CHAPTER II

REVIEW OF RELATED LITERATURE
CHAPTER-II

REVIEW OF RELATED LITERATURE

"Man is the only animal that does not have to begin a new in every generation but can take advantage of knowledge which he has accumulated through the centuries."

- Mouley (1964)

The Scientific enquiry into the related literature is a very significant aspect of research process. This scientific enquiry has on element of traditional base in the sense that it builds upon what already exists in the field. In research, particularly educational research there is a healthy tradition that the researcher should familiarize him with what is already known and tested in the area of his investigation field and identify the unexplored realms. This equips the researcher with the knowledge in the area he intends to work upon. This enables him to demonstrate the relationship of the story at hand to previous standpipes. This will help him to avoid errors played by other researcher. He defines the problems, envisages objective and formulates hypothesis. This vary investigator is able to work on scientific grounds, not only scientific but logical also. In this investigation also the investigator pursued his healthy base building activities. Although the review of the literature is a preliminary step in all-scientific research, the methods of conducting review differ to some extent from field to field on the vanity of problems investigated in the filed of academic achievement (performance) the problem of prediction in academic success ranks second to none. Both in terms of number of studies and the varied aspects of it, those were investigated in other countries with sharp increase in enrolment during the last decades of the twentieth century.
However academic performance itself is a highly complex phenomenon. Various experiments done by investigators has not led to any conclusive generalization. It is still a guess as to what determines the direction and the amount of achievement. A lot of work has been done on the predication of students' performance in India and abroad. The investigator tapped various popular sources like the Educational Index for locating further sources, Psychological abstracts. Review of Educational Research, Encyclopedia of Educational Research, six surveys of Research in Education in India by Buch. Dissertation Abstracts International for humanities, journals, original research reports and doctoral thesis and other published material to study the related studies so that repetition and duplication might be avoided and he might gain some positive help which might substantially strengthen his entire investigation. Although the indexes are not conclusive, all the available works related to present problem has been summarized under following heading:

(I) Studies related to creativity

(II) Studies related to achievement motivation

(III) Studies related to academic performance

2.1. STUDIES RELATED TO CREATIVITY:

Creativity is a highly complex phenomenon. Since the beginning of the present century people without naming it have made successful attempts to catch its head and tail. Thurston (1938) was the first person to say that creativity and intelligent are not the same. In the conference of American Psychological Association 1950, Guilford made bold assertion that creativity cannot be equated with intelligence. Guilford (1957) in his structure of intellect named creativity as divergent thinking and brought it under the intellectual domain. He and his associates made clear that intelligence
involves the production of facts from the known information and creativity involves the generation of new ideas or things, which minimally depend upon known information.

Bentley (1961) using traditional kind of measure of achievement found that the relationship between creative thinking and school achievement was .16 (in-significant) and .30 for convergent rating and criteria of achievement. Similar results have also drawn by Flescher (1963).

The recent summaries of research on the relationship between creativity and academic performance tend to indicate that creative thinking ability does contribute to achievement as it currently measured. (Schmaddi 1960; Parners and Harding 1962).

Getzels and Jackson (1962) held that although intelligence quotient was the best single predictive measure of subsequent academic success or failure, many other variables affected school achievement. Some of these are quality summarized by the term ‘Creativity’. Some viewpoint was emphasized by Tailor and Williams (1966): Creativity may be equally important or more important than the intellectual characteristics incorporated initially into the educational programmers.

Bowers (1965) yielded that scholastic examination marks of high school male and female students and their creative thinking are significantly correlated. Lawe Hundsome (1966) found a close relationship between divergent thinkers and art specialists.

In a correlation study of divergent thinking abilities and scholastic achievement the obtained ‘r’ between the two were reported in varying range. For instance Craplay (1967) using six divergent thinking tests, found the range of correlation from 0.163 to 0.42, Torrance (1964) obtained range from .37 to .53.
Passi (1972) has made a through analysis of creativity. He found it to be normally distributed among school students. The presence of a curvilinear relationship between creativity and intelligence suggests the possibility of a threshold beyond which any increment in intelligence may not contribute to the corresponding increment in creativity. In this study, Passi has established a significant positive relationship ($r = 0.385$) between creativity and scholastic examination marks.

Marjoribanks, K (1976) conducted a study on 400 12-year-old English school children to examine the relations between measures of intelligence, creativity and academic achievement. Complex multiple regression models, which included terms to account for the possible interaction and curvilinear relations between intelligence, creativity and academic achievement, were used to construct regression surfaces. The surfaces showed that the traditional threshold hypothesis, which suggests that beyond a certain level of intelligence academic achievement is related increasingly to creativity and ceases to be related strongly to intelligence, was not supported. For some areas of academic performance the results suggest an alternate proposition that creativity ceases to be related to achievement after a threshold level of intelligence has been reached. It was also found that at high levels of verbal ability, non-verbal ability and creativity appeared to have differential relations with academic achievement.

Mehdi (1977) investigated in his study, the ‘r’ between the measures of fluency, flexibility and originality and achievement is $r = 0.199, 0.212, 0.227$ and for composite $r = 0.232$ for the students of urban group.

Acharyalu (1978) attempted to test for interactive effects of intelligence and creativity upon achievement in different school subjects. He found that correlations between verbal creativity scores and school
achievement were as high as those between intelligence and school achievement.

D'Lima (1979) made a study of different types of achievers among creativity and intellectually gifted pupils. It was found that the double talented (creatively and intellectually) group had a higher percentage of high achievers.

Study of Menon (1980) revealed the relations between creativity and achievement as .45, creativity and intelligence as .29 and intelligence and achievement .24. This study clearly advocates that creativity is much powerful predictor than intelligence.

Vijaylaxmi (1980) established that average academic achievement of creatives was more than the average academic achievement of low creative. She further demonstrated a significant difference between high and low creative in academic achievement. Singh (1982) again showed that verbal, non-verbal and total creative thinking variables had positive and significant relationship with academic achievement of high-school boys and girls. The study undertaken by Bross (1980) examined the relationship of self-concept, creative thinking abilities and academic achievement. He used the Torrance Tests of creative thinking and SRA achievement series on seventh graders. The major finding of his study was “there is a significant relationship between creative thinking abilities and academic achievement.”

