the obtained 'r' between Achievement in English - (Total score and Content wise) and each of the five independent variables together with other details of 'r' such as limits at 0.05 confidence interval and shared variance for boys in the sample are presented in Table 22.

TABLE 22
Correlation of Achievement in English (Total score and
Subtest scores) with Select Independent Variables for Boys (N = 339)

Sl. No.	Independent Variables	Dependent variable	Correlation coefficient 'r'	$SE_r = (1-r^2)/\sqrt{N}$	Limits of population value at 0.05 level		Percentage overlap $r^2 \times 100$
					Lower Limit	Upper Limit	
V ₁	Language Aptitude	V ₆	0.3683 **	0.0468	0.2766	0.46	13.564
		V ₇	0.4862 **	0.0414	0.4051	0.5673	23.639
		V ₈	0.2810 **	0.050	0.183	0.379	7.896
		V ₉	0.4928 **	0.0411	0.4123	0.5733	24.265
V ₂	Attitude towards Education	V ₆	0.2403 **	0.0361	0.1696	0.311	5.774
		V ₇	0.1802 **	0.0371	0.1075	0.2529	3.247
		V ₈	0.0852 NS	0.0380	0.0108	0.1596	0.725
		V ₉	0.2078**	0.0519	0.1061	0.3095	4.318
V ₃	Attitude towards English	V ₆	0.0818 NS	0.0539	-0.0238	0.1874	0.669
		V ₇	0.0584 NS	0.0540	-0.0474	0.1642	0.341
		V ₈	0.0433 NS	0.0542	-0.0629	0.1495	0.1874
		V ₉	0.0721 NS	0.0540	-0.0341	0.1783	0.519
V ₄	Attitude towards English Teachers and Teaching	V ₆	0.0737 NS	0.0540	-0.0321	0.1795	0.291
		V ₇	0.1571 **	0.0529	0.0535	0.2607	2.468
		V ₈	0.0663 NS	0.0540	-0.0395	0.1721	0.439
		V ₉	0.1429 **	0.0532	0.0387	0.2471	2.042
V ₅	Achievement Motivation	V ₆	0.0004 NS	0.0543	-0.1024	0.1068	0.000016
		V ₇	0.0243 NS	0.054	-0.0815	0.1301	0.059
		V ₈	-0.0390NS	0.050	-0.137	0.059	0.152
		V ₉	0.0128 NS	0.054	-0.093	0.1186	0.0163

Note: V₆ - Achievement in English - Vocabulary

V₇ - Achievement in English - Grammar

V₈ - Achievement in English - Comprehension

V₉ - Achievement in English - Total

** - Significance at 0.01 level

* - Significance at 0.05 level

NS - Not Significant

The results of correlation analysis for the sub sample boys (N = 339) are interpreted in the order in which the independent variables are arranged.

4.4.2.1 Relationship between Language Aptitude and Achievement in English

The values of 'r' for 'Language Aptitude' and 'Achievement in English - Vocabulary', 'Achievement in English Grammar', 'Achievement in English - Comprehension' and 'Achievement in English - Total' are found to be 0.3683, 0.4862, 0.2810 and 0.4928 respectively. As the values of 'r' are greater than 0.141 ($1/\sqrt{339} \times 2.58$) the relationship can be considered significant at 0.01 level. The confidence intervals at 0.05 level were calculated for each 'r'. These values show that the population 'r's are expected to fall within the corresponding limits at 0.05 level of probability. The value of all obtained 'r's are found to be positive which indicate that the relationship of these two variables increase or decrease together.

The correlations were again verbally interpreted using the descriptive categories. The relationship of 'Language Aptitude' with 'Achievement in English Grammar' and 'Achievement in English - Total', for boys can be considered to be 'substantial' or 'marked' as the obtained 'r' exceeds 0.40. The overlap of Achievement in English with each of the five independent variables were calculated and they were found to vary from 7 percent to 24 percent.

4.4.2.2 Relationship between Attitude towards Education and Achievement in English

For 'Attitude towards Education' and 'Achievement in English' - Vocabulary, Grammar and Achievement in English - Total, the estimated coefficient of correlation 'r' obtained are 0.2403, 0.1802 and 0.2078 respectively. The values of 'r' are greater than 0.141. So the relationship is significant at 0.01 level. The values of 'r' can be verbally interpreted as 'Low' correlation present but 'slight'. The confidence intervals at 0.05 level were calculated for each 'r'. The population 'r's are expected to fall within the corresponding limits at 0.05 level of probability. The obtained 'r's for 'Attitude towards Education' and 'Achievement in English Vocabulary', English Grammar and Achievement in English - Total are positive which indicate that the relationship of these two variables increase or decrease together. The overlap of Achievement in English with the independent variable was calculated and they were found to vary from 3 percent to 6 percent.

The relationship between Attitude towards Education and Achievement in English - Comprehension is not significant even at 0.05 level ('r' being 0.0852).

4.4.2.3 Relationship between Attitude towards English and Achievement in English

The values of 'r' for 'Attitude towards English' and 'Achievement in English Vocabulary', 'Achievement in English Grammar', 'Achievement in English Comprehension' and 'Achievement in English - Total' are found to be 0.0818, 0.0584, 0.0433 and 0.0721 respectively. Since the relationship

between these variables are not significant even at 0.05 level, the investigator did not attempt any further interpretations.

4.4.2.4 Relationship between Attitude towards English Teachers and Teaching and Achievement in English

The obtained values of 'r' for 'Attitude towards English Teachers and Teaching' and 'Achievement in English Grammar' and 'Achievement in English - Total' are 0.1571 and 0.1429 respectively. Since the values of 'r' are greater than 0.141, the relationship is significant at 0.01 level, hence real relationship exist. The relationship of 'Attitude towards English Teachers and Teaching' and 'Achievement in English - Grammar' and 'Attitude towards English Teachers and Teaching' and 'Achievement in English - Total' are positive and can be verbally interpreted as 'negligible' or 'indifferent'. The overlap of 'Achievement in English - Grammar' and 'Achievement in English - Total' with 'Attitude towards English Teachers and Teaching' are found to be only 2 percent.

The relationship between 'Attitude towards English Teachers and Teaching' and 'Achievement in English - Vocabulary' and 'Achievement in English - Comprehension' are not significant - 'r' being 0.0737 and 0.0663 respectively.

4.4.2.5 Relationship between Achievement Motivation and Achievement in English

The values of 'r' for 'Achievement Motivation' and 'Achievement in English' - Vocabulary, Grammar, Comprehension and Achievement in English - Total are 0.0004, 0.0243, 0.0390 and 0.0128 respectively. Since

these values are not significant even at 0.05 level further interpretations were not attempted.

The independent variables which are related significantly with Achievement in English Vocabulary category for Boys are given below in the descending order of importance based on percentage of shared variance.

Variables	Shared Variance
Language Aptitude ...	13.564
Attitude towards Education ...	5.774

The variables which are significantly related to Achievement in English Grammar category for Boys are presented below in the descending order based on percentage of shared variance.

Variables	Shared Variance
Language Aptitude ...	23.639
Attitude towards Education ...	3.247
Attitude towards English Teachers and Teaching ...	2.468

The independent variable which is significantly related to Achievement in English Comprehension category for Boys is Language Aptitude only.

Variables	Shared Variance
Language Aptitude ...	7.896

The descending order of the percentage of overlap of the independent variables which are significantly related to Achievement in English - Total category for Boys is presented below.

Variables	Shared Variance
Language Aptitude ...	24.265
Attitude towards Education ...	4.318
Attitude towards English Teachers and Teaching ...	2.042

4.4.3 CORRELATION OF ACHIEVEMENT IN ENGLISH - TOTAL SCORE AND CONTENT WISE - WITH SELECT INDEPENDENT VARIABLES FOR GIRLS

The coefficient of correlation obtained between 'Achievement in English' - (Total score and Contentwise) and each of the five independent variables together with the details of 'r' such as limits at 0.05 confidence interval and shared variance for girls are presented in Table 23.

TABLE 23

Correlation of Achievement in English (Total score and Subtest scores) with Select Independent Variables for Girls (N = 341)

Sl. No.	Independent Variables	Dependent variable	Correlation coefficient 'r'	$SE_r = (1-r^2)/\sqrt{N}$	Limits of population value at 0.05 level		Percentage overlap $r^2 \times 100$
					Lower Limit	Upper Limit	
V ₁	Language Aptitude	V ₆	0.5181**	0.0396	0.0592	0.5957	26.842
		V ₇	0.6199**	0.0333	0.5547	0.6851	38.427
		V ₈	0.4017**	0.0532	0.2975	0.5059	16.136
		V ₉	0.6484**	0.0313	0.5871	0.7097	42.042
V ₂	Attitude towards Education	V ₆	0.1368*	0.0531	0.0328	0.2408	1.871
		V ₇	0.1386*	0.0521	0.0346	0.2426	1.920
		V ₈	0.1481**	0.0529	0.0445	0.2517	2.193
		V ₉	0.1646**	0.0526	0.0616	0.2676	2.709
V ₃	Attitude towards English	V ₆	-0.0406 NS	0.0497	-0.147	0.056	0.1648
		V ₇	-0.0172 NS	0.0522	-0.1195	0.0851	0.0295
		V ₈	-0.0200 NS	0.0519	-0.1217	0.0817	0.04
		V ₉	-0.0295 NS	0.0509	-0.1292	0.0702	0.0870
V ₄	Attitude towards English Teachers and Teaching	V ₆	0.0702 NS	0.0538	-0.0352	0.1756	0.492
		V ₇	0.0743 NS	0.0538	-0.0311	0.1797	0.552
		V ₈	-0.0903 NS	-0.0443	-0.0035	-0.1771	0.8154
		V ₉	0.0686 NS	0.0539	-0.037	0.1742	0.4705
V ₅	Achievement Motivation	V ₆	-0.0427 NS	0.0495	-0.1397	0.0543	0.1823
		V ₇	-0.0234 NS	0.0516	-0.1245	0.0777	0.0547
		V ₈	-0.0547 NS	0.0535	-0.1595	0.0501	0.2992
		V ₉	-0.0300 NS	0.0509	-0.1297	0.0697	0.09

Note: V₆ - Achievement in English - Vocabulary

V₇ - Achievement in English - Grammar

V₈ - Achievement in English - Comprehension

V₉ - Achievement in English - Total

** - Significance at 0.01 level

* - Significance at 0.05 level

NS - Not Significant

The results of correlation analysis for the sub sample girls (N=341) are interpreted in the order in which the independent variables are arranged.

4.4.3.1 Relationship between Language Aptitude and Achievement in English

As per the table, the values of 'r' for 'Language Aptitude' and 'Achievement in English Vocabulary', 'Achievement in English Grammar', 'Achievement in Comprehension' and 'Achievement in English - Total' are found to be 0.5181, 0.6199, 0.4017 and 0.6484 respectively. As the values of 'r' are greater than 0.139 ($1/\sqrt{341} \times 2.58$) the relationship can be considered significant at 0.01 level. The confidence intervals at 0.05 level were calculated for each 'r'. These values show the population values of 'r' expected to fall within the corresponding limits at 0.05 level of probability. The values of all obtained 'r's are found to be positive which indicate the change in one variable is followed by the other variable in the same direction. The correlations were again interpreted using the descriptive categories. The relationship of 'Language Aptitude' with Achievement in English Vocabulary, Grammar, Comprehension and for the Total Score for Girls can be considered 'substantial' or 'marked relationship' as the obtained 'r's exceed 0.40. The overlap of Achievement in English with the independent variable were calculated and they were found to vary from 16 percent to 42 percent.

4.4.3.2 Relationship between Attitude towards Education and Achievement in English

For 'Attitude towards Education' and 'Achievement in English - Vocabulary, Grammar, Comprehension and Total' the values of 'r' obtained are 0.1368, 0.1386, 0.1481 and 0.1646 respectively. The values of 'r' are greater than 0.1398 for 'Attitude towards Education' and 'Achievement in English - Comprehension' and 'Achievement in English - Total'. So they are significant at 0.01 level. The 'r' obtained for 'Attitude towards Education' and 'Achievement in English - Vocabulary' and Grammar are greater than 0.1062 ($1/\sqrt{341} \times 1.96$) and they are significant at 0.05 level. The values of 'r' can be verbally interpreted as 'indifferent' or 'negligible'. The confidence intervals at 0.05 level were calculated for each 'r' which indicate the population value at 0.05 level of probability. The obtained 'r's for 'Attitude towards Education' and 'Achievement in English - Vocabulary, Grammar, Comprehension and Achievement in English -Total' are positive which indicate that both the variables increase or decrease together. The percentage overlap of Achievement in English with the independent variable was calculated and they were found to vary from 1 percent to 3 percent.

4.4.3.3 Relationship between Attitude towards English and Achievement in English

Coefficient of correlation between 'Attitude towards English' and 'Achievement in English - Vocabulary', 'Achievement in English - Grammar', 'Achievement in English - Comprehension' and 'Achievement in English - Total' are found to be 0.0406, 0.0172, 0.0200 and 0.0295

respectively. Since these values were not significant even at 0.05 level (less than 0.106) further interpretations were not attempted.

4.4.3.4 Relationship between Attitude towards English Teachers and Teaching and Achievement in English

The values of 'r' for 'Attitude towards English Teachers and Teaching' and Achievement in English - Vocabulary, Grammar, Comprehension and Achievement in English - Total are 0.0702, 0.0743, 0.0903 and 0.0686. Since these values are not significant even at 0.05 level, the investigator did not attempt further interpretations.

4.4.3.5 Relationship between Achievement Motivation and Achievement in English

The obtained values of 'r' for 'Achievement Motivation' and Achievement in English - Vocabulary, Grammar, Comprehension and Total scores are 0.0427, 0.0234, 0.0547 and 0.0300 respectively. These values are not significant even at 0.05 level. So no further interpretations was attempted.

The variables which are significantly related to Achievement in English vocabulary category for the Girls are presented below on the basis of the magnitude of the percentage of overlap in the descending order.

Variables	Shared variance
Language aptitude ...	26.842
Attitude towards Education ...	1.871

The independent variables which are related significantly to Achievement in English - Grammar category for the Girls are presented below in the descending order of their percentage of variance.

Variables	Shared variance
Language Aptitude ...	38.427
Attitude towards Education ...	1.920

The variables which are related significantly to Achievement in English - Comprehension category for the Girls are presented below in the descending order of their percentage of variance.

Variables	Shared variance
Language Aptitude ...	16.136
Attitude towards Education ...	2.193

The independent variables which are related significantly to Achievement in English - Total category for the Girls are presented below in the descending order of their percentage of variance.

Variables	Shared variance
Language Aptitude ...	42.042
Attitude towards Education ...	2.709

4.4.4 CORRELATION OF ACHIEVEMENT IN ENGLISH - TOTAL SCORE AND CONTENT WISE - WITH SELECT INDEPENDENT VARIABLES FOR RURAL SUBJECTS

The correlation coefficient obtained between 'Achievement in English' - (Total Score and Content wise) and each of the five independent variables with details of 'r' such as limits at 0.05 confidence interval and shared variance for rural sample (N = 475) are presented in Table 24.

TABLE 24

**Correlation of Achievement in English (Total score and
Subtest scores) with Select Independent Variables for Rural Subjects (N = 475)**

Sl. No.	Independent Variables	Dependent variable	Correlation coefficient 'r'	$SE_r = (1-r^2)/\sqrt{N}$	Limits of population value at 0.05 level		Percentage overlap $r^2 \times 100$
					Lower Limit	Upper Limit	
V ₁	Language Aptitude	V ₆	0.4128 **	0.0380	0.3384	0.4872	17.040
		V ₇	0.5311 **	0.0329	0.4667	0.5955	28.206
		V ₈	0.3592 **	0.0399	0.281	0.4374	12.902
		V ₉	0.5492 **	0.0320	0.4865	0.6119	30.162
V ₂	Attitude towards Education	V ₆	0.2114 **	0.0438	0.1487	0.2741	4.468
		V ₇	0.1887 **	0.0442	0.1021	0.2753	3.560
		V ₈	0.1956 **	0.0441	0.1092	0.282	3.825
		V ₉	0.2264 **	0.0435	0.1412	0.3116	5.125
V ₃	Attitude towards English	V ₆	0.0365 NS	0.0458	-0.0532	0.1262	0.133
		V ₇	0.0574 NS	0.0457	-0.0551	0.1699	0.329
		V ₈	0.0051 NS	0.0458	-0.0843	0.0948	0.0026
		V ₉	0.0515 NS	0.0457	-0.038	0.141	0.2652
V ₄	Attitude towards English Teachers and Teaching	V ₆	0.0400 NS	0.0458	-0.0497	0.1297	0.16
		V ₇	0.1076 *	0.0453	0.0189	0.1963	1.57
		V ₈	-0.0383 NS	0.0423	-0.1212	0.0446	0.1466
		V ₉	0.0882 NS	0.0455	-0.0009	0.1773	0.7779
V ₅	Achievement Motivation	V ₆	0.0131 NS	0.0458	-0.0766	0.1028	0.0171
		V ₇	0.0334 NS	0.0458	-0.0563	0.1231	0.1115
		V ₈	-0.0364 NS	0.0425	-0.1197	0.0469	0.1324
		V ₉	0.0284 NS	0.0458	-0.0613	0.1181	0.080

Note: V₆ - Achievement in English - Vocabulary
V₇ - Achievement in English - Grammar
V₈ - Achievement in English - Comprehension
V₉ - Achievement in English - Total

** - Significance at 0.01 level
* - Significance at 0.05 level
NS - Not Significant

The results of correlation analysis for the sub sample - rural subjects (N=475) are interpreted in the order in which the independent variables are arranged.

4.4.4.1 Relationship between Language Aptitude and Achievement in English

As per the Table 24, the values of 'r' for 'Language Aptitude' and 'Achievement in English - Vocabulary, Grammar, Comprehension and Achievement in English - Total' are found to be 0.4128, 0.5311, 0.3592 and 0.5492 respectively. The values of 'r' are greater than 0.1184 ($1/\sqrt{475} \times 2.58$); hence the relationship can be considered significant at 0.01 level which indicates that real relationship exist between these variables. The confidence intervals at 0.05 level were calculated for each 'r'. These values show the population 'r's that are expected to fall within the corresponding limits at 0.05 level of probability. The values of all obtained 'r's are found to be positive which indicate the relationship of these two variables increase or decrease together. The relationship can be verbally described as 'Substantial' or 'Marked' for 'Language Aptitude' and 'Achievement in English Vocabulary, Grammar and Achievement in English - Total'. The overlap of Achievement in English with the independent variable were found to vary from 12 percent to 30 percent.

4.4.4.2 Relationship between Attitude towards Education and Achievement in English

For 'Attitude towards Education' and 'Achievement in English Vocabulary, Grammar, Comprehension and Total' Score, the values of 'r' estimated are 0.2114, 0.1887, 0.1956 and 0.2264 respectively. The values of

'r' are greater than 0.1184 ($1/\sqrt{475} \times 2.58$) for 'Attitude towards Education' and Achievement in English Vocabulary, Grammar, Comprehension of passages and Total score. The relationship can be considered real at 0.01 level of probability. The values of 'r' can be verbally interpreted as 'low correlation' but 'slight'. The confidence intervals at 0.05 level were calculated for each 'r' which indicate the population 'r's expected to fall within the corresponding limits at 0.05 level of probability. The obtained 'r's are positive which indicate the corresponding increase or decrease of these variables. The percentage overlap of Achievement in English with the select independent variable were found to vary from 4 percent to 5 percent.

4.4.4.3 Relationship between Attitude towards Teachers and Teaching and Achievement in English

The values of 'r' for 'Attitude towards English' and 'Achievement in English Vocabulary', 'Achievement in English Grammar', 'Achievement in Comprehension' and 'Achievement in English - Total' are found to be 0.0365, 0.0574, 0.0051 and 0.0515 respectively. Since these values were not significant even at 0.05 level, no further interpretations were attempted.

4.4.4.4 Relationship between Attitude towards Teachers and Teaching and Achievement in English

The obtained values of 'r' for 'Attitude towards English Teachers and Teaching' and 'Achievement in English Vocabulary', 'Achievement in English Grammar' and 'Achievement in Comprehension' and Total are 0.0400, 0.1076, 0.0383 and 0.0882 respectively. Of these, the value of 'r' for 'Attitude towards English Teachers' and 'Teaching and Achievement in English Grammar' only is found 0.0899 ($1/\sqrt{475} \times 1.96$). It is significant at

0.05 level. The relationship is positive but can be verbally interpreted as 'indifferent' or 'negligible'. The shared variance is 1.157.

4.4.4.5 Relationship between Achievement Motivation and Achievement in English

For 'Achievement Motivation' and 'Achievement in English Vocabulary', 'Achievement in English Grammar', 'Comprehension' and 'Achievement in English - Total', the values of 'r' obtained were 0.0131, 0.0334, 0.0364 and 0.0284 respectively. The investigator did not attempt any further interpretation as the values of 'r' were not significant even at 0.05 level.

The independent variables which are related to Achievement in English - Vocabulary category for Rural subjects in the sample were rearranged on the basis of the percentage of overlap and is presented below.

Variables	Shared variance
Language Aptitude ...	17.040
Attitude towards Education ...	4.468

The percentage of overlap of independent variables which are related to Achievement in English - Grammar category for Rural subjects is presented below in the descending order.

Variables	Shared variance
Language Aptitude ...	28.206
Attitude towards Education ...	3.560
Attitude towards English Teachers and Teaching ...	1.157

The variables which are related significantly to Achievement in English - Comprehension category for Rural subjects are presented below in the descending order of importance based on percentage of shared variance.

Language Aptitude ...	12.902
Attitude towards Education ...	3.825

The percentage of overlap of independent variables which are related to Achievement in English - Total score for Rural subjects is presented below in the descending order.

Variables	Percentage of overlap
Language Aptitude ...	30.162
Attitude towards Education ...	5.125

4.4.5 CORRELATION OF ACHIEVEMENT IN ENGLISH - TOTAL SCORE AND CONTENT WISE - WITH SELECT INDEPENDENT VARIABLES FOR URBAN SUBJECTS

The coefficient of correlation obtained between Achievement in English - (Total score and Contentwise) - and each of the five independent variables with other relevant details of 'r' for urban subjects are presented in Table 25.

TABLE 25
Correlation of Achievement in English (Total score and
Subtest scores) with Select Independent Variables for Urban Subjects (N = 205)

Sl. No.	Independent Variables	Dependent variable	Correlation coefficient 'r'	$SE_r = (1-r^2)/\sqrt{N}$	Limits of population value at 0.05 level		Percentage overlap $r^2 \times 100$
					Lower Limit	Upper Limit	
V ₁	Language Aptitude	V ₆	0.5185 **	0.0510	0.4186	0.6184	26.884
		V ₇	0.6258 **	0.0424	0.5427	0.7089	39.162
		V ₈	0.3401 **	0.0617	0.2192	0.4602	11.566
		V ₉	0.6394 **	0.0412	0.5587	0.7201	40.833
V ₂	Attitude towards Education	V ₆	0.1321 NS	0.0686	-0.0023	0.2665	1.745
		V ₇	0.1045 NS	0.0690	-0.0307	0.2397	1.092
		V ₈	-0.0239 NS	0.0665	-0.1542	0.1064	0.0571
		V ₉	0.1096 NS	0.0690	-0.0256	0.2448	1.201
V ₃	Attitude towards English	V ₆	0.0222 NS	0.0698	-0.1146	0.159	0.0492
		V ₇	-0.0467 NS	0.0633	-0.1707	0.0773	0.3128
		V ₈	0.0293 NS	0.0697	-0.1073	0.1659	0.0858
		V ₉	-0.0224 NS	0.0664	-0.1525	0.1077	0.0501
V ₄	Attitude towards English Teachers and Teaching	V ₆	0.1565 *	0.0683	0.0227	0.2903	2.449
		V ₇	0.1727 *	0.0677	0.0401	0.3053	2.982
		V ₈	0.1195 NS	0.0688	-0.0153	0.2543	1.428
		V ₉	0.1840 **	0.0674	0.0519	0.3161	3.385
V ₅	Achievement Motivation	V ₆	-0.1142 NS	0.0538	-0.2196	-0.0088	1.3041
		V ₇	-0.0919 NS	0.0570	-0.2036	0.0402	0.8445
		V ₈	-0.0720 NS	0.0597	-0.189	0.045	0.5184
		V ₉	-0.1088 NS	0.0546	-0.2158	-0.0018	1.1837

Note: V₆ - Achievement in English - Vocabulary
V₇ - Achievement in English - Grammar
V₈ - Achievement in English - Comprehension
V₉ - Achievement in English - Total

** - Significance at 0.01 level
* - Significance at 0.05 level
NS - Not Significant

The results of correlation analysis for the sub sample urban subjects (N=205) are interpreted in the order in which the independent variables are discussed earlier.

4.4.5.1 Relationship between Language Aptitude and Achievement in English

Coefficient of correlations obtained for 'Language Aptitude' and 'Achievement in English' - Vocabulary, Grammar, Comprehension and Achievement in English - Total are found to be 0.5185, 0.6258, 0.3401 and 0.6394 respectively.

The obtained 'r' are greater than 0.1801 ($1/\sqrt{205} \times 2.58$); hence the relationship can be considered significant at 0.01 level. The confidence intervals at 0.05 level were calculated for each 'r'. These values indicate the population 'r's that are expected to fall within the corresponding limits at 0.05 level of probability. The values of all obtained 'r's are found to be positive which indicate the relationship of these two variables increase or decrease together. The correlations can be verbally interpreted as 'substantial' or 'marked' relationship for Language Aptitude and Achievement in English - Vocabulary, Grammar and Achievement in English - Total and 'Low' but 'slight' for 'Language Aptitude' and 'Achievement in English comprehension'. The overlap of Achievement in English with the independent variable (shared variance) found to vary from 11 percent to 41 percent.

4.4.5.2 Relationship between Attitude towards Education and Achievement in English

Coefficient of correlation between 'Attitude towards Education' and 'Achievement in English - Vocabulary', Grammar, Comprehension and Achievement in English - Total were found to be 0.1321, 0.1045, 0.0239 and 0.1096 respectively. The values of 'r' obtained for 'Attitude towards Education' and 'Achievement in English - Vocabulary', 'Achievement in English - Grammar', 'Achievement in English - Comprehension' and 'Achievement in English - Total' were found to be less than 0.1368 ($1/\sqrt{205} \times 1.96$) (The values obtained being 0.1321, 0.1045, 0.0239 and 0.1096 respectively) since the obtained coefficient of correlations are not significant, further interpretations were not attempted.

4.4.5.3 Relationship between Attitude towards English and Achievement in English

For 'Attitude towards English' and 'Achievement in English Vocabulary, Grammar, Comprehension and Achievement in English - Total' the values of 'r' obtained were 0.0222, 0.0467, 0.0293 and 0.0224 respectively. Since these values are not significant even at 0.05 level, no further interpretations were attempted.

4.4.5.4 Relationship between Attitude towards English Teachers and Teaching and Achievement in English

The obtained values of 'r' for 'Attitude towards English Teachers and Teaching' and Achievement in English Vocabulary and Grammar are 0.1565 and 0.1727 respectively. As the values of 'r' are greater than 0.136,

the relationship can be considered significant at 0.05 level. As the obtained 'r' between 'Attitude towards Teachers and Teaching' and 'Achievement in English - Total' is 0.184, the relationship is significant beyond 0.01 level. The relationship between 'Attitude towards English Teachers and Teaching' and 'Achievement in English - Comprehension' is not significant as the obtained 'r' is less than 0.135. The confidence intervals at 0.05 level were calculated for each 'r' indicating the population 'r's that are expected to fall within the corresponding limits at 0.05 level of probability. The obtained 'r's are found to be positive which indicate that the relationship of these variables increase or decrease together. The relationship of 'Attitude towards English Teachers and Teaching' with 'Achievement in English Vocabulary', Grammar, Comprehension and Achievement in English - Total for the urban subjects can be verbally described as 'indifferent' or 'negligible'. The overlap of Achievement in English Vocabulary, Grammar, Comprehension and Achievement in English - Total vary from 2 to 3 percent.

4.4.5.5 Relationship between Achievement Motivation and Achievement in English

The values of 'r' for 'Achievement Motivation' and 'Achievement in English - Vocabulary', Grammar, Comprehension and Achievement in English - Total are -0.1142, -0.0919, -0.0720 and -0.1088 respectively. Since these values were not significant even at 0.05 level (less than 0.13), further interpretations were not attempted.

