CHAPTER – II

REVIEW OF THE RELATED LITERATURE

The Review of the literature is the gate pass for the Research work to be done by the Researcher. It further tells the Researcher which way to go in conducting the research work, which the researcher has to undertake. It also helps to avoid the duplication of research. It shows the way to the researcher.

The physician must remain acquainted with the latest knowledge, innovations and discrepancies in the field of medicine to treat the patients accordingly. The successful lawyer also remains well informed with the cases to quote those cases for further reference of the case at hand. In the same way, in the field of Education also, the Research Worker needs to acquaint himself with the latest knowledge, information about what has been done in the particular area from which he intends to take up a research problem. In order to solve relevant important problem a careful review of the Research Journals, Books, Dissertations, Theses and other sources of information on the problem to be to investigated becomes one of the important steps in planning of any research study after the problem has been chosen by the Researcher.

Related literature provides us a clear picture of the problem under research. The review of the literature has two phases, firstly, it includes identifying all the relevant material published in the problem area. Secondary phase is for the benefit to the researchers and the readers. For the researcher, it establishes the document in the field and for the readers it provides a summary of thinking and researches necessary for them to undertake the study.

The review of the related literature is considered essential for many reasons. It helps to identify the unanswered questions in the concerned fields on the one hand and in locating the specific issues, which require immediate and pointed attention by the Investigator. Such an exercise thus enables the researcher in avoiding unnecessary duplication of efforts and focusing on the relevant aspects of the issue under reference.
Best (1961) observes, “The research for reference materials is a time consuming but fruitful phase of investigation. A familiarity with the literature on any problem area helps the students to discover what is already known, what other have attempted to find out, what methods have been found to be promising or disappointing and what problems remain to be solved. In order to be creative and original, one must read extensively and critically as a stimulus to thinking”.

Review of the related literature also serves the subsequent purposes for the research:

1. To define the limits of field. It enables the researcher to define and delimit his problem.
2. To state the objectives clearly and precisely, the knowledge of the related literature provides the researcher up to date information on the work which others have done.
3. To eliminate the risk of duplication of what has already been done. It also helps in providing ideas, theories, explanation or hypotheses valuable in formulating the problems.
4. To avoid, worthless problem, by making the researcher, select those areas in which positive findings are very likely to result and his efforts would be likely to add to the knowledge in a meaningful way.
5. To equip the researcher with an understanding of the research methodology, which mentions to the way of the study is to be administered.
6. To avail the researcher to know about the tools and instrument which proved to be useful and promising in the former chapter.

The survey of related literature may be justified because if provides a firm and objective ground to the research for identifying a meaningful questions in the field in which the researcher wants to pursue. So, for a researcher if he/she wants to do research in a subject and needs up to date information, it is necessary that the researcher should be fully acquainted with the past of theta subject.

In this chapter, the investigator makes a candid effort for reviewing the related literature, under the heading
STUDIES DONE IN INDIA AND ABROAD

The Educationists are of the opinion that introduction is the gate way and the review of the literature is considered to be the gate pass for the research work to be conducted by the researcher. It is said that the Physician must acquaint himself with the latest knowledge of medicines or in the field to handle the case efficiently in the same way a successful lawyer is expected to know the latest ruling and information pertinent to the case in the hands. In the field of education also, the research worker is required to acquaint himself with the latest information and up to date knowledge in the particular area in which he tends to conduct the research.

In order to acquaint his self with the latest knowledge and innovations in the related field and also to know what has been done and what canbe done further is the area of related literature. For this purpose a careful review of the research books, dissertations, theses, sources of information, research journals and surveys of educational research by Dr. M.B. Bunch and N.C.E.R.T., and the other sources of information related to the problem should be consulted. It becomes the important step in planning any research study after the problem has been selected and defined for deep investigation.

John W. Best in 1961 writes in his book, “Research in Education” that a familiarity with the literature in any problem area helps the students to discover what is already known to others or have attempted to find out. What methods have been found to be promising or disappointing and what problems remained to be solved.

The review of the related literature acquaints the researcher with the current knowledge in the field, in which he is going to context the research. It also accomplishes the following specific purposes to the researcher:

1. To avoid unfruitful and useless problem areas by the selection of those areas in which positive findings are likely to result and his endeavors would be likely to add to the knowledge in a meaningful way.

2. To show whether the evidence already available solves the problem adequately without further investigation and thus to avoid unintentional duplication of well established findings. It is no use to replicate a study when the stability and validity of its results have been clearly established.
3. To provide ideas, theories, explanation or hypotheses valuable in formulations the problem.

4. To enable the researcher to define the limits of his field. It helps him to delimit and define his problem.

5. To suggest methods of research appropriate to the problem. To give researcher an understanding of the research methodology which refers to the way the study is to be conducted. It helps the researcher to know about the tools and instruments which proved to be useful and promising in the previous studies. The review also provides an insight into statistical methods through which validity of results is to be established.

6. To locate comparative data useful in the interpretation of results.

7. To know about the recommendations of previous researchers for further research which they have listed in their studies.

8. To contribute to the general scholarship of the investigator.

The related studies have been classified broadly into four categories:

1. Studies related to Intelligence.
2. Studies related to Academic Anxiety
3. Studies related to Reading Interest
4. Studies related to Achievement

2.1 STUDIES RELATED TO INTELLIGENCE STUDIES

Gupta, B.D. (1988), Intelligence and adjustment and personality needs of effective teachers in science and arts effective teachers in science and arts. The major findings are: (1) All the distributions were almost normal; (2) Science and arts teachers did not differ significantly with respect to adjustment and academic and general environment of the institution; (3) Effective arts teachers were significantly better adjusted socially, psychologically, physically than effective science teachers; (4) Effective science and arts teacher did not differ with respect to professional adjustment; (5) Effective arts teachers were found significantly better adjusted in personal life than effective science teachers; (6) Effective arts teachers were significantly highly effective than science teachers on financial adjustment and job
satisfaction; (7) So far as total adjustment were concerned effective arts teachers were significantly superior to effective science teachers.

Anshu (1988) studied, “Level of Aspiration, achievement, motivation and adjustment of adolescents: Effect of family climate” The findings of the study were: (1) Family climate was an effective determinant of home adjustment of adolescents. For rural boys, intelligence and SES were found to be more effective than family climate in their home adjustment; (2) Regarding school adjustment of adolescents family climate was found to be effective but it influence was more on urban adolescents; (3) Family climate was found to be singularly responsible for the emotional adjustment of adolescents, irrespective of their locality and sex; (4) Effect of family climate is an important determinate to access whether adolescents will be successful or not in achieving their set goals.

Bhagirath (1978) conducted a study “correlates of academic achievement as perceived by the teachers and students of high school”. He stated that teachers and students perceived the correlates of academic achievement as intelligence, character, creativity, punctuality, alertness, efficiency, social and emotional adjustment.

Reddy (1983) studied the achievement and intellectual capacity of high school students. The results shown that class X mean scores on N-achievement were significantly higher than class VIII and VI mean scores. Students from government and private schools did not show significant difference. Further boys and girls studying in the same class did not show significant differences.

Gupta, P. Self concept, dependency and adjustment pattern of abandoned institution adolescents, Ph. D. applied psychology, Calcutta University, 1984. The major findings were: (1) There was some relationship between self-concept, anxiety, dependency and adjustment for the experimental group; (2) Subjects reared in an artificial family atmosphere with surrogate mothers had better self-concept and adjustment with less anxiety than subjects reared in general homes without any substitute parent figure; (3) Self-concept and adjustment were positively correlated and they had negative correlation with anxiety. The whole experimental group differed from the control group, i.e. their naturally reared counterparts; (4) Gyanoni (1984) conducted a study on Frustration Reactions as Functions of Achievement Motivation and Anxiety at Different Age Levels. The main objectives were: (i) to find
out the nature and extent of relationship of need achievement, anxiety and age with frustration reactions, (ii) to establish the regression equations between various frustration reactions as criterion variables and need achievement, anxiety and age as predictor variables, (iii) to determine the variation caused by the predictor variables in reactions to frustrations, (iv) to find out the role of needs achievement, anxiety and age in determining the frustration reactions of an individual and (v) to find out the role of need achievement and anxiety in determining the frustration reaction of the individuals at different levels of age. Findings of the study were: (i) Most of the subjects of the parent population were not very aggressive or passive in frustrating situations. (ii) At all age groups the percentage of E and ‘E-D’ reactions was comparatively higher in relation to other frustration reactions. (iii) A significant increase in intropunitive behaviour was observed, whereas impunitive frustration reaction increased with age but a significant fall in this particular reaction was observed after the age of 20 years. (iv) Ego defensive and obstacle dominant reactions to frustration decreased as the subjects advanced in age but their need-persistent reactions significantly increased with increase in their age. (v) Boys with high achievement motivation were intropunitive and need-persistent, but low in extra-punitive and ‘O-D’ behaviour. The boys with a low level of achievement motivation were found to be more ego-defensive, obstacle dominant and impunitive in their behaviour. (vi) The students with a high level of anxiety were found to be more intropunitive and obstacle-dominant, whereas the low level anxiety boys were more impunitive and need-persistent.