Nagoshe (1982) in the review of foreign studies found the range of correlations between creative thinking abilities and academic performance of school students, from .16 to .53. He also mentioned that two of the investigators during 1963 and 1975 found creativity unrelated to academic performance.
Negoshe (1982) have concluded that composite divergent abilities or creativity is significantly correlated to scholastic achievement irrespective of academic groups. For science student 0.34, 0.17, 0.05, 0.21 were the correlations with originality, flexibility, fluency and composite respectively. Except fluency all were significant at 0.5 level of significance.

Negoshe reviewed the Indian Literature regarding creativity as a predictor of scholastic achievement and reported some of the investigators found weak relationship between these two rights from Pathak 1955 to Mehdi 1977. But a sufficient number of investigators revealed the coefficient of correlation between creativity and academic achievement was significantly high and also as high as of intelligence and academic achievement relation.

Passi (1982) in his book “creativity in Education” has given a bird’s eye-view till 1981 regarding the studies conducted on relationship of creativity and achievement. He has reported a brief of almost all the studies that a positive significant relationship between creativity and academic achievement exists. In these studies, creativity was studied in relation to achievement in school subjects, single or collectively.

Amabile (1983) found that people perform more creatively if they are motivated by interest in the activity itself, rather than promises or threats. Creativity is better facilitated by giving individuals high level of discretion, especially in the use of time.

A study employing regression analysis, descriptive, bivariate multivariate statistical analysis procedure on a data collected from 6th and 9th grade rural students was conducted by Toth (1987). The results of this study indicated that a relationship among student’s creativity, laterality, learning styles and achievement does exist, since the utilization of these measures, in
conjunction with traditional mental ability measures resulted in an increase in student prediction.

Sharma (1987) concluded that only the F-value of creative abilities for the differences between high and low achievement in the commercial stream were significantly superior to the low achievers of this stream after eliminating the effect of anxiety and study habits on SES. Creativity does not seem to differentiate the high and low achievers of literary and scientific streams.

When the high creative group and the low creative group were compared significantly, significant difference was found between the two on scholastic achievement on the hierarchical order by Chadha (1987).

Studying the relationship of intelligence and creativity and to determine the relationship of both, independent of each other, with scholastic achievement in mother tongue and foreign language Kaile (1988) concluded that intelligence and creativity had more or less identical relationship with scholastic achievement. Intelligence and creativity predicts scholastic achievement.

To find out the relationship between creativity and scholastic achievement among class X student Irudayaraj (1989) studied on creativity and scholastic achievement in science students of standard X in Devakottai educational district find outs that, there was no significant relationship between achievement in science and creativity of high school students.

Chadha N.K and Chandana Sunanda (1990) investigated in their study about the creativity, intelligence and scholastic achievement; they found positive and significant correlations between creativity, scholastic achievement and intelligence. And if intelligence is partially out than the
correlation between creativity and scholastic achievement was negative and significant.

In a study, Singh (1990) reported significant correlation between fluency, flexibility and elaboration dimensions of general creativity and mathematical creativity. He further reported no significant relationship between original dimensions of general creativity and original dimension as well as total mathematical creativity scores.

Kaur, P. (1992) studied to find out relationship among creativity, intelligence and academic achievement in different subjects of X graders. Find out that for males intelligence was positively correlated with fluency, flexibility, originality and composite creativity were positively related with academic achievement. Further concluded that females as well as the total sample, fluency, flexibility, originality and composite creativity were positively and significantly related with academic achievement.

Singh, V.P (1993) found that mathematical creativity does not contribute significantly in the development of problem solving performance in mathematics of high school students. He further reports that the interaction of intelligence, achievement in mathematics and mathematical creativity contribute significantly to the development of problem solving performance in mathematics.

Cicirelli, Victor G. (1995) represent an investigation of hypotheses concerning (1) interaction between creativity and IQ as they affect achievement and (2) IQ thresholds where creativity begins to affect achievement and where IQ itself has no further effect. The study involved 609 sixth grade students (IQ range 70-162), using a factorial design with 8 levels of IQ (CTMM) and three levels of creativity (Minnesota Tests of Creative Thinking). Measures of achievement were the Gates Basic Reading Tests and the California Tests of Arithmetic and Language. 12 combinations
of creativity and achievement measures were used for separate analysis of variance. At the .05 level, results generally implied additively and linearity instead of interaction and thresholds. The relationship between creativity and achievement was weaker than some previous studies suggested and varied with the measures used.

Shekhar, S (1998) studied on mathematical creativity in relation to problem solving performance in mathematics of secondary school students. The investigator undoubtedly realize that: (i) the convergent and divergent are two distinct abilities existing among human beings; (ii) no significant relationship has been reported between convergent and divergent thinking abilities; (iii) mathematical creativity contribute to the problem solving performance in mathematics only when the problem solving performance test contains items of divergent thinking nature.

Xiaoxia A. (1999) investigates the possible relation between creativity and academic achievement, in particular, to see if this relation might be different for boys and girls. The two research questions were (a) What is the relation between different aspects of creativity and different subject areas of academic achievement?, and (b) Are there any differences for boys and girls in terms of the relation between different aspects of creativity and different subject areas of academic achievement? The students were from 68 schools randomly selected from the Basque County, Spain. Among these 2,264 students, 38% were boys and 62% were girls. Three creativity batteries, the Torrance Tests of Creative Thinking (TTCT; Torrance & Ball, 1984), the Abedi-Schumacher Creativity Test (CT; O'Neil, Abedi, & Spielberger, 1994), and the Villa and Auzmendi Creativity Test (VAT Auzmendi, Villa, & Abedi, 1996), were administered to the students. Teachers were also asked to rate students' creativity. Academic achievement was operationalized by students' self-report of their achievement in 6 subject areas: Spanish, Basque,
English, natural science, social science, and mathematics. By canonical correlation analysis, the following results were found: If operationalized by the teachers' ratings, creativity was related to academic achievement for both boys and girls. For boys, Flexibility was the predominant factor that related to all 6 academic subject areas. For girls, Elaboration related to 4 of the academic subject areas (Spanish, Basque, English, and social science), and Fluency related to natural science and mathematics. If operationalized by the other three measures (FITC, CT and VAT), however, creativity was barely related to academic achievement.