The variables which are significantly related to Achievement in English Vocabulary category for Urban subjects are presented below in the descending order of importance based on percentage of shared variance.

Variables	Percentage of Variance
Language Aptitude ...	26.884
Attitude towards English Teachers and Teaching ...	2.449
Attitude towards Education ...	1.745

The independent variables which are related to Achievement in English - Grammar category are rearranged on the basis of the magnitude of the percentage overlap and presented below in the descending order.

Variables	Shared Variance
Language Aptitude ...	39.162
Attitude towards English Teachers and Teaching ...	2.982

The descending order of the independent variables, which are significantly related to Achievement in English Comprehension category based on percentage overlap for Urban subjects are given below.

Variables	Shared variance
Language Aptitude ...	11.566

The variables which are significantly related to Achievement in English - Total category for Urban subjects are presented below in the descending order based on percentage of shared variance.

Variables	Shared variance
Language Aptitude ...	40.883
Attitude towards English Teachers and Teaching ...	3.385

4.4.6 CORRELATION OF ACHIEVEMENT IN ENGLISH - TOTAL SCORE AND CONTENT WISE - WITH SELECT INDEPENDENT VARIABLES FOR STUDENTS OF GOVERNMENT SCHOOL

The details of the coefficient of correlation obtained between Achievement in English - (Total score and Content wise) and each of the five independent variables for students of Government School (n = 278) are presented in Table 26.

TABLE 26

Correlation of Achievement in English (Total score and Subtest scores) with Select Independent Variables for Students of Government School (N = 278)

Sl. No.	Independent Variables	Dependent variable	Correlation coefficient 'r'	SE _r = (1-r ²)/√N	Limits of population value at 0.05 level		Percentage overlap r ² x 100
					Lower Limit	Upper Limit	
V ₁	Language Aptitude	V ₆	0.4974 **	0.0451	0.4091	0.5857	24.740
		V ₇	0.6045 **	0.0380	0.5301	0.677	36.542
		V ₈	0.4111 **	0.0498	0.3135	0.5087	16.900
		V ₉	0.6241 **	0.0366	0.5265	0.7217	38.950
V ₂	Attitude towards Education	V ₆	0.1176 *	0.0591	0.0018	0.2334	1.3829
		V ₇	0.1417 *	0.0587	0.0267	0.2567	2.0078
		V ₈	0.0993 NS	0.0593	-0.0169	0.2155	0.9860
		V ₉	0.1519 *	0.0585	0.0373	0.2665	2.3073
V ₃	Attitude towards English	V ₆	-0.0017 NS	0.0597	-0.1187	0.1153	0.314
		V ₇	-0.0292 NS	0.0564	-0.1397	0.0813	0.0852
		V ₈	0.0992 NS	0.0593	-0.017	0.2154	0.9840
		V ₉	-0.0103 NS	0.0587	-0.1253	0.1047	0.0106
V ₄	Attitude towards English Teachers and Teaching	V ₆	0.1447 *	0.0587	-0.0003	0.2597	2.0938
		V ₇	0.0886 NS	0.0595	-0.028	0.2052	0.7811
		V ₈	0.0270 NS	0.0599	-0.0904	0.1444	0.0729
		V ₉	0.1160 *	0.0591	0.0002	0.2318	1.3595
V ₅	Achievement Motivation	V ₆	-0.0719 NS	0.0513	-0.1724	0.0286	0.5169
		V ₇	-0.0631 NS	0.0524	-0.1658	0.0396	0.3981
		V ₈	-0.0221 NS	0.0573	-0.1344	0.0902	0.0488
		V ₉	-0.0590 NS	0.0528	-0.1624	0.0444	0.3481

Note: V₆ - Achievement in English - Vocabulary
 V₇ - Achievement in English - Grammar
 V₈ - Achievement in English - Comprehension
 V₉ - Achievement in English - Total

** - Significance at 0.01 level

* - Significance at 0.05 level

NS - Not Significant

The results of correlation analysis are discussed in the order in which the independent variables are arranged.

4.4.6.1 Relationship between Language Aptitude and Achievement in English

Table 26 reveals that the obtained 'r' for 'Language Aptitude' and 'Achievement in English Vocabulary', 'Achievement in English Grammar', 'Achievement in Comprehension' and 'Achievement in English - Total' are found to be 0.4974, 0.6045, 0.4111 and 0.6241 respectively. As the values of 'r' are greater than 0.1548, the relationship can be considered significant at 0.01 level. Population 'r's at 0.05 level of probability were calculated. The relationship of these variables increase or decrease together as all the obtained 'r's are found to be positive. The relationship can be verbally described as 'substantial' or 'marked' for all the four selected dependent variables. The overlap of variance of Achievement in English - Total and Contentwise - with 'Language Aptitude' vary from 16 percent to 38 percent.

4.4.6.2 Relationship between Attitude towards Education and Achievement in English

For 'Attitude towards Education' and 'Achievement in English - Vocabulary', Grammar and Total Score, the values of 'r' obtained are 0.1176, 0.1417 and 0.1519 respectively. The values of 'r' obtained are greater than 0.1176 ($1/\sqrt{278} \times 1.96$) for 'Attitude towards Education' and 'Achievement in English - Vocabulary', 'Attitude towards Education' and 'Achievement in English Grammar' and 'Attitude towards Education' and 'Achievement in English - Total'. So they are significant at 0.05 level. The relationship of 'Attitude towards Education' and 'Achievement in English

'Comprehension' is not significant even at 0.05 level. The relationship of 'Attitude towards Education' and 'Achievement in English Vocabulary', 'Achievement in English Grammar' and 'Achievement in English - Total' can verbally be described as 'low'. The population 'r's at 0.05 level of probability were also calculated. Since the obtained 'r's for 'Attitude towards Education' and 'Achievement in English - Vocabulary', Grammar, Comprehension and Achievement in English - Total are positive, these variables can be considered increase or decrease together. The overlap of variance of Achievement in English - Total and Contentwise with the independent variable vary from 1 percent to 2 percent.

4.4.6.3 Relationship between Attitude towards English and Achievement in English

The values of 'r' for 'Attitude towards English' and 'Achievement in English Vocabulary', 'Achievement in English Grammar', 'Achievement in English - Comprehension' and 'Achievement in English - Total' score are found to be 0.0017, 0.0292, 0.0992 and 0.0103 respectively. Since these values were not significant even at 0.05 level (less than 0.1176), no further interpretations were attempted.

4.4.6.4 Relationship between Attitude towards English Teachers and Teaching and Achievement in English

The obtained values of 'r' for 'Attitude towards English Teachers and Teaching' and 'Achievement in English Vocabulary' and 'Achievement in English - Total' score are 0.1447 and 0.1160 respectively. The relationship of 'Attitude towards English Teachers and Teaching' and 'Achievement in English Vocabulary', and 'Attitude towards English Teachers and Teaching'

and 'Achievement in English - Total' can be considered significant beyond 0.05 level as the 'r' is greater than 0.1176 ($1/\sqrt{278} \times 1.96$). The values of 'r' for 'Attitude towards English Teachers and Teaching' and 'Achievement in English Grammar', 'Attitude of English Teachers and Teaching' and 'Achievement in Comprehension' was found not significant even at 0.05 level. The values of 'r' can be verbally interpreted as 'indifferent' or 'negligible'. The shared variance of 'Achievement in English Vocabulary' and 'Achievement in English Total' score with 'Attitude towards English Teachers and Teaching' are less than 2 percent.

4.4.6.5 Relationship between Achievement Motivation and Achievement in English

As per the Table, the obtained values of 'r' for 'Achievement Motivation' and 'Achievement in English Vocabulary', 'Achievement in English Grammar', 'Achievement in English Comprehension' and 'Achievement in English - Total' are 0.0719, 0.0631, 0.0221 and 0.0590 respectively. As the values of r were not significant even at 0.05 level, no further interpretations were carried out.

The variables which are significantly related to Achievement in English Vocabulary category for students of Government School are presented below in the descending order of importance based on percentage of shared variance.

Variables	Shared Variance
Language Aptitude ...	24.740
Attitude towards English Teachers and Teaching ...	2.0938
Attitude towards Education ...	1.3829

The descending order of the percentage of overlap of the independent variables which are significantly related to Achievement in English Grammar category for students of Government School are given below.

Variables	Shared Variance
Language Aptitude ...	36.542
Attitude towards Education ...	2.0078

Of the five independent variables selected for the study, only one variable namely, Language Aptitude is seen significantly related to Achievement in English - Comprehension category.

Variables	Shared Variance
Language Aptitude ...	16.9

The variables which are related to Achievement in English - Total category for the students of Government School are rearranged on the basis of the magnitude of the percentage overlap of variance and presented below in the descending order.

Variables	Shared Variance
Language Aptitude ...	38.950
Attitude towards Education ...	2.3073
Attitude towards English Teachers and Teaching...	1.3595

4.4.7 CORRELATION OF ACHIEVEMENT IN ENGLISH - TOTAL SCORE AND CONTENT WISE - WITH SELECT INDEPENDENT VARIABLES FOR PRIVATE SCHOOL STUDENTS

The coefficient of correlation obtained between Achievement in English - Total and Content wise - and each of the five independent variables for students of private school together with relevant details are presented in Table 27.

TABLE 27

**Correlation of Achievement in English (Total score
and Subtest Scores) with Select Independent Variables for Students of Private Schools (N = 402)**

Sl. No.	Independent Variables	Dependent variable	Correlation coefficient 'r'	$SE_r = (1-r^2)/\sqrt{N}$	Limits of population value at 0.05 level		Percentage overlap $r^2 \times 100$
					Lower Limit	Upper Limit	
V ₁	Language Aptitude	V ₆	0.4076 **	0.0415	0.3263	0.4889	16.613
		V ₇	0.5169 **	0.0365	0.4454	0.5884	26.718
		V ₈	0.2892 **	0.0457	0.1997	0.3787	8.363
		V ₉	0.5326 **	0.0497	0.4352	0.63	28.366
V ₂	Attitude towards Education	V ₆	0.2321 **	0.0471	0.1398	0.3244	5.387
		V ₇	0.1707 **	0.0484	0.0759	0.2655	2.913
		V ₈	0.1401 **	0.0488	0.0445	0.2357	1.962
		V ₉	0.2107 **	0.0476	0.1175	0.3039	4.439
V ₃	Attitude towards English	V ₆	0.0443 NS	0.0497	-0.0541	0.1407	0.196
		V ₇	0.0598 NS	0.0497	-0.0376	0.1572	0.357
		V ₈	-0.0200 NS	0.0476	-0.1192	0.0672	0.226
		V ₉	0.0523 NS	0.0497	-0.0451	0.1497	0.273
V ₄	Attitude towards English Teachers and Teaching	V ₆	0.0373 NS	0.0498	-0.0603	0.1349	0.139
		V ₇	0.1421 **	0.0488	0.0465	0.2377	2.019
		V ₈	-0.0039 NS	0.0494	-0.0995	0.0917	0.244
		V ₉	0.1122 **	0.0492	0.0158	0.2086	1.258
V ₅	Achievement Motivation	V ₆	0.0087 NS	0.0498	-0.0889	0.1063	0.0075
		V ₇	0.0398 NS	0.0498	-0.0558	0.1354	0.1584
		V ₈	-0.0658 NS	0.0433	-0.1506	0.0298	0.4329
		V ₉	0.0219 NS	0.0498	-0.0755	0.1193	0.0479

Note: V₆ - Achievement in English - Vocabulary
 V₇ - Achievement in English - Grammar
 V₈ - Achievement in English - Comprehension
 V₉ - Achievement in English - Total

** - Significance at 0.01 level

* - Significance at 0.05 level

NS - Not Significant

The results of correlation analysis for the sub sample (N=402) are interpreted and discussed.

4.4.7.1 Relationship between Language Aptitude and Achievement in English

The values of 'r' for Language 'Aptitude and Achievement in English Vocabulary', 'Achievement in English Grammar', Comprehension and 'Achievement in English - Total' are found to be 0.4076, 0.5169, 0.2892 and 0.5326 respectively. As the values of 'r' are greater than 0.1287 ($1/\sqrt{402} \times 2.58$) the relationship can be considered significant at 0.01 level. The confidence intervals at 0.05 level of probability for the population 'r's are presented. Since all the obtained 'r's are found to be positive these variables will increase or decrease together. The correlations can be verbally described as 'Substantial' or 'Marked' for 'Language Aptitude' and 'Achievement in English Vocabulary', 'Language Aptitude' and 'English Grammar', 'Language Aptitude' and 'Achievement in English - Total' score. 'Low' but 'slight' relationship is found between 'Language Aptitude' and 'Achievement in English Comprehension'. The percentage overlap of variance of Achievement in English - Total and Contentwise with 'Language Aptitude' were found to vary from 8 percent to 28 percent.

4.4.7.2 Relationship of Attitude towards Education and Achievement in English

For 'Attitude towards Education' and 'Achievement in English Vocabulary', Grammar, Comprehension and Total score, the values of 'r' obtained are 0.2321, 0.1707, 0.1401 and 0.2107 respectively. The values of 'r' are greater than 0.1287 ($1/\sqrt{402} \times 2.58$) and so they are significant at 0.01

level. The relationship can be verbally interpreted as 'indifferent' or 'negligible'. The population values of 'r's that are expected to fall within the corresponding limits at 0.05 level were calculated and presented. The positive sign of obtained 'r's indicate that these variables increase or decrease together. The shared variance of Achievement in English with 'Attitude towards Education' vary from 2 percent to 5 percent.

4.4.7.3 Relationship between Attitude towards English and Achievement in English

The values of 'r' for 'Attitude towards English' and 'Achievement in English Vocabulary', 'Achievement in English Grammar', 'Achievement in Comprehension' and 'Achievement in English - Total' score are found to be 0.0443, 0.0598, 0.0260 and 0.0523 respectively. These values are not significant even at 0.05 level (less than 0.0978) so the investigator did not carry out any further interpretation.

4.4.7.4 Relationship between Attitude towards English Teachers and Teaching and Achievement in English

The obtained values of 'r' for 'Attitude towards English Teachers and Teaching' and 'Achievement in English Vocabulary', Grammar, Comprehension and Achievement in English - Total score, the values of 'r' obtained were 0.0373, 0.1421, 0.0039 and 0.1122 respectively. Of these, the values of 'r' for 'Attitude towards English Teachers and Teaching' and 'Achievement in English Grammar', is greater than 0.1287 (significant at 0.01 level) and that of 'Attitude towards English Teachers and Teaching' and 'Achievement in English - Total' is greater than 0.0978 (significant at 0.05 level). The value of 'r' can be verbally interpreted as 'indifferent' or

'negligible'. The population values of 'r's that are expected to fall within the corresponding limits at 0.05 level were calculated and presented. The positive sign of obtained 'r's indicate that these variables increase or decrease together. The shared variance of Achievement in English with 'Attitude towards English Teachers and Teaching' vary from 1 percent to 2 percent.

4.4.7.5 Relationship between Achievement Motivation and Achievement in English

The values of 'r' for 'Achievement Motivation' and 'Achievement in English - Vocabulary', Grammar, Comprehension and Achievement in English - Total were 0.0087, 0.0398, 0.0658 and 0.0219 respectively. The investigator did not attempt any further interpretation as the values of 'r' were not significant even at 0.05 level.

The independent variables which are related to Achievement in English Vocabulary category for students of private school are rearranged on the basis of the magnitude of the percentage overlap and presented below in the descending order.

Variables	Shared variance
Language Aptitude ...	16.613
Attitude towards Education ...	5.387

The variables which are significantly related to Achievement in English Grammar category for students of Private school are presented below in the descending order of importance based on shared variance.

Variables	Shared variance
Language Aptitude ...	26.718
Attitude towards Education ...	2.913
Attitude towards English Teachers and Teaching ...	2.019

The descending order of the percentage of overlap of the independent variables which are significantly related to Achievement in English Comprehension category for students of private school are given below.

Variables	Shared Variance
Language Aptitude ...	8.363
Attitude towards Education ...	1.962

The variables which are significantly related to Achievement in English - Total category for students of private school are presented below in the descending order based on percentage of shared variance.

Variables	Shared variance
Language Aptitude ...	28.366
Attitude towards Education ...	4.439
Attitude towards English Teachers and Teaching ...	1.258

For each independent variable, 28 correlations (four dependent variables in seven samples) were estimated.

Out of the 28 correlations conducted for finding out the relationship between 'Language Aptitude' and 'Achievement in English' - Total and

Content wise, the value of 'r' were found to be significant beyond 0.01 level in all the samples selected for the study.

Pearson's 'r' estimated to find out the relationship between 'Attitude towards Education' and 'Achievement in English' - Total and Contentwise showed significant relationship in 21 out of 28 correlations. In urban sample, no significant relationship was noticed in any of the four categories.

The relationship between 'Attitude towards English Teachers and Teaching' and 'Achievement in English' - Total showed significance only in twelve out of 28 correlations: only six are beyond 0.01 level of significance.

Correlation analysis reveal that no significant relationship exist between Achievement in English (four categories) and Attitude towards English and Achievement Motivation.

Comment

Coefficient of correlation estimated between Achievement in English (Vocabulary, Grammar, Comprehension and Total) and each of the select independent variables which are found to be significant for Total sample, Boys, Girls, Rural subjects, Urban subjects, Students of Government and Private schools were summarised. Summary of the significant correlations obtained is presented in Table 28.

TABLE 28

**Summary of the significant correlation
obtained between Achievement in English-Vocabulary
category, Grammar, Comprehension and Total and each of the select independent
variable for Total sample and sub samples based on sex, locale and Management of schools**

	Independent Variable Dependent Variable	Language Aptitude				Attitude towards Education				Attitude towards English Teachers and Teaching			
		V ₆	V ₇	V ₈	V ₉	V ₆	V ₇	V ₈	V ₉	V ₆	V ₇	V ₈	V ₉
1	Total (n = 680)	HS	HS	HS	HS	HS	HS	--	HS	S	HS	--	HS
2	Boys (n = 339)	HS	HS	HS	HS	HS	HS	--	HS	--	HS	--	HS
3	Goirls (n = 341)	HS	HS	HS	HS	S	S	HS	HS	--	--	--	--
4	Rural (n = 475)	HS	HS	HS	HS	HS	HS	HS	HS	--	S	--	--
5	Urban (n = 205)	HS	HS	HS	HS	--	--	--	--	S	S	--	HS
6	Govt. (n = 278)	HS	HS	HS	HS	S	S	--	S	S	--	--	--
7	Pvt. (n = 402)	HS	HS	HS	HS	HS	HS	HS	HS	--	HS	--	S

HS - denotes significance at 0.01 level; S - denotes significance at 0.05 level.

V₆ - Achievement in English - Vocabulary

V₇ - Achievement in English - Grammar

V₈ - Achievement in English - Comprehension

V₉ - Achievement in English - Total

Comment

For each independent variable, 28 correlations (four dependent variables in seven samples) were estimated. Out of the 28 correlation analysis conducted for finding out the relationship between 'Language Aptitude' and 'Achievement in English - Total' and content wise, the value of 'r' were found to be significant beyond 0.01 level in all the samples selected for the study. Pearsons' 'r' estimated to find out the relationship between 'Attitude towards Education' and 'Achievement in English - Total and content wise' showed significant relationship in 21 out of 28 correlations. In urban sample no significant relationship were noticed in any of the four categories of the dependent variable.

The relationship between 'Attitude towards English Teachers and Teaching' and 'Achievement in English total' are significant only in 12 out of 28 correlations: only six are beyond .01 level of significance.

Correlation analysis reveal that no significant relationship was noticed between Achievement in English (four categories) and Attitude towards English and Achievement Motivation.

4.5. PREDICTION OF ACHIEVEMENT IN ENGLISH USING SELECT INDEPENDENT VARIABLES

Correlation analysis presented in section 4.4 reveals that significant relationship were found to exist between Achievement in English (all the four categories of the dependent variable) and 'Language Aptitude' and between 'Achievement in English' and 'Attitude towards Education' to a great extent. The relationship of 'Achievement in English' with 'Attitude

towards English Teachers and Teaching' were found to be significant only to a certain extent. No relationship was noticed between the dependent variable and the other two independent variable selected for study namely 'Attitude towards English' and 'Achievement Motivation'. It is to be noted that correlation analysis helps only to ascertain the degree of relationship between the dependent variable and the independent variables. In the present investigation an attempt was made to determine the importance or weight of each of the select few variables (selected from among the five independent variables of the study) in contributing to Achievement in English, the criterion variable. For this purpose Multiple coefficient of correlation (R) in terms of β coefficient were calculated. This technique also helps to predict the criterion variable from the obtained scores of the select predictor variables (independent variables).

After a careful study of the correlation analysis it was decided to select two independent variables from among the five independent variables used in the study to find out the relative efficiency of these variables to predict Achievement in English. The variables which have established maximum relationship with the criterion variables (in terms of the magnitude of coefficient of correlation) are i) Language Aptitude and ii) Attitude towards Education. Multiple coefficient of correlation (R) was estimated separately for Achievement in English - Vocabulary; Grammar; Comprehension; and Total for the total sample. This analysis was taken up to seek answer to the third objective set for the study.

The analysis of data, results and interpretation of multiple R in terms of β coefficient is described below.

4.5.1. Relative efficiency of Language Aptitude and Attitude Towards Education to Predict Achievement in English-Vocabulary (total sample N=680)

The details regarding the zero order correlation matrix partial 'r's and beta coefficient (β) of the criterion and predictor variables are presented in Table 29.

TABLE 29

Data regarding the Multiple R relating Achievement in English - Vocabulary with Language Aptitude and Attitude towards Education

		V ₁	V ₂	V ₃
V ₁	Achievement in English - Vocabulary	1.00	.4474	.1870
V ₂	Language Aptitude		1.00	.1578
V ₃	Attitude towards Education			1.00

$$r_{12.3} = 0.4305$$

$$\sigma_{1.23} = 2.178$$

$$\beta_{12.3} = 0.428$$

$$V_1 M = 7.303$$

$$V_2 M = 30.476$$

$$V_3 M = 70.244$$

$$r_{13.2} = 0.1318$$

$$\sigma_{2.13} = 8.028$$

$$\beta_{13.2} = 0.1194$$

$$\sigma = 2.457$$

$$\sigma = 9.009$$

$$\sigma = 10.402$$

$$r_{23.1} = 0.0845$$

$$\sigma_{3.12} = 10.181$$

Multiple R expressed in terms of beta coefficient and zero order 'r' given in Table 29 is as follows:

$$R^2_{1(23)} = 0.428 \times 0.4474 + 0.1194 \times 0.1870$$

$$= 0.1915 + 0.0223$$

$$= 0.2138$$

$$R = 0.4624$$

As per the equation 21.38 per cent of whatever makes secondary school students in the sample differ in Achievement in English-Vocabulary can be attributed to differences in 'Language Aptitude', and 'Attitude towards Education' and the remaining 78% of the variable may be attributed to variables not measured in the present study. The total contribution of 21.38 per cent can further be broken down into relative contribution of the two variables selected for study. Thus from equation it can be noted that 19.15 per cent is the contribution of 'Language Aptitude' to the variance of 'Achievement in English - Vocabulary' and only 2.23 per cent is the contribution of 'Attitude towards Education'.

Multiple regression equation in terms of beta coefficient can be written as $X' = 0.1169 X_2 + 0.0282 X_3 + 1.7179$.

Multiple R obtained is found to be 0.4624. This gives the correlation between actual scores of 'Achievement in English - Vocabulary' (criterion variable) and the scores predicted in the criterion from the two predictor variables, namely, 'Language Aptitude' and 'Attitude towards Education' combined. That is Achievement in English - Vocabulary can be predicted significantly by the combined action of 'Language Aptitude' and 'Attitude towards Education'. The value of 'R' was found to be 0.4624. The population value of R was calculated as follows.

$$SE_R = \frac{1 - 0.4624^2}{\sqrt{680 - 3}} = 0.0302$$

$$\text{Upper limit at 0.05 level} = 0.4624 + 0.0302 \times 1.96 = 0.5216$$

$$\text{Lower limit at 0.05 level} = 0.4624 - 0.0302 \times 1.96 = 0.4032$$

The population value of R was found to be between 0.4032 and 0.5216 at 0.05 level of probability.

4.5.2. Relative efficiency of Language Aptitude and Attitude Towards Education to predict Achievement in English-Grammar (Total Sample N = 680)

The details regarding the criterion variable and predictor variables such as the zero order correlation matrix, partial 'r's and beta coefficient (β) are summarised and presented in Table 30.

TABLE 30

Data regarding the multiple R relating Achievement in English - Grammar with Language Aptitude and Attitude towards Education

V ₁	Achievement in English Grammar	1.00	.5591	.1631
V ₂	Language Aptitude		1.00	.1578
V ₃	Attitude towards Education			1.00

$$r_{12.3} = 0.5475$$

$$\sigma_{1.23} = 4.7975$$

$$\beta_{12.3} = 0.5419$$

$$V_1 M = 18.556$$

$$V_2 M = 30.476$$

$$V_3 M = 70.244$$

$$r_{13.2} = 0.0914$$

$$\sigma_{2.13} = 7.4437$$

$$\beta_{13.2} = 0.0759$$

$$\sigma = 5.865$$

$$\sigma = 9.009$$

$$\sigma = 10.402$$

$$r_{23.1} = 0.0815$$

$$\sigma_{3.12} = 10.227$$

Multiple R expressed in terms of beta coefficient and zero order 'r' given in Table is as follows:

$$\begin{aligned}
 R^2_{1(23)} &= 0.5419 \times 0.5591 + 0.0759 \times 0.1631 \\
 &= 0.3029 + 0.0124 \\
 &= 0.3029 + 0.0124 \\
 &= 0.3153 \\
 R &= 0.5615
 \end{aligned}$$

The equation indicates that 31.53 percent of whatever makes secondary school students in the sample differ in Achievement in English-Grammar can be attributed to difference in 'Language Aptitude' and 'Attitude towards Education' and the remaining 68.47% of the variance may be attributed to variables not taken into account in the present study. The total contribution of 31.53 percent can further be broken down into relative contribution of the two predictor variables selected for study. Thus from equation it can be seen that 30.29, percent is the contribution of 'Language Aptitude' to the Variance of 'Achievement in English Grammar' and only 1.24 percent is the contribution of 'Attitude towards Education'.

Multiple regression Equation can be written as

$$X_1 = 0.3528 X_2 + 0.0428 X_3 + 4.736$$

This gives the correlation between actual scores of 'Achievement in English-Grammar' (criterion variable) and the scores predicted in the criterion from the two predictor variables, namely, 'Language Aptitude' and 'Attitude towards Education' combined. That is, Achievement in English-Grammar can be predicted significantly by the combined action of 'Language Aptitude' and 'Attitude towards Education'. The value of 'R'

was found to be 0.5615. The population value of R was calculated as follows:

$$SE_R = \frac{1 - 0.5615^2}{\sqrt{680 - 3}} = 0.0263$$

Upper limit at 0.05 level = $0.5615 + 0.0263 \times 1.96 = 0.613$

Lower limit at 0.05 level = $0.5615 - 0.0263 \times 1.96 = 0.51$

The population value of R lies between 0.51 and 0.613 at 0.05 level of probability.

4.5.3. Relative efficiency of Language Aptitude and Attitude towards Education to predict Achievement in English-Comprehension (Total Sample N = 680)

Summary of the data regarding the zero order coefficient of correlation matrix partial 'r's and beta coefficient (β) of the criterion variable and two selected predictor variables is presented in Table 31.

TABLE 31

**Data regarding the multiple R relating
Achievement in English-Comprehension with
Language Aptitude and Attitude towards Education**

		V ₁	V ₂	V ₃
V ₁	Achievement in English Comprehension	1.00	.3482	.1279
V ₂	Language Aptitude		1.00	.1578
V ₃	Attitude towards Education			1.00

$$r_{12.3} = 0.3350$$

$$r_{13.2} = 0.0788$$

$$r_{23.1} = 0.1218$$

$$\sigma_{1.23} = 1.0932$$

$$\sigma_{2.13} = 8.3813$$

$$\sigma_{3.12} = 9.7019$$

$$\beta_{12.3} = 0.3357$$

$$\beta_{13.2} = 0.0782$$

$$V_1 M = 28.459$$

$$\sigma = 8.243$$

$$V_2 M = 30.476$$

$$\sigma = 9.009$$

$$V_3 M = 70.244$$

$$\sigma = 10.402$$

Multiple R expressed in terms of beta coefficient and zero order 'r' was worked out based on Table is given below:

$$R^2_{1(2,3)} = 0.3357 \times 0.3482 + 0.0782 \times 0.1279$$

$$= 0.1168 + 0.0100$$

$$= 0.1268$$

$$R = 0.3560$$

According to the equation 12.68 per cent of whatever makes secondary school students in the sample differ in 'Achievement in English-Comprehension' can be attributed to differences in 'Language Aptitude' and 'Attitude towards Education' and the remaining 87.32% of the variance may be attributed to variables not measured in the present study. The total

contribution of 12.68 per cent can further be broken down into relative contribution of the two variables selected for study. Thus from equation it can be noted that 11.68 percent is the contribution of 'Language Aptitude' to the variance of 'Achievement in English - Comprehension' and only 1 per cent is the contribution of 'Attitude towards Education'.