Mithlesh Dixit (1985) designed a comparative study of the academic achievement and intelligence of adolescent boys and girls studying in classes IX and XI. Half of them were boys and half were girls. The results indicated that there was no difference in the academic achievement of intellectually superior and very superior boys and girls. At all other intellectual levels, the academic achievement of the girls was superior to that of boys. In general, the intelligence test scores of the boys were higher than those of the girls.

Jethwani (1986) conducted a study on An Investigation into the Frustration of School-going adolescents of Kutch District in the Context of Cognitive and Non-Cognitive Variables. The objectives of the study were: (i) to compare the frustration
scores of pupils studying in 10th and 11th and 12th grades, (ii) to compare the frustration scores of pupils having high n-ach with those of pupils having low n-ach, (iii) to compare the frustration scores of pupils having more anxiety with those of pupils having less anxiety, (iv) to compare the frustration scores of pupils having high intelligence with those of pupils having low intelligence, (v) to compare the frustration scores of pupils coming from a small family with those of pupils coming from a large family, (vi) to compare the frustration scores of the non-backward class pupils with those of the backward class pupils, (vii) to study the effects of interaction among the various independent variables and the dependent variables (frustration) incorporated in the study. Findings of the study were: (i) the non-backward class pupils were found to be more frustrated than the backward class pupils. (ii) the pupils from small families were significantly more frustrated than the pupils from large families. (iii) the pupils with high intelligence and those with low intelligence had no significant difference between their mean scores. Intelligence was not a factor that caused frustration. (iv) the pupils having high anxiety were significantly more frustrated than the pupils having less anxiety. (v) the pupils of grade X, and XI and grade XII differed significantly in their frustration scores. The pupils of grade XII had the highest frustration scores. The pupils of grade XI had higher frustration scores than the X grade pupils. (vi) the pupils having high n-ach were significantly more frustrated than the pupil’s having low n-ach. (vii) the significant interactions were (a) grade x family size, (b) n-ach, x intelligence, (c) n-ach x family size, (d) anxiety x family size, (e) anxiety x caste, (f) family size x caste

Thilalgavathi, T. (1990) studied the academic achievement in relation to intelligence, creativity and anxiety. The sample comprised of 400 first year higher secondary boys and girls who were selected from a population of 2,871 students from 20 higher secondary schools of Kanya Kumari revenue district, by random sampling technique. The major findings of the study were that of the total 400 students of the sample, the 19.25% were high achievers, 60.75% were average achievers and 20% were low achievers. The high, average and low achievers differed significantly among themselves in their intelligence. The high achievers secured comparatively high mean score than the average and the low achievers in creativity. The high achievers group belonged to low level anxiety group and the low achievers group belonged to high
level anxiety group. The influence of anxiety was found to be negative on the academic achievement.

Garg V.P. and Seema Chaturvedi (1992) studied the relationship between intelligence, socio economic status and academic achievement. This study was attempted to measure the contribution of intelligence and socio economic status in determining academic achievement. The analysis was based upon a field study of 535 students whose I.Q. score and SES score were regressed with their tenth class examination results of M.P Board. Sample comprised of both rural and urban students. His major findings were: 1. There was linear relationship between I.Q and academic performance. The mean of the I.Q. scores were higher with the higher socio economic status and tapered off as SES mean declined for both rural and urban students. 2. Academic performance in relation to SES also has a linear correspondence for both rural and urban students. 3. A higher mean of I.Q. scores of rural students for all SES categories as compared to urban students. 4. It was also observed that in spite higher mean scores by all SES categories amongst rural students, the academic achievement scores were lower than urban students. The reasons for such a situation were given by researchers as: (a) Weak educational inputs in terms of physical facilities or unutilized physical facilities due to weak leadership and management. (b) Poor curriculum transactions in the classroom due to weak organizational climate of the school. (c) Indifferent or passive attitude of the students towards study for lack of motivation resulting in poor class interaction. (d) These weaknesses may be existing at a point of time or may be accumulating over a period of time. This study established strong association between I.Q. and SES for academic performance and researchers suggested that academic performance could be improved by social support measures besides good schooling.

Maria et al. (1994) studied the academic performance in creative students. They analysed the importance of creativity in academic performance, testing a sample of 125, compulsory secondary education student (aged 12-18 years). Students completed a creative perception inventory. Results indicated that scores on creativity were not associated with student's academic performance in different subject matters or total performance.
Shanti Pramod (1997) conducted a study on “Future Time Perspective, Cognitive Efficiency, Achievement Motivation, Anxiety and Academic Performance among XIth Standard Boys and Girls. The present research was conducted on 300 XIth standard, boys and girls studying in matriculation school of Tamil Nadu, on the variables of future time perspective, cognitive efficiency, achievement motivation, anxiety and academic performance. Data were collected using suitable tools of measure and processed. Results indicated that these factors contribute significantly to academic performance suggesting that these personal variables of future time perspective, cognitive efficiency, achievement motivation and anxiety have a predictive value on academic performance.

Thomas Hoerr (1998) Harvard University, in the research paper titled “Applying Multiple Intelligence in Schools” said that the effectiveness of Multiple Intelligence is supported by the findings of a study conducted by Harvard’s Project Zero, research workshop. In interviewing the principals of 41 schools using Multiple Intelligence Inventory, 78% of them said that their schools had realized gains on standardized achievement scores and 63% attributed the growth to “practices inspired by Multiple Intelligence theory.” Not surprisingly as stated by author that the use of multiple Intelligence paid other benefits in these schools as well. 78% of the schools reported improved performances by students having learning difficulties, 80% reported improved parental participation and 81% in student discipline. Another successful tale in the New City School, St. Louis, where sixth grade class comprising of twenty seven students scored, for example, an average grade equivalent of 12.8 on Stanford Achievement Tests which was quite an achievement. Thus multiple intelligence did contribute towards academic achievement as seen through the following research study.

Cortada et al. (1999) studied the achievement in primary education and its relation to general intelligence and the thinking process in problem solving. They examined the relationship between intelligence and achievement at school with thought processes involved in problem solving. The research was conducted in a primary school with a sample of 200 students. An achievement test consisted of general knowledge, language, mathematics was constructed and then applied to students. The Raven's progressive matrice was used to study thought process and
strategies for problem solving were also administered. Results indicated that the school did not use the best intellectual potentiality of students.

Shah, J.H. (1999) conducted a study of relationship among intelligence, self concept and academic achievement of pupils of tenth standard of semi urban and rural areas. He concluded after the study that there was positive and linear correlation among self concept deviation I.Q. and academic achievement in both types of areas. He found that there was no difference due to sex in self concept in both semi urban and rural areas. There was significant relationship of intelligence with academic achievement than self concept."

Mangant, Dolly (2000) studied the relationship of vocational maturity, intelligence, SES and academic achievement. In this study, a sample of 525 students was taken who were studying in B.A./B.Sc. final year from Patiala. The findings shown that socioeconomic status is the best predictor towards the total maturity. Further, positive and significant correlation exist between intelligence and six measures of vocational maturity. The total attitude is not dependent on the independent measures of intelligence, SES and academic achievement.

Ahmad and Hasan (2003) conducted a study an attitude of secondary school students towards science in relation to sex, socio-economic status and intelligence. They found that: 1. Both boys and girls show equally positive attitude towards science; 2. The students who are from high socio-economic background show better positive ATS than middle as well as lower level SES background students; 3. The students with high intelligence show more positive ATS than middle as well as lower intelligence groups. The students from middle intelligence level also show better positive ATS than the lower one.

Saxena (2004) conducted a study to investigate the relationship between intelligence and academic achievement in English. This study is an attempt to study that how far intelligence is related to students’ academic achievement in English. The objectives of the study were: (1) To find out whether students differ in their I.Q. score w.r.t. sex, medium of instruction, locality and nature of management (2) To find out the extent of relation to achievement in English. (3) To find out whether sex of the students, medium of instruction, locality and nature of management of the school have any influence on students’ academic achievement. The sample of this
study comprises of 320 boys and 260 girls of XII grade from 16 higher secondary schools of Coimbatore district, both from rural and urban areas. After investigation, researcher concluded that (i) Intelligence of students positively influenced their academic achievement in English. (ii) Students having higher level of intelligence preferred English medium classes and urban schools. (iii) Sex of the students had no influence on their intelligence, as well as academic achievement in English. (iv) Students preferred school of different types of management irrespective of their level of intelligence. (v) The medium of instruction and the locality of school had influence on students academic achievement in English. (vi) The sex of the students and the nature of management of the school had no significant influence on their academic achievement.