DIAS. (2004) conducted a study to know the influences of a program of creativity in the cognitive and academic performance of students with learning disabilities. This research has investigated the effects of a creativity program on the academic and cognitive performance of 17 students with learning disabilities from the second and third grades of elementary public school in Vitória ES, comparing to the control group. He concluded that creativity in children with learning disabilities is a complex process due to the academic difficulties that those children have to face. The results indicated a significant improvement in the academic (School Performance Test) and cognitive performance of the group who was trained.

In a study (Powers and Kaufman, 2004) it was shown that Graduate Record Examination (GRE) test scores, widely employed for post graduate selection in the U.S. and an accurate predictor of future academic performance, were significantly correlated with creativity(with three component of GRE, namely analytical, quantities and verbal). Interestingly, the same study showed that the personality trait of conscientiousness—which refers to individual differences in achievement motivation, organization, dutifulness, and responsibility—was also significantly correlated with GRE scores, but negatively.
Albert and Kormos (2004) investigated the effect of creativity on performance in oral narrative tasks. Participants in the study were Hungarian learners whose creativity was measured with a standardized creativity test. We examined the relationships among three aspects of creativity—originality, flexibility, and creative fluency—and different measures of task performance. The findings suggest that the three components of creativity have a differential effect on the measures of task performance. Creative fluency was positively correlated with the quantity of talk. Originality was negatively related to the quantity of talk, and positive correlations were found between originality and the complexity of narratives. The magnitude of the correlations indicates that creativity affects participants' output in narrative tasks only moderately.

Study Conducted by Yu-Chu Yeh (2005)National chengchi University, Taiwan Proposes an interactive model of cross domain concept mapping with an emphasis on brain functions, and it further investigates the relationships between academic achievement, creative thinking, and cross domain concept mapping. Sixty nine seventh graders participated in this study, which employed two fifty minute instructional sessions. The finding suggests that (a) the seventh graders may lack the awareness or ability to integrate and make connections between their learning and learning experiences; (b) Creative thinking, concept mapping, and academic achievement share similar capacities; and (C)cross domain concept mapping, which fosters cross domain information integration and connections between learning and life experiences, can be an efficient mental tool in understanding a student's creative thinking and academic learning.

Chamorro-Premuzic (2006) conducted research to assess the comparative predictive validity of creative thinking and personality measure as longitudinal predictors of academic performance. A total of 307(187
female) under graduate psychology students from two UK universities participated in this study. The researcher used bivariate correlations on data to examine the relationship between academic performance measures. Written examination, continuous assessment, dissertations were taken as three major indicators of academic performance. It was found that creative thinking scores (as aggregate of tested fluency, originality elaboration, flexibility and appropriateness) measured as the beginning of the first academic year can significantly predict academic performance four years later.

A comparative study of 40 Malasian and 32 American students' creativity was carried out by Dr. Palaniappan A.K.(2007). Creativity was measured using the Torrance Test of Creative Thinking. Figural Form A while measures of academic achievement were obtained from latest class assessments extracted from school records. Findings indicate that the American students are significantly superior compared to Malasian students in over all Figural Creativity as well as in its components, namely Fluency, Flexibility, Originality and Elaboration. However, there were no significant differences in the relationship between creativity and academic achievement between Malasian and American students. There are differences between Malasian and American students in the relationships between Figural Creativity and its components with academic achievement across the intelligence continuum. When these relationships are compared across the intelligence continuum, there appears to be a consistent higher effect of intelligence on the strength of these correlation coefficients at higher IQ levels for the American students than the Malasian students.

Thus, it is seemed over creativity-achievement relationship that creativity has a close relation with academic success. Some investigators
have found the relationship between these two as high as between the intelligence and school achievement

2.2. STUDIES RELATED TO ACHIEVEMENT MOTIVATION:

Children who perceived their academic performance as contingent on their own effort and abilities (internal) were compared on school grades and on tests of academic achievement with children who viewed their school performance as due to luck or the whims of others (externals) by Messer (1972). Internals were shown to have higher grades and achievement test scores than externals even when IQ and cognitive impulsivity were statistically controlled. Boys who took credit for their academic successes and girls who accepted blame for their failure were those most likely to have higher grades and higher achievement test scores.

The study conducted on students studying in class ninth to verify whether achievement motivation can help in accounting for that portion of academic achievement, which remains unaccountable in terms of aptitude and to verify whether achievement motivation shows some kind of relationship with discrepancy between aptitude and achievement. Kahlon (1979) investigated and concluded that although aptitude is a strong correlate of academic achievement, there exists significant relationship between achievement motivation and academic performance.

Gawande, E.N. (1988) attempts to analyze the relationship between achievement motivation and scholastic achievement. The data were collected from six junior college attached to school in Amaravati district of Maharashtra. He found that correlation between achievements of urban student was at a higher level than that of rural students. There was no significant difference in the coefficient of correlation of achievement motivation and scholastic achievement of non-backward and backward students. He further concluded that boys were more achievement motivated
then girls and the mean difference in the scores of scholastic achievement in boys and girls was not significant.

A Study of creativity in relation to achievement motivation conducted by Singh K.P. (1988) yielded that the student of high achievement motivation group were more creative than the student of low achievement motivation group. Science and art students differ significantly regarding their scores of creativity, achievement motivation and personality needs.

Study of Sharma S.B. (1988) revealed the relationship between creativity and achievement motivation. He concluded that creativity was related to need achievement for RG and RFG having high score on need achievement for UG and RMU having low score on need achievement. It has been found in his study that male and female student differ significantly on their creativity and need achievement. In relation to various group of science and art facilities creativity and achievement motivation are highly correlated.

The study of Schunk (1990) suggests that intrinsic motivation or, more specially, academic intrinsic motivation is the key factor for higher academic achievement. The intrinsically-motivated student is more likely to retain the concept learned and to feel confident about dealing with unfamiliar learning situations than the extrinsically motivated students.

The study of Davanesana, P. (1990) reveals that there was significant and positive relationship between the achievement motivation and scholastic achievement of higher secondary students.