Multiple regression equation can be written as

$$X' = 0.0436 X_2 + 0.0088 X_3 + 0.641$$

This gives the correlation between actual scores of Achievement in English-Comprehension (criterion variable) and the scores predicted in the criterion from the two predictor variables, namely, 'Language Aptitude' and Attitude towards Education combined. That is, 'Achievement in English -Comprehension' can be predicted significantly by the combined action of 'Language Aptitude' and 'Attitude towards Education'. The value of 'R' was found to be 0.3450. The population value of R was calculated as follows.

$$SE_R = \frac{1 - 0.3460^2}{\sqrt{680 - 3}} = 0.0328$$

$$\text{Upper limit at 0.05 level} = 0.3560 + 0.0328 \times 1.96 = 0.4202$$

$$\text{Lower limit at 0.05 level} = 0.3560 - 0.0328 \times 1.96 = 0.2918$$

The population value of R lies between 0.2918 and 0.4202 at 0.05 level of probability.

4.5.4. Relative efficiency of Language Aptitude and Attitude towards Education to predict Achievement in English-Total (Total Sample $N = 680$)

The data regarding the zero order coefficient of correlation matrix, partial 'r's and beta coefficient (β) is presented in Table 32.

TABLE 32
Details regarding the multiple R relating Achievement in English-Total with Language Aptitude and Attitude towards Education

		V ₁	V ₂	V ₃
V ₁	Achievement in English Total	1.00	.5766	.1902
V ₂	Language Aptitude		1.00	.1578
V ₃	Attitude towards Education			1.00

$$r_{12.3} = 0.5638$$

$$\sigma_{1.23} = 6.6833$$

$$\beta_{12.3} = 0.5605$$

$$V_1 M = 28.459$$

$$V_2 M = 30.476$$

$$V_3 M = 70.244$$

$$r_{13.2} = 0.1230$$

$$\sigma_{2.13} = 7.3475$$

$$\beta_{13.2} = 0.1017$$

$$SD = 8.243$$

$$SD = 9.009$$

$$SD = 10.402$$

$$r_{23.1} = 0.0600$$

$$\sigma_{3.12} = 10.1929$$

Multiple R expressed in terms of beta coefficient and zero order 'r' was worked out based on Table is given below.

$$\begin{aligned} R^2_{1(23)} &= 0.5605 \times 0.5766 + 0.1017 \times 0.1902 \\ &= 0.3232 + 0.0193 \\ &= 0.3425 \\ R &= 0.5852 \end{aligned}$$

According to the equation 34.25 percent of whatever makes secondary school students in the sample differ in Achievement in English-Total can be attributed to differences in Language Aptitude and Attitude towards Education and the remaining 65.75% of the variance may be attributed to variables not included in the present study. The total contribution of 34.25% can further be broken down into relative contribution of the two variables selected for study. Thus from equation it can be noted that 32.32 per cent is the contribution of Language Aptitude to the variance of Achievement in English-Total and only 1.93 per cent is the contribution of Attitude towards Education.

Multiple regression equation can be written as

$$X' = 0.5128 X_2 + 0.0806 X_3 + 7.05$$

This gives the correlation between actual scores of Achievement in English-Total (Criterion variable) and the scores predicted in the criterion from the two predictor variables, namely, Language Aptitude and Attitude towards Education combined. That is, Achievement in English-Total can be predicted significantly by the combined action of Language Aptitude and Attitude towards Education. The value of 'R' was found to be 0.5852. The population value of R was calculated by the formula,

$$SE_R = \frac{1 - 0.5852^2}{\sqrt{680 - 3}} = 0.0252$$

$$\text{Upper limit at 0.05 level} = 0.5852 + 0.0252 \times 1.96 = 0.6345$$

$$\text{Lower limit at 0.05 level} = 0.5852 - 0.0252 \times 1.96 = 0.5349$$

The population value of R lies between 0.5349 and 0.6345 at 0.05 level of probability.

Comment

Efficiency of 'Language Aptitude' and 'Attitude towards Education' to predict 'Achievement in English' based on the Multiple coefficient of correlation (R) worked out has been rearranged on the basis of the descending order of the magnitude of R and is given below.

Dependent Variable	Multiple R
Achievement in English-Total . . .	0.5852
Achievement in English Grammar . . .	0.5615
Achievement in English Vocabulary . . .	0.4624
Achievement in English Comprehension . . .	0.3560

About 12.68% to 31.53% of the variance of Achievement in English (Total and Content wise) is attributable to the joint action of the variables, Language Aptitude and Attitude towards Education.

It was also noted that 11.68 per cent to 32.32 per cent of the variance of 'Achievement in English' may be attributed to the variance of 'Language Aptitude'. In contrast, only 1.93 to 2.23 per cent of the variance of Achievement in English may be attributed to the variance of Attitude towards Education.

SUMMARY, FINDINGS AND SUGGESTIONS

K.P. Meera “Language aptitude, select attitudinal and motivational variables as correlates of achievement in English of secondary school students ” Thesis.
Department of Education, University of Calicut, 1999

SUMMARY, FINDINGS AND SUGGESTIONS

Study in retrospect
Major findings
Tenability of hypotheses
Suggestions for improving educational practice
Suggestions for further research

SUMMARY, FINDINGS AND SUGGESTIONS

This chapter deals with the study in retrospect, major findings, educational implications and suggestions for further research.

5.1. STUDY IN RETROSPECT

The present study as stated earlier was intended to examine the nature and extent of relationship of 'Language Aptitude', select Attitudinal variables and Motivational variable with Achievement in English-Total and content wise. The study was hence entitled as 'LANGUAGE APTITUDE, SELECT ATTITUDINAL AND MOTIVATIONAL VARIABLES AS CORRELATES OF ACHIEVEMENT IN ENGLISH OF SECONDARY SCHOOL STUDENTS.

5.2. VARIABLES OF THE STUDY

The variables selected for the study were the following:

5.2.1. INDEPENDENT VARIABLES

- 1) Language Aptitude
- 2) Attitude towards Education
- 3) Attitude towards English
- 4) Attitude towards English Teachers and Teaching
- 5) Achievement Motivation

5.2.2. DEPENDENT VARIABLES

- 6) Achievement in English - Vocabulary

- 7) Achievement in English - Grammar
- 8) Achievement in English - Comprehension
- 9) Achievement in English - Total

5.3. OBJECTIVES AND HYPOTHESES

The present study was designed with the following objectives and hypotheses.

5.3.1. OBJECTIVES

The objectives formulated for the study were the following:

- 1) To find out the main effect of select independent variables on Achievement in English - Total and content wise namely, Achievement in English-Vocabulary, Grammar and Comprehension.
- 2) To find out the interaction effect of select independent variables on Achievement in English - Total and content wise namely, Achievement in English-Vocabulary, Grammar and Comprehension.
- 3) To estimate the extent of relationship between Achievement in English - Total and content wise and each of the Independent variables selected for the study for total sample and sub samples based on sex, locale and type of management of schools.
- 4) To find out the best predictors of Achievement in English from among the select independent variables and to determine the relative weight with which each predictor variable contributes to Achievement in English of secondary school students.

5.3.2. HYPOTHESES

The hypotheses tested by the study were the following.

1. There will be significant main effect of select independent variables on 'Achievement in English' - Total and Content wise.
2. There will be significant interaction effect of select independent variables on 'Achievement in English' – Total and Content wise.
3. There will be significant and positive relationship between 'Achievement in English' - Total and Content wise and each of the independent variables for the whole sample and relevant sub samples.
4. Achievement in English of secondary school students can be predicted significantly with fewer number of variables selected from among the independent variables of the study.

5.4. METHODOLOGY

The methodology adopted for the present investigation is presented below.

5.4.1. SAMPLE

The study was conducted on a sample of 680 students who have completed studies in class IX and just promoted to standard X of secondary schools of Malappuram, Palakkad and Kozhikode districts of Kerala state. The sample of the study was selected using proportionate stratified sampling

technique giving due representation to sex of the students; and locale, instructional efficiency and type of management of schools.

5.4.2. TOOLS

The tools used for collecting the needed data for the study were the following.

1. Language Aptitude Test - developed by the investigator (1996)
2. Scale of Attitude towards Education (Pillai and Ayshabi, 1983)
3. Scale of Attitude towards English - developed by the investigator (1996)
4. Scale of Attitude towards English Teachers and Teaching - developed by the investigator (1996)
5. Scale of Achievement Motivation (Pillai and Salim Kumar, 1992)
6. Achievement Test in English developed by the investigator (1996)

5.5. STATISTICAL TECHNIQUES USED

1. Two-way ANOVA with 3x3 factorial design.
2. Test of significance of difference between Means for large in independent sample.
3. Pearson's Product Moment Coefficient of Correlation.
4. Multiple Coefficient of correlation (R) in terms of β coefficient.

Analysis of data was done with the help of computer facility using the soft ware package SPSS (Statistical package for Social Sciences) and by hand computation.

5.6. MAJOR FINDINGS

The major findings of the study are presented below.

5.6.1. MAIN EFFECT OF SELECT INDEPENDENT VARIABLES ON ACHIEVEMENT IN ENGLISH TOTAL AND CONTENT WISE

Forty ANOVA was undertaken to study the main effect and interaction effect of five independent variables on Achievement in English - Total and content wise in total sample (N = 680).

5.6.1.1. Main effect of Language Aptitude on Achievement in English - Total and content wise

The main effect of the independent variable, 'Language Aptitude' on 'Achievement in English' - Total and content wise was studied in sixteen ANOVA using four paired combinations namely - Language Aptitude by Attitude towards Education, Language Aptitude by Attitude towards English, 'Language Aptitude' by 'Attitude towards English Teachers and Teaching', and 'Language Aptitude' by 'Achievement Motivation.' The results are summarised and given below.

	F-values of Achievement in English by Language Aptitude by			
	Attitude towards Education	Attitude towards English	Attitude towards English Teachers and Teaching	Achievement Motivation
Achievement in English-Vocabulary (V ₆)	69.104 (HS)	77.828 (HS)	76.248 (HS)	78.894 (HS)
Achievement in English - Grammar (V ₇)	106.183 (HS)	114.949 (HS)	114.119 (HS)	119.142 (HS)
Achievement in English - Comprehension (V ₈)	43.135 (HS)	49.054 (HS)	48.211 (HS)	48.080 (HS)
Achievement in English - Total (V ₉)	121.086 (HS)	133.651 (HS)	131.652 (HS)	136.850 (HS)

The obtained F-values showd significant main effect of Language Aptitude (significant beyond 0.01 level) on Achievement in English-Total and content wise on all the sixteen ANOVA computed.

5.6.1.2. Main effect of Attitude towards Education on Achievement in English-Total and Content wise

Sixteen ANOVA was computed to study the main effect of 'Attitude towards Education' on 'Achievement in English' - total and content wise. The obtained F-values are summarised and presented below.

Dependent variable	F-values of Achievement in English by Attitude towards Education by			
	Language Aptitude	Attitude towards English	Attitude towards English Teachers and Teaching	Achievement Motivation
Achievement in English- Vocabulary (V ₆)	4.245 (S)	11.545 (HS)	10.726 (HS)	12.904 (HS)
Achievement in English - Grammar (V ₇)	3.634 (S)	11.721 (HS)	10.547 (HS)	13.135 (HS)
Achievement in English - Comprehension (V ₈)	1.260	5.813 (HS)	5.634 (HS)	6.591 (HS)
Achievement in English - Total (V ₉)	5.145 (HS)	14.830 (HS)	13.425 (HS)	16.475 (HS)

The main effect of 'Attitude towards Education' on Achievement in English-Total and content wise was found to be significant in 15 out of 16 ANOVA in four paired combination.

5.6.1.3. Main effect of Attitude towards English on Achievement in English - Total and content wise

The main effect of 'Attitude towards English' on Achievement in English - Total and content wise was studied in 16 ANOVA. The obtained F-values in 16 ANOVA are presented below.

Dependent variable	F-values of Achievement in English by Attitude towards English by			
	Language Aptitude	Attitude towards Education	Attitude towards English Teachers and Teaching	Achievement Motivation
Achievement in English-Vocabulary (V ₆)	0.236	0.928	2.117	2.076
Achievement in English - Grammar (V ₇)	0.795	2.256	4.041 (S)	3.664 (S)
Achievement in English Comprehension - (V ₈)	0.552	0.047	0.045	0.509
Achievement in English - Total (V ₉)	0.489	1.767	3.572 (S)	3.338 (S)

The obtained F-values reveal that 'Attitude towards English' have significant single effect only in 4 out of 16 ANOVA; that is on Achievement in English-Grammar and Achievement in English-Total in four paired combinations.

5.6.1.4. Main effect of Attitude towards English Teachers and Teaching on Achievement in English - Total and Content wise

Summary of 16 ANOVA undertaken to study the main effect of 'Attitude towards English Teachers and Teaching' on 'Achievement in English Total and content wise' is presented below.

Dependent variables	F-values of Achievement in English by Attitude towards English Teachers and Teaching by			
	Language Aptitude	Attitude towards Education	Attitude towards English Teachers and Teaching	Achievement Motivation
Achievement in English-Vocabulary (V ₆)	1.211	0.928	3.643 (S)	3.913 (S)
Achievement in English - Grammar (V ₇)	5.991 (HS)	2.256	9.356 (HS)	9.003 (HS)
Achievement in English Comprehension - (V ₈)	0.152	0.047	0.277	0.722
Achievement in English - Total (V ₉)	4.640 (HS)	1.767	8.124 (HS)	8.142 (HS)

The obtained F-values reveal that 'Attitude towards English Teachers and Teaching' have significant single effect only in 8 out of 16 ANOVA; that is on Achievement in English - Vocabulary, Grammar and Achievement in English - Total in four paired combinations.

5.6.1.5. Main effect of Achievement Motivation on Achievement in English:- Total and Content wise

The main effect of Achievement Motivation on 'Achievement in English - Total and Content wise' was studied in 16 ANOVA. The obtained F-values in 16 ANOVA is presented below.

Dependent variables	F-values of Achievement in English by Achievement Motivation by			
	Language Aptitude	Attitude towards Education	Attitude towards English	Attitude towards English Teachers and Teaching
Achievement in English - Vocabulary (V ₆)	0.174	0.664	0.408	0.731
Achievement in English - Grammar (V ₇)	0.936	2.073	0.322	0.358
Achievement in English - Comprehension (V ₈)	1.984	2.922	2.604	2.599
Achievement in English - Total (V ₉)	0.308	0.267	0.172	0.440

The obtained F-values reveal that 'Achievement Motivation' do not have significant single effect in any of the 16 ANOVA studied.

5.6.2. INTERACTION EFFECT OF LANGUAGE APTITUDE, ATTITUDE TOWARDS EDUCATION, ATTITUDE TOWARDS ENGLISH, ATTITUDE TOWARDS ENGLISH TEACHERS AND TEACHING, ACHIEVEMENT MOTIVATION ON ACHIEVEMENT IN ENGLISH - TOTAL AND CONTENT WISE

The interaction effect of the independent variables namely, 'Language Aptitude', 'Attitude towards Education', 'Attitude towards English', 'Attitude towards English Teachers and Teaching' and 'Achievement Motivation' (taken two groups at a time) on Achievement in English-Total and content wise was studied in 40 ANOVA mentioned in 5.6.1. The results are summarised and presented.

5.6.2.1. Interaction effect of Language Aptitude and Attitude towards Education on Achievement in English - Total and Content wise

The obtained F-values of the interaction effect of 'Language Aptitude' and 'Attitude towards Education' on Achievement in English-Total and content wise is given below.

Dependent variable	Language Aptitude and Attitude towards Education F-value	Level of significance
Achievement in English Vocabulary (V ₆)	0.300	NS
Achievement in English Grammar (V ₇)	1.097	NS
Achievement in English - Comprehension (V ₈)	0.521	NS
Achievement in English Total (V ₉)	0.944	NS

5.6.2.2. Interaction effect of Language Aptitude and Attitude towards English on Achievement in English - Total and Content wise

The obtained F-values are presented below:

Dependent Variable	Language Aptitude X Attitude towards English F-value	Level of Significance
Achievement in English-Vocabulary (V ₆)	2.571	NS
Achievement in English - Grammar (V ₇)	1.593	NS
Achievement in English - Comprehension - (V ₈)	1.507	NS
Achievement in English - Total (V ₉)	2.234	NS

No significant interaction effect of 'Language Aptitude' and 'Attitude towards English' on 'Achievement in English' is noticed.

5.6.2.3. Interaction effect of Language Aptitude and Attitude towards English Teachers and Teaching on Achievement in English Total and Content wise

The results obtained for the interaction effect of 'Language Aptitude' and 'Attitude towards English teachers and teaching' on Achievement in English - Total and content wise are presented below.

Dependent Variable	Language Aptitude x Attitude towards English Teachers and Teaching - F-value	Level of Significance
Achievement in English- Vocabulary (V ₆)	0.518	NS
Achievement in English - Grammar (V ₇)	0.447	NS
Achievement in English Comprehension - (V ₈)	1.081	NS
Achievement in English - Total (V ₉)	0.242	NS

The obtained F-values failed to reach the level accepted for 0.05 level of significance.

5.6.2.4. Interaction effect of Language Aptitude and Achievement Motivation on Achievement in English - Total and Content wise

The results obtained for the interaction effect of 'Language Aptitude' and 'Achievement Motivation' on 'Achievement in English' - Total and Content wise are given below.

Dependent Variable	Language Aptitude x Achievement Motivation F-value	Level of Significance
Achievement in English- Vocabulary (V ₆)	0.585	NS
Achievement in English - Grammar (V ₇)	0.908	NS
Achievement in English - Comprehension - (V ₈)	0.682	NS
Achievement in English - Total (V ₉)	1.028	NS

The obtained F-values are not significant even at five percent level for total sample.

5.6.2.5. Interaction effect of Attitude towards Education and Attitude towards English on Achievement in English - Total and Content wise

The interaction effect of the two independent variables namely, 'Attitude towards Education' and 'Attitude towards English' on

'Achievement in English' -Total and Content wise were studied. The obtained F-value are given below.

Dependent Variable	Attitude towards Education X Attitude towards English F-value	Level of Significance
Achievement in English- Vocabulary (V ₆)	2.358	NS
Achievement in English - Grammar (V ₇)	2.924	NS
Achievement in English - Comprehension - (V ₈)	2.047	NS
Achievement in English - Total (V ₉)	3.369	S

S = Significant.

The F-values for the interaction effect of 'Attitude towards Education' and 'Attitude towards English' on 'Achievement in English - Total' is significant at 0.05 level. Other F-values are not significant.

5.6.2.6 Interaction effect of Attitude towards Education and Attitude towards English Teachers and Teaching on Achievement in English - Total and Content wise

The results obtained for the study of the interaction effect of 'Attitude towards Education' and 'Attitude towards English Teachers and Teaching' on 'Achievement in English' - Total and content wise are given below.

Dependent Variable	Attitude towards Education X Attitude towards English Teachers and Teaching - F-value	Level of Significance
Achievement in English- Vocabulary (V ₆)	0.335	NS
Achievement in English - Grammar (V ₇)	1.247	NS
Achievement in English - Comprehension - (V ₈)	0.305	NS
Achievement in English - Total (V ₉)	0.759	NS

The F-values obtained are not significant even at 0.05 level.

5.6.2.7. Interaction effect of Attitude towards Education and Achievement Motivation on Achievement in English - Total and Content wise

The F-values obtained for the study of the interaction effect of the independent variables on the dependent variable are given below.

Dependent Variable	Attitude towards Education X Achievement Motivation - F-value	Level of Significance
Achievement in English-Vocabulary (V ₆)	0.858	NS
Achievement in English - Grammar (V ₇)	2.073	NS
Achievement in English Comprehension - (V ₈)	1.560	NS
Achievement in English - Total (V ₉)	2.097	NS

The obtained values show that no interaction effect of 'Attitude towards Education' and 'Achievement Motivation' on 'Achievement in English' Total and Content-wise exists.

5.6.2.8. Interaction effect of Attitude towards English and Attitude towards English Teachers and Teaching on Achievement in English - Total and content wise

The F-values obtained for the interaction effect of 'Attitude towards English' and 'Attitude towards English Teachers and Teaching' on 'Achievement in English' - Total and Content wise are given below.

Dependent Variable	Attitude towards English X Attitude towards English Teachers and Teaching	Level of Significance
Achievement in English- Vocabulary (V ₆)	2.212	NS
Achievement in English - Grammar (V ₇)	1.202	NS
Achievement in English - Comprehension - (V ₈)	1.958	NS
Achievement in English - Total (V ₉)	1.684	NS

In all the categories no significant interaction effect on Achievement in English is noticed.

5.6.2.9. Interaction effect of Attitude towards English and Achievement Motivation on Achievement in English - Total and Content wise

The F-values obtained for the study of interaction effect of 'Attitude towards English' and 'Achievement Motivation' on Achievement in English - Total and content wise are presented below.

Dependent Variable	Attitude towards English X Achievement Motivation - F-value	Level of Significance
Achievement in English-Vocabulary (V ₆)	0.577	NS
Achievement in English - Grammar (V ₇)	1.292	NS
Achievement in English - Comprehension - (V ₈)	1.833	NS
Achievement in English - Total (V ₉)	1.479	NS

None of the four obtained F-values is significant.

5.6.2.10. Interaction effect of Attitude towards English Teachers and Teaching and Achievement Motivation on Achievement in English Total and Content wise

The F-values obtained for the study of the interaction effect of the independent variables on the dependent variables are presented below.

Dependent Variable	Attitude towards English Teachers and Teaching x Achievement Motivation - F-values	Level of Significance
Achievement in English- Vocabulary (V ₆)	0.578	NS
Achievement in English - Grammar (V ₇)	1.073	NS
Achievement in English - Comprehension (V ₈)	3.036	S
Achievement in English - Total (V ₉)	1.191	NS

The results showed that the obtained F-value is significant for one out of four ANOVA.

5.6.3. GROUP DIFFERENCE IN ACHIEVEMENT IN ENGLISH

Mean difference in 'Achievement in English' between homogeneous groups categorised on the basis of 'Language Aptitude', 'Attitude towards Education', 'Attitude towards English' and 'Attitude towards English Teachers and Teaching' were studied, wherever significant independent effect of those variables on Achievement in English (Total and Content wise) were noticed. Accordingly, difference in Achievement in English between Secondary school students of the three homogeneous groups categorised as High-; Average-; and Low- Aptitude Groups; and between Favourable-, Moderately Favourable-; and Less-Favourable- Attitude

towards Education Groups; Attitude towards English Groups; and Attitude towards English Teachers and Teaching Groups were studied applying test of significant difference between mean Achievement in English scores. The findings are summarised and presented below.

5.6.3.1. Mean difference in Achievement in English-content wise and total between High-Language Aptitude Group, Average-Language Aptitude Group and Low-Language Aptitude Group

Comparison of mean scores of Achievement in English between High-Language Aptitude Group, Average-Language Aptitude Group and Low-Language Aptitude Group was studied. The summary of results are given below.

	Critical Ratio		
	High Vs Average	High Vs Low	Average Vs Low
Achievement in English - Vocabulary (V ₆)	10.792	12.50	2.80
Achievement in English - Grammar (V ₇)	11.555	28.623	4.791
Achievement in English - Comprehension (V ₈)	16.071	9.723	33.446
Achievement in English - Total (V ₉)	19.781	16.140	4.912

Values of the critical ratio were found to be significant beyond 0.01 level in all the twelve paired comparison of Mean Achievement in English.

High mean Achievement in English is seen associated with High-Language Aptitude Group in the paired comparison High- versus Average- and High- versus Low-Language Aptitude Group. In the comparison of Average- versus Low-Language Aptitude Group, High means are associated with Average-Language Aptitude Group.

5.6.3.2. Mean difference in Achievement in English - Content wise and Total between Favourable-Attitude towards Education Group, Moderately Favourable-Attitude towards Education Group and Less Favourable-Attitude towards Education Group

Comparison of mean scores of Achievement in English between Favourable-Attitude towards Education Group, Moderately Favourable-Attitude towards Education Group and Less Favourable-Attitude towards Education Group was studied in pairs. The summary of results are given below.

Dependent Variable	Critical Ratio		
	Favourable Vs Moderately Favourable	Favourable Vs Less Favourable	Moderately Favourable Vs Less favourable
Achievement in English - Vocabulary (V ₆)	4.109 **	1.174	6.592 **
Achievement in English - Grammar (V ₇)	8.500 **	4.670 **	0.406
Achievement in English -Comprehension (V ₈)	2.976 **	3.160 **	0.698
Achivement in English -Total (V ₉)	5.058 **	5.231 **	0.678

Note: ** - denctes significance beyond 0.01 level.

Out of twelve paired comparisons, eight pairs were found to be significantly different in Achievement in English. High means in Achievement in English is seen associated with Favourable-Attitude towards Education Group in the paired Comparison Favourable- versus Moderately Favourable- and Favourable-versus Less Favourable-Attitude towards Education Group. In the comparison of Moderately Favourable-versus Less Favourable-Attitude towards Education Group, high means are associated with Moderately Favourable Attitude towards Education Group.

5.6.3.3. Mean difference in Achievement in English-Content wise and Total between Favourable-Attitude towards English Group, Moderately Favourable-Attitude towards English Group and Less Favourable-Attitude towards English Group

F-values obtained for four out of six studies of the single effect of 'Attitude towards English' on 'Achievement in English - Grammar' and 'Achievement in English - Total' found to be significant.

Comparison of mean scores of Achievement in English between Favourable-Attitude towards English Group, Moderately-Favourable Attitude towards English Group and Less Favourable-Attitude towards English Group was studied. The summary of results are presented below.

Dependent Variable	Critical Ratio		
	Favourable Vs Moderately Favourable	Favourable Vs Less Favourable	Moderately Favourable Vs Less favourable
Achievement in English - Grammar (V ₇)	1.644	0.840	2.666 (HS)
Achivement in English Total (V ₉)	1.635	0.798	2.465 (S)

Significant mean difference was noted only between Moderately Favourable-Attitude towards English Group and Less Favourable-Attitude towards English Group.

5.6.3.4. Mean difference in Achievement in English-Total and Content wise between Favourable-Attitude towards English Teachers and Teaching Group, Moderately Favourable-Attitude towards English Teachers and Teaching Group and Less Favourable-Attitude towards English Teachers and Teaching Group

F-values obtained for eight out of sixteen studies of the single effect of 'Attitude towards English Teachers and Teaching' on Achivement in English-Vocabulary, Grammar and Total were found to be significant. Comparison of mean scores of Achievement in English between three homogeneous groups formed on the basis of 'Attitude towards English Teachers and Teaching' are given below.

Dependent Variable	Critical Ratio		
	Favourable Vs Moderately Favourable	Favourable Vs Less Favourable	Moderately Favourable Vs Less favourable
Achievement in English - Vocabulary (V ₆)	1.519	2.633 **	1.197
Achievement in English - Grammar (V ₇)	5.942 **	1.104	4.100**
Achievement in English - Total (V ₉)	2.794 **	1.223	4.990 **

Significant difference in mean achievement in English was obtained for 5 out of 9 comparisons.

High mean Achievement in English is seen associated with Favourable- Attitude towards English Teachers and Teaching Group in three comparisons. In the comparison of Moderately Favourable versus Less Favourable-Attitude towards English Teachers and Teaching Group, high means are associated with Moderately Favourable-Attitude towards English Teachers and Teaching Group.

5.6.4. CORRELATIONAL ANALYSIS

The relation between Achievement in English (total and content wise) and the select independent variables were studied using Pearson's Product Moment coefficient of correlation, 'r' for the total sample and sub samples. The results are summarised below.