Varte, Zokaitluangi and Lalhunlawma (2006) studied intelligence and academic achievement in relation to parents-child relationship in Mizo adolescents. Parental behaviour as perceived by the child have more importance and emerged to be explanatory than characterization of such behaviour by independent observers. 140 Mizo adolescents from a school were sampled. The low and high scores on parent child relationship respectively designated as restrictive and permissive parenting styles were screened out and their academic achievement scores were analyzed. Results indicated no gender difference on parent-child relationship, intelligence and academic achievement. 2x2 ANOVA 'indicated significant' parenting effect whereas gender x parenting interaction resulted non-significant. F-ratio, mean comparisons in significant 'parenting effect revealed greater intelligence in 'permissive' than 'restrictive' parenting styles were screened out and their academic achievement scores were analyzed. Results indicated no gender difference on parent-child relationship, intelligence and academic achievement. 2x2 ANOVA 'indicated significant' parenting effect whereas gender x parenting interaction resulted non-significant. F-ratio, mean comparisons in significant 'parenting effect revealed greater intelligence in 'permissive' than 'restrictive'.

Swamy, Narasimha (1984) conducted a study on “Diagnosis and remediation of deficiencies in basic understandings of prospective teachers of secondary school physics”. The main implications are: (1) There is an imperative need to provide adequate bridge course or parallel or in-built remedial course in content as part of the methodology course in the B.Ed. programme to remedy deficiencies in the content, and to ensure reasonable mastery of at least the basics or the essence thereof.; (2) A properly designed remedial course focusing on the clarification sand mastery of important concepts, principles and other generalization in the subject can effectively remove the deficiencies of student teachers to a significant extent; (3) Analysis of
basis understanding and skills in school courses in all subject areas, construction of diagnostic test.

Mahendrenath Motah (2008) conducted a study, “The Influence of Intelligence and Personality on the Use of Soft Skills in Research Projects among Final Year University Students. The study examines the moderating influence of the “Big Five” model of personality, emotional intelligence, and the impact of multiple intelligences, on the use of soft skills among final year students. The present work investigates the variables which affect students in the elaboration of their research projects during their final year of study. 187 students reading for their final years were asked to fill out questionnaires comprising questions on the personality traits as proposed in the Big Five model and on Multiple Intelligences. This study provides information about how young students use soft skills in their work, and how multiple intelligences and their personality influence the preparation and presentation of their final year project.

2.2 STUDIES RELATED TO ACADEMIC ANXIETY

Sarason, S.D. and Mandler, G. (1952) did not find any significant relationship between the manifest Anxiety and college grade point averages.

Malarazzo, J.D. (1954), David, A and Dirksen, C.W. (1955) also revealed that there is no significant relationship between Anxiety and academic achievement.

Spielberger, S.D. and Katzennayer, W.G. (1959) using Tyler’s Manifest Anxiety Scale reported a significant negative correlation between Anxiety and academic achievement supported by Luneburg, P.W. (1964) who revealed the negative correlation between these two variables when we gave three Anxiety scales (TASC, BASC, CMAS) to 213 boys and girls in grade IV to VI. For each grade the negative correlation between Anxiety case for other two general Anxiety measures. Further, negative correlation tended to be larger for boys more than for girls.

Sinha, D. (1961) administered two general anxiety scales to a sample of 165 Engineering students, aged 19 to 24 years. He concluded that there existed a small, though significant inverse relationship between anxiety and academic performance.

Jindal, C.R. and Panda, S.K. (1962) said that low achieving boys had high level of general anxiety : low achievers, irrespective of sex, were more anxious than
high achievers. Girls, in general, irrespective of achievement level possessed more anxiety than boys.

Saxena, P. (1965) also found no relationship between anxiety and academic achievement. He further pointed out that with the anxiety level of performance of the student increases.

Shnha, D.A. (1966) and others found that there exists a significant correlation between anxiety and academic achievement.

Pandit, K.L. (1969) conducted a study, “The role of anxiety in learning and academic achievement.” The major findings of the study were: (1) Anxiety bore a negative relationship with learning and academic achievement; (2) When anxiety was experimentally induced, the lower’ Anxiety group showed a significant improvement in the retest.

Mehta (1969) introduced an Anxiety variable such concern for achievement and related this factor to the academic performance of the students. He found that there was a significant correlation between these two factors i.e. students who were concerned about their achievement performed (school marks) significantly better than those who were not concerned about their achievement.

Singhal A.G. (1971) in his latest studies found no significant relationship between Anxiety and academic achievement.

Hussain, M.S (1977) recorded the academic performance of the group with moderate Anxiety was significantly better than those of the high and low Anxiety group. Anxiety bore a curvy linear relationship with academic performance. Low Anxiety also showed a lack of drive and motivation in the students.

Bisht, A.R. (1979) reported that academic achievement of high moderate and low anxious were significantly different and the correlation between the two variables was negative.

Mathur, D.M (1982) conducted a study entitled, “A study of Rorschach diagnostic indicators of intelligence, anxiety, self image and level of aspiration”. The major objectives of the study were: (1) To evaluate the relative merits of the Rorschach test as a diagnostic measures for certain selected personality variables for the usage period (1950-65) at the Bureau of Psychology; (2) To assess the concurrent validity of the Rorschach diagnostic indicators for certain selected variables by
correlating them with another projective measure of personality and certain objective measures. The main findings were: (1) The mean score analysis of both frequency scores and proportion scores (controlling number of responses), indicated a generally normal pattern of distribution for the Rorschach indicators used. This suggested overall validity for discrete indicators in terms of usage in the data sample selected; (2) The inter-correlation analysis yielded very few statistically significant correlation. In the frequency scores of Rorschach indicators the significant correlation with TAT ratings were only 25 out of the total matrix of 320 correlation. Similarly, the number of significant correlation of the proportion scores of the Rorschach indicators with TAT rating were even lower, out of the total correlation matrix of 320 only 14 correlation were statistically significant. Further attempt to factor analyze the TAT categories for greater reliability yielded only one significant correlation.

Thus while on the one hand the discrete Rorschach indicators mean pattern tended to support the usage of the test as a valid tool, on the other, the relationship of Rorschach diagnostic indicators with another projective test and objective measures of intelligence was not borne out, thus, suggesting lack of concurrent validity.

Kiran, U. (1983) conducted a study, “anxiety, Task complexity and sex as related to verbally expressed preferences and problem solving performance. The findings were: (1) Anxiety and sex did not affect the mean interestingness it ratings of subjects separately, whereas the complexity of the task affected it significantly; (2) Complexity in addition to anxiety as well as sex affected the mean interestingness ratings significantly; (3) There was found to be a significant main effect of rating trials leading to a significant interaction between sex and rating trials, anxiety and rating trials, and complexity and rating trials; (4) The main effect of anxiety, sex and task complexity variables were found significant as the problem solving performance was concerned; (5) The interactions between anxiety and complexity, and sex and complexity were found significant where as the interaction between anxiety and sex was not significant; (6) On trend analysis, a significant linear and quadratic trend for complexity variable was found. Or liner trend analysis interactions between anxiety and complexity, and sex and complexity were significant. For the quadratic trend analysis none of these interactions were found significant.
Purandare, V.M. (1984) conducted a study, “Anxiety and strategies in serial verbal learning.” The main purpose of the present study was to study the effects of the various strategies on the shape of the serial position curve in the case of high and low anxious students. The findings of the study were: (1) The low anxious subjects were better in performance in the serial verbal learning task as compared to high anxious subjects; (2) The e-determined and S-determining strategies affected the learning of the subjects. However, the shape of the serial position curve remained invariant; (3) The closed cycle strategy was found to be superior to the test of the E-determining strategies; (4) The primacy finality characteristic of the serial position curve remained unaffected by the strategies; (5) The HA and the LA subjects did not differ in types of crors made during the serial verbal learning; (6) The order of group learning curves revealed that the subjects used their own, anchors to learn the serial list; (7) The self pacing strategy threw more light on the subject’s method of attacking the learning task.

Gyanoni, T.C. (1984). Frustration reaction as functions of achievement motivation and anxiety at different age levels. The main findings were: (1) Most of the subjects of the parent population were not aggressive or passive in frustrating situations, (2) Except the ‘I’ reaction at the age groups of 17+ to 20+ and the ‘E-D’ reaction at the age group of 21+ to 24+ years, all the remaining frustration reactions were positively skewed, i.e. most of the boys of age group 17+ to 20+ years were more self critical rather than aggression oriented. At the upper age level (21+ to 24+), most of the boys were more ego defensive rather than obstacle dominant; (3) At all groups the percentage of E and ‘E-D’ was comparatively higher in relation to other frustration reaction; (4) A significant increase in intropunitive behavior was observed, whereas impunities frustration reaction increased with age but a significant fall in this particular reaction was observed after the age of 20 years; (5) Ego defensive and obstacle dominate reactions to frustration decreased as the subjects advanced in as but their need persistent reactions significantly increased with increase in their age; (6) Boys with high achievement motivation were intropunitive and need persistent, but low in extrapumitive and ‘O-D’ behavior. The boys with a low level of achievement motivation were found to be more ego defensive, obstacle dominant and impunities in their behavior; (7) The students with a high level of anxiety were found to be more
intropunitive and obstacle dominant, whereas the low anxiety boys were more impunities and need persistent.