Baskaran, K. (1991) attempted to test the relationship between achievement motivation and achievement in mathematics of standard X students in Devakotai Educational District. He found that urban and rural student did not differ in their achievement motivation, though they differ on academic performance: he further concluded that girls excel in academic
performance in comparison to boys but there is no difference in both group in relation to achievement motivation. Government school and aided school student did not differ in achievement motivation.

A study employing ‘t’ test and critical ratio on data collected from standard X students conducted by Badhri, N. (1991). The result of this study indicate that the cause of poor achievement were low motivation, liberal promotional policy to the next higher classes, poor study habit, lack of parental involvement in education and poor teaching.

Chastity (1992) investigated the relationship of achievement motivation self-concept, personal preferences, students morale and other ecological correlates in relation to intelligence, social economic status and performance of higher secondary tribal students of Rajasthan by collecting data from sample of IX to XI class tribal students studying in different educational institutions. The result includes those students who have higher achievement motivation shows highly academic performance. It was found that girls mean academic performance was higher than boys.

The study undertaken by Kumari K. (1992) examined the relationship of creativity, socioeconomic status, achievement motivation and adjustment among grade IX female, she used the Torrance test of Creative Thinking achievement motivation scale by D. Mahon and adjustment inventory by Singh and Singh. The major finding of the study was “there is significant relationship between achievement motivation and creativity”.

Student's motivation for learning is generally regarded as one of the most critical determinants, if not the premier determinant of the scores and quality of any learning outcome (Mitchell, 1992). Examining the construct of intrinsic motivation in elementary school students is significant and important, because academic intrinsic motivation in the elementary years may have profound complications for initial and future school success.
Students who are more intrinsically motivated fare better and students who are not motivated to engage in learning are unlikely to succeed.

Harikrishnan, M. (1992) studied the relationship between academic achievement and achievement motivation. He reported, on the basis of achievement motivation inventory of Prayag Mehta administered on suddenly selected 300 students, that girls obtained higher mean in achievement than boys. He also reported that achievement was not related achievement motivation.

Verma B.P. and Bhat R.K. (1992) Studied to find out the motivational differences among high and low creative students (Males and Females) studying in class IX in Simla. The findings of the study were (i) high and low creative students did not differ significantly from each other with respect to their motivation (ii) high creative male students and high creative female students differ significantly on motivation and the mean difference was in favor of high creative female students.

According to Goldberg (1994), children with intrinsic motivation in academic would have higher self-perceptions of competence in academics and that children who are extrinsically motivated would have lower perceived academic competence.

Fratier M.S.. (1995) Studied on, “Academic motivation and school performance: toward a structural model”. The propose of this study was to propose and test a motivational model of school performance based on Dece and Ryan’s theoretical frame work (Dece & Ryan, 1991) using structural equation modeling. Students completed the French version of the Academic Motivation scale as well as measures of perceived academic competence and perceived academic self-determination during the spring semester. Subsequently, their final grades in four central subjects were collected at the end of the school years. Results supported the hypothesized model. More
specifically, perceived academic competence and perceived academic self-determination positively influence autonomous academic motivation, which in turn had a positive impact on school performance. The proposed model explained 28% of the variance in performance. Results highlight the importance of academic motivation in the prediction of school performance.

Academically talented females had stronger needs for achievement, dominance, and endurance but weaker needs for succorance and abasement than more mature group of females. High verbal students had weaker needs to be nurturing and had less interest in relationships with opposite-gender persons than students moderate in mathematics and verbal areas. Academically talented students vary in their self-perceptions and needs. Thus they are likely to vary in their academic and social adjustment.

Aside from goals, many other factors contribute to students' performance. Self-determination theory states that students need to feel a sense of competence, a sense of relatedness to others, and a sense of achievement motivation (Anderman and Midgley, 1997). Competence involves not just having the knowledge to complete various tasks, but also believing that one can do so. Relatedness refers to the connections that are formed with one's peers. Achievement motivation includes initiating and regulating one's task. These student needs are particularly relevant to adolescents in middle school since children at this age are developing a sense of identity and have increased cognitive abilities.

Schacter (1999) found that the test scores of students whose achievement motivation is higher and used CMI were at the 64th percentile compared to the 50th percentile for students who have low achievement motivation and did not use computers in the classroom.

Dowson and Mennemey (2001) conducted research on achievement motivation and performance goal orientation concluded that, task and
performance goals are not mutually exclusive. Those adolescent who are motivated to performance-based goals are found making desirable amount of effort to achieve the goal.

A consistent body of research conducted by Giovanni B, Moneta Christy M.Y. Siu (2001) in North America indicates that traits intrinsic motivation facilitates creativity and academic performance, whereas extrinsic motivation hinders creativity but has no effect on academic performance. He examined the effect of traits intrinsic and extrinsic motivation in Hong Kong College students. In study 1, on a sample of 127 year-1 students, traits intrinsic motivation correlated negatively with year-1 self-reported G.P.A., whereas trait extrinsic motivation correlated positively. On study 2, on a sample of 38 students engaged in experimental conditions resembling those of an in-class creative writing task, trait intrinsic motivation correlated positively with creativity of the story, whereas trait extrinsic motivation did not.

In a study of academic performance Tucker and Herman (2002) revealed that there are a number of factors that effect performance in school: one of the most influential is achievement motivation. They further state that achievement motivation also referred to as academic engagement; therefore it is obvious that, students who are not motivated to succeed will not work hard. Tucker concluded from several researches that only achievement motivation directly effects academic performance.

Achievement motivation is the best predictor of scholastic performance (Moneta, 2002). Although both intrinsic and extrinsic motivations are believed to be contributing to performance as a whole, intrinsic motivation is more conducive to the said purpose. Although extrinsic motivations leads to satisfaction after receiving rewards for the activity, only intrinsically motivated behavior can lead to a full enjoyment
while performing the activity. Therefore, intrinsic motivation is the best support for exploratory activities and prolonged efforts in the absence of continuous rewards.