5.6.4.1. Relationship of Achievement in English - Vocabulary and Select Independent Variables

Out of the five select independent variables, 'Language Aptitude' was found to be significantly correlated with Achievement in English-Vocabulary category for the total sample and sub samples. 'Attitude towards Education' is significantly correlated with Achievement in English-Vocabulary category for Total sample, Boys, Girls, Rural subjects and students of Government and private schools. The variables are presented below along with the values of 'r'.

Sample	'r' between Achievement in English Vocabulary and	
	Language Aptitude	Attitude towards Education
Total (n=680)	0.4474 **	0.1890 **
Boys (n = 339)	0.3683 **	0.2403 **
Girls (n = 341)	0.5181 **	0.1368 *
Rural subjects (n = 475)	0.4128 **	0.2114 **
Urban subjects (n = 205)	0.5185 **	--
Govt. school subjects (n = 278)	0.4974 **	0.1176 *
Pvt. school subjects (n = 402)	0.4076 **	0.2321 **

Note: ** - denotes significance at 0.01 level.

* - denotes significance at 0.05 level

Coefficient of correlation obtained for the other three independent variables, namely, 'Attitude towards English', 'Attitude towards English Teachers and Teaching', 'Achievement Motivation' are not significant.

5.6.4.2. Relationship of Achievement in English -Grammar Category and select Independent Variables

The independent variable, 'Language Aptitude' is correlated significantly with 'Achievement in English-Grammar' for the total sample and sub samples. Significant correlation was obtained between 'Attitude towards Education' and 'Achievement in English-Grammar' for the total sample, Boys, girls, Rural subjects and students of government schools and private schools. The independent variable namely, 'Attitude towards English teachers and teaching' was found to be significantly correlated with the Achievement in English Grammar for Total sample, Boys, Rural subjects and students of Private schools. The variables and obtained values of 'r' are given below. No significant relationship was found to exist between Achievement in English -Grammar and the other two independent variables.

Sample	'r' between Achievement in English Grammar and		
	Language Aptitude	Attitude towards Education	Attitude towards English Teachers and Teaching
Total	0.5591 **	0.1631 **	0.1274 **
Boys	0.4862 **	0.1802 **	0.1571 **
Girls	0.6199 **	0.1386 *	--
Rural subjects	0.5311 **	0.1887 **	0.1076 *
Urban subjects	0.6258 **	--	--
Govt. school subjects	0.6045 **	0.1417 *	--
Pvt. school subjects	0.5169 **	0.1707 **	0.1421 **

Not: ** - Significance at 0.01 level

* - Significance at 0.05 level

5.6.4.3. Relationship of Achievement in English - Comprehension and Select Independent Variables

Out of the five independent variables, 'Language Aptitude' is found to be significantly correlated with 'Achievement in English - Comprehension' for the total sample and sub samples. 'Attitude towards Education' and 'Achievement in English - Comprehension' showed significant relationship at 0.01 level for girls, Rural subjects and private school students. The variables and the obtained values of 'r' are given below.

Sample	'r' between Achievement in English Comprehension and	
	Language Aptitude	Attitude towards Education
Total	0.3489 **	--
Boys	0.2810 **	--
Girls	0.4017 **	0.1481 **
Rural subjects	0.3592 **	0.1956 **
Urban subjects	0.3401 **	--
Govt. school subjects	0.4111 **	--
Pvt. school subjects	0.2892 **	0.1401 **

Note: ** - denotes significance beyond 0.01 level.

No significant relationship was found to exist between Achievement in English - comprehension and the other three independent variables selected.

5.6.4.4. Relationship of Achievement in English - Total and Select Independent Variables

The coefficient of correlation estimated between select independent variables and Achievement in English - Total and 'r's which are significant are presented below.

Sample	'r' between Achievement in English-Total and		
	Language Aptitude	Attitude towards Education	Attitude towards English Teachers and Teaching
Total	0.5766 **	0.1902 **	0.1186 **
Boys	0.4928 **	0.2078 **	0.1429 **
Girls	0.6484 **	0.1646 **	--
Rural subjects	0.5492 **	0.2264 **	--
Urban subjects	0.6394 **	--	0.1840 **
Govt. school subjects	0.6241 **	0.1519 *	0.1160 *
Pvt. school subjects	0.5326 **	0.2107 **	0.1122 *

Note: ** - significance at 0.01 level.

* - significance at 0.05 level.

No significant relationship was noticed between Achievement in English - Total and the other two independent variables.

5.6.5. Prediction of Achievement in English using select Independent variables

To estimate the relationship between each of the four dependent variables with each of the five independent variables selected for the study in seven samples - (Total sample and six sub samples) 140 coefficient of correlations (Pearson's 'r') were worked out. Of these, the two variables namely, 'Language Aptitude' and 'Attitude towards Education' were found

to be having high Pearson's 'r', (in the descending order of importance) with the four dependent variables. Therefore 'Language Aptitude' and 'Attitude towards education' have been selected as the two predictor variables to study their relative efficiency to predict 'Achievement in English'. The results of multiple coefficient of correlation R in terms of β coefficient are summarised. Proportion of the variance of Achievement in English (Criterion variables) attributable to the joint action of 'Language Aptitude' and 'Attitude towards Education' is given below.

Criterion variables	Predictor variables		R ²	R
	Proportion of variance			
	Language Aptitude	Attitude towards Education		
1. Achievement in English - Total	0.3232	0.0193	0.3425	0.5852
2. Achievement in English - Grammar	0.3029	0.0124	0.3153	0.5613
3. Achievement in English - Vocabulary	0.1915	0.0223	0.2138	0.4624
4. Achievement in English - Comprehension	0.1168	0.1000	0.1268	0.3560

CONCLUSION

On the basis of the summary of the findings of three types of analysis undertaken, namely ANOVA, coefficient of correlation analysis and multiple correlation the following conclusions are arrived at.

- 1.(a) ANOVA and correlation analysis reveal that of the five independent variables selected for the study, Language Aptitude and Attitude towards Education are the best correlates of Achievement in English.

	ANOVA	Correlation analysis
Language Aptitude	F-values of 16 out of 16 are significant	27 out of 28 r's are significant
Attitude towards Education	F-values of 15 out of 16 are significant	21 out of 28 'r's are significant

- (b) A maximum of 32.32 percent of the variance of Achievement in English is the contribution of variance of Language Aptitude. A maximum of 2 percent only is the contribution of Attitude towards Education to the variance of Achievement in English when these two variables are combined to study their predictive efficiency.
2. ANOVA and correlation Analysis show that the third variable namely, 'Attitude towards English Teachers and Teaching' have significant relationship with Achievement in English to a low extent. The two independent variables namely 'Attitude towards English'

and 'Achievement Motivation' did not show significant relationship with 'Achievement in English'.

3. When mean difference in Achievement in English between homogeneous groups of students categorised on the basis of 'Language of Aptitude' and 'Attitude towards Education' was studied in pairs it was noticed that high mean Achievement in English scores were found to be associated with High-Language Aptitude Group and Favourable-Attitude towards Education Group.

5.7. TENABILITY OF HYPOTHESES

The tenability of hypotheses formulated for the study were examined in the light of the findings of the present study.

Hypothesis 1 states that "there will be significant main effect of select independent variables on 'Achievement in English - Total and Content wise."

Significant main effect of 'Language Aptitude' on 'Achievement in English' - Content wise and Total was found in all the 16 ANOVA undertaken with different combinations of select independent variables. F-values of 15 ANOVA were found significant for the main effect of 'Attitude towards Education' on Achievement in English - (Total and content wise). 4 out of 16 ANOVA studied to find out the main effect of 'Attitude towards English' and 'Achievement in English' - (Total and content wise) and 8 out of 16 ANOVA undertaken to study the main effect of 'Attitude towards English Teachers and Teaching' on 'Achievement in English' - (Total and Content wise) were found significant. The main effect of 'Achievement

motivation' on 'Achievement in English' - Total and Content wise was not found significant. ..

Significant differences in mean achievement in English (Total and Content wise) were found between 11 out of 12 paired comparisons of homogeneous groups based on 'Language Aptitude'; 8 out of 12 paired comparisons of homogeneous groups based on 'Attitude towards Education'; 2 out of 6 paired comparisons of homogeneous groups based on 'Attitude towards English', 5 out of 12 paired comparisons of homogeneous groups based on 'Attitude towards English Teachers and Teaching'. High mean Achievement scores in English were found associated with High-Language Aptitude Group, Favourable-Attitude towards Education Group, Favourable- Attitude towards English Group, Favourable Attitude towards English Teachers and Teaching Group. Hence the first hypothesis is substantiated to a large extent.

Hypothesis 2 states that, "there will be significant interaction effect of select independent variables on 'Achievement in English' - Total and Content wise."

No significant interaction effect of select five independent variables on 'Achievement in English' - Total and Content wise was noticed in any of the 40 ANOVA undertaken. Hence this hypothesis was considered to be not substantiated.

Hypothesis 3 states that "there will be significant and positive relationship between 'Achievement in English' - Total and Content wise

and each of the independent variables for the whole sample and relevant sub samples."

28 correlations were calculated for the study of relationship of each independent variable on four dependent variables in seven samples. Significant and positive relationship between Achievement in English - Total and content wise and 'Language Aptitude' were noted in all 28 correlations (range from 0.2810 to 0.6258). Significant and positive relationship between Achievement in English - Total and content wise and 'Attitude towards Education' were obtained in 22 out of 28 correlations; 9 out of 28 correlations showed significant positive relationship between 'Attitude towards English Teachers and Teaching' and 'Achievement in English'. But 'Achievement in English' is not found significantly related with 'Attitude towards English' and 'Achievement Motivation.' Therefore Hypothesis 3 is substantiated to a certain extent.

Hypothesis 4 states that, "Achievement in English of Secondary school students can be predicted significantly with fewer number of independent variables selected."

Multiple coefficient of correlation in terms of β coefficient was worked out with 'Language Aptitude' and 'Attitude towards Education' as predictor variables - (The two variables which have high coefficient of correlation with Achievement in English). The study revealed that about 12.68 per cent to 31 per cent of variance of Achievement in English is attributable to the joint action of 'Language Aptitude' and 'Attitude towards Education'. Multiple R found to range from 0.3560 (for

comprehension category) to 0.5852 (for Achievement in English - Total). So Hypothesis 4 is fully substantiated.

5.8. EDUCATIONAL IMPLICATION FROM THE STUDY

On the basis of the results obtained from the present investigation the following suggestions are put forward for improving the existing educational practices in teaching and learning of English in the secondary schools.

a) It has been noticed from the study that 'Language Aptitude' has significant main effect on Achievement in English - Total and in other categories namely, Achievement in English - Vocabulary, Achievement in English - Grammar and Achievement in English-Comprehension. It was further revealed that Language Aptitude has only significant single effect and no interaction effect of Language Aptitude with the other select attitudinal and Motivational variable on Achievement in English exists. When mean difference was tested High mean achievement scores in English was found to be associated with High-Language Aptitude Group in comparison with Average-Language Aptitude Group and Low-Language Aptitude Group. This result supports many studies regarding Language Aptitude and Achievement in Languages conducted abroad. The association of Language Aptitude with second Language acquisition and second language learning, including foreign language was reported in noteworthy studies of Gardner and Lambert (1959), Carroll (1962), Gordon (1980), Krashen (1981), Brecht (1991) and Sparks (1995).

It may be possible that in most classes there will be a small percent of students who have low language aptitude. Some of the students who seem to be poor achievers in English may actually be under-achievers in English. Such students can be helped if they can be identified in advance before they lag far behind the class and later it would become impossible for them to catch up. English being a European language the sound system, pronunciation, structure and usage which are different from South Indian languages may make the learning of English more difficult for such students. Such students may be lacking proper educational support from their homes also. Therefore, it seems unscientific and inappropriate to insist on some curricular experiences to all students who are learning English. Differential curricular materials including work books, resource materials and learning materials have to be prepared to help the poor learners of English of secondary schools of Kerala, who have to learn English compulsorily from Standard IV onwards.

Skehan (1986) reexamined the Carroll Model of School Learning and considered that Carroll Model of aptitude is one of the best worked out in applied linguistics. Carroll has proposed that the degree of language learning is a function of time available, instructional excellence and three individual difference variables namely verbal intelligence, aptitude and motivation. Moreover in The Bristol Language Project Study (1981, 1985), it was reported that (i) children who developed more quickly in their first language are also those who tend to have higher foreign language aptitude and (ii) measures of social class, of family background, of parental education and of parental literacy correlated significantly with foreign

language aptitude. Ordinary students of our schools may not be getting enough exposure to English such as listening, speaking, reading and writing in English outside the class room. Therefore, students must be provided with opportunities to learn English in the classroom itself under the supervision of teachers. The role of teaching and learning materials is crucial for second language learning - specially developed audio-cassettes, Radio broadcasts, Linguaphone and other modern learning and instructional materials should be made available to the students to study under the direction of teachers. State Council for Educational Research and Training (SCERT) in association with Central Institute of English and Foreign Languages (CIEFL) and Central Institute of Educational Technology (CIET) can take up the task of preparing materials.

The above mentioned task of giving additional educational support to learn English should be practised in the early stages of learning English that is, in standard IV, V, VI and VII. As Krashen suggested, conscious language learning should be the thrust area up to standard VIII. If this is followed which focus on capitalising the language aptitude of the learner further learning of English will be more under the influence of appropriate attitude and other personality characteristics of the students and teachers.

Many psychologists hypothesised that Aptitudes are within limits influenced by educational and other environmental factors. In order to maximise Achievement in English, the learnability of the students in learning English, that is, Aptitude for second language learning have to be increased. This may be possible by adopting systematically planned instructional techniques by the teachers of English. Techniques that

promote to the acquisition of essential vocabulary for communication, correct spelling and usage, language analysis for which some of the techniques suggested are quiz, language games, puzzles, role play, computer games etc. which can be provided either informally or formally in the classroom.

b) The study revealed that next to Language Aptitude Attitude towards Education of the sample is the variable, among the five independent variables of the study, which is capable of contributing to differences in Achievement in English. In this context it is worthwhile to note that most of the people of Kerala especially those belonging to middle class and lower upper class consider education as an investment and education is considered as a means of upward social mobility. Students must be given such activities and tasks that will promote emotional control and balance, help them seek new information, promote healthy social relationships, help them to free themselves from superstitions, cultivate good habits and responsibilities, help them acquire problem solving abilities and teach them how to spend leisure time usefully.

c) The result of the present study revealed that Attitude towards English Teachers and Teaching and Achievement in English is related to a certain extent. The prevalent conditions under which English is taught in schools of Kerala need to be understood to note the implications of this findings. Under the three language formula (Education Commission, 1964-66) implemented in school curriculum, all the students have to study English compulsorily from standard IV onwards. But most of the teachers who teach English in schools have not studied English as their special

subject either in the pre-degree or degree classes. Nor these teachers are exposed to pre-service training in teaching English. But they are forced to teach English in the present set up. The existing policy in Kerala does not insist a degree in English as a qualification for teaching English. On the contrary a degree in Malayalam or in Hindi is insisted for teachers in Malayalam or in Hindi. Atleast some of such under qualified teachers may develop diffidence in teaching English. Such teacher's method of teaching and mode of questioning, their inter-relationship with the students in the class etc. need not be conducive for learning English effectively. These teachers can be helped to get over their diffidence and to co-operate with the policy of the government, there by maximising the efficiency of learning of English, if the Government can arrange orientation programmes including crash courses in content and methodology of teaching English. Distance learning programmes can also be arranged. Self learning packages can be prepared and made available to them. SCERT and such other academic bodies can take up this task.

When the teachers are equipped in these lines, it is hoped they will be able to create a conducive classroom environment for creating a favourable attitude towards English teachers and teaching.

5.9. SUGGESTIONS FOR FURTHER RESEARCH

The findings of the present study can be extended for further research on the lines mentioned below.

1. The investigation of causal relationship of Language Aptitude, Learning environment and Achievement in English of Secondary School Students can be conducted.
2. Relationship of Language Aptitude, Learning style and Achievement in English of High school students can be studied.
3. Relative efficiency of Intelligence, Language Aptitude and Verbal creativity to predict Achievement in English can be attempted.
4. Factor study of the Attitudinal and Motivational variables related to Achievement in English can be conducted.
5. Determining Predictive efficiency of Language Aptitude test for foreign language study can be attempted.
6. Identification of qualitative differences in learning English of Secondary School students of High-; Average-; and Low-; Language Aptitude can be conducted.
7. A study can be attempted on the Interaction Effect of varying mode of presentation of select curricular materials and Language Aptitude on Achievement in English.
8. Causal relationship of Educational input from home, Language Aptitude and Achievement in basic Language skills of English of Secondary school students can be studied.

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APPENDICES

**UNIVERSITY OF CALICUT
DEPARTMENT OF EDUCATION**

(DRAFT SCALE)

LANGUAGE APTITUDE TEST

**Dr. KAMALA S. PILLAI
and
MEERA K.P.**

[Do not open the booklet until the signal to turn the page is given]

Spelling Clues

Each item below has a group of words. The word at the top of the group is not spelled in the usual way. Instead, it is spelled approximately as it is pronounced. Your task is to recognize the disguised word from the spelling. In order to show that you recognize the disguised word, look for one of the four words beneath it that corresponds most nearly in meaning with the disguised word. When you find this word, make a mark in the appropriate space on your answer sheet.

Here is an example for you.

huri

- A lazy
- B harmful
- C haste
- D musical

'huri' is a disguised spelling of 'hurry' which corresponds most nearly in meaning to haste. So C has been marked in example on the answer sheet.

NOW GO RIGHT AHEAD WITH THE TEST

Spelling Clues

1. brite

- a heavy
- b black
- c shining
- d small

2. botm

- a above
- b air
- c right side
- d the lower part

3. lism

- a laugh
- b move
- c attend
- d walk

4. sho

- a cry
- b avoid
- c love
- d display

5. loyer

- a doctor
- b teacher
- c pilot
- d advocate

6. aksident

- a place
- b mishap
- c arrow
- d argument

7. anshient

- a great
- b past
- c neighbour
- d tight

8. promis

- a select
- b assure
- c beg
- d spend

9. ugli

- a cheif
- b repulsive
- c small
- d white

10. legend

- a truth
- b myth
- c ruins
- d fight

11. ikspensiv

- a probably
- b remarkably
- c refreshingly
- d costly

12. vesl

- a sea
- b flower
- c leaf
- d ship

13. serende

- a submit
- b observe
- c follow
- d dilute

14. flok

- a large amount of ice
- b flow of river
- c gathering of dust
- d number of birds of one kind

15. tini

- a very old
- b very large
- c very sweet
- d very small

16. kapche

- a expect
- b seize
- c select
- d refuse

17. legix

- a write
- b begin
- c pardon
- d fight

18. skreem

- a heavy load
- b loud noise
- c high wall
- d piercing cry

19. klad

- a clothed
- b clouded
- c Shrouded
- d crowded

20. menshen

- a count
- b represent
- c refer
- d realize

21. preeshen

- a large gathering of birds
- b number of person going orderly
- c number of person making pots
- d large number of pictures

22. ejoining

- a in between
- b adjacent to
- c very far
- d close

23. bunj

- a fruit
- b collection
- c bridge
- d buildings

24. bihauid

- a see
- b taste
- c touch
- d hold

25. kreeche

- a boy or girl
- d bread or butter
- c beak or tail
- d person or animal

26. cheis

- a watch
- b follow
- c observe
- d run

27. dilite

- a great pleasure
- b terrible pain
- c bad anxiety
- d great worry

28. dum

- a unable to see
- b unable to speak
- c unable to hear
- d unable to smile

29. famine

- a availability of water
- b scarcity of food
- c shortage of air
- d shortage of rice

30. embere

- a slave
- b teacher
- c sovereign
- d priest

31. fyunereI

- a birth
- b butter
- c bread
- d burial

32. okyupashen

- a journey
- b joke
- c profession
- d profit

33. luk afte

- a attend to
- b arrange
- c desire for
- d worry

34. viktorias

- a vigilant
- b villainous
- c triumphant
- d prayerful

35. epolejais

- a express regret
- b express joy
- c express love
- d express hunger

36. blosem

- a fruit
- b flower
- c leaf
- d word

37. kalamiti

- a bad mishap
- b great joy
- c grace
- d failure

38. heistili

- a quickly
- b lightly
- c remarkably
- d unknowingly

39. ekspedishen

- a programme
- b expression
- c journey
- d experiment

40. pasij

- a vehicle
- b path
- c change
- d peck

41. beam

- a dark room
- b slight wind
- c strong window
- d bright light

42. hore

- a horse
- b fear
- c hut
- d dream

43. prife

- a take
- b share
- c enjoy
- d like

44. divaue

- a drive fast
- b walk quickly
- c eat quickly
- d look angrily

45. kol on

- a reach
- b visit
- c search
- d shout

46. splndid

- a loving
- b dirty
- c small
- d excellent

47. svom

- a river
- b forest
- c crowd
- d company

48. vised

- a magician
- b dramatist
- c poet
- d policeman

49 stik out

- a make
- b open
- c project
- d order

50 misti

- a not clear
- b not heavy
- c not smooth
- d not warm

51 gont

- a strong
- b lean
- c smart
- d tall

52 gail

- a strong smell
- b high wall
- c strong wind
- d pretty flower

53 defishienci

- a defect
- b excess
- c defeat
- d doubt

54 instans

- a example
- b chance
- c exercise
- d opportunity

55 prik

- a build
- b assemble
- c make holes
- d perform

56 maiti

- a happy
- b heavy
- c cheerful
- d powerful

57 Rae

- a unhealthy
- b uncommon
- c unable
- d unavoidable

58 prinses

- a king's daughter
- b captain's daughter
- c doctor's daughter
- d sailor's daughter

59 vispe

- a laugh suddenly
- b listen carefully
- c speak in a low voice
- d cry without making noise

60 maveles

- a wonderful
- b clear
- c greatful
- d thoughtful

61 ditest

- a divert
- b digest
- c dislike
- d disappoint

62 kwaet

- a curious
- b silent
- c wonderful
- d irritable

63 dwof

- a big tail
- b short person
- c tall man
- d small house

64 traite

- a faithfull person
- b disappointed person
- c loyal person
- d disloyal person

65 lavli

- a loyal
- b pressing
- c pleasing
- d shining

66 vedikt

- a punishment
- b judgement
- c agreement
- d adjustment

67 dipat

- a go quickly
- b go away
- c go ahead
- d get into

68 tru

- a free
- b loyal
- c fresh
- d happy

69 dipreshen

- a sorrow
- b anger
- c surprise
- d silence

70 kanvey

- a destroy
- b argue
- c communicate
- d collect

71 pyle

- a crown
- b heap
- c illness
- d beauty

72 wrm

- a selfish
- b affectionate
- c dull
- d beauty

73 terify

- a fill with toy
- b fill with anxiety
- c fill with excitement
- d fill with fear

74 straik

- a cut
- b break
- c light
- d push

75 md

- a walk
- b see
- c sell
- d repair

WORDS IN SENTENCES

This is a test of your ability to understand the function of words and phrases in sentences.

Look at the following sample item.

A	<u>KRISHNA</u> saved a girl
B	<u>She</u> <u>wanted</u> to <u>go</u> for <u>fishing</u>
	A B C D

In the first sentence, which we will call the key sentence, KRISHNA is underlined. Which word in the second sentence does the same thing in that sentence A, 'KRISHNA' does in the key sentence. The right answer is the word 'She' because the key sentence is about 'Krishna' and the second sentence is about 'She.'

DO NOT TURN THE PAGE UNTIL THE SIGNAL IS GIVEN

Words in sentences

- 1 Different countries and different races have different manners.
You can pick up the papers or throw them away.
A B C D
- 2 Sheela expects them to do good Painting.
On his voyage across the sea and upto portugal, Tom expected to buy many attractive things
A B C D
- 3 We arranged a trip to Mysore.
The Crocodile took some of t he fruits.
A B C D
- 4 The train arrived late
From that day onwards the emperor always listened to the toy bird.
A B C D
- 5 They were here.
A Japanese merchant has brought a wonderful toy bird to the city
A B C D
- 6 They called him Rahim
Because of his excellent performance during the famine, the people named him saviour of
the province
A B C D
- 7 Popularity is his only object.
Many years ago people travelled in bullock-cart
A B C D
- 8 This is my last trip.
Even though these parcels arrived before those, that has not been delivered yet.
A B C D
- 9 Let's make this structure a monument.
They decided to turn the theatre in to an out gallery with pictures and sculptures from many
countries.
A B C D
- 10 Sheela is writing the letter.
My sister Mini is beating her child with a big stick.
A B C D
- 11 Thiruvananthapuram is the capital of Kerala
He wanted to ce'brate his daughter's birthday
A B C D
- 12 Sheela looked at the road and saw her friend.
You can go to the office now or I shall take you tomorrow
A B C D

- 13 He closed his shop
After giving lunch to her son, Gita left the place.
A B C D
- 14 I met him on the way
If their performance is satisfactory, I will give them a present at the end of the week.
A B C D
- 15 He spoke loudly.
Although there was a traffic problem, She arrived home safely.
A B C D
- 16 He was here
A great rose-apple tree grew on the shore of a lake.
A B C D
- 17 She went out to buy some fruits
The monkey was delighted to hear the talk although it was too difficult to follow.
A B C D
- 18 The garden was lined with spreading grass
Sometimes the easiest method for good shape is constant exercise.
A B C D
- 19 Gita sold Sudha her necklace.
If they work hard, I will increase their salary at the end of this month.
A B C D
- 20 Several books were arranged in the shelf.
In spite of getting many jobs he was able to choose only one of them.
A B C D
- 21 My cousin went home
When the water level rose during the floods, the dog climbed to the roof of the house.
A B C D
- 22 The coconuts grow large during summer.
She cultivated red roses in her small garden. The rain poured worse as the storm became stronger.
A B C D
- 23 Few enjoyed music.
That was an accident in which several got intured.
A B C D
- 24 My skin became dark by sun tan
The patient grew strong due to natural breeze. The red flower was hidden from view by the large leaves.
A B C D
- 25 He fixed the photo tight against the wall,
She always sang well. He filled the bucket full.
A B C D
- 26 The cleaning programme, usually held on independence day, is a fixed activity of the National Service Scheme in our school
Nehru was the first prime minister of India; he refused the pleasures that some of his family members wanted him to have.
A B C D
- 27 Which colour do you think it is?
How can I agree to a proposal that has been brought to me without consulting any of them?
A B C D
- 28 There is no meaning in walking farther.
I have some cleaning to do before inviting my friends for dining with me.
A B C D

- 29 Which author do you like best?
 What should I do in these circumstances is the question for which an answer is sought from
A
me by him as well as the others in the group.
B C D
- 30 The Chairman bought himself a set of chair.
 It is not understandable even to myself, why they should worry themselves unnecessarily when
A B C
 the problem itself is so plain
D
- 31 We plan to give it today.
 On the occasion of his visit to us we took, Steps to present him a memento
A B C D
- 32 The old man hurt himself.
 Although I myself would do that by myself, She gained herself the favour of some of her
A B C
 friends by doing it by herself
D
- 33 There was much discussion about a file.
 Where is Babu? There is no evidence about it. There lay the green purse.
A B C D
- 34 Profit is his only aim.
 Not so many years ago, most of the work was done by hand
A B C D
- 35 I gave him an apple
 The government declared bonus for the employees this year too
A B C D
- 36 The government owns every piece of property in Russia.
 Before the dawn of history, people were using drainage systems very much the way we use
A B C D
 them today
- 37 To reveal the fact, it will take time and courage.
To speak briefly, this product is as good as the other. To go or not to go, that is the
A B C
 problem. To light the bulb, push the button.
D
- 39 I drove from Calicut to Kannur.
 To be secure, he decided to buy bullet proof coats for any emergency
A B C D
40. He saw several Children moving slowly by
 As she was walking down the street she found herself wondering who had been there before
A B C D
 she arrived.
- 41 This is the latest design.
 This may not be your choice by wish or by deliberation, but it is the best work of
A B C
gifted people stored for our guests.
D
- 42 I will buy an estate when I become rich.
Though my uncle left last night, most of my friends remained until the end
A B C D
- 43 Move as he commands.
 The children kept singing in chorus while the teacher observed silence.
A B C D

LANGUAGE ANALYSIS

The pupils are given a number of forms in French and their English equivalents. From these they must conclude how other things are said in this Language.

Example:

le/chien/noir	...	The black dog
trois/livres	...	Three books

How would you say : Three black dogs

- A. le / trois / noir
- B. noir / trois / le
- C. trois / chien / le
- D. trois / chien / noir

Here the correct answer is D.