Barinder, M. (1985) conducted a study of general anxiety and test anxiety with reference to the environmental factors and extroversion-introversion of Delhi students. The findings of the study were: (1) Sex was significantly related to anxiety, both general and test anxiety; (2) Girls exhibited more general anxiety, as well as test anxiety, than the boys; (3) There was a positive relationship between general anxiety and test anxiety; (4) Socio-economic status did not play any role in the case of boys, neither on their general anxiety nor on their test anxiety. There was significant difference in general anxiety of very high Socio-economic status girls and high Socio-economic girls and average Socio-economic status girls. Test anxiety was also seen to be affected by Socio-economic status in case of girls (only in case of very high, Socio-economic status and average Socio-economic status. The lower the Socio-economic status of girls, the higher was their test anxiety; (5) The interactive effects of Socio-economic status and extroversion were again not found in the case of boys, neither in general anxiety nor in test anxiety. In case of girls, the interactive effect was observed at average Socio-economic status level; (6) There was no significant difference between very high Socio-economic status extrovert girls and very high Socio-economic status introvert girls and between high Socio-economic status extrovert girls and high Socio-economic status introvert girls. (7) There was a significant relationship between general anxiety and test anxiety of boys; (8) There was a significant relationship between general anxiety and test anxiety of girls.

Purandare, V.M. (1984) of Poona University studied Anxiety and strategies in serial verbal learning 40 low Anxiety and 40 low average students were taken. He concluded that low anxious subject were better in performance, in the serial verbal learning task than high anxious. A negative relationship between Anxiety and achievement was indicated in the studies of Mehrotra (1986).

Mohanty, C. (1985) conducted a study, “Effects of state trait anxiety on classroom learning and personal adjustment of elementary school pupils.” The objectives of the study were: (1) To investigate the incidence of state trait anxiety in elementary school children; (2) To explore the relationship between pupils’ anxiety and their adjustment, intelligence, and achievement; (3) To formulate instructional
materials and apply them to reduce pupil anxiety in the classroom and (4) To find out the effect of intervention on anxiety, adjustment intelligence and achievement. The results indicated following: (1) The anxiety scales, A-Trait, A-State, GASC and TASC showed a high degree of split half reliability. (2) Children at the elementary school stage distinctly showed experience of trait and state anxiety. Trait anxiety among children was noted all educational levels; (3) There was also the difference between these anxiety scores of children at various educational levels; (4) Children’s GASC scores were higher than their TASC scores; (5) There was no interaction between general and test anxiety and educational level; (6) Both trait and state anxiety had a significant negative relationship with adjustment of elementary school children; (7) There existed a low negative correlation between trait anxiety scores and intelligent test scores of children at the elementary school; (8) Trait and state anxiety were negatively related to academic achievement; (9) The anxiety level of the experimental group fell as a result of interventional; (10) The intervention programme improved the adjustment and academic performance of children at the higher levels of the school by deducing their level of anxiety.

Gupta (1987) studied the relationship between locus of control, examination anxiety, level of aspiration and academic achievement of secondary students. He reported that examination anxiety was having a significant negative correlation with academic achievement for the total sample, arts and science group boys and girls.

Thilalgavathi, T. (1990) studied the academic achievement in relation to intelligence, creativity and anxiety. The sample comprised of 400 first year higher secondary boys and girls who were selected from a population of 2,871 students from 20 higher secondary schools of Kanya Kumari revenue district, by random sampling technique. The major findings of the study were that of the total 400 students of the sample, the 19.25% were high achievers, 60.75% were average achievers and 20% were low achievers. The high, average and low achievers differed significantly among themselves in their intelligence. The high achievers secured comparatively high mean score than the average and the low achievers in creativity. The high achievers group belonged to low level anxiety group and the low achievers group belonged to high level anxiety group. The influence of anxiety was found to be negative on the academic achievement.
Garg V.P. and Seema Chaturvedi (1992) studied the relationship between intelligence, socio economic status and academic achievement. This study was attempted to measure the contribution of intelligence and socio economic status in determining academic achievement. The analysis was based upon a field study of 535 students whose I.Q. score and SES score were regressed with their tenth class examination results of M.P Board. Sample comprised of both rural and urban students. His major findings were: 1. There was linear relationship between I.Q. and academic performance. The mean of the I.Q. scores were higher with the higher socio economic status and tapered off as SES mean declined for both rural and urban students. 2. Academic performance in relation to SES also has a linear correspondence for both rural and urban students. 3. A higher mean of I.Q. scores of rural students for all SES categories as compared to urban students. 4. It was also observed that in spite higher mean scores by all SES categories amongst rural students, the academic achievement scores were lower than urban students. The reason for such a situation were given by researchers as: (a) Weak educational inputs in terms of physical facilities or unutilized physical facilities due to weak leadership and management. (b) Poor curriculum transactions in the classroom due to weak organizational climate of the school. (c) Indifferent or passive attitude of the students towards study for lack of motivation resulting in poor class interaction. (d) These weaknesses may be existing at a point of time or may be accumulating over a period of time. This study established strong association between I.Q. and SES for academic performance and researchers suggested that academic performance could be improved by social support measures besides good schooling.

Aranha et al. (1998) studied the anxiety in students and in relation to intelligence and peer perception. A relationship between anxiety and misbehaviour in the classroom has often been presumed by educators. The present study attempted to clarify the relationship among intelligence, anxiety and peer perception. 300 students were selected for the test of intelligence, anxiety and sociometric choice. Results shown that children from middle high socio-economic status had higher scores on intelligence and anxiety tests and those students who were viewed as anxious than their peers were the most popular in the group.
Jensen (1998) proposed that this relationship between variables like intelligence, personality and academic achievement can be explained by R.B Cattell’s investment theory in the sense that individual differences in achievements are due to the different ways in which individuals invest their general intelligence or ‘g’ resources because it is at this level that personality may be related to intelligence.

Cortada et al. (1999) studied the achievement in primary education and its relation to general intelligence and the thinking process in problem solving. They examined the relationship between intelligence and achievement at school with thought processes involved in problem solving. The research was conducted in a primary school with a sample of 200 students. An achievement test consisted of general knowledge, language, mathematics was constructed and then applied to students. The Raven's progressive matrices was used to study thought process and strategies for problem solving were also administered. Results indicated that the school did not use the best intellectual potentiality of students.

J.H. Shah (1999) conducted a study of relationship among intelligence, self concept and academic achievement of pupils of tenth standard of semi urban and rural areas. He concluded after the study that there was positive and linear correlation among self concept deviation I.Q. and academic achievement in both types of areas. He found that there was no difference due to sex in self concept in both semi urban and rural areas. There was significant relationship of intelligence with academic achievement than self concept.”

Mangant, Dolly (2000) studied the relationship of vocational maturity, intelligence, SES and academic achievement. In this study, a sample of 525 students was taken who were studying in B.A./B.Sc. final year from Patiala. The findings shown that socioeconomic status is the best predicator towards the total maturity. Further, positive and significant correlation exist between intelligence and six measures of vocational maturity. The total attitude is not dependent on the independent measures of intelligence, SES and academic achievement.

Mohapatra, M. and Mishra, J. (2000) conducted a study on Gender Effect on Achievement in Science with a Special Reference to Mechanics from Primary to Secondary School Years–A Study under Indian Conditions to find out gender difference in achievement problems related to mechanics under Indian conditions.
The major findings were: (1) There existed large difference in achievement in mechanics. (2) In Class IX the ‘t’ value was 0.09 and D value was 0.02 which showed there was almost negligible difference in achievement in mechanics by boys and girls. (3) It found drastic change in achievement in mechanics that occur for girls but such remarkable change existed for boys. Eight references were cited in the study.