Eugene M. and Rodney A. (2002) studied on undergraduate students in engineering and science employing the Thematic Apperception Test, which was scored for achievement motivation and also for power motivation. For academic performance scores from the annual school examination was opted. It was found that those students who has high level of achievement motivation has secure better marks as comparison to low achievement motivated students.

Martens et.al (2003) resulted in their study “The impact of intrinsic motivation on e-learning in authentic Computer tasks” that students with high intrinsic motivation did not do more, rather they landed to do different things. Analysis of log files showed that the increased curiosity that students with high intrinsic motivation have, resulted in proportionally more explorative study behavior. However, the learning outcomes of students with high intrinsic motivation were not better. They also concluded that students with high intrinsic motivations often outperform students with low intrinsic motivation.

Langely. (2004) conducted research to identify under prepared college students’ motivation and use of self regulated learning strategies in a personalized system of instruction (PSL) General Psychology course. This study explored whether successful and unsuccessful college students in this course in related to academic achievement motivation. Result suggests that their academic performance differ on self-efficacy, academic achievement motivation and study environment. The students’ excelled those who have high level of academic achievement motivation.
Dennis et al. (2005) examined the role of personal motivation characteristics and environmental social supports in college outcomes. In a longitudinal study of 100 ethnic minority first generation college students, they concluded that personal / career-related motivation to attend college in the fall was a positive predictor and lack of peer support was a negative predictor of college adjustment the following spring. They focused on these groups and found that first-generation college students may be less equipped for college due to poor academic performance. These students tend to work more hours and expect to take longer to complete their degrees.

The role of personal motivational characteristics and environment social supports in college outcomes was examined in a longitudinal study by Halawah (2006). The study was conducted on 388 high school students (193 males and 195 females) from Abu Dhabi District (UAE). A Likert type instrument that consisted of three parts (Scales) was used to measure students' level of motivation, parental influences and students' characteristics. He concluded that correlation between each of motivation; family environment, student characteristics and academic achievement were small and practically not significant. Remarkable high correlation value was observed between motivation and students performance.

Metc, J. (2006) studied on 210 students of secondary level towards the study of Geography and their achievement. He found that, the achievements of urban and rural students in Geography differ significantly, and the gain is in favour of urban students. Irrespective of secondary schools in urban and rural areas, the girls' student shows significantly better performance in geography than that of boys. The coefficient of correlation between two sets of scores (achievement test scores and attitude towards the study of geography scores) of the entire sample (N=120) is very high (‘r’=0.72). This
may lead to conclude that there exist a positive relationship between the achievement in Geography and the attitude towards the study of geography.

Choudhury, M. (2006) investigated the impact of motivation on students’ academic achievement in an undergraduate marketing course taught by the same professor. He found that extrinsic motivation was positively related \((r = .140)\) but not statistically significant. Intrinsic Motivation \((r = .341)\) was positively related to student academic achievement and is more important predictors of overall grade of the students.

2.3. RESEARCH RELATED TO ACADEMIC PERFORMANCE:

Sharma (1973) conducted a study of the effect of admission at early age on academic achievement with special reference to the pupils of the primary school. Some of the major conclusions were: 1. Age and growth of children had a significant relation with their academic progress. It appeared progress. Early age group learners found difficulty in maintaining their achievement consistency and were not in an advantageous position. 2. No definite relationship existed between achievement and ability. Most of the children of all age groups were found to deviate. 3. No child was definite about distance and direction of deviation in achievement. There might be some major deficiencies, primarily in instructional methods and content of the syllabus. 4. There were no significant differences in achievement of the various age groups. 5. Schools were lacking essential physical facilities and psychological and educational environment. 6. There were various causes of the decline in achievement. Both 4+ and 5+ age groups appeared suitable to start with primary education. They maintained a consistent rank correlation throughout the entire course. They maintained a consistent rank correlation throughout the entire course. All the age groups appeared to show a declining trend in achievement from class 1.
Thakur (1974) studied academic achievement of high school boys of Assam. The best secondary school in Jorhat town was selected on the basis of certain criteria. Class VIII of 1972 with its three sections was chosen and academic achievement was studied through the years 1968, 1969, 1970 and 1971. The class passed through six examinations. The sample (N=97) had been controlled to eliminate the effect of the diverse factors on the total achievement. Those who were regular in attendance and examinations were studied. Four groups (like and do not like the subject, and find the subject easy/difficult were formed and their performance through the six tests was analysed. A questionnaire was used to collect personal data and the ability the aptitude of the students for a particular subject. Tetrachoric correlation and t-test was used to analysed data. The major conclusions of the study were: 1. Academic achievement as a whole was not quite satisfactory. 2. In language there had been satisfactory progress of all the groups, but mathematics presented an unsatisfactory picture. A download trend of the achievement was observed. Boys with less aptitude for a particular subject failed to achieve satisfactory in that subject. Those who aptitude but disliked a subject did not show significant achievement. 4. Students who liked a subject, found it easy. Some found the subjects difficult though they liked the subjects. 5. None of the groups gained in the subject through three years of teachings. 6. There was a positive correlation between aptitude and ability in mathematics.

Das (1975) studied a psychometric aspect of low achievers of school final candidates in general science. Out of 732 high schools only 61 schools were selected from six districts of West Bengal as the sample for detailed study of 985 students, both boys and girls. The sample of science teachers, both male and female, was drawn from 567 high schools. The marks obtained by the students in mathematics (compulsory) and general science in
the SFE. 1968 were also collected. The IPAT Culture-Free Intelligence Test of Cattell and Cattell, and the IPAT Anxiety Scale Questionnaire of Cattell and Scheier, as adopted by Rao and Roy, respectively were used to measure intelligence and anxiety of students. A questionnaire seeking information regarding different aspects of low achievement of students in general science in the SFE was also developed. The Centroid Method and the method of Principal Components along with Varimax Rotation for identifying the factors were applied. The study revealed: 1. The syllabus for general science of the School Final Examination was inadequate was over emphasized, chemistry and botany were neglected; astronomy and geology were not included in the syllabus of general science, only 19 were covered by the question. Out of 37 concepts included in the syllabus of general science, the question paper covered only 19. The knowledge aspects were tested, but the application aspect was neglected. 2. Students who passed in general science possessed higher IQ than those who failed in the subject. A positive correlation existed between intelligence and achievement in general science. 3. There was no significant difference between anxiety scores of those passing in general science and those failing in the subject. 4. Pupil Personality turned out to be the most powerful component responsible for performance in general science. 5. Students who passed in general science obtained higher marks in mathematics than those who failed in the subject. 6. IQ marks in mathematics and general science showed highly significant inter correlations. 7. Student's personality was considered by the teachers as contributory to low achievement. 8. Pupil personality, teacher's incompetence and socio-economic factors were the primary factors responsible for low achievement in general science.