1. Tout / est / perdu — Ali is short
 Tu / est / chapeau — You lost hat
 Je — I

How would you say ; I lost hat

1. est / Je / perdu
2. Jo / tout / est
3. Je / est / chapeau
4. Tu / est / chapeau

2. Je / aime / l'anglais ... I like English
 To / aime / l'anglais - You like English
 parle ... speak

How would you say : I speak English

1. aime / Je / l'anglais
2. Tu / parle / l'anglais
3. Tu / Je / parle
4. Je / parle / l'anglais

3. Je / connais / charles ... I know Charles
 il / connait / Francais ... He knows French

How would you say - He knows Charles

1. il / connait / Charles
2. Je / connais / Charles
3. il / Charles / connaît
4. connais / Charles / il

4. Je/vais/acheter/lamaison - I go to buy a house
 il/va/acheter/lapin - He goes to buy a rabbit

How would you say - He goes to buy a house

1. lamaison/va/acheter/Je
2. Je/acheter/lamaison/va
3. il/va/acheter //lamaison
4. il/acheter/vai://lamaison

5. Je/donnerai - I shall give
 il/ donnera - he will give
 Je/ finirai - I shall finish

How would you say - He will finish

1. il/ donnerai
2. il/ finirai
3. Je/ finirai
4. Je/ donnerai

6. il/a les /yeux /bleus — He has blue eyes
Je /aime /yeux /bleus — I like blue eyes
 histoire ... history

How would you say ... I like history

1. il /yeux /histoire
2. Je /les /yeux
3. il/ les /aime
4. Je /aime /histoire

7. Je/ai /vu/le /tableau : I have seen a picture
Je/ai/recu /le remon : I have received a novel
 Je/ai pris - I have taken

How would you say ; I have taken a picture

1. Je/ ai pris/ le tableau
2. Je/ai vu/ le remon
3. ai/vu remon/ tableau
4. tableau /Je /vu ai

8. Je/n'ai pas /de plume— I haven't a pen
il/n'y a pas /d'eau ... There is no water

How would you say ... There is no pen

1. il n'y a pas /de plume
2. Je nai /de pas
3. il /nai pas /Je
4. Je /nai pas /plume

9. le /chien/noir ... The black dog
trois/livres ... Three books

How would you say : Three black dogs

1. le /trois /noir
2. noir /trois /le
3. trois /chien /le
4. trois /chien /noir

- 10 Un beau /jour ... a fine day
Une jolie /petite /maison: a pretty little house

How would you say - a fine house

1. Un beau/maison
2. beau/jolie/Jour
3. Une/petite/jour
4. beau/jour/maison

- 11 Je/aime/l'histoire ... I like history
L'or/est/precieux ... Gold is precious

How would you say—I like gold

1. L'or/aime/histoire
2. Je/est/aime ..
3. Je/aime/L'or
4. L'or/est/l'histoire

12. il/donnerons/la chambre—he will give room
vous/donnerez/chambre — you will give room
le canard — duck

How would you say He will give duck

1. il/donnerons/le canard
2. vous /donnerez / chambre
3. il/donnerez/le canard
4. il/vous/le canard

- 13 ma mere/et/mon pere— my mother and father
son mari — her husband
frere — brother

How would you say ... my mother and brother

1. ma pere /et mari
2. son / ma /pere
3. ma mere /et / frere
4. ma/pere/et ma

PAIRED ASSOCIATES

INSTRUCTIONS: Your task is to **MEMORIZE** the English - French vocabulary below. Wait for the signal, then you will be given two minutes to study the vocabulary printed below. At the end of the two minutes the examiner will give you the signal to start filling in the blanks in the lower half of the **PRACTICE EXERCISE SHEET**. You are allowed to look back at the vocabulary on this page when you are filling the blanks on the practice exercise sheet. After filling in the blanks, continue studying if there is still time.

VOCABULARY (Memorize for 2 minutes)

<u>English</u>	-	<u>French</u>	<u>English</u>	-	<u>French</u>
father	-	vater	pen	-	bleistife
brother	-	bruder	room	-	zimmer
sister	-	schwester	dog	-	hund
mother	-	matter	chalk	-	kreide
aunt	-	tante	letter	-	brief
milk	-	milch	to eat	-	essen
water	-	wasser	to go	-	gehen
door	-	tür	to see	-	sehen
window	-	fenster	watch	-	uhr
child	-	kind	house	-	haus
			head	-	kopf

INSTRUCTIONS: You will be given the French words and 4 choices in English. Following is a sample item

Tante

- A. sister
- B. head
- C. brother
- D. aunt

Since Tante means aunt, you would place a black mark in space D.

The questions are to be done in memory

PAIRED ASSOCIATES

Place a black mark on your answer sheet for the letter of the English word that you select. You are not permitted to look back at the previous page, nor at the practice exercise sheet.

1. Zimmer

- a head
- b chalk
- c pen
- d room

2. Kopf

- a letter
- b head
- c dog
- d aunt

3. Haus

- a room
- b father
- c house
- d milk

4. Vater

- a window
- b father
- c child
- d door

5. Bleistift

- a pen
- b water
- c door
- d chalk

6. Milch

- a house
- b window
- c door
- d milk

7. Bruder

- a aunt
- b sister
- c brother
- d father

8. Wasser

- a pen
- b head
- c water
- d letter

9. Tür

- a letter
- b window
- c father
- d door

10. Hund

- a dog
- b child
- c head
- d house

11. Fenster

- a to eat
- b water
- c mother
- d window

12. Kreide

- a watch
- b door
- c father
- d chalk

13. Gehen

- a to go
- b door
- c window
- d to see

14. Schwester

- a water
- b sister
- c door
- d mother

15. Brief

- a chalk
- b letter
- c to see
- d watch

16. Sehen

- a mother
- b to go
- c to see
- d letter

17. Mutter

- a watch
- b aunt
- c milk
- d mother

18. Essen

- a room
- b window
- c to eat
- d to see

19. Kind

- a chalk
- b child
- c door
- d sister

20. Uhr

- a milk
- b dog
- c watch
- d house

**Item Analysis Data of the Draft Test of Language Aptitude
(N= 25)**

Item No. (1)	PU (2)	PL (3)	Difficulty index (4)	Discriminating power (5)	Item number selected for final test (6)
1	25	19	0.88	0.24	
2	20	11	0.62	0.36	5*
3	25	15	0.80	0.40	
4	20	16	0.72	0.16	
5	25	17	0.84	0.32	
6	22	7	0.58	0.60	10*
7	24	11	0.70	0.52	3*
8	24	15	0.78	0.36	
9	23	7	0.60	0.74	9*
10	10	5	0.30	0.20	
11	25	10	0.70	0.60	
12	21	10	0.62	0.44	6*
13	11	10	0.42	0.04	
14	21	5	0.52	0.64	16*
15	24	16	0.80	0.40	
16	14	4	0.36	0.40	38*
17	19	12	0.62	0.28	
18	14	5	0.38	0.36	34*
19	6	3	0.18	0.12	
20	9	2	0.22	0.28	
21	15	9	0.48	0.24	
22	12	11	0.46	0.04	
23	15	5	0.40	0.40	33*
24	5	3	0.16	0.80	
25	14	4	0.36	0.40	37*
26	18	6	0.48	0.48	23*
27	25	11	0.72	0.56	

1	2	3	4	5	6
28	16	8	0.48	0.32	22*
29	20	8	0.56	0.48	13*
30	17	8	0.50	0.36	20*
31	24	11	0.70	0.52	28*
32	20	16	0.72	0.16	
33	7	7	0.28	0.00	
34	4	5	0.18	0.04	
35	21	12	0.66	0.36	4*
37	13	8	0.42	0.20	
38	16	8	0.48	0.32	24*
39	14	4	0.36	0.40	36*
40	20	9	0.58	0.44	11*
41	18	8	0.52	0.40	17*
42	17	4	0.42	0.52	30*
43	11	2	0.26	0.36	40*
44	8	4	0.24	0.16	
45	9	7	0.32	0.08	
46	19	10	0.58	0.36	12*
47	10	7	0.34	0.12	
48	13	3	0.32	0.40	39*
49	8	12	0.40	0.16	
50	14	5	0.38	0.36	35*
51	9	4	0.26	0.20	
52	19	7	0.52	0.48	18*
53	18	6	0.48	0.48	25*
54	19	5	0.48	0.56	26*
55	19	2	0.42	0.68	29*
56	13	7	0.40	0.24	
57	12	5	0.34	0.28	
58	23	15	0.76	0.32	1*
59	19	16	0.70	0.12	
60	18	8	0.52	0.40	19*
61	9	5	0.28	0.16	
62	22	9	0.62	0.52	7*
63	22	5	0.54	0.68	15*

124

1	2	3	4	5	6
64	9	4	0.26	0.20	
65	16	6	0.44	0.40	27*
66	14	6	0.40	0.32	32*
67	8	4	0.24	0.16	
68	20	8	56	0.48	14*
69	15	5	0.40	0.40	31*
70	11	8	0.38	0.12	
71	17	8	0.50	0.36	21*
72	7	2	0.18	0.20	
73	20	11	0.62	0.36	8*
74	19	3	0.44	0.64	28*
75	11	6	0.34	0.20	
76	24	23	0.94	0.04	
77	14	15	0.68	-0.04	
78	24	13	0.74	0.44	
79	19	14	0.66	0.20	
80	19	9	0.56	0.40	49*
81	19	5	0.48	0.56	54*
82	12	4	0.32	0.32	
83	13	5	0.36	0.32	
84	18	8	0.52	0.40	52*
85	16	3	0.38	0.62	60*
86	16	6	0.44	0.40	57*
87	24	15	0.78	0.36	
88	22	12	0.68	0.40	41*
89	23	15	0.76	0.32	
90	20	9	0.58	0.44	44*
91	23	6	0.58	0.68	45*
92	17	9	0.34	0.32	
93	17	5	0.44	0.48	58*
94	17	10	0.54	0.28	
95	16	5	0.42	0.44	59*
96	19	8	0.54	0.44	50*
97	9	8	0.34	0.04	
98	18	8	0.52	0.40	53*

1	2	3	4	5	6
99	19	5	0.49	0.56	55*
100	16	7	0.46	0.36	
101	21	10	0.62	0.44	43*
102	18	12	0.60	0.24	
103	15	12	0.54	0.12	
104	18	14	0.64	0.16	
105	17	11	0.56	0.24	
106	15	7	0.44	0.32	
107	18	4	0.44	0.56	56*
108	16	12	0.56	0.16	
109	14	8	0.44	0.24	
110	19	10	0.58	0.36	46*
111	12	8	0.40	0.16	
112	16	6	0.44	0.40	
113	21	7	0.56	0.56	48*
114	15	7	0.44	0.32	
115	20	8	0.56	0.48	47*
116	18	8	0.52	0.40	51*
117	22	10	0.64	0.48	42*
118	23	22	0.90	0.04	
119	23	20	0.86	0.12	
120	25	19	0.88	0.24	62*
121	23	23	0.92	0.00	
122	23	18	0.82	0.20	64*
123	25	21	0.92	0.16	
124	25	21	0.92	0.16	
125	24	20	0.88	0.12	
126	24	19	0.86	0.20	63*
127	24	20	0.88	0.12	
128	22	21	0.86	0.04	
129	15	18	0.66	-0.12	
130	25	19	0.88	0.24	
131	23	18	0.82	0.20	
132	22	20	0.84	0.08	
133	25	18	0.86	0.28	

1	2	3	4	5	6
134	24	20	0.88	0.16	
135	23	19	0.84	0.16	
136	25	19	0.88	0.24	
137	24	20	0.88	0.16	
138	24	22	0.92	0.08	
139	24	19	0.86	0.20	
140	25	16	0.82	0.36	65*
141	23	9	0.64	0.56	72*
142	21	13	0.68	0.32	70*
143	24	10	0.68	0.56	71*
144	24	15	0.78	0.36	66*
145	21	9	0.60	0.48	74*
146	22	12	0.68	0.40	69*
147	22	21	0.86	0.04	
148	22	10	0.64	0.48	73*
149	24	15	0.78	0.36	67*
150	24	12	0.72	0.48	68*

Note: PU - Proportion of Correct responses in the upper group

PL - Proportion of correct responses in the lower group

* - Items selected for the final test

**UNIVERSITY OF CALICUT
DEPARTMENT OF EDUCATION**

(FINAL SCALE)

LANGUAGE APTITUDE TEST

**Dr. KAMALA S. PILLAI
and
MEERA K.P.**

[Do not open the booklet until the signal to turn the page is given]

Spelling Clues

Each item below has a group of words. The word at the top of the group is not spelled in the usual way. Your task is to recognize the disguised word from the spelling. In order to show that you recognize the disguised word, look for one of the four words beneath it that corresponds most nearly in meaning with the disguised word. When you find this word, make a mark in the appropriate space on your answer sheet.

Here is an example for you.

huri

- A. lazy
- B. harmful
- C. haste
- D. musical

huri is a disguised spelling of 'hury' which corresponds most nearly in meaning to hate. So C haste been marked in example on the answer sheet.

NOW GO RIGHT AHEAD WITH THE TEST

Spelling Clues

1 prines

- a king's daughter
- b captain's daughter
- c doctor's daughter
- d sailor's daughter

2 fyunerel

- a birth
- b butter
- c bread
- d burial

3 anshient

- a great
- b past
- c bright
- d tight

4 blosem

- a fruit
- b flower
- c leaf
- d word

5 menshen

- a count
- b represent
- c refer
- d realize

6 vesi

- a sea
- b flower
- c leaf
- d ship

7 kwaet

- a curious
- b silent
- c wonderful
- d irritable

8 terify

- a fill with joy
- b fill with anxiety
- c fill with excitement
- d fill with fear

9 ugli

- a cheap
- b repulsive
- c small
- d white

10 aksident

- a place
- b mishap
- c arrow
- d argument

11 pasij

- a vehicle
- b path
- c bench
- d peck

12 splndid

- a loving
- b dirty
- c small
- d excellent

13 famine

- a availability of water
- b scarcity of food
- c shortage of air
- d shortage of rice

14 tru

- a free
- b loyal
- c fresh
- d happy

15 dwof

- a big tail
- b short person
- c tall man
- d small house

16 flock

- a large amount of rice
- b flow of river
- c gathering of dust
- d number of birds of one kind

17 beem

- a dark room
- b slight wind
- c strong window
- d bright light

18 gail

- a strong smelt
- b high wall
- c strong wind
- d pretty flower

19 mavefes

- a wonderful
- b clearful
- c greatful
- d thoughtful

20 embere

- a slave
- b teacher
- c sovereign
- d priest

21 pyle

- a crown
- b heap
- c illness
- d beauty

22 dum

- a unable to see
- b unable to speak
- c unable to hear
- d unable to smile

23 cheis

- a watch
- b follow
- c observe
- d run

24 heistili

- a quickly
- b lightly
- c remarkably
- d unknowingly

25 defishienci

- a defect
- b excess
- c defeat
- d doubt

26 instans

- a example
- b chance
- c exercise
- d opportunity

27 lavli

- a loyal
- b pressing
- c pleasing
- d shining

28 straik

- a cut
- b break
- c light
- d push

29 prik

- a build
- b assemble
- c make holes
- d perform

30 hore

- a horse
- b fear
- c hut
- d dream

31 dipreshen

- a sorrow
- b anger
- c surprise
- d silence

32 vedict

- a punishment
- b judgement
- c agreement
- d adjustment

- 33 bunj
 a fruit
 b collection
 c bridge
 d buildings
- 34 skreem
 a heavy load
 b loud noise
 c high wall
 d piercing cry
- 35 misti
 a not clear
 b not heavy
 c not smooth
 d not warm
- 36 ekspedishen
 a programme
 b expression
 c journey
 d experiment
- 37 kreeche
 a boy or girl
 b bird or beak
 c beak or tail
 d person or animal
- 38 kapche
 a expect
 b seize
 c select
 d refuse
- 39 vised
 a magician
 b dramatist
 c poet
 d policeman
- 40 prife
 a take
 b share
 c enjoy
 d like

WORDS IN SENTENCES

This is a test of your ability to understand the function of words and phrases in sentences.

Look at the following item:

- A KRISHNA Saved a girl
- B She Wanted to go for fishing
 A B C D

In the first sentence, which we will call the key sentence, KRISHNA is given in Capital letters. Which word in the second sentence does the same thing in that sentence? A, 'KRISHNA' does in the key sentence. The right answer is the word 'She' because the key sentence is about 'Krishna' and the second sentence is about 'She'.

DO NOT TURN THE PAGE UNTIL THE
 SIGNAL IS GIVEN

41 He CLOSED his shop

After giving lunch to her son, Gita left the place.
 A B C D

42 Move as he COMMANDS

The children kept singing in chorus while the teacher observed silence.
 A B C D

43 The cleaning programme, usually held in independence day, is a fixed ACTIVITY of the National Service Scheme in our school.

Nehru was the first Prime minister of India; he refused the pleasures that some of his family members wanted him to have.
 A B C D

44 He SPOKE loudly

Although there was a traffic problem, she arrived home safely.
 A B C D

45 HE was here.

A great roseapple tree grew on the shore of a lake.
 A B C D

46 I gave HIM an apple

The government declared bonus for the employees this year too.
 A B C D

47 This is the LATEST design

This may not be your choice by wish or by deliberation, but it is the best work of gifted people stored for our guests.
 A B C D

48 I drove FROM Calicut to Knnur

To be secure, he decided to buy bullet proof coats for any emergency.
 A B C D

49 THEY were here.

A Japanees marchant has brought a wonderful toy bird to the city.
 A B C D

50 My COUSIN went home

When the water level rose during the floods, the dog climbed to the roof of the house.
 A B C D

51 I will buy an estate WHEN I become rich.

Though my uncle left last night, most of my friends remained until the end.
 A B C D

LANGUAGE ANALYSIS

The pupils are given a number of forms in French and their English equivalents. From these they must conclude how other things are said in this Language.

Example:

le/chien/noir	...	The black dog
trois/livres	...	Three books

How would you say : Three black dogs

- A. le / trois / noir
- B. noir / trois / le
- C. trois / chien / le
- D. trois / chien / noir

Here the correct answer is D.

- 61 il/donnerons/la chambre — he will give room
 vous/ donnerez/Chambre — you will give room
 le canard — duck

How would you say, He will give duck

- A il/donnerons/le canard
 B vous/donnerez/chambre
 C il/donnerez/le canard
 D il/vous/le canard

- 62 Je/connais/charles — I knew Charles
 il/connat/Francais — He knows French

How would you say, He knows Charles

- A il/connait/Charles
 B Je/connais/charles
 C il/charles/connait
 D Connais/Charles/il

- 63 Un beau/Jour — a fine day
 Une Jolie/petite/maison — a pretty little house

How would you say, a fine house

- A Un beau/maison
 B beau/Jolie/Jour
 C Une/petite/Jour
 D beau/Jour/maison

- 64 Je/donnerai — I shall give
 il/donnera — he will give
 Je/finirai — I shall finish

How would you say, He will finish

- A il/donnerai
 B il/finirai
 C Je/finirai
 D Je/donnerai

PAIRED ASSOCIATES

INSTRUCTIONS: Your task is to **MEMORIZE** the English - French vocabulary below. Wait for the signal, then you will be given two minutes to study the vocabulary printed below. At the end of the two minutes the examiner will give you the signal to start filling in the blanks in the lower half of the **PRACTICE EXERCISE SHEET**. You are allowed to look back at the vocabulary on this page when you are filling the blanks on the practice exercise sheet. After filling in the blanks, continue studying if there is still time.

VOCABULARY (Memorize for 2 minutes)

<u>English</u>	-	<u>French</u>	<u>English</u>	-	<u>French</u>
father	-	vater	pen	-	bleistife
brother	-	bruder	room	-	zimmer
sister	-	schwester	dog	-	hund
mother	-	matter	chalk	-	kreide
aunt	-	tante	letter	-	brief
milk	-	milch	to eat	-	essen
water	-	wasser	to go	-	gehen
door	-	tür	to see	-	sehen
window	-	fenster	watch	-	uhr
child	-	kind	house	-	haus
			head	-	kopf

INSTRUCTIONS: You will be given the French words and 4 choices in English. Following is a sample item

Tante

- A. sister
- B. head
- C. brother
- D. aunt

Since Tante means aunt: you would place a black mark in space D.

The questions are to be done in memory

PAIRED ASSOCIATES

Place a black mark on your answer sheet for the letter of the English word that you select. You are not permitted to look back at the previous page, nor at the practice exercise sheet.

65 Hund

- a dog
- b child
- c head
- d house

66 Schwester

- a water
- b sister
- c door
- d mother

67 Kind

- a chalk
- b child
- c door
- d sister

68 Uhr

- a milk
- b dog
- c watch
- d house

69 Sehen

- a mother
- b to go
- c to see
- d letter

70 Kreide

- a watch
- b door
- c father
- d chalk

71 Gehen

- a to go
- b door
- c window
- d to see

72 Fenster

- a to eat
- b water
- c mother
- d window

73 Essen

- a room
- b window
- c to eat
- d to see

74 Brief

- a chalk
- b letter
- c to see
- d watch

LANGUAGE APTITUDE TEST

APPENDIX I C

DEPARTMENT OF EDUCATION
University of Calicut - 1996

SCORE SHEET

Name of the pupil Division

Number School

1	X	B	C	D	38	A	X	C	D
2	A	B	C	D	39	A	B	C	D
3	A	B	C	D	40	A	B	C	D
4	A	B	C	D	41	A	B	C	D
5	A	B	C	D	42	A	B	C	D
6	A	B	C	D	43	A	B	C	D
7	A	B	C	D	44	A	B	C	D
8	A	B	C	D	45	A	B	C	D
9	A	B	C	D	46	A	B	C	D
10	A	B	C	D	47	A	B	C	D
11	A	B	C	D	48	A	B	C	D
12	A	B	C	D	49	A	B	C	D
13	A	B	C	D	50	A	B	C	D
14	A	B	C	D	51	A	B	C	D
15	A	B	C	D	52	A	B	C	D
16	A	B	C	D	53	A	B	C	D
17	A	B	C	D	54	A	B	C	D
18	A	B	C	D	55	A	B	C	D
19	A	B	C	D	56	A	B	C	D
20	A	B	C	D	57	A	B	C	D
21	A	B	C	D	58	A	B	C	D
22	A	B	C	D	59	A	B	C	D
23	A	B	C	D	60	A	B	C	D
24	A	B	C	D	61	A	B	C	D
25	A	B	C	D	62	A	B	C	D
26	A	B	C	D	63	A	B	C	D
27	A	B	C	D	64	A	B	C	D
28	A	B	C	D	65	A	B	C	D
29	A	B	C	D	66	A	B	C	D
30	A	B	C	D	67	A	B	C	D
31	A	B	C	D	68	A	B	C	D
32	A	B	C	D	69	A	B	C	D
33	A	B	C	D	70	A	B	C	D
34	A	B	C	D	71	A	B	C	D
35	A	B	C	D	72	A	B	C	D
36	A	B	C	D	73	A	B	C	D
37	A	B	C	D	74	A	B	C	D

**Norms for the Language Aptitude Test,
Scale of Attitude towards English, Scale of Attitude towards
English Teachers and Teaching and Achievement Test in English**

Percentile level	Language Aptitude Test	Scale of Attitude towards English	Scale of Attitude towards English Trs and Tg	Achievement Test in English			
				Vocabulary	Grammar	Compre-hension	Total
P ₁₀	20.667	56.681	84.901	4.029	10.101	4.029	17.352
P ₂₀	22.449	62.783	93.682	5.036	13.052	5.036	21.003
P ₃₀	25.231	65.580	98.884	5.870	14.903	5.870	23.601
P ₄₀	27.166	68.482	103.802	6.663	16.882	6.663	26.106
P ₅₀	29.055	71.201	108.604	7.317	18.501	7.317	28.682
P ₆₀	31.125	74.261	113.512	8.051	20.119	8.053	30.718
P ₇₀	33.781	77.536	118.406	7.829	21.738	7.829	32.843
P ₈₀	37.531	80.738	123.950	9.625	23.975	9.625	36.111
P ₉₀	43.501	86.866	130.617	10.590	26.762	10.590	40.212

**University of Calicut
DEPARTMENT OF EDUCATION**

SCALE OF ATTITUDE TOWARDS ENGLISH

Dr. KAMALA S. PILLAI and MEERA K.P.

നിർദ്ദേശങ്ങൾ

ഇംഗ്ലീഷ് ഭാഷയോടുള്ള നിങ്ങളുടെ പ്രതികരണം അറിയാനുള്ള പ്രസ്താവനകളാണ് നിങ്ങൾക്ക് ഇതോടൊന്നിച്ചു് തരുന്നത്.

ഓരോ പ്രസ്താവനയും വായിച്ചശേഷം അതിനെക്കുറിച്ചുള്ള നിങ്ങളുടെ പ്രതികരണം 'യോജിക്കുന്നു' അഭിപ്രായമില്ല', 'വിയോജിക്കുന്നു' എന്നീ രീതിയിലാണ് രേഖപ്പെടുത്തേണ്ടത്.

ഇതിനായി പ്രസ്താവനകളുടെ ക്രമനമ്പരകൾക്കെതിരെ A (Agree യോജിക്കുന്നു), U (Undecided അഭിപ്രായമില്ല), D (Disagree വിയോജിക്കുന്നു) എന്ന് സൂചിപ്പിച്ചുകൊണ്ട് 3 വൃത്തങ്ങളിൽ പ്രത്യേക ഉത്തരവലിയും നിങ്ങൾക്ക് തരുന്നുണ്ട്.

ഓരോ പ്രസ്താവനക്കുമെതിരെ നിങ്ങളുടെ പ്രതികരണം യോജിക്കുന്നു എന്നാണെങ്കിൽ A എന്നുള്ള വൃത്തത്തിൽ 'X' അടയാളമിടുക. പ്രതികരണം അഭിപ്രായമല്ല എന്നാണെങ്കിൽ U എന്ന കോളത്തിലും വിയോജിക്കുന്നു എന്നാണെങ്കിൽ D എന്ന കോളത്തിലും ഉള്ള വൃത്തങ്ങളിൽ X അടയാളമിടുക.

ഉദാ:- ഇംഗ്ലീഷ് ഭാഷാ പഠനം ആധുനിക ജീവിതത്തിന് ഒഴിച്ചുകൂടാൻ പറ്റാത്തതാണ്.

A U D
⊗ ○ ○

ഈ ഉദാഹരണത്തിൽ A എന്ന കോളത്തിലുള്ള വൃത്തത്തിലാണ് അടയാളം ഇട്ടിരിക്കുന്നത്. ഉത്തരം എഴുതുന്ന ആരും ഈ പ്രസ്താവനയോട് പരിപൂർണ്ണമായി യോജിക്കുന്നു എന്നതാണ് ഇത് സൂചിപ്പിക്കുന്നത്.

ഇനി ഓരോ പ്രസ്താവനയും വായിച്ചു് മുകളിൽ നിർദ്ദേശിച്ചിരിക്കുന്നതുപോലെ നിങ്ങളുടെ പ്രതികരണങ്ങൾ രേഖപ്പെടുത്തുക.