Alam, M.M (2001) conducted a study on Academic Achievement in Relation to Socio-economic Status, Anxiety Level and Achievement Motivation: A Comparative Study of Muslim and non-Muslim School Children of Uttar Pradesh. The main objectives were: (1) To study academic achievement in relation to socioeconomic status of the selected sample of school going children; (2) to study the extent up to which academic achievement of the children are affected by their anxiety level; (3) to study academic achievement with respect to achievement motivation of school going children; (4) To compare the data on academic achievement, socioeconomic status, anxiety level and achievement motivation between Muslim and non-Muslim school children. The main findings were: Significant positive relationship has been witnessed between socio-economic status and academic achievement, negative relationship exists between anxiety and academic achievement, positive relationship between achievement motivation and academic achievement of Muslim and non-Muslim children. Both Muslim and non-Muslim children have significant inverse relationship between socio-economic status and anxiety. Socio-economic status goes along with higher achievement motivation. The academic achievement of non-Muslim children has been found superior in comparison to their Muslim counterparts. The non-Muslim children have less anxiety in comparison to Muslim children. On the measure of achievement motivation, non-Muslim children are found to be superior to Muslim children. The study cites one hundred seventy seven references.

In a recent study by Yildirim & Ergene (2003), examination preparation process was correlated with level of depression among Turkish adolescents. Schoolwork generated negative subjective states, most frequently experienced during homework. In particular, those who spent more time doing homework experienced more internalizing problems. The “do or die” competitive educational system was thought to induce high levels of stress in students as well as parents. Examinations
through the school career carry increasing priorities and consequences as years progress. Places for the students are limited at high quality schools and universities in Turkey and there is a quota for entering a higher education institute. Only 9% of the students who take University Entrance and Placement Examination have a chance to study at an undergraduate program.

Saxena (2004) conducted a study to investigate the relationship between intelligence and academic achievement in English. This study is an attempt to study that how far intelligence is related to students’ academic achievement in English. The objectives of the study were: (1) To find out whether students differ in their I.Q. score w.r.t. sex, medium of instruction, locality and nature of management (2) To find out the extent of relation to achievement in English. (3) To find out whether sex of the students, medium of instruction, locality and nature of management of the school have any influence on students’ academic achievement. The sample of this study comprises of 320 boys and 260 girls of XII grade from 16 higher secondary schools of Coimbatore district, both from rural and urban areas. After investigation, researcher concluded that (i) Intelligence of students positively influenced their academic achievement in English. (ii) Students having higher level of intelligence preferred English medium classes and urban schools. (iii) Sex of the students had no influence on their intelligence, as well as academic achievement in English. (iv) Students preferred school of different types of management irrespective of their level of intelligence. (v) The medium of instruction and the locality of school had influence on students academic achievement in English. (vi) The sex of the students and the nature of management of the school had no significant influence on their academic achievement.

Saini, S. (2005) conducted a study, “Family Environment and Academic Achievement of Adolescent Children of Working and Non-working Mothers”. To study and find out the difference in the family environment of adolescent children of working and non working mothers; (2) to study and compare the academic achievement of adolescent children of working and non-working mothers. The findings were: The family environments of adolescent children of working and non-working mothers were significantly different. In respect of academic achievement
also children of working mothers were much better than the adolescent children of non-working mothers’. The study cites eight references.

Agrawal, M. (2006) conducted a study, Does Emotional Intelligence Affect Relationship between Deprivation and Academic Anxiety? The objectives of the study were: (1) To find out the relationship between the deprivation and academic anxiety among girls having different levels of emotional intelligence; (2) to evaluate the relationship between the academic anxiety and different areas of deprivation. The major findings were: (1) The deprivation and academic anxiety are positively correlated in case of more emotionally intelligent girls compared to low emotionally intelligent girls. (2) The social deprivation and academic anxiety are positively correlated in case of emotionally intelligent girls due to their greater understanding of emotional behaviour of their own and others. The parental deprivation and academic anxiety for more emotionally intelligent girls is positively correlated which could be due to the lack of support from parents in academics which leads to greater academic anxiety among them.

Yildirim, Ergene, & Munir (2007) in their study presented that there is a highly competitive educational system that stresses the acquisition of knowledge at all costs by the students in Turkey. Students have to take many highly competitive centralized, high-stake examinations, such as the Anatolia High School Entrance Examination, University Entrance Examinations. Particularly, the public education system at the end of the 8th grades has had a dramatic impact on the lives of children and their parents. Performance in these high-stake exams is crucial for seeking admission for higher education at universities and colleges and to gain access to prestigious careers. Such practices put considerable pressure on the students. This is evident in the kind of preparation that is undertaken for these examinations such as attending private tutoring centers (called “dershane” in Turkish) or coaching classes, using study guides and the like, to the extent that classroom teaching has become a “chore.” Moreover, much of this preparation begins long before the children enter these grades and during their summer breaks as well.

Cheryl Anne Curtis (2009) conducted a study, “The relationship between anxiety, working memory and academic performance among secondary school pupils with social, emotional and behavioural difficulties: a test of Processing Efficiency
Theory. Research has shown that negative emotions, particularly anxiety, can play a role in learning and academic performance. The Processing Efficiency Theory (PET) and the more recent Attentional Control Theory (ACT) have been put forward to explain the relationship between anxiety and performance. The theories assume that worry (the cognitive component of anxiety) is thought to have a significant impact on performance and that the affect of anxiety on performance is through working memory, and in particular the central executive. The literature review identified a number of key areas of development, including the application of the theories to younger populations and with targeted populations who underachieve in school. The empirical paper aimed to test the application of PET and ACT for pupils with social, emotional and behavioural difficulties (SEBD). It investigated whether the negative impact of anxiety on academic performance was mediated via working memory and whether this relationship was moderated by emotional regulation. Twenty-four pupils with SEBD aged 12 to 14 completed working memory tasks and self-report anxiety measures. Academic performance was also assessed. Heart rate variability and parent-rated measures of conduct problems and hyperactivity were used as indicators of emotional regulation. The results showed that overall, there was a negative association between test anxiety and academic performance and this association was clearer for the thoughts component of test anxiety. Visuospatial, but not verbal working memory was found to mediate the relationship between test anxious thoughts and academic performance on tasks where the central executive was involved. These findings are broadly consistent with PET and ACT. The mediation relationship was stronger for pupils identified as displaying higher levels of hyperactivity; no moderating effect was found for either heart rate variability or conduct problems. The results have implications for understanding the underachievement of children with SEBD and for considering interventions to promote attainment in school.

Singh, Y.G. (2009) conducted a study, “Level of Academic Anxiety: Self Confidence and the in Relation with Academic Achievement in Secondary Students. In the present study the relation between level of Academic Anxiety and level of self confidence on academic achievement among Secondary Students. The researcher made an effort to know the significant level of Academic Anxiety & self confidence in Male & Female”. The findings are 1. Significant co-relation between Academic
Anxiety & Academic Achievement. 2. Significant Co-relation between Self-Confidence & Academic Achievement. 3. Significant difference between Academic Anxiety Level in Male & Female. 4. No significant difference between self confidence levels in Male and female

Prima Vitasari, Muhammad Nubli Abdul Wahab, Ahmad Othman, Tutut Herawan and Suriya Kumar Sinnadurai (2010) observed that anxiety is one of the major predictors of academic performance. Students with anxiety disorder display a passive attitude in their studies such as lack of interest in learning, poor performance in exams, and on assignments. This research observes the relationship between study anxiety level and students’ academic performance. The test to find out a significant correlation of anxiety and academic performance was has carried out among engineering students. A total 205 males and females student participated in this test. They were second year students from four engineering faculties at University Malaysia Pahang (UMP). The study anxiety level was measured using State Trait Anxiety Inventory (STAI). Meanwhile, students’ academic performance was measured using Grade Point Average (GPA). The results showed that there was a significant correlation of high level anxiety and low academic performance among engineering students, with significant correlation (p = 0.000) and the correlation coefficient is small with r = -.264. Large of sample size required to strengthen the coefficient correlation was suggested for further research.

Selkirk, Laura C.; Bouchey, Heather A.; Eccles, Jacquelynne S. (2011) conducted a study, “Interactions among Domain-Specific Expectancies, Values, and Gender: Predictors of Test Anxiety during Early Adolescence.” This research focuses on the interaction between students' domain-specific expectancies and values as a predictor of test anxiety. A subsample of adolescents from the MSALT dataset are used in the current study; students complete measures during the spring of sixth grade and again during the spring of seventh grade. Overall, findings provide support for the predicted expectancy--value interaction. Those students who highly value success in math or English yet expect to do poorly in those subjects report the highest levels of test anxiety. Effect sizes are larger for math than English. Few gender differences emerge, but one prospective analysis reveals that girls who devalue English are more likely to maintain moderate levels of test anxiety across the transition to junior high
school. Findings contribute novel information to the literature on test anxiety in young adolescents.