Gupta (1977) studied intelligence, creativity interest and frustration as function of class achievement, sex and age. The sample comprised 240
students which were selected through the use of the stratified random sampling technique. They belonged to classes IX, X, XI and XII and their age ranged from 13 to 17 years. Out of 240 students, 120 were males and 120 females. The Group Intelligence Test by R.K. Tondon, Creativity Test developed by N.S. Chauhan and G.P. Tewari, Chatterji's Non-verbal Preference Record and frustration scale developed by N.S. Chauhan and G.P. Tewari were used. The data were analysed with the help of factorial design analysis of variance of equal cell size followed by Duncan's Range Test. The findings were: 1. Scholastic achievement promoted intelligence both in boys and girls through the ages of thirteen, fifteen and seventeen years. 2. Intelligence grew up to fifteen years and declined thereafter in high scholastic achievement adolescents and low scholastic achievement girls. Intelligence declined up to fifteen years and grew thereafter in low scholastic achievement promoted creativity and its components achievements boys and high scholastic achievement girls. 3. Scholastic achievements promoted creativity and its components. Fluency and creative production were promoted at fifteen years and thereafter respectively. Originality in girls was demoted at fifteen years but promoted thereafter. Fluency, flexibility and creative production, on high and low levels of scholastic achievement were masculine and feminine, respectively. Creative grew after fifteen years. Originally grew independent of scholastic achievement. In girls up to fifteen years, Fluency in high achievers grew up to fifteen years in boys and declined in girls. 4. Up to the age of fifteen years, scientific medical and technical interests were promoted by scholastic achievement and declined thereafter. Scholastic achievement demoted fine arts and outdoor interests up to fifteen years and promoted them afterwards. Scholastic achievement promoted literacy and promoted sports interest in girls. Scholastic achievement demoted household interest. 5. Interests were sex prone. Fine arts, literacy, medical, and household were feminine but agriculture, technical craft were
masculine. Scientific interest was masculine at thirteen years but feminine afterwards. 6. In high achievers sports was feminine. Scientific and medical interests were feminine up to thirteen years but were masculine afterwards. Outdoor interest was masculine at thirteen years but feminine afterwards. 7. In low achievers sports interest was masculine, scientific medical up interest were feminine at fifteen year. Outdoor interest was masculine up to fifteen years and was feminine afterwards. 8. Age affected interests. Fine arts and technical interests grew up to fifteen years and declined later on. Outdoor sports and scientific medical interest grew up to fifteen years and declined thereafter. Technical interests in boys grew after fifteen years, but declined up to fifteen years in girls. Scientific interests grew in boys up to fifteen years and declined afterwards but declined in girls after thirteen years. Fine arts, sports, outdoor and household interests grew in high achievers but sports, outdoor and household interests declined in low achievers. 9. Scholastic achievement affected modes of frustration. Onset of adolescence promoted regression, fixation and aggression. Most of the modes of frustration were denoted by scholastic achievement at the fifteen years age level. Scholastic achievement promoted aggression at seventeen years. 10. Regression was feminine and aggression was masculine at fifteen years. It was feminine at seventeen years. 11. Age affected frustration. Regression declined after fifteen years. Regression in high achievers declined in the early part of adolescence but grew in the later part. Reverse was the case in low achievers. Fixation declined after fifteen years. In High achievers it declined but in low achievers thereafter. In low achieving boys, fixation grew at fifteen years and declined thereafter. In low achieving girls it had a consistent decline. Aggression declined. In low achievers, it grew at fifteen years but declined afterwards. In high achieving girls aggression declined at fifteen years and grew thereafter but in low achieving girls in grew consistency.
Sharma (1978) conducted a study to find out of the relationship between any two of the main variables, namely, intelligence, socio-economic status (SES), academic achievement and self-concept. The study was conducted on a sample of 1427 students (690 male and 737 female) of Class X whose age ranged from 14 to 18 years. The findings of the study are: (i) Intelligence showed strongest relationship with achievement but the relationship between intelligence and self accept was not significant in extreme intelligence groups. (ii) SES showed weak positive relationship with intelligence. (iii) Students having high intelligence also high self-concept, achievement and SES and students having low intelligence had low self concept achievement and SES (iv) Intelligence showed strong relationship with six areas under self concept and achievement; intelligence made high positive and significant contribution (v) SES did not intelligence group it was negatively correlated (vi) Achievement showed highest relationship with intelligence, (vii) Self concept showed high positive and significant relationship with achievement and intelligence (viii) Boys were found to be superior to girls in all areas on self concept.

Grover (1979) studied parental aspiration as related to personality and school achievements of children. The primary sample of the study consisted of 523 high school children, selected from two schools of Chandigarh city. After administration of Raven's Progressive Matrices, the sample left was of 465 boys with an average IQ. The parents of these children also formed the sample for the study. The final sample for the study was arranged in two ways. Firstly of 25 per cent high, 25 per cent middle and 25 per cent low aspiring parents were taken. There were 30 fathers, 30 mothers and 30 sons in each of the high, average and low groups' forming the sample of study. Secondly, four groups of fathers and mothers are showing the combination of high and low aspiring mothers; (iii) low aspiring fathers and high aspiring
mothers; (iv) low aspiring fathers and low aspiring mothers. In each group ten father's ten mothers and their ten sons were taken. So it was 40 fathers, 40 mothers and 40 sons. Raven's Standard Progressive Matrices, the Paternal Aspiration Scale (the split-half reliability coefficient validity), The Cattell High School Personality Questionnaire, the Deo Personality World List (1971), the school achievement of students were used. The results of the study revealed: 1. the total sample showed a positive correlation between fathers and mothers aspiration. 2. The high aspiring parents showed significant correlation between father's high aspirations and the trait of dominance in boys. 3. The low aspiring parents did not show any significant correlation between aspiration of parents and all variables taken for the study. 4. There was a significant difference between aspiration of fathers and aspiration of mothers. 5. There was a significant difference between school achievements of children of low aspiring parents and middle aspiring parents. 6. There was a significant difference in the trait of guilt proneness of children belonging to the groups of parents where both father and mother were high aspiring differences between the self-concept of children belonging to the groups of parents where both father and mother were high aspiring and where both father and mother were low aspiring. 8. There was significant difference in the school achievement of children belonging to the groups of parents where father was low aspiring and mother was high aspiring and where both father and mother were low aspiring.