1. ഇംഗ്ലീഷ് ഭാഷാ പഠനം ആധുനിക ജീവിതത്തിന് ഒഴിച്ചുകൂടാൻ പറ്റാത്തതാണ്.
2. ഉന്നത വിദ്യാഭ്യാസം ആഗ്രഹിക്കുന്നവർക്ക് ഇംഗ്ലീഷ് പരിജ്ഞാനം ഉപകരിക്കും.
3. ജീവിത വിജയത്തിന് ഇംഗ്ലീഷ് പരിജ്ഞാനം വേണമെന്നില്ല.
4. ഇംഗ്ലീഷ് ഭാഷ വശമാക്കാൻ സ്കൂളിൽ ഇംഗ്ലീഷ് ഭാഷ പഠിക്കണമെന്നില്ല.
5. ഇംഗ്ലീഷിൽ സംസാരിക്കാൻ പഠിച്ചാൽ സമൂഹത്തിൽ മാന്യത കിട്ടും.
6. ഞാൻ ഇംഗ്ലീഷ് സിനിമ കാണുന്നത് എന്നിക്ക് ഇംഗ്ലീഷ് കേൾക്കാനുള്ള താല്പര്യംകൊണ്ടു മാത്രമാണ്.
7. ഇംഗ്ലീഷ് ഉച്ചാരണം നന്നാവുന്നതിന് വേണ്ടി റേഡിയോ/ടി.വി. എന്നിവയിലെ വാർത്തകൾ കേൾക്കുന്നത് ഉപകരിക്കും.
8. ഇംഗ്ലീഷിൽ എനിക്കാരെങ്കിലും കത്തെഴുതിയിരുന്നെങ്കിൽ എന്ന് തോന്നാറുണ്ട്.
9. ഇംഗ്ലീഷ് ഭാഷ പഠിച്ചാൽ നല്ല ഇംഗ്ലീഷ് പുസ്തകങ്ങൾ, ആനുകാലിക പ്രസിദ്ധീകരണങ്ങൾ എന്നിവ വായിച്ച് ആസ്വദിക്കാമല്ലോ എന്ന് കരുതാറുണ്ട്.
10. നയൻസിദ്ധി, ടെക്നോളജിയിലും വരുന്ന പുതിയ മാറ്റങ്ങളും കണ്ടുപിടുത്തങ്ങളും മനസ്സിലാക്കണമെങ്കിൽ ഇംഗ്ലീഷ് പരിജ്ഞാനം വേണം.
11. മറ്റു സംസ്ഥാനങ്ങളിലും രാജ്യങ്ങളിലും സഞ്ചരിക്കുന്നതിനും ആശയ വിനിമയം നടത്തുന്നതിനും ഇംഗ്ലീഷ് പരിജ്ഞാനം വേണം.
12. ഒരു നല്ല ജോലി കിട്ടാൻ ഇംഗ്ലീഷ് അറിഞ്ഞിരിക്കണമെന്ന് കരുതിയാണ് ഇംഗ്ലീഷ് പഠിക്കുന്നത്.
13. ഇംഗ്ലീഷ് പഠിച്ചാൽ വിദേശരാജ്യങ്ങളിൽ ജോലികിട്ടാൻ സാദ്ധ്യത കൂടും.
14. ഇംഗ്ലീഷ് അറിഞ്ഞാൽ മറ്റു സംസ്ഥാനങ്ങളിലുള്ളവരുമായി സമ്പർക്കം പുലർത്താം എന്ന ആഗ്രഹംകൊണ്ട് ഇംഗ്ലീഷ് പഠിക്കുന്നു.
15. മറ്റുള്ള ക്ലാസുകളെ അപേക്ഷിച്ച് ഇംഗ്ലീഷ് ക്ലാസാണ് കൂടുതൽ ആസ്വദിക്കാൻ കഴിയുന്നത്.
16. ഇംഗ്ലീഷ് പരീക്ഷയിൽ പാസാവാൻ അധികമൊന്നും ബുദ്ധിമുട്ടാറില്ല.
17. ഇംഗ്ലീഷ് ക്ലാസിൽ തരുന്ന ഗൃഹപാഠങ്ങൾ ചെയ്തു തീർക്കുമ്പോൾ വെറുതെ കുറെസമയം നഷ്ടപ്പെടുത്തി എന്ന് തോന്നാറുണ്ട്.
18. ഇംഗ്ലീഷ് ക്ലാസുകളിൽ പകൽക്കിനാവ് കാണുക പതിവാണ്.
19. ഇംഗ്ലീഷ് ക്ലാസുകൾ ശ്രദ്ധിക്കണമെങ്കിൽ മനസിനെ വളരെയധികം ശ്രമപ്പെടുത്തേണ്ടതുണ്ട്.
20. ഇംഗ്ലീഷ് ക്ലാസുകളിൽനിന്ന് രക്ഷപ്പെടാനുള്ള മാർഗ്ഗം ആലോചിക്കാറുണ്ട്.
21. ഇംഗ്ലീഷ് പഠിക്കാൻ ആഗ്രഹമുള്ളവരെ പഠിപ്പിക്കുന്നതാണ് നല്ലത്.
22. സ്കൂൾ സിലബസിൽ നിന്നും ഇംഗ്ലീഷ് പഠനം നീക്കാമെന്നു കരുതാതെ സന്തോഷിക്കുന്നവർ പലരും ഉണ്ടായിരിക്കും.
23. ഇംഗ്ലീഷ് പഠിക്കാൻ നിർബന്ധിക്കാതിരുന്നെങ്കിൽ ആ ഭാഷ പഠിക്കാൻ പലരും ശ്രമിക്കുകയില്ല.
24. ഇംഗ്ലീഷ് ഒഴുക്കോടെ സംസാരിക്കാൻ കഴിയുന്നത് നേട്ടമാണെന്ന് കരുതാം.
25. ഒരു ജോലിയും സമൂഹത്തിൽ നല്ല സ്ഥാനവും കിട്ടാൻ ഇംഗ്ലീഷ് സഹായിക്കുമെന്നുള്ളതു കൊണ്ട് ഇംഗ്ലീഷ് പഠിക്കുന്നു.

26. ഇംഗ്ലീഷ് സംസാരിക്കുന്നത് പൊങ്ങച്ചത്തിന്റെ ലക്ഷണമായി കരുതാം.
27. വിദേശ ഭാഷയായ ഇംഗ്ലീഷിന് കേരളത്തിൽ പ്രാധാന്യം നൽകുന്നത് ശരിയല്ല.
28. വിദേശ ഭാഷയായ ഇംഗ്ലീഷിനേക്കാൾ രാഷ്ട്ര ഭാഷയായ ഹിന്ദി പഠിക്കാൻ അവസരം നൽകണം,
29. ഇംഗ്ലീഷ് പഠിക്കാൻ കിട്ടുന്ന അവസരങ്ങൾ പാഴാക്കാതിരിക്കാൻ ശ്രമിക്കണം.
30. ഇംഗ്ലീഷ് പഠിച്ചാൽ ആധുനികനാവുമെന്ന് കരുതുന്നതിനാൽ ഇംഗ്ലീഷ് പഠനത്തിന് മുൻഗണന നൽകുന്നു.
31. ഇംഗ്ലീഷ് പാഠപുസ്തകത്തിലെ ചില ആളുകളുടേയും സമലങ്ങളുടേയും പേര് ഉച്ചരിക്കാൻ പ്രയാസം തോന്നാറുണ്ട്.
32. ഇംഗ്ലീഷ് പാഠപുസ്തകങ്ങളിൽ കഥകൾ ഉള്ളതുകൊണ്ട് ഇംഗ്ലീഷ് പഠനം എളുപ്പമാണ്.
33. ഇംഗ്ലീഷിൽ എന്തെങ്കിലും പറയാൻ നിർബന്ധിക്കുന്നതുകൊണ്ട് ഇംഗ്ലീഷ് ടീച്ചറിന്റെ സാന്നിദ്ധ്യത്തിൽനിന്ന് ഒഴിഞ്ഞുമാറാറുണ്ട്.

Item analysis data of the draft scale of Attitude towards English

Item No.	t-values	Remarks
1	5.13	Selected
2	2.19	"
3	6.14	"
4	2.11	"
5	3.64	"
6	5.73	"
7	4.93	"
8	3.86	"
9	3.19	"
10	1.16	Rejected
11	5.23	Selected
12	5.28	"
13	3.88	"
14	4.57	"
15	6.52	"
16	3.13	"
17	3.71	"
18	4.64	"
19	0.47	Rejected
20	2.00	Selected
21	1.49	Rejected
22	2.03	Selected
23	0.09	Rejected
24	4.06	Selected
25	2.14	"
26	2.48	"
27	2.19	"
28	1.95	"
29	1.86	Rejected
30	3.34	Selected
31	1.47	Rejected
32	0.40	"
33	2.89	Selected

University of Calicut
DEPARTMENT OF EDUCATION
SCALE OF ATTITUDE TOWARDS ENGLISH

Dr. Kamala S. Pillai

&

Meera K.P

നിർദ്ദേശങ്ങൾ

ഇംഗ്ലീഷ് ഭാഷയോടുള്ള നിങ്ങളുടെ പ്രതികരണം അറിയാനുള്ള പ്രസ്താവനകളാണ് നിങ്ങൾക്ക് ഇതോടൊന്നിച്ച് തരുന്നത്.

ഓരോ പ്രസ്താവനയും വായിച്ചശേഷം അതിനെക്കുറിച്ചുള്ള നിങ്ങളുടെ പ്രതികരണം 'യോജിക്കുന്നു' 'അഭിപ്രായമില്ല' 'വിയോജിക്കുന്നു' എന്നീ രീതിയിലാണ് രേഖപ്പെടുത്തേണ്ടത്

ഇതിനായി പ്രസ്താവനകളുടെ ക്രമനമ്പരുകൾക്കെതിരെ A (Agree യോജിക്കുന്നു), U (Undecided അഭിപ്രായമില്ല), D (Disagree വിയോജിക്കുന്നു) എന്ന് സൂചിപ്പിച്ചുകൊണ്ട് 3 വൃത്തങ്ങളിൽ പ്രത്യേക ഉത്തരവലിയും നിങ്ങൾക്ക് തരുന്നുണ്ട്

ഓരോ പ്രസ്താവനയ്ക്കുമെതിരെ നിങ്ങളുടെ പ്രതികരണം യോജിക്കുന്നു എന്നാണെങ്കിൽ A എന്നുള്ള വൃത്തത്തിൽ 'X' അടയാളമിടുക. പ്രതികരണം അഭിപ്രായമില്ല എന്നാണെങ്കിൽ U എന്ന കോളത്തിലും വിയോജിക്കുന്നു എന്നാണെങ്കിൽ D എന്ന കോളത്തിലും ഉള്ള വൃത്തങ്ങളിൽ X അടയാളമിടുക.

ഉദാ:- ഇംഗ്ലീഷ് ഭാഷാപഠനം ആധുനിക ജീവിതത്തിന് ഒഴിച്ചുകൂടാൻ പറ്റാത്തതാണ്.

A	U	D
⊗	○	○

ഈ ഉദാഹരണത്തിൽ A എന്ന കോളത്തിലുള്ള വൃത്തത്തിലാണ് അടയാളം ഇട്ടിരിക്കുന്നത്. ഉത്തരം എഴുതുന്ന ആൾ ഈ പ്രസ്താവനയോട് പരിപൂർണ്ണമായി യോജിക്കുന്നു എന്നതാണ് ഇത് സൂചിപ്പിക്കുന്നത്.

ഇനി ഓരോ പ്രസ്താവനയും വായിച്ച് മുകളിൽ നിർദ്ദേശിച്ചിരിക്കുന്നതുപോലെ നിങ്ങളുടെ പ്രതികരണങ്ങൾ രേഖപ്പെടുത്തുക.

1. ഇംഗ്ലീഷ് ഭാഷാപഠനം ആധുനിക ജീവിതത്തിന് ഒഴിച്ചുകൂടാൻ പറ്റാത്തതാണ്
2. ഉന്നത വിദ്യാഭ്യാസം ആഗ്രഹിക്കുന്നവർക്ക് ഇംഗ്ലീഷ് പരിജ്ഞാനം ഉപകരിക്കും
3. ജീവിത വിജയത്തിന് ഇംഗ്ലീഷ് പരിജ്ഞാനം വേണമെന്നില്ല
4. ഇംഗ്ലീഷ് ഭാഷ വശമാക്കാൻ സ്കൂളിൽ ഇംഗ്ലീഷ് ഭാഷ പഠിക്കണമെന്നില്ല.
5. ഇംഗ്ലീഷിൽ സംസാരിക്കാൻ പഠിച്ചാൽ സമൂഹത്തിൽ മാന്യത കിട്ടും
6. ഞാൻ ഇംഗ്ലീഷ് സിനിമ കാണുന്നത് എനിക്ക് ഇംഗ്ലീഷ് കേൾക്കാനുള്ള താല്പര്യം കൊണ്ടു മാത്രമാണ്.
7. ഇംഗ്ലീഷ് ഉച്ചാരണം നന്നാവുന്നതിനുവേണ്ടി റേഡിയോ/ടി.വി എന്നിവയിലെ വാർത്തകൾ കേൾക്കുന്നത് ഉപകരിക്കും
8. ഇംഗ്ലീഷിൽ എനിക്കൊരേങ്കിലും കത്തെഴുതിയിരുന്നെങ്കിൽ എന്ന് തോന്നാറുണ്ട്
9. ഇംഗ്ലീഷ് ഭാഷ പഠിച്ചാൽ നല്ല ഇംഗ്ലീഷ് പുസ്തകങ്ങൾ, ആനുകാലിക പ്രസിദ്ധീകരണങ്ങൾ എന്നിവ വായിച്ച് ആസ്വദിക്കാമല്ലോ എന്ന് കരുതാറുണ്ട്.
10. മറ്റു സംസ്ഥാനങ്ങളിലും രാജ്യങ്ങളിലും സഞ്ചരിക്കുന്നതിനും ആശയവിനിമയം നടത്തുന്നതിനും ഇംഗ്ലീഷ് പരിജ്ഞാനം വേണം.
11. ഒരു നല്ല ജോലി കിട്ടാൻ ഇംഗ്ലീഷ് അറിഞ്ഞിരിക്കണമെന്ന് കരുതിയാണ് ഇംഗ്ലീഷ് പഠിക്കുന്നത്.
12. ഇംഗ്ലീഷ് പഠിച്ചാൽ വിദേശരാജ്യങ്ങളിൽ ജോലികിട്ടാൻ സാദ്ധ്യത കൂടും
13. ഇംഗ്ലീഷ് അറിഞ്ഞാൽ മറ്റു സംസ്ഥാനങ്ങളിലുള്ളവരുമായി സമ്പർക്കം പുലർത്താനും എന്ന ആഗ്രഹംകൊണ്ട് ഇംഗ്ലീഷ് പഠിക്കുന്നു.
14. മറ്റുള്ള ക്ലാസ്സുകളെ അപേക്ഷിച്ച് ഇംഗ്ലീഷ് ക്ലാസ്സാണ് കൂടുതൽ ആസ്വദിക്കാൻ കഴിയുന്നത്.
15. ഇംഗ്ലീഷ് പരീക്ഷയിൽ പാസാവാൻ അധികമൊന്നും ബുദ്ധിമുട്ടാറില്ല.
16. ഇംഗ്ലീഷ് ക്ലാസ്സിൽ തരുന്ന ഗൃഹപാഠങ്ങൾ ചെയ്തു തീർക്കുമ്പോൾ വെറുതെ കഴിഞ്ഞ സമയം നഷ്ടപ്പെടുത്തി എന്ന് തോന്നാറുണ്ട്.
17. ഇംഗ്ലീഷ് ക്ലാസുകളിൽ പകൽക്കിനാവ് കാണുക പതിവാണ്
18. ഇംഗ്ലീഷ് ക്ലാസുകളിൽ നിന്ന് രക്ഷപ്പെടാനുള്ള മാർഗ്ഗം ആലോചിക്കാറുണ്ട്

19. സ്കൂൾ സിലബസിൽ നിന്നും ഇംഗ്ലീഷ് പഠനം നീക്കം ചെയ്യുകയാണെങ്കിൽ സന്തോഷിക്കുന്നവർ പലരും ഉണ്ടായിരിക്കും
20. ഇംഗ്ലീഷ് ഒഴുക്കോടെ സംസാരിക്കാൻ കഴിയുന്നത് നേട്ടമാണെന്ന് കരുതാം
21. ഒരു ജോലിയും സമൂഹത്തിൽ നല്ല സ്ഥാനവും കിട്ടാൻ ഇംഗ്ലീഷ് സഹായിക്കുമെന്നുള്ളതുകൊണ്ട് ഇംഗ്ലീഷ് പഠിക്കുന്നു.
22. ഇംഗ്ലീഷ് സംസാരിക്കുന്നത് പൊങ്ങച്ചത്തിന്റെ ലക്ഷണമായി കരുതാം
23. വിദേശഭാഷയായ ഇംഗ്ലീഷിന് കേരളത്തിൽ പ്രാധാന്യം നൽകുന്നത് ശരിയല്ല.
24. വിദേശഭാഷയായ ഇംഗ്ലീഷിനേക്കാൾ രാഷ്ട്രഭാഷയായ ഹിന്ദി പഠിക്കാൻ അവസരം നൽകണം
25. ഇംഗ്ലീഷ് പഠിച്ചാൽ ആധുനികനാവുമെന്ന് കരുതുന്നതിനാൽ ഇംഗ്ലീഷ് പഠനത്തിന് മുൻഗണന നൽകുന്നു
26. ഇംഗ്ലീഷിൽ എന്തെങ്കിലും പറയാൻ നിർബന്ധിക്കുന്നതുകൊണ്ട് ഇംഗ്ലീഷ് ടീച്ചറിന്റെ സാന്നിധ്യത്തിൽനിന്ന് ഒഴിഞ്ഞുമാറാറുണ്ട്.

SCALE OF ATTITUDE TOWARDS ENGLISH SCORE SHEET

Name of the Student School.....

Class.....

Sex: B/G.

	Agree A	Undecided U	Disagree D
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**UNIVERSITY OF CALICUT
DEPARTMENT OF EDUCATION**

(FINAL SCALE)

SCALE OF ATTITUDE TOWARDS ENGLISH

Dr. Kamala S. Pillai and Meera K.P.

- 1 Learning of English is essential for modern living.
- 2 Learning of English is very helpful to those who wish to go for higher studies.
- 3 Success in life does not require knowledge of English.
- 4 There is no need for teaching English in schools for learning English
- 5 When we learn to speak English our social status is sure to improve.
- 6 I see English films because I want to hear English.
- 7 Listening to the news in T.V. and Radio will improve the pupil's pronunciation of English.
- 8 I wish if some one had written letters in English
- 9 If we learn English, I think that we can read and enjoy good English books and other current published works.
- 10 A knowledge of English is essential for travelling in other states and countries and for communicating with the people there.
- 11 I learn English because I believe that it is essential to get a good job.
- 12 It is easy to get jobs abroad if we learn English.
- 13 I learn English so that I can communicate with people in other states.
- 14 I enjoy English classes better than other classes.
- 15 We do not take much pain to pass in the English Examination
- 16 On finishing the homework in English, I feel that I had wasted a lot of time unnecessarily.
- 17 I used to day-dream in English classes.
- 18 I used to think of ways to escape from the English classes.

- 19 The ability of talking English fluently is a great achievement.
- 20 I learn English in the hope that it will help in securing a good job and a good place-in society.
- 21 Talking English can be concluded as a sign of vanity.
- 22 It is not right to give importance to a foreign language like English in Kerala.
- 23 We must give opportunities to learn Hindi, our national language, than to learn English, a foreign language.
- 24 I give priority to the learning of English because I believe that it will help me to become a modern man.
- 25 It is found difficult to pronounce the names of people and places in the English text books.
- 26 I often try to move away from the presence of English teacher because she compels me to talk something in English.

**University of Calicut
DEPARTMENT OF EDUCATION**

**SCALE OF ATTITUDE TOWARDS
ENGLISH TEACHERS AND TEACHING**

Dr. KAMALA S. PILLAI and MEERA K.P.

നിർദ്ദേശങ്ങൾ

ഇംഗ്ലീഷ് ഭാഷയോടുള്ള നിങ്ങളുടെ പ്രതികരണം അറിയാനുള്ള പ്രസ്താവനകളാണ് നിങ്ങൾക്ക് ഇതോടൊന്നിച്ചു തരുന്നത്.

ഓരോ പ്രസ്താവനയും വായിച്ചശേഷം അതിനെക്കുറിച്ചുള്ള നിങ്ങളുടെ പ്രതികരണം 'യോജിക്കുന്നു', 'അഭിപ്രായമില്ല', 'വിയോജിക്കുന്നു' എന്നീ രീതിയിലാണ് രേഖപ്പെടുത്തേണ്ടത്. ഇതിനായി പ്രസ്താവനകളുടെ ക്രമനമ്പരകൾക്കെതിരെ **A-** (Agree - യോജിക്കുന്നു) **U-Undecided** - അഭിപ്രായമില്ല) **D-**(Disagree - വിയോജിക്കുന്നു) എന്ന് സൂചിപ്പിച്ചുകൊണ്ട് 3 വൃത്തങ്ങളിൽ പ്രത്യേക ഉത്തരവലിയും നിങ്ങൾക്ക് തരുന്നുണ്ട്.

ഓരോ പ്രസ്താവനയ്ക്കുമെതിരെ നിങ്ങളുടെ പ്രതികരണം 'യോജിക്കുന്നു' എന്നാണെങ്കിൽ **A** എന്നതിനുള്ള വൃത്തത്തിൽ '**X**' അടയാളമിടുക. 'അഭിപ്രായമില്ല' എന്നാണെങ്കിൽ **U** എന്ന കോളത്തിലും വിയോജിക്കുന്നു എന്നാണെങ്കിൽ **D** എന്ന കോളത്തിലും ഉള്ള വൃത്തങ്ങളിൽ '**X**' അടയാളമിടുക.

ഉദാ:— ഇംഗ്ലീഷ് നന്നായി പഠിപ്പിക്കുകയാണെങ്കിൽ വിദ്യാർത്ഥികൾക്ക് ഇംഗ്ലീഷ് ഭാഷ പഠിക്കുവാൻ താൽപര്യം കൂടും.

- | | | |
|-----------------------|-----------------------|-----------------------|
| A | U | D |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

ഈ ഉദാഹരണത്തിന് **D** എന്ന കോളത്തിലുള്ള വൃത്തത്തിലാണ് അടയാളം ഇട്ടിരിക്കുന്നത്. ഉത്തരം ഏഴുതുന്ന ആൾ ഈ പ്രസ്താവനയോട് വിയോജിക്കുന്നു എന്നാണ് ഇത് സൂചിപ്പിക്കുന്നത്.

ഇനി ഓരോ പ്രസ്താവനയും വായിച്ചു മുകളിൽ നിർദ്ദേശിച്ചിരിക്കുന്നതുപോലെ നിങ്ങളുടെ പ്രതികരണം രേഖപ്പെടുത്തുക.

1. ക്ലാസിൽ ഇംഗ്ലീഷ് പഠിപ്പിക്കുന്നത് ഞാൻ ആസ്വദിക്കാറുണ്ട്.
2. ഇംഗ്ലീഷ് പഠനത്തിൽ അഭ്യർത്ഥകൻ നിരന്തരമായ മേൽനോട്ടം തരുന്നുണ്ട്.
3. ഇംഗ്ലീഷ് ടീച്ചർ നല്ല കാര്യക്ഷമത ഉള്ളവരാണ്.
4. ഇംഗ്ലീഷ് ടീച്ചർ നല്ല സഹതാപവും ആത്മാർത്ഥതയും ഉള്ളവരാണ്.
5. ഇംഗ്ലീഷ് ടീച്ചറിന്റെ സഹായമനോഭാവം കൊണ്ട് സംശയങ്ങൾ തീർക്കാൻ അവരെ സമീപിയ്ക്കാൻ മടിയില്ല.
6. ഇംഗ്ലീഷ് ക്ലാസുകളിൽ സമാധാനവും ശാന്തതയും ഉള്ള അന്തരീക്ഷമാണ്.
7. ഇംഗ്ലീഷ് ക്ലാസുകളിൽ കഥകളും തമാശകളും കൊണ്ട് രസമുള്ളതാണ്.
8. ഇംഗ്ലീഷ് ടീച്ചർ, ഞങ്ങളെ ക്ലാസിൽ ഇംഗ്ലീഷ് സംസാരിയ്ക്കാനുള്ള പ്രചോദനം തരാറുണ്ട്.
9. ഇംഗ്ലീഷ് പഠയുമ്പോൾ തെറ്റാകാൻ വന്നാലും ടീച്ചർ അപ്പോഴതന്നെ ശരിയാക്കി തരുന്നുണ്ട്.
10. ഇംഗ്ലീഷ് മലയാളത്തിൽ പഠിപ്പിച്ചിരുന്നെങ്കിൽ എത്ര നന്നായിരുന്നു എന്നു കരുതുന്നു.
11. ഇംഗ്ലീഷ് കവിതകൾ അഭ്യർത്ഥകൻ ഞങ്ങളിൽ ചൊല്ലി കേൾപ്പിച്ച് ആസ്വദിപ്പിക്കാറുണ്ട്.
12. ഇംഗ്ലീഷ് വാക്കുകളുടെ ശരിയായ ഉച്ചാരണത്തിന് അഭ്യർത്ഥകൻ ധാരാളം സമയം ചെലവഴിക്കാറുണ്ട്.
13. പഠന സഹായികളുടെ സഹായത്തോടെയുള്ള ഇംഗ്ലീഷ് ക്ലാസുകളിൽക്കായി ഞങ്ങൾ എന്നും കാത്തിരിക്കാറുണ്ട്.
14. ഇംഗ്ലീഷ് ക്ലാസുകളിലെ പഠനവൃത്തികളിൽ ഞങ്ങൾ സജീവമായി പങ്കെടുക്കാറുണ്ട്.
15. ഇംഗ്ലീഷ് ടീച്ചർ കുട്ടികളെ പ്രത്യേകം ശ്രദ്ധയ്ക്കൊത്തുകൊണ്ട് മറ്റു വിഷയങ്ങളിലെ ടീച്ചർമാരെയാണ് ഇഷ്ടം.
16. ഏഴുപ്ലാഴ്ചയും ശാസിക്കാറുള്ള ഇംഗ്ലീഷ് ടീച്ചർ ക്ലാസിൽ വരാതിരുന്നെങ്കിൽ ഏന്ന് ആശിക്കാറുണ്ട്.
17. ഇംഗ്ലീഷ് ക്ലാസിൽ ഉചിതമായ നിർദ്ദേശങ്ങളും സഹായവും കിട്ടാത്തതുകൊണ്ട് ഇംഗ്ലീഷ് പരീക്ഷയിൽ അടിക്കുമ്പോൾ പേടിതോന്നാറുണ്ട്.
18. ഇംഗ്ലീഷ് ടീച്ചർ ഞങ്ങളെ പാഠപുസ്തകത്തിലെ ഇംഗ്ലീഷിന് പുറമെ മറ്റു പുസ്തകങ്ങളാണെന്നും വായിക്കാൻ പ്രേരിപ്പിക്കാറില്ല.
19. ഇംഗ്ലീഷിൽ ഞങ്ങളെക്കൂടെ ഏത് സംശയവും തീർത്തുതരാൻ ഇംഗ്ലീഷ് ടീച്ചർ തയ്യാറാണ്.
20. ഇംഗ്ലീഷ്-ഇംഗ്ലീഷിൽ തന്നെ പഠിപ്പിച്ചിരുന്നെങ്കിൽ ഏന്ന് തോന്നാറുണ്ട്.
21. ഇംഗ്ലീഷ് ടീച്ചർ ക്ലാസിൽ വെച്ച് ഇംഗ്ലീഷ് പഠയാനുള്ള അവസരം തന്നിരുന്നെങ്കിൽ എന്ന് ആശിക്കാറുണ്ട്.
22. ഇംഗ്ലീഷിലുള്ള ഡിക്ഷണറി നോക്കി അർത്ഥം കണ്ടുപിടിക്കാൻ ടീച്ചർ അവസരം തരാറുണ്ട്.
23. യുവജനോത്സവത്തിൽ ഇംഗ്ലീഷിലുള്ള മത്സരങ്ങളിൽ പങ്കെടുക്കാൻ ടീച്ചർ പരിശീലിപ്പിക്കാറുണ്ട്.
24. ഇംഗ്ലീഷ് ടീച്ചറുമായി ഇടപഴകാൻ അവസരം തരാറില്ല.
25. ഇംഗ്ലീഷ് പരീക്ഷയിൽ നല്ല മാർക്ക് കിട്ടാത്ത കുട്ടികളെ അവഗണിക്കാറുണ്ട്.