Mellanby, Jane; Zimdars, Anna (2011) conducted a study, “Trait Anxiety and Final Degree Performance at the University of Oxford. Higher Education”. A questionnaire was administered to 1,929 applicants to Oxford University, including measures of trait anxiety, behavioural response to examinations and to breakdown in relationships. 635 of these applicants were admitted to the university and of these, 383 also responded to a questionnaire administered 4 years later, just before their final examinations. The classification (first, upper and lower second, third class) and marks in the final examinations were obtained and the relationship between the personality measures and academic performance were calculated. Women showed higher anxiety scores than men at both times of testing. Women who obtained the best (first class) degrees scored significantly higher on anxiety than those who performed less well. In contrast, there was no such difference in men. Explanations for anxiety having a facilitatory effect on academic performance of women at Oxford University are proposed.

Peleg, Ora (2011) conducted a study, “Social Anxiety among Arab Adolescents with and without Learning Disabilities in Various Educational Frameworks.” The aim of the current study is to examine differences in social anxiety between learning disabled (LD) and non-learning disabled (non-LD) students, taking into account educational placement. The present research is the first to consider the above relations among Christian Arab adolescents living in Israel as an Eastern collectivist minority. On the whole, students with LD (learning disabilities) reported higher levels of social anxiety than their non-LD peers. Moreover, adolescents with LD studying in a special education classroom reported higher levels of social anxiety than adolescents with LD in a partially inclusive classroom. An interesting and unexpected result was the higher levels of generalised social anxiety (SAD-G) reported by male adolescents in comparison to female adolescents. These results provide evidence that students with LD, especially those attending special education classes, suffer from high levels of social anxiety. This means that they experience intense distress, which can be expected to impair their social and academic
performance. According to the present research, there is a slight advantage to partially inclusive classes

Awan, Riffat-un-Nisa; Azher, Musarrat; Anwar, Muhammad Nadeem; Naz, Anjum (2011) conducted a study, “An Investigation of Foreign Language Classroom Anxiety and Its Relationship with Students’ Achievement, Journal of College Teaching & Learning”. The present study examines anxiety in English undergraduate classes with regard to the type of situations that provoke anxiety during different stages of the learning process and the relationship of anxiety with learners' achievement. Participants of the study include 149 undergraduates enrolled in second and sixth semester of different departments of University of Sargodha who are learning English as a foreign language. The questionnaire used in this study is the abbreviated form of Foreign Language Classroom Anxiety Scale (FLCAS). An inventory is also used to determine different situations that provoke anxiety. Finally, students' GPA in English classes is taken to find its relationship with language anxiety. The results show that language anxiety and achievement are negatively related to each other. It is also found that female students are less anxious in learning English as a foreign language than male students. "Speaking in front of others" is rated as the biggest cause of anxiety followed by "worries about grammatical mistakes", "pronunciation" and "being unable to talk spontaneously". It is suggested that the classroom environment should be encouraging and motivating. Moreover, teachers need to deal with anxiety-provoking situations carefully.

Manani and Sharma (2011) conducted a study, “Examination Anxiety As A Determinant Of Suicidal Ideation. The present study investigated the suicidal ideation among the students of different Boards of examination and gender. Effect of examination anxiety on suicidal ideation was also studied. The sample of the study consisted of 180 students of U.P. Board, CBSE Board and I.S.C. Board of affiliated schools of Agra city, 60 students in each group (30 boys and 30 girls). The age range of the students was 16-18 years. Students Examination Anxiety Test (SEAT) developed by Agarwal and Kaushal (1995) and Suicidal Ideation Questionnaire (SIQ) developed by Reynolds (1987) were used to measure the level of examination anxiety and suicidal ideation respectively. Results revealed that students of U.P. board have higher level of suicidal ideation than the students of ISC board and CBSE board.
Students of CBSE board have higher level of suicidal ideation than the students of ISC board but lower than the students of U.P. Board. Result shows that there is no significant difference in suicidal ideation among male and female students. Further, it was found students having high examination anxiety have higher level of suicidal ideation than those who are having low level of examination anxiety.

2.3 STUDIES RELATED TO READING INTERESTS

Badmi, C.H. and Badmi, D.M. (1970) conducted a research entitled “A study of reading interest among the college students” using questionnaire as a tool and with the sample comprising of 327 male and 131 female students. The main finding of the project were: (1) About 60% of students were interested in reading various types of books; (2) More than 60% of students were found to have interest in novels and short stories while few had interest in reading poetry, essays, travel and science materials, criticisms, letters and arts. Science books were disliked by the groups.

Dass, Damodar (1953-54) conducted a study on “Reading Interest of Teachers” and arrived at the following conclusions: (1) 47.5% teachers, of which 50% are ladies, do not like to read pedagogical books or magazines; (2) More male are interested in reading books on education; (3) A high percentage of trained teachers lack the interest itself in teaching; (4) Age influences amount and material for reading; (5) Front page is mostly read out among the newspapers; (6) It was found that the selection of books is by the author’s name rather than going through the books review or by views of friends.

Nair, G.S. (1956) made a study of the Reading Interests of Graduates of Jullundur district in Punjab. The findings were under: (1) About 75% have reading interest; (2) More male are interested in reading; (3) Males are interested in Science and Females in Fiction; (4) Both rural male and female are interested in reading; (5) The order of preference of the material they read is Fiction, Religion, Educational Psychology, Philosophy, History, Literature and Drama have marginal readers; (6) More rural female teachers are interested in Literature than urban; (7) Sources of getting books are mainly school library, public library and purchases; (8) They prepare for examinations with the help of books; (9) The main motive of reading is to improve general knowledge, for personal, skill, for the joy it brings, for self culture
etc.; (9) Hurdles in the way as ranked in order are lack of funds, lack of library facilities, family worries, lack of leisure and lack of proper atmosphere at home.

Susan Swanton (1984) included a question asking students to recommend methods that teachers, parents, and librarians should adopt in order to encourage reading. Gifted students frequently suggested that educators should "supply more books of interest to kids. while students in regular classes suggested assigning reading homework and "showing more what can be learned from reading. Swanton obtained similar results when she asked students why they liked to read. For the students in the gifted classes, freedom and flexibility was the most common response, while students in regular classes more often cited the educational value of reading as the thing they liked best. When she shared her results with a group of gifted students, they confirmed this opinion, advising educators to go by what kids like to read; don't force or assign a particular book. They said they liked to have a choice of books to complete reading assignments and were resistant to parental selections.

Pradhan, Sujata (1985) in the study entitled “Reading interests of undergraduate students of different faculties in relation to sex, urban and rural background and academic achievement” found that (1) Science students have better reading interest as compared to Commerce and Arts students; (2) High achievers read more than the low achievers. High achievers have better reading interests than the low achievers; (3) While comparing the reading interest of the boys and girls at the undergraduate level, it was found that Science boys were moiré interested to read the subjects like physics and Chemistry while Science girls were interested to read Zoology and Botany. Arts boys were found interested reading romantic and comedy books while girls were found interested in reading fiction, religious books and romantic stories; (4) Urban students have better reading interest than rural students.

Rastogi, Anita (1993) in her study entitled “A comparative study of the scholastic performance, Teaching Aptitude, Attitude and Reading Interest of the B.Ed. Pupil”. Teachers enrolled in the Campus based and campus based B.Ed. pupil teachers is more than their counterparts of distance teaching mode, while is indicative of lack of reading interest among the B.Ed. distance mode students. Therefore, library facilities, books, magazines etc. Should be made easily available to the distant B.Ed.
pupil teachers. They should be encouraged to participate in cultural activities, like dramas, debates, poetic recitation etc. to increase their reading interest, while ultimately will help in better achievement.

Sharma's (1994) study revealed that the teachers' style characterized by a judicious cognitive demand, emphasis on guided discovery and higher number of opportunities for the practice of process skill is more likely to facilitate the development of process skills among children than the teaching style characterized by marked learnings towards teacher domination and didactiveness, lower cognitive demand, no emphasis on discovery and lack of provision of opportunities for the practice of process skills.

Germann and Aram (1996) assessed the students' performance on the science processes of recording data, analysing data, drawing conclusions and providing evidence. A total of 304 students field tested the alternative assessment of science process skills. Their responses were used to develop a research rubric and then this rubric was used to determine response patterns that could inform both instructions and assessment of science process skills. Only 61 per cent of students performed the activity, and recorded data successfully. Sixty-nine per cent of students did not attend to the hypotheses in drawing their conclusion. Eighty-one per cent did not provide specific evidence for their conclusions.

Germann et al. (1996) found that explicit, incremental development of the science process skills of formulating hypotheses and identifying variables, together with model examples, may be a means to facilitate student success in designing science experiments.