Girija (1980) conducted as study to determine role of cognitive and non cognitive factors on achievement of students. The sample consisted of 788 students who were admitted to the University of Agriculture Sciences for the first degree in agriculture sciences. 588 were admitted to various courses in agriculture sciences and 200 were admitted to animal science courses. EPPS, Wrenn's Study Habit Inventory, Tyler and Kimber's Study
Skill Test, Gordon's Personal and Interpersonal values, Myer's Academic Achievement Motivation Scale, Ravens Standard Progressive Matrices, Jalota and Tandon's General Mental Ability Test and a biographical questionnaire developed by the researcher were used. The cumulative grade point average (CGPA) the first year college achievement scores were obtained from the records. Stepwise regression analysis, discriminant analysis and canonical correlation techniques were used to analyse the data. The major findings were: 1. Pre-university marks (PUM) were the only common and effective predictor of CGPA for the total sample, for agriculture and animal science curriculum groups and for advantageous and disadvantageous groups. 2. The prediction of CGPA was significantly improved by the addition of intellectual and non-intellectual variables groups revealed that out of 62 predictor variables, 32 were potential contributions to CGPA. They are PVM, progressive matrices test scores, general mental ability, number of previous academic failure, study habits, skill in recognizing, planning work efficiently, competitive, dependence, practical mindedness, achievement, need for support, conformity, benevolence, personal and biographical factors like caste, permanent residence, place of education, medium of instruction during primary education, source of income, guidance to choose vocation, parental aspiration, occupational aspiration, age, scholarship awarded, self estimated ability, accomplishment in areas of literature, social service, dramatic art and music.

BARUA (1981) study was related to influence of capacity of memorization on scholastic achievement. The sample comprised 200 students, 100 boys and 100 girls of age 9-11 years of class VI of two high schools. The study used a test of memory for story, sentence, design and digits the intelligence Test, developed and standardized by G.B. Kapat and Kuppuswamy's Socia-Economic Status Scale. Factor analysis with varimax
rotation and regression analysis were used for drawing conclusions. The major findings were: 1. Boys and girls were not different with respect to memory for story, sentence, design, digits and total memory for a story. 2. Memory for digits had definite but small relationship with memory for a story. 3. Memory for digits had a very low relationship with intelligence; also memory tended to be independent of intelligence. 4. Boys and girls were not different with respect to intelligence and total scholastic achievement. 5. If learning materials were so presented as to appeal both to intellective and non-intellective aspects of the educands, they would engender better learning and achievement. 6. Children of the age group 9-11 years understood design more meaningfully than stories. 7. Meaningful learning occurred through meaningful visual aids or iconic signs.

Pandey (1981) studied social aspects of academic achievements and aspiration of scheduled tribe students. Out of 264 students, 250 studying in high school, intermediate and graduate classes in the educational institutions of Mirzapur district, belonging to six scheduled tribes-Gond, Kol, Khervar, Chero, Banga and Panika were included in the sample. For the collection of data, an interview schedule constructed by the researcher was used. Statistical analysis of the data was done by calculating percentage and by applying the chi-square test. Major findings of the study were: 1. The tribal students were not able to avail properly of educational opportunities provided by the formal educational set-up due to their socio-cultural backwardness and the gap between the school environment and family background. This led to low academic achievement by tribal students. 2. Their poor economic condition forced them to do manual labour. This was also responsible for low achievement. 3. The bitter and negative interaction pattern between non-tribal and tribal students was also responsible for poor academic achievement. In all the educational institutions under study there was
hegemony on non-tribal upper caste students who showed indifference and hatred in their behaviour towards the tribal. Because of these environment factors, tribal could not take full advantage of the educational opportunities provided to them constitutionally. 4. The teacher taught relationship in the context of tribal students in class and out of class was reportedly not very congenial. Teachers showed indifference to tribal students. 5. The analysis of occupational aspirations revealed that their selection area was becoming gradually more extended, variegated and modernized.

Sharma (1981) studied factors related to academic underachievement of girls of secondary schools located in rural areas of Haryana. Raven's Standard Progressive Matrices and Mohsin's Verbal Test of Intelligence were administered. Sample of the present study was 1225 students. Three samples of 200 each from the total sample were drawn. The top 27 per cent of the population were called high achievers and the bottom 27 per cent low achievers. For the second phase of the study, a sample of 100 girls was chosen for each group. Wrenn's Study Habit Inventory adopted by Mohsin, Bhatia's Ach Motivation Test (1974), the Academic Motivation Inventory by Singh (1965), Mohsin's Spelling Test, the Vocabulary Test prepared by the Educational and Vocational Guidance Bureau, Bihar and Standardized by Sharan (1964) the reading speed and comprehension Test of the Srivastava (1964), Maslow's Security Insecurity Test adopted by Singh (1965) Bell's adjustment Inventory adopted by Mohsin, and Srivastava's Check List of Problems were used for data collection. The data were analysed using t-test and the centroid method of factor analysis. This study reveals that: 1. Poor academic motivation, linguistic ability, planning of study work, adjustments and emotional insecurity contributed to underachievement. 2. The underachievers were significantly poor in their performance on all these variables. 3. All the variables included in this study were inter related. Hence
remedial programmes for underachievers had to be necessarily global in approach.