26. ഇംഗ്ലീഷിൽ എന്തെങ്കിലും പറയാൻ ശ്രമിക്കാറുള്ള കുട്ടികളെ ഇംഗ്ലീഷ് ടീച്ചർ പരിഹസിക്കാറുണ്ട്.
27. ഇംഗ്ലീഷിലെ ഗൃഹപാഠങ്ങൾ ചെയ്യുതീർക്കാറുണ്ടോ എന്ന് ഇംഗ്ലീഷ് അദ്ധ്യാപിക അന്വേഷിക്കാറില്ല.
28. ഇംഗ്ലീഷ് ടീച്ചർ ഒരിയ്ക്കലൈങ്കിലും ചോദ്യം ചോദിക്കാത്ത കുട്ടികൾ ക്ലാസിലുണ്ട്.
29. ഇംഗ്ലീഷ് ടീച്ചർ. ഇംഗ്ലീഷ് പാഠപുസ്തകം വെറുതെ വായിക്കുന്നതുകൊണ്ട് ക്ലാസിൽ ഉറക്കം വരാറുണ്ട്.
30. ഇംഗ്ലീഷ് രചനകൾ എന്ന് പേരിൽ ബോർഡിൽ നിന്നും പകർത്തി എഴുതുന്നതുകൊണ്ട് ക്ലാസ് വിസേമാവാറുണ്ട്.
31. ഇംഗ്ലീഷ് ടീച്ചർ വിദ്യാർത്ഥികളുടെ ഓരോരുത്തരുടേയും പേരുകൾ വേഗം പഠിക്കുന്നു.
32. ഇംഗ്ലീഷ് പരീക്ഷയിൽ നല്ല മാർക്ക് കിട്ടാറുള്ള കുറച്ചു കുട്ടികളുടെ പേര് മാത്രമേ ഇംഗ്ലീഷ് അദ്ധ്യാപകന് അറിയുകയുള്ളൂ.
33. ഇംഗ്ലീഷ് അദ്ധ്യാപകൻ, ഇംഗ്ലീഷിൽ കൂടുതൽ മാർക്ക് കിട്ടുന്നവരോടും കിട്ടാത്തവരോടും പക്ഷാഭേദത്തോടെ പെരുമാറുന്നു.
34. കുറച്ചു ക്ലാസുകളെ അപേക്ഷിച്ച് ഇംഗ്ലീഷ് ക്ലാസാണ് കൂടുതൽ ആസ്വദിക്കാൻ കഴിയുന്നത്.
35. കുട്ടികൾക്ക് ഇംഗ്ലീഷ് ടീച്ചറെ പേടിയാണ്.

13

**Item Analysis data of the draft scale of
Attitude towards English Teachers and Teaching**

Item No.	t-values	Remarks
1	4.58	Selected
2	7.15	"
3	6.77	"
4	7.09	"
5	8.42	"
6	8.69	"
7	5.79	"
8	7.13	"
9	5.33	"
10	3.31	"
11	6.90	"
12	4.07	"
13	3.15	"
14	5.63	"
15	6.07	"
16	7.55	"
17	6.18	"
18	2.15	"
19	4.59	"
20	5.71	"
21	3.77	"
22	3.47	"
23	3.16	"
24	2.22	"
25	4.11	"
26	5.91	"
27	3.90	"
28	4.92	"
29	7.02	"
30	5.89	"
31	3.42	"
32	6.09	"
33	2.95	"
34	4.32	"
35	1.16	Rejected

UNIVERSITY OF CALICUT
DEPARTMENT OF EDUCATION
SCALE OF ATTITUDE TOWARDS ENGLISH TEACHERS AND TEACHING

Dr. KAMALA S. PILLAI

AND

MEERA. K.P

നിർദ്ദേശങ്ങൾ

ഇംഗ്ലീഷ് ഭാഷയോടുള്ള നിങ്ങളുടെ പ്രതികരണം അറിയാനുള്ള പ്രസ്താവനകളാണ് നിങ്ങൾക്ക് ഉതോടൊന്നിച്ച് തരുന്നത്.

ഓരോ പ്രസ്താവനയും വായിച്ചശേഷം അതിനെക്കുറിച്ചുള്ള നിങ്ങളുടെ പ്രതികരണം 'യോജിക്കുന്നു' 'അഭിപ്രായമില്ല' 'വിയോജിക്കുന്നു' എന്നീ രീതിയിലാണ് രേഖപ്പെടുത്തുന്നത്. ഇതിനായി പ്രസ്താവനകളുടെ ക്രമനമ്പരകൾക്കെതിരെ A(Agree - യോജിക്കുന്നു), U (Undecided - അഭിപ്രായമില്ല), D (Disagree - വിയോജിക്കുന്നു) എന്ന് സൂചിപ്പിച്ചുകൊണ്ട് 3 വൃത്തങ്ങളുടെ പ്രത്യേക ഉത്തരവലിയും നിങ്ങൾക്ക് തരുന്നുണ്ട്.

ഓരോ പ്രസ്താവനയ്ക്കുമെതിരെ നിങ്ങളുടെ പ്രതികരണം 'യോജിക്കുന്നു' എന്നാണെങ്കിൽ A എന്നതിനുള്ള വൃത്തത്തിൽ 'X' അടയാളമിടുക. 'അഭിപ്രായമില്ല' എന്നാണെങ്കിൽ U എന്ന കോളത്തിലും വിയോജിക്കുന്നു എന്നാണെങ്കിൽ D എന്ന കോളത്തിലും ഉള്ള വൃത്തങ്ങളിൽ 'X' അടയാളമിടുക.

ഉദാ: ഇംഗ്ലീഷ് നന്നായി പഠിപ്പിക്കുകയാണെങ്കിൽ വിദ്യാർത്ഥികൾക്ക് ഇംഗ്ലീഷ് ഭാഷ പഠിക്കുവാൻ താൽപര്യം കൂടും

A U D
○ ○ ⊗

ഈ ഉദാഹരണത്തിന് D എന്ന കോളത്തിലുള്ള വൃത്തത്തിലാണ് അടയാളം ഇട്ടിരിക്കുന്നത്. ഉത്തരം എഴുതുന്ന ആൾ ഈ പ്രസ്താവനയോട് വിയോജിക്കുന്നു എന്നാണ് ഇത് സൂചിപ്പിക്കുന്നത്.

ഇനി ഓരോ പ്രസ്താവനയും വായിച്ച് മുകളിൽ നിർദ്ദേശിച്ചിരിക്കുന്നതുപോലെ നിങ്ങളുടെ പ്രതികരണം രേഖപ്പെടുത്തുക.

1. ക്ലാസ്സിൽ ഇംഗ്ലീഷ് പഠിപ്പിക്കുന്നത് ഞാൻ ആസ്വദിക്കാറുണ്ട്
2. ഇംഗ്ലീഷ് പഠനത്തിൽ അധ്യാപകൻ നിരന്തരമായ മേൽനോട്ടം തരുന്നുണ്ട്
3. ഇംഗ്ലീഷ് ടീച്ചർ നല്ല കാര്യക്ഷമത ഉള്ളവരാണ്
4. ഇംഗ്ലീഷ് ടീച്ചർ നല്ല സഹതാപവും ആത്മാർത്ഥതയും ഉള്ളവരാണ്
5. ഇംഗ്ലീഷ് ടീച്ചറിന്റെ സഹായമനോഭാവം കൊണ്ട് സംശയങ്ങൾ തീർക്കാൻ അവരെ സമീപിക്കാൻ മടിയില്ല.
6. ഇംഗ്ലീഷ് ക്ലാസ്സുകളിൽ സമാധാനവും ശാന്തതയും ഉള്ള അന്തരീക്ഷമാണ്.
7. ഇംഗ്ലീഷ് ക്ലാസ്സുകൾ കഥകളും തമാശകളും കൊണ്ട് രസമുള്ളതാണ്
8. ഇംഗ്ലീഷ് ടീച്ചർ, ഞങ്ങളെ ക്ലാസിൽ ഇംഗ്ലീഷ് സംസാരിക്കാനുള്ള പ്രചോദനം തരാറുണ്ട്
9. ഇംഗ്ലീഷ് പറയുമ്പോൾ തെറ്റ് വന്നാലും ടീച്ചർ അപ്പോൾതന്നെ ശരിയാക്കി തരുന്നുണ്ട്.
10. ഇംഗ്ലീഷ് മലയാളത്തിൽ പഠിപ്പിച്ചിരുന്നെങ്കിൽ എത്ര നന്നായിരുന്നു എന്നു കരുതുന്നു.
11. ഇംഗ്ലീഷ് കവിതകൾ അധ്യാപകൻ താളത്തിൽ ചൊല്ലി കേൾപ്പിച്ച് ആസ്വദിപ്പിക്കാറുണ്ട്.
12. ഇംഗ്ലീഷ് വാക്കുകളുടെ ശരിയായ ഉച്ചാരണത്തിന് അധ്യാപകൻ ധാരാളം സമയം ചെലവഴിക്കാറുണ്ട്.
13. പഠനസഹായികളുടെ സഹായത്തോടെയുള്ള ഇംഗ്ലീഷ് ക്ലാസുകൾക്കായി ഞങ്ങൾ എന്നും കാത്തിരിക്കാറുണ്ട്
14. ഇംഗ്ലീഷ് ക്ലാസ്സുകളിലെ പഠനവൃത്തികളിൽ ഞങ്ങൾ സജീവമായി പങ്കെടുക്കാറുണ്ട്.
15. ഇംഗ്ലീഷ് ടീച്ചർ കുട്ടികളെ പ്രത്യേകം ശ്രദ്ധിക്കാത്തതുകൊണ്ട് മറ്റു വിഷയങ്ങളിലെ ടീച്ചർമാരെയാണ് ഇഷ്ടം
16. എപ്പോഴും ശാസിക്കാറുള്ള ഇംഗ്ലീഷ് ടീച്ചർ ക്ലാസ്സിൽ വരാതിരുന്നെങ്കിൽ എന്ന് ആശിക്കാറുണ്ട്.
17. ഇംഗ്ലീഷ് ക്ലാസിൽ ഉചിതമായ നിർദ്ദേശങ്ങളും സഹായവും കിട്ടാത്തതുകൊണ്ട് ഇംഗ്ലീഷ് പരീക്ഷ അടുക്കുമ്പോൾ പേടി തോന്നാറുണ്ട്
18. ഇംഗ്ലീഷ് ടീച്ചർ ഞങ്ങളെ പാഠപുസ്തകത്തിലെ ഇംഗ്ലീഷിന് പുറമെ മറ്റു പുസ്തകങ്ങളൊന്നും വായിക്കാൻ പ്രേരിപ്പിക്കാറില്ല.
19. ഇംഗ്ലീഷിൽ ഞങ്ങൾക്കുള്ള ഏത് സംശയവും തീർത്തുതരാൻ ഇംഗ്ലീഷ് ടീച്ചർ തയ്യാറാണ്
20. ഇംഗ്ലീഷ് ഇംഗ്ലീഷിൽ തന്നെ പഠിപ്പിച്ചിരുന്നെങ്കിൽ എന്നു തോന്നാറുണ്ട്

21. ഇംഗ്ലീഷ് ടീച്ചർ ക്ലാസിൽ വെച്ച് ഇംഗ്ലീഷ് പറയാനുള്ള അവസരം തന്നിരുന്നെങ്കിൽ എന്ന് ആശിക്കാറുണ്ട്
22. ഇംഗ്ലീഷിലുള്ള ഡിക്ഷണറി നോക്കി അർത്ഥം കണ്ടുപിടിക്കാൻ ടീച്ചർ അവസരം തരാറുണ്ട്
23. യുവജനോത്സവത്തിൽ ഇംഗ്ലീഷിലുള്ള മത്സരങ്ങളിൽ പങ്കെടുക്കാൻ ടീച്ചർ പരിശീലിപ്പിക്കാറുണ്ട്
24. ഇംഗ്ലീഷ് ടീച്ചറുമായി ഇടപഴകാൻ അവസരം തരാറില്ല.
25. ഇംഗ്ലീഷ് പരീക്ഷയിൽ നല്ല മാർക്ക് കിട്ടാത്ത കുട്ടികളെ അവഗണിക്കാറുണ്ട്
26. ഇംഗ്ലീഷിൽ എന്തെങ്കിലും പറയാൻ ശ്രമിക്കാറുള്ള കുട്ടികളെ ഇംഗ്ലീഷ് ടീച്ചർ പരിഹസിക്കാറുണ്ട്
27. ഇംഗ്ലീഷിലെ ഗൃഹപാഠങ്ങൾ ചെയ്തുതീർക്കാറുണ്ടോ എന്ന് ഇംഗ്ലീഷ് അധ്യാപിക അന്വേഷിക്കാറില്ല
28. ഇംഗ്ലീഷ് ടീച്ചർ ഒരിക്കലേങ്കിലും ചോദ്യം ചോദിക്കാത്ത കുട്ടികൾ ക്ലാസിലുണ്ട്
29. ഇംഗ്ലീഷ് ടീച്ചർ, ഇംഗ്ലീഷ് പാഠപുസ്തകം വെറുതെ വായിക്കുന്നതുകൊണ്ട് ക്ലാസിൽ ഉറക്കം വരാറുണ്ട്
30. ഇംഗ്ലീഷ് രചനകൾ എന്ന പേരിൽ ബോർഡിൽ നിന്നും പകർത്തി എഴുതുന്നതുകൊണ്ട് ക്ലാസ്സ് വിരസമാവാറുണ്ട്
31. ഇംഗ്ലീഷ് ടീച്ചർ വിദ്യാർത്ഥികളുടെ ഓരോരുത്തരുടെയും പേരുകൾ വേഗം പഠിക്കുന്നു
32. ഇംഗ്ലീഷ് പരീക്ഷയിൽ നല്ല മാർക്ക് കിട്ടാറുള്ള കുറച്ച് കുട്ടികളുടെ പേര് മാത്രമെ ഇംഗ്ലീഷ് അധ്യാപകന് അറിയുകയുള്ളൂ.
33. ഇംഗ്ലീഷ് അധ്യാപകൻ, ഇംഗ്ലീഷിൽ കൂടുതൽ മാർക്ക് കിട്ടുന്നവരോടും കിട്ടാത്തവരോടും പക്ഷാഭേദത്തോടെ പെരുമാറുന്നു
34. മറ്റു ക്ലാസുകളെ അപേക്ഷിച്ച് ഇംഗ്ലീഷ് ക്ലാസാണ് കൂടുതൽ ആസ്വദിക്കാൻ കഴിയുന്നത്

SCALE OF ATTITUDE TOWARDS ENGLISH TEACHERS AND TEACHING

SCORE SHEET

Name of the Student..... School.....

Class.....

Sex: B/G

	Agree A	Undecided U	Disagree D
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
14	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
30	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
36	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**UNIVERSITY OF CALICUT
DEPARTMENT OF EDUCATION**

(FINAL SCALE)

SCALE OF ATTITUDE TOWARDS ENGLISH TEACHERS AND TEACHING

Dr. Kamala S. Pillai and Meera K.P.

- 1 I enjoy teaching English in the English Classes.
- 2 The English teacher gives continuous guidance in learning English.
- 3 The English teacher is very competent.
- 4 The English teacher is sympathetic and sincere.
- 5 Since the English teacher is very helpful we do not have any hesitation in approaching his/her to clear our doubts.
- 6 The atmosphere in English class is very calm and quiet.
- 7 Since they deal with stories and funfare the English classes are very interesting.
- 8 The English teacher gives us inspiration to talk in English in the English classes.
- 9 When there is errors in talking English the teacher corrects then and there.
10. We feel that English, if taught in Malayalam would have been better.
- 11 The English teacher makes us enjoy the poems by reciting them rhythmically
- 12 Our teacher devotes a lot of time for teaching the correct pronunciation of words
- 13 We always wait for the English classes which are usually accompanied by teaching aids
- 14 We actively participate in the learning activities of English classes.

- 15 Since the English teacher does not pay individual attention to the students, we like the other teachers.
- 16 We wish the English teacher not to come to the class because she always scolds us.
- 17 We are afraid of English examination since no help and instructions are made available to us in the class.
- 18 English teacher does not encourage us to read English other than what is there in the text.
- 19 English teacher is ready to solve any of our doubts in English.
- 20 I wish English to be taught in English itself.
- 21 It would be better if the English teacher had given us opportunities in the class to talk in English.
- 22 English teacher gives us opportunities to refer the dictionary for finding out the meaning of words.
- 23 English teacher gives us training to participate in the English items in the youthfestival.
- 24 No opportunity is given to us for mingling with the English teachers.
- 25 English teacher neglects those students who do not get good marks in English.
- 26 English teacher makes fun of those students who try to speak something in English.
- 27 English teacher does not make sure of whether we do our homeworks in English.
- 28 There are some students in our class who were never asked to answer any questions by the English teacher.
- 29 We fall asleep in the English classroom, since the teacher casually goes on reading the text.
- 30 During the English composition class, we just copy something from the blackboard and so the composition classes become boring.
- 31 English teacher learns the names of all the students very easily.

- 32 English teacher knows the names of only those students who get good marks in English.
- 33 English teacher shows partiality to those who get good marks and those who get poor marks in English.
- 34 I enjoy English classes better than all the other classes.

**UNIVERSITY OF CALICUT
DEPARTMENT OF EDUCATION**

(DRAFT SCALE)

ACHIEVEMENT TEST IN ENGLISH

MEERA K.P.

INSTRUCTIONS

This is a test in English. Do not write anything in the question paper. Write your answers in the sheet provided. The serial numbers of the questions are given in the answer sheet. For each questions, there are four answers A, B, C, D. Out of them only one is correct. In the answer sheet, for each question it is written A, B, C and D. Choose the correct answer and put a mark 'X' against the correct letter A, B, C or D in the answer sheet.

Model

Choose the right one word for the words underlined in the following sentence.

It is my mother's brother

- A. Cousin B. Uncle C. Grand Father D. Step brother

Mark your answer like this:

Q. No. A B C D

Here 'B' is the correct answer

15 Lakshmi's father is a spend thrift; but her brother is a _____
 A begger B master C miser D servant

IV Fill in the blank choosing the correct word from the alternatives given to make a sensible sentence.

16 Women are given _____ from military service.
 A exception B exemption
 C concession D distinction

17 The doctor gave him an injection _____ the temperature.
 A to get down B to bring down
 C to put down D to put in

18 I was seated _____ the speaker.
 A between B around C among D beside

19 Our teacher has a _____ knowledge of her subject.
 A thorough B throw C thoughtful D through

20 They demonstrated a _____ of their new car.
 A module B modal C model D mould

21 I was _____ by their kindness.
 A effected B affected
 C afflicted D articulated

V Fill in the blanks in the following sentences with correct preposition from the alternatives given.

22 Will you play _____ me for a while?
 A by B from C in D with

23 put the milk _____ the table and cover it by cloth.
 A in B on C at D for

24 You must apologise _____ him.
 A to B of C about D under

25 What is the best way _____ cooking rice?
 A by B from C of D with

26 The childran _____ the street to the other side.
 A after B across C before D with

27 I prefer coffee _____ tea.
 A with B to C for D from

VI Find out the correct spelling of the given word's meaning from the alternatives given below:

28 REQUIRE

A need B nid C naid D neede

29 QUEER

A strane B strange C strage D srange

30 INDEPENDENCE

A fridem B fidam C freedom D friedom

31 ALIGHT

A get down B git done C get den D get down

32 COMMENCE

A sturt B strt C start D startt

VII Find out the word with the correct spelling from the alternatives given.

33 A prrofessor
C professor

B professore
D professor

34 A siming B sweming C swieming D swimming

35 A seperate B seperte C separate D saparate

36 A luncheon B lanchon C lenchen D luncon

37 A misarable B miserable C miesereble D meserable

VIII Fill in the blanks with the correct form of the verb given in brackets:

38 Raju usually _____ (bring) lunch from home

A bring B brings C bringing D brought

39 The boy _____ (break) the glass window.

A was broken B is broken C has broken D have broken

40 India _____ (become) an independent country in 1947.

A has become B becoming C have become D became

41 If you had worked hard, you _____ (pass) the examination.

A will pass B would pass C would have passed D would have been passed

42 He _____ (go) out ten minutes ago.

A is going B went C has gone D have gone

43 My aunt _____ (reach) Bombay tomorrow.

A reached B has reached C is reaching D will reach

44 By the time the fire engine arrived, the fire _____ (distroy) many huts.
A will destroy B destroyed C had destroyed D is destroyed

IX Fill in the blanks in the following sentences by choosing the correct conjunction from the alternatives given below.

45 She will obey _____ I say to her.
A whoever B whatever C whichever D whenever

46 _____ you drive carefully, you will meet accidents.
A if B unless C until D however

47 The strike has lasted _____ six months.
A by B for C since D so that

48 _____ I take your book?
A must B might C may D ought

49 I can give you some books in English, but I cannot give you _____ books in Tamil
A some B more C any D lot

X Complete the following sentences with the correct question tag from the alternatives given.

50 I was late, _____ ?
A did he? B was I? C wasn't I? D shall I?

51 She likes music, _____ ?
A was she? B doesn't she? C did she? D didn't she?

52 They ate apple, _____ ?
A didn't they? B was it? C aren't they? D did they

53 They will do it, _____ ?
A shall I? B will they? C won't they? D are they?

XI The following sentences contain one error part. Find out that part and write the letter that denotes it in your answer sheet.

54 The capital of Kerala is Thiruvananthapuram.
A B C D

55 The children is walking along a busy street.
A B C D

56 Rama as well as Krishna dance well.
A B C D

57 The lady is too fat for run
A B C D

58 One of the following sentences are wrong.
A B C D

69. The superlative degree of "No other flower is as beautiful as Rose" is

- A Rose is more beautiful than all other flowers
- B Rose is as beautiful as any other flowers
- C Rose is the most beautiful flower
- D All other flowers are as beautiful as Rose.

70. The positive degree of "Diamond is the most precious stone is"

- A No other stone is as precious as diamond
- B Some stones are as precious as diamond
- C Diamond is more precious than other stones
- D Diamond is one of the most precious stones

XV. Read the following passage carefully and then give answers to the questions.

A great part of Arabia is desert. Here there is nothing but sand and rock. The sand is so hot that you cannot walk over it with your bare feet in the day time. Here and there in the desert are springs of water that come from deep under the ground so deep that the sun can not dry them up. These springs are few and far apart, but wherever there is one, green grass very soon covers the ground all around it. Soon fig trees and palm trees grow tall and graceful making a cool, shady place around the spring. Such a place is called an oasis.

The Arabs who are in the cities live in the desert all the year round. They live in tents that can be put up and taken down very easily and quickly, so that they can move from one oasis to another seeking grass and water for their sheep, goats camels and horses. These desert Arabs eat ripe sweet figs and also the dates that grow on the palm trees.

These Arabs have the finest horses in the world. He loves his horse very much. He never puts heavy loads upon his horse.

71. From where do the people of Arabia get water?

- A. shady places
- B. sands
- C. deep under the ground
- D. surface of spring

72. What is an oasis?

- A. springs of water in a desert
- B. palm trees and fig trees in a desert
- C. cool shady place around the spring in a desert
- D. green grass around the ground in a desert

73. Why do the Arabs live in tents?

- A. The Arabs don't like big houses
- B. The Arabs want to wander the whole desert
- C. Tents can be put up and taken down easily
- D. It is easy for the Arabs to move from one fertile place in the desert to another

74. How do you know that Arabs love their horse very much?

- A. They have the finest horses in the world.
- B. They feed and look after horses very well.
- C. They never put heavy load on their horse.
- D. They live in tents to feed their horses.

75. What do most of the desert Arabs eat?

- A. Different kinds of fruits and nuts
- B. Fruits and vegetables
- C. Leaves and palm trees
- D. Vegetables and meat

XVI. Read the passage carefully and answer the following questions

Cocoa, coffee and tea are the three most popular drinks in the modern world, and of these, tea is the most universal. In many parts of Europe and Asia it is the constant refreshment of the intellectual and physical labourer.

The Chinese were the first to use tea. There are references to tea in Chinese poems of the fifth and sixth centuries. From China it spread west through Asia and then gradually crossed to Europe. Tea was first brought to Europe by the Dutch traders of the sixteenth century, but it was not introduced to Britain, now the largest consumer, until 1645. At that time, it was an aristocratic drink, and a very costly luxury.

Tea consists of the prepared leaves of a kind of bushy plant. These bushes requires a moderate temperature for a healthy growth. Extreme cold and extreme heat prevent the growth of this plant. They grow best in the hilly tracts of monsoon lands like India and China.

76. What is the peculiarity in the use of tea over cocoa and coffee?
- A. Tea is a drink used by modern people.
 - B. Tea is a drink used by upper class people.
 - C. Tea is a drink used by most people in the world.
 - D. Tea is a constant refreshment of the intellectuals.
77. What sort of climate does the tea bushes require to grow well?
- A. severe heat and rain
 - B. heavy rain
 - C. moderate temperature
 - D. extreme cold
78. Where does the tea plants grow best?
- A. monsoon lands
 - B. forest areas
 - C. hilly tracts of monsoon lands
 - D. joy land
79. People of which country are using tea mostly?
- A. Netherlands
 - B. England
 - C. India
 - D. Portugal
80. From which part of the tea plant the drink tea is prepared?
- A. roots
 - B. fruits
 - C. seeds
 - D. leaves

ACHIEVEMENT TEST IN ENGLISH - ITEM ANALYSIS

Item No. (1)	PU (2)	PL (3)	DI (4)	DP (5)	Item Number selected for final test (6)
1	94	64	0.79	0.30	1
2	93	46	0.69	0.47	2
3	89	36	0.62	0.53	3
4	71	22	0.46	0.49	4
5	81	29	0.55	0.52	5
6	12	18	0.15	0.06	
7	54	43	0.48	0.11	
8	80	19	0.49	0.61	6
9	89	52	0.70	0.37	7
10	52	31	0.41	0.21	
11	9	43	0.26	-0.34	
12	97	29	0.63	0.08	
13	93	44	0.68	0.49	8
14	70	26	0.48	0.44	9
15	94	73	0.83	0.21	
16	13	18	0.15	-0.05	
17	69	28	0.48	0.64	10
18	92	38	0.65	0.54	11
19	80	16	0.48	0.64	12
20	57	43	0.50	0.14	
21	49	29	0.39	0.20	
22	89	44	0.66	0.45	34
23	93	40	0.66	0.53	35
24	67	22	0.44	0.45	36
25	48	31	0.39	0.17	
26	91	48	0.69	0.43	
27	87	25	0.56	0.62	37

1	2	3	4	5	6
28	92	60	0.76	0.32	13
29	95	63	0.79	0.32	14
30	100	80	0.90	0.20	
31	99	77	0.88	0.22	
32	98	66	0.82	0.32	15
33	70	16	0.43	0.54	16
34	95	55	0.75	0.40	17
35	54	23	0.42	0.31	18
36	60	30	0.48	0.30	19
37	88	36	0.57	0.52	20
38	59	27	0.44	0.32	42
39	38	29	0.39	0.09	
40	78	41	0.59	0.37	43
41	52	24	0.38	0.28	44
42	43	19	0.31	0.24	45
43	79	38	0.58	0.38	46
44	79	42	0.60	0.37	47
45	85	43	0.64	0.42	21
46	32	21	0.26	0.11	
47	24	22	0.23	0.02	
48	60	27	0.43	0.33	22
49	51	49	0.39	0.24	
50	90	50	0.59	0.62	23
51	85	30	0.57	0.55	24
52	63	18	0.40	0.45	25
53	79	33	0.56	0.46	26
54	90	64	0.77	0.26	27
55	76	24	0.50	0.52	28
56	52	34	0.43	0.18	
57	75	29	0.52	0.46	29
58	72	43	0.57	0.29	30
59	23	43	0.33	-0.20	49
60	50	22	0.36	0.28	

1	2	3	4	5	6
61	39	31	0.35	0.08	
62	80	25	0.52	0.55	50
63	23	24	0.23	-0.01	
64	31	23	0.27	0.08	
65	70	28	0.49	0.42	31
66	83	30	0.56	0.53	32
67	55	10	0.32	0.45	33
68	49	24	0.36	0.25	48
69	51	27	0.39	0.24	
70	31	24	0.27	0.07	
71	77	46	0.61	0.31	
72	45	22	0.33	0.23	
73	38	24	0.31	0.14	38
74	75	44	0.59	0.51	39
75	32	26	0.29	0.06	
76	58	42	0.50	0.16	
77	76	37	0.56	0.39	
78	44	36	0.40	0.08	40
79	47	48	0.47	-0.01	
80	94	40	0.67	0.54	41

**UNIVERSITY OF CALICUT
DEPARTMENT OF EDUCATION**

(FINAL SCALE)

ACHIEVEMENT TEST IN ENGLISH

MEERA K.P.

INSTRUCTIONS

This is a test in English. Do not write anything in the question paper. Write your answers in the sheet provided. The serial numbers of the questions are given in the answer sheet. For each questions, there are four answers A, B, C, D. Out of them only one is correct. In the answer sheet, for each question it is written A, B, C and D. Choose the correct answer and put a mark 'X' against the correct letter A, B, C or D in the answer sheet.

Example

Choose the right one word for the words underlined in the following sentence.

It is my mother's brother

- A. Cousin B. Uncle C. Grand Father D. Step brother

Mark your answer like this:

Q. No. A B C D

Here 'B' is the correct answer

- I. A few sentences are given below. Find out the word that has almost the same meaning as the word underlined from the given alternatives.