Joseph (1998) identified cognitive, affective, social and environmental variables related to process outcomes in physics. It was concluded that process outcomes in physics could be predicted by employing four independent variables, viz. intelligence, attitude towards science learning, science learning interest and socio-economic status. These predictors were found to be highly correlated to process outcomes in physics.
Ashley W. Larsen (1999) conducted a study titled "Study Of The Reading Interests Of High-Ability Readers In A North Carolina Elementary School of the University of North Carolina at Chapel Hill." This study describes a questionnaire survey of 21 fourth, fifth, and sixth grade students identified as high-ability readers in a central North Carolina school. The survey was conducted to determine the reading interests of high ability readers, their sources for reading materials, and their methods of selection. The study participants showed tremendous variety in their selection of reading material. They showed interest in books written both above and below their reading level, and in a wide range of genres. Fantasy and science fiction were popular genres for both boys and girls. Girls showed a strong interest in historical fiction. Most of the participants sought their reading material from home, the school library, and from bookstores, rarely using the classroom, the public library, or friends as a source for books. They preferred to select books independently, by browsing or searching on particular topics, rather than by relying on recommendations from parents, teachers, or librarians. Peer recommendations were also frequently used as a method of selection, even though the participants did not see reading as an activity valued by their friends.

Orlando J. Olivares (2001) conducted a study, "Student Interest, Grading Leniency, and Teacher Ratings: A Conceptual Analysis." This study explored the extent to which student interest and grading leniency were predictive of teacher ratings. Unlike other teacher rating research, however, this study measured student interest at the beginning and end of seven sections of two courses; further, grading leniency was explicitly defined and measured, not inferred from expected grade and workload. Data indicate that precourse interest was positively associated with expected grade, but was not predictive of ratings, nor did it moderate the expected grade–rating association. Rather, interest change was positively associated with expected grade and predictive of ratings. Further, interest change and grading leniency provided incremental variance in ratings, beyond that provided by expected grade.

Naeemullah Bajwa1, Aijaz Ahmed Gujjar, Ghazal Shaheen and Muhammad Ramzan (2005) conducted a study, "Comparative Study of The Study Habits Of The
Students From Formal And Non-Formal Systems Of Education In Pakistan”. Study habits mean theme setting of subject to be learned or investigated, and the tendency of pupils or students to study when the opportunity is provided to them. Students can’t use effective study skills, until they are not having good habits. One individual learn more quickly and thoroughly than other due to good study habits. The study was conducted in order to determine the difference between the study habits of students from Formal and Non-Formal systems of education in Pakistan. Five hundred students from the Islamia University of Bahawalpur and 500 students from the Bahawalpur region of the Allama Iqbal Open University were taken as sample. A forty item questionnaire on five stages scale was administered to the students and questionnaire was divided into seven clusters i.e. (Time management, Class attendance & participation, General study strategies, Exam preparation, Goal setting & motivation, Textbook reading and Note taking). Data was analyzed by using SPSS XII the reliability of the questionnaire was 0.869(Cronbach’s alpha). Students of formal system are significantly better on time management. Students of non-formal system are significantly better on class attendance and participation. Students of non-formal system are significantly better on general studying strategies. Students of formal system are significantly better on exam preparation. Students of non-formal system are significantly better on general setting and motivation. Students of non-formal system are significantly better on textbook reading. Students of formal system are significantly better on note taking. Over all students from non-formal system of education are significantly better than the students of formal system.

Rotgans, Jerome I.; Schmidt, Henk G. (2011) conducted a study on “Situational Interest and Academic Achievement in the Active-Learning Classroom”. The aim of the present study was to investigate how situational interest develops over time and how it is related to academic achievement in an active-learning classroom. Five measures of situational interest were administered at critical points in time to 69 polytechnic students during a one-day, problem-based learning session. Results revealed that situational interest significantly increased after the problem stimulus was presented. Subsequently, situational interest gradually decreased but at the end of the day increased again. Testing a path model relating the situational interest measures showed strong (directional) interrelations. Moreover, situational interest was highly
predictive for observed achievement-related classroom behaviors. The latter, in turn, proved to be a significant predictor of academic achievement. Aggregating situational interest over the day led to less accurate predictions of achievement-related classroom behaviors and academic achievement. Implications of these findings for situational interest research are discussed.

Patrick, Lyn; Care, Esther; Ainley, Mary (2011) conducted a study, “The Relationship between Vocational Interests, Self-Efficacy, and Achievement in the Prediction of Educational Pathways”. The influence of vocational interest, self-efficacy beliefs, and academic achievement on choice of educational pathway is described for a cohort of Australian students. Participants were 189 students aged 14-15 years, who were considering either academic or applied learning pathways and subject choices for the final 3 years of secondary school. Using Holland's interest model within a social cognitive career theory (SCCT) framework, logistic regression analyses indicated that all three constructs were significant predictors of pathway and subject selection and enrolment. The best predictive model for students with strong Realistic interests was an interaction of self-efficacy and interest. For Investigative students, both self-efficacy and achievement were best predictors and for Artistic, Social, and Conventional, achievement was the best predictor of future course enrolment. The results of this research offer partial support for the theory of Lent, Brown, and Hackett in that a variable pattern of associations between vocational interest, self-efficacy, and achievement emerged across the Holland interest themes.

Baroody, Alison E.; Dobbs-Oates, Jennifer (2011) conducted a study, “Child and Parent Characteristics, Parental Expectations, and Child Behaviours Related to Preschool Children's Interest in Literacy. The current study examined the relations between children's literacy interest and parent and child characteristics (i.e. parents' education level and child's gender), parental expectations of their child's school attainment and achievement and the child's positive and problem behaviours. Participants were 61 preschoolers from predominately low-income families enrolled in local preschool programmes. Parents completed questionnaires reporting demographic characteristics, parents’ expectations and their child's literacy interest. Preschool teachers reported on children's behaviours in the classroom using standard
behaviour-rating scales. Child gender was marginally related to child literacy interest, but parent education was not significantly correlated with interest. Parents' expectation of their child's school achievement was significantly correlated with child literacy interest, but parental expectations about attainment were not. Overall, teachers' reports of children's positive and problem behaviours were correlated with child literacy interest in the expected direction. Interpretation and implications of the findings and future directions for research are discussed

2.4 STUDIES RELATED TO ACHIEVEMENTS

Saran, S.A. (1975) studies the teachers’ attitude towards teaching profession and certain personality variables in ‘Study of teachers’ attitude towards teaching profession and certain personality variables as related to their level of education and amount of experience and found the attitude of teachers and interest towards the teaching profession positive.

Bhagirath G.S. (1978) in his study entitled ‘Correlates of academic achievement as perceived by the teachers and students of high schools’ has revealed that the teachers and students perceived the correlates of academic achievement as intelligence, character, creativity, punctually, alertness, efficiency, social/emotional adjustment and intelligence/social adjustment.

Shah, J.H. (1978) studies ‘Relationship of self-concept to academic achievement of secondary school pupils and observed the significant positive and liner relationship between self-concept and academic achievement.

Jain, Bimla (1982) made a study entitled, “A study of the classroom behavior pattern of teachers in relation of their attitude towards profession, morale and values for her Ph.D. work and found that : (1) Age of the teacher was negatively significant relationship with teacher attitude towards (a) teaching profession (b) classroom teaching. This means that young teachers have more vulnerable attitude towards teaching than older teachers do; (2) Negative significant relationship has been found between teaching experience and teacher attitude towards classroom teaching.
Goel, J.C., Sabarwal, N. & Tiwari, A.D. (1984) identified the factors which may help in the selection of prospective bleachers and the achievement of student teachers in B.Ed. In the study ‘Developing tools for admission to secondary teachers training institutions in India, intelligence, attitude and personality were found to be the best predictors of students teacher performance in the B.Ed. final examinations.

Dixit, Mithlesh Kumari (1985) designed a comparative study of the academic achievement and intelligence of adolescent boys and girls studying in classes IX and XI. The sample for the study consisted of 800 students studying in classes IX and XI. Half of them were boys and half were girls. The results indicated that: (1) Among class IX and XI students there was no difference in the academic achievement of intellectually superior and intellectually very superior boys and girls; (2) At all other intellectual levels the academic achievement of the girls was superior to that of boys; (3) In general the intelligence test scores of the boys were higher than those for the girls; (4) In the case of boys there was very high correlation between intelligence test scores and academic achievement whereas for girls there was an average correlation between intelligence test scores and academic achievement.

Ramaswamy (1990) studied the relationship between study habits and academic achievement in high and low achieving boys and girls of 11th standard in Madurai district, Tamil Nadu, India. The study habit inventory of Patel (1976) was used to measure the study habits. Product moment correlation was used to find out the relationship between study habits and academic achievement. The correlation analysis revealed significant relationship between the study habits and academic achievement variables.

Misra (1992) conducted a study on assessing the level of test anxiety, self-concept, adjustment and study habits in predicting academic achievement. The study was conducted on a sample of 88 Oriya male students of 9th and 10th class in three schools of Bhubaneshwar and Orissa, India. To determine study habits of subjects Wrenn’s (1941) study habits inventory was used and total marks obtained in annual examination was used to know the relationship between the independent and dependent variables. It revealed significant and positive correlation between study habits and academic achievement.
Tymms and Libbon (1992) examined the relationship between time spent on homework and exam grades among approximately 3000 students from schools and colleges in Northeast England. Average time spent was 5 hrs per week. Girls reported spending approximately 30 minutes/week more than boys. The study revealed that students who marked for long hours gained slightly better grades than those who worked for modest periods.

Panda (1992) investigated study habits of disadvantaged and non-disadvantaged adolescents in relation to sex and academic achievement. The sample of the study consisted of 50 disadvantaged boys and 50 non-disadvantaged girls of 9th and 10th classes in Orissa, India. The subjects were selected randomly and matched with age, sex, area of living and birth order. Patel’s (1976) study habit Inventory was used in the study. The data was analyzed by applying ANOVA. The ‘F’ value for sex indicated significant difference. From the mean values, it was revealed that boys had significantly better study habits than girls.

Mehta and Malhotra (1993) carried out a study to find out the predictors of academic achievement among 300 arts students. Stepwise regression analysis revealed that study habits and study attitudes were the important predictors of academic achievement.

Stella and Purushothaman (1993) examined the study habits of underachievers. 90 underachievers from rural and urban schools in Tamil Nadu, India were selected by using randomized block design. Patel’s (1976) Study Habit Inventory was used for the study. The ‘t’ test indicated significant difference between urban and rural students in respect of study habits. The mean value showed that urban students had better study habits than rural students. But no significant difference was found between boys and girls.

Stella and Purushothaman (1993) carried out a study on study habits of underachievers. The sample selected through randomized block design consisted of students of Standard IX from there state board schools of Tamil Nadu, India. One rural and two urban areas were selected. IQ score was taken as a blocking variable. There were 30 underachievers from each IQ category high, average and low. Culture Fair Intelligence test scale-2 form 3 designed by Cattell and Cattell (1961) edition and
study habits Inventory by Patel (1976) were used as tools of the study. The ‘t’ test revealed significant difference between study habits of high and low IQ underachievers (t=3.76; P<0.05). High IQ high achievers had better study habits than low; IQ underachievers.

Ananda, M and Singh R.P. (1993), “Achievement of children in relation to feeding, height and age, it was found that there is no significant association between achievement and feeding. Children whose socio-economic status was above the median had significantly better scholastic performance than those below the median. There was no significant association between achievement and age or gender.

Tiwari and Bansal (1994) mentioned that a child with high academic achievement is likely to be well-treated as well behaved and independent and low achievers as incapable and deprived of employment, which may lead this to maladjustment to life.

Loranger (1994) compared the study strategies of six 16-18 year old successful and unsuccessful learners to determine if successful learners would differ in the quality of their information processing from unsuccessful learners. Each subject read and studied on article and participated in an interview. Results showed that successful students tended to be more motivated to succeed and more likely to be active, purposeful and flexible in their strategy use while less successful students perceived themselves as successful, and they lacked selfknowledge of inefficient strategy use.

Roy and Roy (1994) conducted a study to find the interaction effects between mathematics preferences, trait anxiety in mathematics achievement. The sample consisted of 126 eighth grade girls. Speilberger’s trait anxiety inventory was used to measure trait anxiety. Results revealed significant interaction effect of both variables on mathematics achievement. Trait anxiety inhibits mathematics achievement score of low mathematics preference group and facilitates mathematics achievement score for high and moderate preference groups.

Verma (1996) studied the effect of study habits on academic achievement among 500 students of X class. The sample was selected from schools in Delhi by
using random cluster sampling technique. Two ways analysis of variance was applied to know the main and interaction effects. The ‘F’ values of 13.43, 6.84 and 5.59 which were significant at 1 percent level revealed significant independent effect of study habits on performance in Hindi, English and Social Studies. This result further revealed that students possessing good study habits scored higher than students possessing poor study habits in these courses.

Patel (1997) investigated the causes of under achievement in mathematics of eight grade students having high numerical ability. A sample of 35 high achievers and 40 low achievers was selected from schools in Gandhinagar, Gujarat, India, based on their marks in mathematics. The chi-square analysis revealed that Study habits have tremendous effect on the achievement. High discussing important concepts / aspects of mathematics with teachers / peers and finding out solutions to their difficulties etc.

Sampath and Selvarajnanaguru (1997) studied the Study habits of higher secondary commerce students. 428 higher secondary second year commerce studying in Chidambaram taluk in Tamil Nadu were selected by using cluster sampling technique. Study Habit Inventory of Mukopadhyay and Sansanwal (1983) was used as a tool of the study. The ‘t’ test indicated that there was no significant difference between study habits of boys and girls.

Aluede and Onolemhemhen (2001) studied the effect of study habit counseling on the academic performance of secondary schools students in English language. The 108 senior secondary school class and two students of lumen Christ secondary school, Uromi, Edo state, Nigeria was targeted. The multi-stage stratified sampling method was used. The study habit inventory (Bakare, 1977) was taken. The findings of the study were counseling students on good study habits can bring about improvement in the students’ academic performance.

Suneetha and Mayuri (2001) conducted a study on age and gender differences on the factors affecting high academic achievement of school children. The total sample of the study comprised of 120 children of IX and X grade drawn purposively from 10 private schools of Hyderabad. Malin’s intelligence scale for Indian children, study habit inventory, multidimensional assessment of personality inventory was used
for data collection. The results showed boys and girls differed significantly in drilling, interaction, sets and language dimensions of study habit inventory.

Sud and Prabha (2003) conducted a study on “Academic performance in relation to perfectionism, test procrastination and test anxiety of high school children”. The study was conducted on 200 high school boys and girls from the city of Shimla. Perfectionism was measured by using positive and negative perfectionism scale of Slade and Dewey and test procrastination was measured by using Mamta’s test-procrastination questionnaire. Sud and Sud’s test anxiety inventory was used to measure test anxiety. Correlational analysis revealed that academic performance was significantly and negatively related to self-oriented perfectionism, procrastination, test anxiety, worry and emotionality.

Sirohi (2004) conducted a study of under achievement in relation to study habits and attitudes. A sample of 1000 elementary grade students were taken from X composite schools of South District, Delhi. Tools used were general mental ability test by Jalota, teachers made achievement tests and test of study habits and attitudes by Mathur. The results found that guidance program shall lead to better results, improving the achievement of the students and thus their potentialities be maximally utilized.

Sud and Sujata (2006) conducted a study on academic performance in relation to self-handicapping, test anxiety and study habits of high school children (n=200) from government senior secondary school of Himachal Pradesh. The scale used were self-handicapping questionnaire (Sujata, 2003) test anxiety inventory (TAT-H, Sud & Sud 1997). Study habits inventory (Palsane & Sharma 1989) and academic performance (school marks were considered). The results revealed that boys were poorer in study habits than girls.

Yenagi (2006) conducted a study on study habits a function of self-perception among intellectually gifted and non-gifted students. A sample of 1020 pre university college students was randomly selected from colleges in and around Hubli and Dharwad cities of Karnataka state. Study habit inventory by Patel (1976) and self-perception inventory Soars and Soars (1976) were considered for data collection. The results revealed that the overall study habit was significantly differed from gifted and
non-gifted groups. General habits and attitudes, planning of subjects, reading and note taking habits, habits of concentration were also found to be significant. The study can also serve the purpose for the projection of the contribution of these variables upon the academic achievement. Thus the review has help the researcher in identifying this unique area of research, which is of great importance in the field to teacher education.

Laidra et al (2007) studied the predictors of academic achievement in a large sample of 3618 students (1746 boys and 1872 girls) in Estonia. Intelligence as measured by the Raven’s Standard Progressive Matrices was found to be the best predictor of students’ grade point average (GPA) in all grades.

Rana and Mahmood (2010) conducted a study, “Relationship between Academic Achievement and Test Anxiety”. The major aim of this research study was to explore the relationship between test academic achievement and anxiety of students at the post graduate level. A sample of 414 students was randomly selected from seven different science departments in a public sector university in Lahore, Pakistan. Data were collected by using the Test Anxiety Inventory (TAI) developed by Spielberger. Pearson correlation, multivariate statistics and regression analyses were run for data analysis. It was found that a significant negative relationship exists between test anxiety scores and students’ achievement scores. Results showed that a cognitive factor (worry) contributes more in test anxiety than affective factors (emotional). Therefore, it is concluded that test anxiety is one of the factors which are responsible for students’ underachievement and low performance but it can be managed by appropriate training of students in dealing with factors causing test anxiety.

To sum up, the above mentioned studies lead one to conclude that although these studies are conducted on students of different age groups, social classes, having different courses of studies, in different parts of the world but they reveal that parental involvement, anxiety, home environment, classroom atmosphere, teaching skills of teacher and study habits play a crucial role in the academic performance of pupils of all age levels and that the academic scores of Asian/minority students are far less as compared to the native white students.