1. The dwarf man carried a bag on his shoulder.

- A. stout B. tall C. short D. old

2. We should not use impure water for any purpose
A. muddy B. dirty C. sandy D. soapy
3. I handed him a pair of glasses
A. asked B. lent C. showed D. gave
4. Kumar's room is quite tidy
A. neatly arranged B. heavily loaded
C. beautifully decorated D. nicely painted
5. It was a marvellous bird
A. heavy B. cruel C. colourful D. wonderful

II. Choose the right one word for the words underlined in the following sentences

6. I woke up early in the peep of day
A. morning B. evening C. night D. dawn
7. They wandered along the road to find out a place to live in
A. church B. lodging C. temple D. hospital

III. Fill in the blank with a word opposite in meaning to the word underlined

8. It is easy to learn Malayalam, but _____ to learn sanskrit.
A. tedious B. courageous C. difficult D. tight
9. Do not lend money, or _____
A. bring B. borrow C. buy D. deliver

IV. Fill in the blank choosing the correct word from the alternatives given to make a sensible sentence

10. The doctor gave him an injection _____ the temperature
A. to get down B. to bring down
C. to put down D. to put in
11. I was seated _____ the speaker
A. between B. around C. among D. beside

12. Our teacher has a _____ knowledge of her subject
A. thorough B. throw C. thoughtful D. through

V. Find out the correct spelling of the given word's meaning from the alternatives given below

13. REQUIRE
A. need B. nid C. naid D. neede

14. QUEER
A. strane B. strange C. strage D. srage

15. COMMENCE
A. sturt B. strt C. start D. startt

VI. Find out the word with the correct spelling from the alternatives given

16. A. proffessor B. professore
C. professor D. professer

17. A. siming B. sweming
C. swieming D. swimming

18. A. seperate B. seperete
C. separate D. saporate

19. A. luncheon B. lanchon
C. lenchen D. luncon

20. A. misarable B. miserable
C. miesereble D. meserable

VII. Fill in the blanks in the following sentences by choosing the correct Conjunction from the alternatives given below

21. She will obey _____ I say to her
A. whoever B. whatever C. whichever D. wherever

22. _____ I take your book?
A. must B. might C. may D. ought

VIII Complete the following sentences with the correct question tag from the alternatives given

23. I was late, _____ ?
A. did he? B. was I ? C. wasn't I? D. shall I?
24. She likes music, _____ ?
A. was she? B. doesn't she?
C. did she? D. didn't she?
25. They ate apple, _____ ?
A. didn't they? B. was it?
C. aren't they? D. did they?
26. They will do it, _____ ?
A. shall I? B. will they?
C. won't they? D. are they?

IX. The following sentences contain one error part. Find out the part and write the letter that denotes it in your answer sheet

27. The capital of Kerala is thiruvananthapuram
A B C D
28. The Children is walking along a busy street
A B C D
29. The lady is too fat for run
A B C D
30. One of the following sentences are wrong
A B C D

X. Complete the following sentences by providing the suitable reflexive pronouns from the alternatives given below and indicate the letter of the correct answer

31. They whitewashed the wall _____
A. oneself B. himself C. itself D. themselves

32. The girl wrote the poem _____
A. herself B. oneself C. itself D. themselves
33. Mother was making dinner _____
A. himself B. themselves C. myself D. herself

XI. Fill in the blanks in the following sentences with correct preposition from the alternatives given

34. Will you play _____ me for a while ?
A. by B. from C. on D. with
35. Put the milk _____ the table and cover it
A. in B. on C. at D. for
36. You must apologise _____ him
A. to B. of C. about D. under
37. I prefer coffee _____ tea
A. with B. to C. for D. from

XII. Read the following passage carefully and then give answers to the questions.

A great part of Arabia is desert. Here there is nothing but sand and rock. The sand is so hot that you cannot walk over it with your bare feet in the day time. Here and there in the desert are springs of water that come from deep under the ground so deep that the sun can not dry them up. These springs are few and far apart, but wherever there is one, green grass very soon covers the ground all around it. Soon fig trees and palm trees grow tall and graceful making a cool, shady place around the spring. Such a place is called an oasis.

The Arabs who are in the cities live in the desert all the year round. They live in tents that can be put up and taken down very easily and quickly, so that they can move from one oasis to another seeking grass and water for their sheep, goats camels and horses. These desert Arabs eat ripe sweet figs and also the dates that grow on the palm trees.

These Arabs have the finest horses in the world. He loves his horse very much. He never puts heavy loads upon his horse.

ACHIEVEMENT TEST IN ENGLISH

SCORE SHEET

Name..... Boy/Girl.....

Std & Division..... School

1	A	B	C	D	28	A	B	C	D	55	A	B	C	D
2	A	B	C	D	29	A	B	C	D	56	A	B	C	D
3	A	B	C	D	30	A	B	C	D	57	A	B	C	D
4	A	B	C	D	31	A	B	C	D	58	A	B	C	D
5	A	B	C	D	32	A	B	C	D	59	A	B	C	D
6	A	B	C	D	33	A	B	C	D	60	A	B	C	D
7	A	B	C	D	34	A	B	C	D	61	A	B	C	D
8	A	B	C	D	35	A	B	C	D	62	A	B	C	D
9	A	B	C	D	36	A	B	C	D	63	A	B	C	D
10	A	B	C	D	37	A	B	C	D	64	A	B	C	D
11	A	B	C	D	38	A	B	C	D	65	A	B	C	D
12	A	B	C	D	39	A	B	C	D	66	A	B	C	D
13	A	B	C	D	40	A	B	C	D	67	A	B	C	D
14	A	B	C	D	41	A	B	C	D	68	A	B	C	D
15	A	B	C	D	42	A	B	C	D	69	A	B	C	D
16	A	B	C	D	43	A	B	C	D	70	A	B	C	D
17	A	B	C	D	44	A	B	C	D	71	A	B	C	D
18	A	B	C	D	45	A	B	C	D	72	A	B	C	D
19	A	B	C	D	46	A	B	C	D	73	A	B	C	D
20	A	B	C	D	47	A	B	C	D	74	A	B	C	D
21	A	B	C	D	48	A	B	C	D	75	A	B	C	D
22	A	B	C	D	49	A	B	C	D	76	A	B	C	D
23	A	B	C	D	50	A	B	C	D	77	A	B	C	D
24	A	B	C	D	51	A	B	C	D	78	A	B	C	D
25	A	B	C	D	52	A	B	C	D	79	A	B	C	D
26	A	B	C	D	53	A	B	C	D	80	A	B	C	D
27	A	B	C	D	54	A	B	C	D					

University of Calicut DEPARTMENT OF EDUCATION

SCALE OF ACHIEVEMENT MOTIVATION

Dr. Kamala S. Pillai and Salimkumar C.

നിർദ്ദേശങ്ങൾ: താഴെ കൊടുത്തിരിക്കുന്ന പ്രസ്താവനകൾ ശ്രദ്ധാപൂർവ്വം വായിക്കുക. ഓരോ പ്രസ്താവനക്കും മൂന്നുവീതം പ്രതികരണങ്ങൾ കൊടുത്തിരിക്കുന്നു. 'Y' അതെ (Yes) എന്നതിനേയും 'U' തീർച്ചയില്ല (Undecided) എന്നതിനേയും 'N' അല്ല (No) എന്നതിനേയും സൂചിപ്പിക്കുന്നു. ഓരോ പ്രസ്താവനക്കും നിങ്ങളുടെ പ്രതികരണം തന്നിരിക്കുന്ന ഉത്തരക്കടലാസിൽ അതാത് പ്രസ്താവനകളുടെ നമ്പരിനെതിരെ നിങ്ങളുടെ ശരിയായ പ്രതികരണത്തിന് (Y,U,N) ചുവടെയുള്ള വൃത്തത്തിൽ 'X' ചിഹ്നം വെക്കണം രേഖപ്പെടുത്തുക. എല്ലാ പ്രസ്താവനകൾക്കും പ്രതികരണം രേഖപ്പെടുത്താൻ പ്രത്യേകം ശ്രദ്ധിക്കുക.

1. പഠിക്കാൻ ബുദ്ധിമുട്ട് തോന്നുന്ന പാഠഭാഗങ്ങൾ ഞാൻ ഒഴിവാക്കാൻ ഇഷ്ടപ്പെടുന്നു.
2. ഏതെങ്കിലും പ്രവർത്തിയിലും എന്റെ കഴിവിന്റെ പരമാവധി ഞാൻ ഉപയോഗപ്പെടുത്താൻ ശ്രമിക്കാറുണ്ട്.
3. ഓരോ ദിവസവും പഠിപ്പിക്കുന്ന പാഠഭാഗങ്ങൾ ഞാൻ അതാതുദിവസം തന്നെ പഠിക്കാറുണ്ട്.
4. ഞാനൊരു മടിയനാണെന്ന തോന്നൽ എന്നിക്കുണ്ട്.
5. ഇന്നു ചെയ്തതുതീർക്കേണ്ടതാണെന്നറിയാവുന്ന പല കാര്യങ്ങളും ഞാൻ പിന്നീട് ചെയ്യാൻ മാറ്റി വെക്കാറുണ്ട്.
6. കൂടുതൽ അദ്ധ്വാനം ഞാൻ ഇഷ്ടപ്പെടുന്നു.
7. എനിക്ക് ചെയ്യാൻ കഴിയുന്നതിലും വളരെ കുറച്ച് ജോലി മാത്രമേ ഞാൻ ചെയ്യാറുള്ളൂ.
8. വിഷമമുള്ള പാഠഭാഗങ്ങൾ പഠിക്കാൻ ഞാൻ കൂടുതൽ സമയം ചെലവഴിക്കാറുണ്ട്.
9. പഠനപ്രവർത്തനങ്ങൾ നന്നായി ചെയ്യാൻ കഴിയുന്നതിൽ എനിക്ക് സംതൃപ്തിയുണ്ട്.
10. എന്നപ്പോലെ നന്നായി പഠിക്കുന്നവരോട് കൂട്ടുകൂടാൻ ഞാൻ ഇഷ്ടപ്പെടുന്നു.
11. കഴിഞ്ഞ പരീക്ഷയേക്കാൾ കൂടുതൽ മാർക്ക് വാങ്ങാൻ ഞാൻ ഓരോത്തവണയും ശ്രമിക്കാറുണ്ട്.
12. ഒരു പ്രവൃത്തി നല്ല രീതിയിൽ ചെയ്തതുതീർക്കുമ്പോൾ സംതൃപ്തിയുണ്ടാകുന്നു.
13. മറ്റുള്ളവർ ചെയ്യുന്നതിനേക്കാൾ നന്നായിട്ടില്ലെങ്കിലും എന്റെ മുൻപ്രവർത്തനങ്ങളേക്കാൾ നന്നായി ചെയ്യാൻ കഴിഞ്ഞാൽ എനിക്ക് സംതൃപ്തിയുണ്ടാകുന്നു.
14. പഠനകാര്യങ്ങൾ ഏറ്റവും നന്നായി ചെയ്തതുതീർക്കുവാൻ എനിക്ക് കഴിയാറുണ്ട്.
15. മറ്റുള്ളവർ എന്നെ മാതൃകയാക്കാവുന്ന തരത്തിലുള്ള പ്രവർത്തനം കാഴ്ചവെക്കാൻ ഞാൻ ഇഷ്ടപ്പെടുന്നു.
16. എന്റെ ക്ലാസിലെ എല്ലാവരും ഇഷ്ടപ്പെടുന്ന വ്യക്തിയാകാൻ ഞാൻ ആഗ്രഹിക്കുന്നു.
17. സംശയ നിവാരണത്തിനായി മറ്റു കുട്ടികൾ എന്റെ അടുത്ത് വരണമെന്ന് ഞാൻ ആഗ്രഹിക്കുന്നു.
18. എല്ലാവരും എന്റെ കഴിവിനെ അംഗീകരിക്കുവാൻ ഞാൻ ആഗ്രഹിക്കുന്നു.
19. എന്റെ അഭിപ്രായങ്ങൾ ഏറ്റവും വിലപ്പെട്ടതാകുവാൻ ഞാൻ ആഗ്രഹിക്കുന്നു.
20. എല്ലാവരും ശ്രദ്ധിക്കപ്പെടുവാൻ ഞാൻ ആഗ്രഹിക്കുന്നില്ല.
21. തീരുമാനങ്ങൾ എന്റെതാകുവാൻ ഞാൻ ആഗ്രഹിക്കുന്നു.
22. ഉന്നതവ്യക്തികളുമായി ഇടപഴകുവാൻ ഞാൻ ആഗ്രഹിക്കുന്നു.

(മറുപുറം)

23. എന്റെ നല്ല രീതിയിലുള്ള പ്രവർത്തനത്തെ എല്ലാവരും അഭിനന്ദിക്കണമെന്ന് ഞാൻ ആഗ്രഹിക്കുന്നു.
24. പഠനത്തിൽ ഞാൻ ഏറ്റവും മുൻപന്തിയിലാണെങ്കിലും പഠനം തുടരാൻ ഞാൻ ഇഷ്ടപ്പെടുന്നു.
25. മത്സരങ്ങളിൽ മറുവശത്തുള്ളവരേക്കാൾ മുൻപന്തിയിലെത്താൻ ഞാൻ കഠിനമായി പ്രയത്നിക്കാറുണ്ട്.
26. വെറും നേട്ടത്തെക്കാളുപരി എന്റെ പ്രവർത്തിയുടെ ഫലത്തെ ഞാൻ വിലയിരുത്തുന്നത് അത് മറുവശത്തുള്ളവർ ചെയ്യുന്നതിനേക്കാൾ നല്ലതാണോ എന്ന് നോക്കിയാണ്.
27. ഒരു പ്രവൃത്തി മറുവശത്തുള്ളവരേക്കാളും നന്നായി ചെയ്യണമെന്നതിൽ എനിക്ക് നിഷ്കർഷയുണ്ട്.
28. ക്ലാസിൽ ഒന്നാം സ്ഥാനം ലഭിക്കണമെന്ന ആഗ്രഹത്തോടെ ഞാൻ പഠിക്കാറുണ്ട്.
29. വിജയം എനിക്കുതന്നെയാണെന്ന് ഉറപ്പുള്ള കാര്യങ്ങൾ ചെയ്യുവാൻ എനിക്ക് ഉത്സാഹം ഉണ്ട്.
30. എതിരാളികൾ ശക്തരാണെങ്കിൽ എന്റെ പ്രവർത്തനം ഏറ്റവും മെച്ചമായിരിക്കും.
31. പഠിത്തത്തിൽ നേട്ടമുണ്ടാക്കാനുള്ള ഏതവസരവും ഞാൻ കളയാറില്ല.
32. മറുവശത്തുള്ളവർ നേരംപോക്കിനായി സമയംചെലവഴിക്കുമ്പോഴും കൃത്യതയോടെ നേട്ടങ്ങൾ ഉണ്ടാക്കുവാൻ ഞാൻ ശ്രമിക്കുന്നു.
33. പഠിത്തത്തിൽ ഉയർച്ചയുണ്ടായതിന്റെ പിന്നിൽ നേട്ടങ്ങളുടെ ഒരു ചരിത്രം എനിക്കുണ്ട്.
34. കൃത്യതയോടെ നേട്ടങ്ങൾ ഉണ്ടാകുന്നതുവരെയാണ് എനിക്ക് നന്നായി പഠിക്കാൻ കഴിയുന്നത്.
35. പഠനത്തിന് പ്രാധാന്യം കൊടുക്കുന്നത് അതിൽനിന്നും ഉണ്ടാകുന്ന ഉയർച്ചയെ അടിസ്ഥാനമാക്കിയാണ്.
36. പഠനകാര്യങ്ങൾ നന്നായി ചെയ്യുന്നതിനുള്ള സമ്മാനങ്ങൾ എന്നും എനിക്കുതന്നെയാണ് ലഭിക്കാറുള്ളത്.
37. സാങ്കേതികജ്ഞാനം കൃത്യതയോടെ ആവശ്യമുള്ള പ്രവർത്തികൾ ചെയ്യുവാൻ ഞാൻ ഇഷ്ടപ്പെടുന്നു.
38. ഉയർന്ന ബുദ്ധിശക്തിയും നിപുണതയും ആവശ്യമായ പഠനപ്രവർത്തികൾ ചെയ്യാൻ ഞാൻ ഇഷ്ടപ്പെടുന്നു.
39. ഒരു പ്രവർത്തി ശരിയായി ചെയ്യാൻ കഴിയാതെ വരുമ്പോൾ അത് ഉപേക്ഷിക്കാൻ എനിക്ക് തോന്നാറുണ്ട്.
40. ലക്ഷ്യത്തിലെത്തിച്ചേരാൻ സഹായകമാണോ എന്റെ പഠനരീതി എന്ന് എനിക്ക് സംശയം തോന്നാറുണ്ട്.
41. എല്ലാവരേക്കാളും ഉപരിയായി പഠനകാര്യങ്ങൾ നന്നായി ചെയ്യുവാൻ എനിക്ക് കഴിയും.
42. പഠനപരമായ എല്ലാ പ്രവർത്തനങ്ങളിലും ആദ്യം അഭിപ്രായം പറയുന്നത് ഞാനാണ്.
43. പഠനകാര്യങ്ങൾ സഹപാഠികളോട് ചർച്ചചെയ്യാൻ ഞാൻ മുൻകൈയെടുക്കാറുണ്ട്.
44. സഹപാഠികളിൽ സ്വാധീനം ചെലുത്താൻ കഴിയുന്നത് എനിക്ക് സന്തോഷമുള്ള കാര്യമാണ്.
45. അവസരം കിട്ടിയാൽ സഹപാഠികളുടെ ഇടയിൽ ഞാൻ ഒരു നല്ല നേതാവായും.
46. ഞാൻ പറയുന്നത് എന്റെ സഹപാഠികൾ എല്ലാവരും ശ്രദ്ധിക്കാറുണ്ട്.
47. എന്റെ സംഘത്തിലെ നേതാവാണ് ഞാൻ എന്ന് എനിക്ക് എപ്പോഴും തോന്നാറുണ്ട്.
48. സഹപാഠികൾ എന്ത് ചെയ്യണമെന്ന് തീരുമാനിക്കുന്നതിലും അത് നടപ്പാക്കുന്നതിനും മുൻകൈയെടുക്കുന്നതാണ് എനിക്ക് സന്തോഷം.
49. ഞങ്ങൾ ഏതെങ്കിലും ഒരു പ്രവർത്തിക്ക് രൂപം കൊടുക്കുമ്പോൾ അത് മറ്റെന്തെങ്കിലും നേതൃത്വത്തിൽ ഏറ്റെടുത്ത് നടത്തുന്നതിനേക്കാൾ ഞാൻതന്നെ ഏറ്റെടുത്ത് നടത്തുന്നതാണ് എനിക്കിഷ്ടം.
50. സഹപാഠികൾക്ക് നിർദ്ദേശം കൊടുക്കുവാനും അതനുസരിച്ച് കാര്യങ്ങൾ നീക്കുവാനും എനിക്കിഷ്ടമാണ്.

University of Calicut
DEPARTMENT OF EDUCATION
SCALE OF ACHIEVEMENT MOTIVATION
RESPONSE SHEET

വിദ്യാർത്ഥിയുടെ പേര് ക്ലാസ് ക്ലാസ്സന്ദേശം

സംസ്കൃതിയുടെ പേര് ആണിക്രമം/പെണ്കൃമി വയസ്സ്

Sl. No	അതെ	തീർച്ചയില്ല	അല്ല	Sl. No	അതെ	തീർച്ചയില്ല	അല്ല
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5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	30	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	36	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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24	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	49	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	50	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

SCALE OF ATTITUDE TOWARDS EDUCATION

UNIVERSITY OF CALICUT

DEPARTMENT OF EDUCATION

BY

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ഈ സ്കെയിലിൽ 30 പ്രസ്താവനകളുണ്ട്. ഈ പ്രസ്താവനകൾ ഓരോന്നിനോടും നിങ്ങൾ യോജിക്കുന്നുണ്ടോ ഇല്ലയോ എന്ന് താഴെ നിർദ്ദേശിച്ചിരിക്കുന്ന പ്രകാരം രേഖപ്പെടുത്തുക.

ഉത്തരക്കടലാസിൽ ഓരോ പ്രസ്താവനയേയും സൂചിപ്പിക്കുന്ന നമ്പറിനെതിരെ, A, B, C എന്നിങ്ങനെ മൂന്നു വൃത്തങ്ങൾ കൊടുത്തിരിക്കുന്നു. പ്രസ്താവനയോട് യോജിക്കുന്നുവെങ്കിൽ A വിഭാഗത്തിലെ വൃത്തത്തിലും വിധേയമാകുന്നുവെങ്കിൽ C വിഭാഗത്തിലെ വൃത്തത്തിലും 'തീർച്ചയില്ല' എന്നാണ് മറുപടിയെങ്കിൽ B വിഭാഗത്തിലെ വൃത്തത്തിലും യഥാക്രമം X-മാർക്ക് രേഖപ്പെടുത്തുക. ഒരു പ്രസ്താവനക്കെതിരെ ഒരു ഉത്തരം മാത്രം രേഖപ്പെടുത്തുക.

- 1 വിദ്യാലയധ്യാപകർക്കെതിരെ നിന്ന് സമൂഹം അംഗീകരിക്കാത്ത പല ദുഷ്ടീകരണങ്ങളും കട്ടികൾ പഠിക്കുന്നു.
- 2 വലിയവനെന്നും ചെറിയവനെന്നും ഉള്ള മനോഭാവത്തെ വിദ്യാലയധ്യാപകർക്കും പ്രോത്സാഹിപ്പിക്കുന്നു.
- 3 ജന്മസിദ്ധമായ പല കഴിവുകളും വളർത്തിക്കൊണ്ടു വരുവാൻ ഉതകുന്ന സാഹചര്യങ്ങൾ വിദ്യാലയത്തിൽനിന്നു ലഭിക്കുന്നില്ല.
- 4 ഇന്നത്തെ വിദ്യാഭ്യാസരീതി കട്ടികളിൽ ആത്മവിശ്വാസം വളർത്തുന്നില്ല.
- 5 നിരന്തരമായ പഠനവും പരീക്ഷയും വിദ്യാഭ്യാസത്തോട് വിരസത ജനിപ്പിക്കുന്നു.
- 6 വിദ്യാഭ്യാസം ചില വിഷയങ്ങളിൽ കൂടുതൽ താല്പര്യം വളർത്തുമെന്നല്ലാതെ പൊതുവിജ്ഞാനം ലഭിക്കുവാൻ സഹായിക്കുന്നില്ല.
- 7 വിദ്യാലയ പ്രവർത്തനങ്ങൾ കട്ടികളിലുള്ള കോപം, നിരാശ, ഉത്കണ്ഠ, ഭയം, അരക്ഷതാബോധം എന്നിവ വർദ്ധിപ്പിക്കുന്നു.
- 8 ഭാവി പൗരന്മാരുടെ കടമകളും ചുമതലകളും നിർവ്വഹിക്കാനുള്ള പരിശീലനം വിദ്യാലയത്തിൽ നിന്നു ലഭിക്കുന്നു.
- 9 ഇപ്പോഴുള്ളതുപോലെ വളരെയധികം പാഠ്യവിഷയങ്ങളും, പാഠ്യേതര വിഷയങ്ങളും ഇല്ലാ യിതന്നെങ്കിൽ എന്ന് ആശിക്കുന്നു.

- 10 സ്കൂളിലെ പഠനം പല അസവിശ്വാസങ്ങളേയും ഇല്ലാതാക്കുന്നു.
- 11 ഇന്നത്തെ വിദ്യാഭ്യാസരീതി ഒഴിവുസമയം പ്രയോജനപ്രദമായി ചിലവഴിക്കാൻ സഹായിക്കുന്നില്ല.
- 12 വിദ്യാലയത്തിലെ പഠനരീതി കൂടുതലായി മറുത്തുവരെ ആശ്രയിക്കാതെ സഹായിക്കുന്നുള്ള.
- 13 വിദ്യാലയ ജീവിതത്തിൽ ജയവും തോൽവിയും ഇടകലർന്നു വരുന്നതിനാൽ ഭാവിയിൽ അതിതീവ്രമായ വികാരങ്ങളെ സന്തുലനം (Balance) ചെയ്യാൻ സാധ്യമാവുന്നു.
- 14 വസത്രധാരണം, കേശാലങ്കാരം തുടങ്ങിയവയിൽ മാറി മാറിവരുന്ന ഫാഷനുകൾ പ്രദർശിപ്പിക്കാൻ അവസരം ലഭിക്കുന്നത് വിദ്യാലയത്തിലാണ്.
- 15 പാഠ്യേതര പ്രവൃത്തികൾ സമയം പാഴാക്കാതെ ഉപകരിക്കുന്നുള്ള.
- 16 വിദ്യാലയത്തിന്റെ പുറത്തുള്ള കലോത്സവം, കായികമേള, സിനിമ തുടങ്ങിയവ വിദ്യാലയ പ്രവർത്തനങ്ങളേക്കാൾ കൂടുതൽ ആകർഷകമായി തോന്നുന്നു.
- 17 സ്വന്തം ഗൃഹത്തിൽ നിന്നു കിട്ടുന്നതിനേക്കാൾ വളരെയധികം അറിവ് വിദ്യാലയത്തിൽ നിന്നുലഭിക്കുന്നു.
- 18 സ്കൂൾ വിദ്യാഭ്യാസം കൊണ്ട് കുട്ടികളുടെ ഇടയിൽ ആരോഗ്യകരമായ മത്സരബുദ്ധി വളരുന്നു.
- 19 വിദ്യാലയത്തിലെ പ്രവർത്തനങ്ങളാണ് വിദ്യാർത്ഥികളുടെ സ്വഭാവ രൂപവൽക്കരണത്തിന് പ്രധാനമായും വഴിയൊരുക്കുന്നത്.
- 20 വിദ്യാലയത്തിലെ വിവിധ അനുഭവങ്ങൾ പെട്ടെന്നുള്ള വികാരക്ഷോഭങ്ങളെ നിയന്ത്രിക്കാൻ കുട്ടികളെ കെല്പുള്ളവരാക്കുന്നു.
- 21 വിദ്യാലയത്തിലെ വിവിധ പ്രവർത്തനങ്ങൾ സുഗ്രാമകരയെ (സൃഷ്ടിപരമായ കഴിവുകളെ) പ്രോത്സാഹിപ്പിക്കുന്നു.
- 22 മാസം തോറും ക്രമമായി ഫീസ് ഈടാക്കിയിരുന്നെങ്കിൽ പഠന നിലചാരം ഉയരുമായിരുന്നു.
- 23 വിദ്യാലയ പ്രവർത്തനങ്ങൾ ചുറ്റുപാടുമുള്ള സമൂഹ പ്രശ്നങ്ങളുമായി ഇതുചേർന്നുപോകാൻ സഹായിക്കുന്നു.
- 24 സ്കൂൾ വിദ്യാഭ്യാസത്തിലൂടെ അധ്യാപകരുടെയും, മുതിർന്നവരുടെയും ആശയങ്ങളും പ്രവർത്തനരീതികളും കുട്ടികളിൽ അടിച്ചേൽപ്പിക്കപ്പെടുന്നു.
- 25 പരാശ്രയം കൂടാതെ ജീവിക്കാനുള്ള പരിശീലനം വിദ്യാലയത്തിൽ നിന്നു ലഭിക്കുന്നു.
- 26 ഭാവിയിൽ സ്വന്തമായ ഒരു തൊഴിലിൽ ഏർപ്പെടാൻ സ്കൂൾ വിദ്യാഭ്യാസം ഉതകും.
- 27 വിദ്യാലയത്തിലെ ചിട്ടയോടുകൂടിയ പ്രവർത്തനരീതികൾ കുട്ടികളിൽ നല്ല ശീലങ്ങൾ വളർത്താൻ സഹായിക്കുന്നു.
- 28 പല സാമ്പത്തികവും വിദ്യാഭ്യാസകാലത്ത് ഉപേക്ഷിക്കേണ്ടി വരുന്നു.
- 29 പാകത വന്ന പെരുമാറ്റത്തിന് വിദ്യാഭ്യാസം കൂടിയേ തീരൂ.
- 30 ബുദ്ധിപരമായ പ്രവർത്തനശേഷി വികസിപ്പിക്കാൻ വിദ്യാഭ്യാസം ആവശ്യമാണ്.

SCALE OF ATTITUDE TOWARDS EDUCATION SCORE SHEET

Name of the StudentSchool.....

Class.....

Sex: B/G.

	Agree A	Undecided U	Disagree D
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