Agarwal (1982) studied socio-economic status (SES), interest, intelligence adjustment and academic achievement of the higher secondary students. Using stratified random sampling technique, 550 girls of both science and humanities groups were selected from the higher secondary and intermediate school of Gorakhpur, Basti, Deoria and Azamgarh districts. For remedial measures, 100 teachers of the same institutions and classes were selected randomly. M.C. Joshi's Test of Mental Ability (Verbal), the adjustment Inventory by A.K.P. Sinha and R.P. Singh, the Socio economic status scale, form B (Urban) by S.P Kulshetra and the Interest Inventory designed by the investigator were used in this study. The conclusions drawn were as follows: 1. The scores of the high school and intermediate class girls on the independent variables as well as on the dependent variable showed a slight deviation from the plan of normal probability. 2. All the three factors, viz., interest, adjustment and socio economic status, played a positive role in the academic achievement and socio economic status, played a positive role in the academic achievement of the girls of the X and XII science classes. 3. These factors did affect the girl's achievement. 4. The inter correlations between dependent and independent variables were found to be positive in the cases of both X and XII science girls which supported the view that these variables had a positive effect on achievement. 5. The regression weights indicated that interest appeared to be making the highest contribution to academic success in case of high school science girls, with SES making the highest contribution to academic success at the intermediate level. Intelligence made the least contribution at both the levels. 6. The multiple correlations revealed that approximately 50 per cent and 70 per cent variance were caused due to the variables selected for study in the case of
intermediate and high school science girls respectively. 7. The hypotheses
made regarding the zero correlation between variables and equal contribution
of the predictors to success were not supported. 8. Remedial measures
suggested by the teachers stressed free education to lower income group
students, freedom to employ suitable teaching strategies, manageable class
size in order to pay individual attention, theory correlated with practice and
giving importance to individual interest in schools.

Sarsswat (1982) conducted a study to examine the relationship of self-
concept measures with adjustment, values, academic achievement and socio
economic status of boys and girls. A quota random sample of 840 students
(420 boys and 420 girls) of class IX from 14 schools under the Delhi
Administration was selected. Data were collected using the Self Concept
Inventory developed by the researcher, the Vyaktitva Paraksh Prashnavali by
M.S.L. Saxena for measuring adjustments, the study of values test by R.K.
Ojha, and the Socio Economic status scale by S.P. Kulshreshtha. The
academic achievement was measured by obtaining annual examination
marks of the previous classes. Product-moment correlation, t-test, stepwise
multiple regression analysis and coefficient of multiple determinations were
used to analyse the data. The major findings are: 1. The boy's self-concept
was positively and significantly related to social adjustment, while the girl's
self concept was positively and significantly related to home, health, social,
emotional school, as well as total adjustment. 2. The boy's self concept was
positively and significantly related to political and religious values, while the
girls self concept was and related to any of these values. 3. Only intellectual
self-concept was positively and significantly on total self-concept and its
physical, social and moral dimensions. Girls were found to be higher on all
these dimensions.
Sutradhar (1982) studied to enquire academic achievements of the socially advantaged and disadvantaged children and to find out the socio psychological factors associated with their relative academic achievements. Two lists of school were obtained from the district authorities of Calcutta and 24-Parganas. Based upon the opinion of teachers, lists of A type (which were attended mostly by the boys of high and middle income groups) and B type (which were attended mostly by the boys of low income groups) schools were prepared. A random selection of A type and B type schools both from the urban and the rural settings was done. From the urban areas, two A type and three B type schools and from the rural area, one A type, one B type and two mixed types of schools were selected. Lists of students (boys) in class IV within the age of 8-10 years were prepared. The students who could fulfill all the criteria of advantaged and disadvantaged children were considered. Finally, 200 students 100 advantaged (50 belonging to the urban and 50 to the rural setting) and 100 disadvantaged (50 belonging to the urban and 50 to the rural setting) were selected. Interview schedule for children, interview schedule for the fathers of the children, interviews schedule for the teacher’s Raven’s Coloured Progressive Matrices, Self Concept Inventory for children, Self Concept Inventory for fathers of the children, a sociometric tool, Indian adapted version of Bellak's children Appreception Test were used. The terminal and annual examination marks obtained by the students in their previous class were also collected. To achieve objectives of the study, chi - square test, coefficients of contingency correlation coefficient of multiple correlations, coefficient of partial correlation and multiple regression equation were computed. The findings of the study are: (i) The advantaged children were always superior to the disadvantaged children in respect of academic children, (ii) The advantaged and the disadvantaged children did not differ in respect of intelligence, (iii) In the advantaged group, both the children and their fathers had positive self
concept, whereas in the advantaged group both the fathers had positive self concept, whereas in the disadvantaged children group both the father and their children reported negative self concept. (iv) The child centredness of the parents was more marked in the case of advantaged children than in the case of the disadvantaged children, both as a whole and separately, had significant association with some of the biographic and environmental factors. (v) Cognitive and perceptual factors on the whole, made significant contribution to the academic achievement of the children considered irrespective of their advantaged and disadvantaged status and irrespective of urban and rural settings was found to have significant association with intelligence, self concept, occupation and income (vi) Father's education contributed maximum to the relative academic achievements of the children followed by the intelligence of the children (vii) The disadvantaged and the advantaged children different in terms of there personality to a considerable extent. The two groups also differed in respect of their biographic and environmental factors. Almost the same differences were observed when the advantaged and the disadvantaged children were compared in terms of urban and rural settings, separately, (x) There was no difference between the urban and the rural advantaged children in respect of biographic and environmental factors except the provision for a private tutor. But the urban and the rural disadvantaged children were found differing and environmental factors.

Tiwari (1982) Studied habits and scholastic performance at three levels of education. The random sample was selected from different types of institutions in Varanasi region. The final sample was formed of 1050 students of classes X, XII, and second year degree courses consisting of boys and girls from urban and rural institutions pursuing courses in arts, sciences, commerce and agriculture. Study Habits and Attitudes by Joshi and Pandey, Socio-economic status was assessed by using and available scale. Scholastic
performance was obtained from the marks awarded in school examinations. From the analysis of data, the findings were as follows: 1. The Class X students had the highest mean study habit score, significantly different from the students at the other two levels. 2. Science students in every class scored higher than students in the other courses. 3. In most of the cases the differences were in favour of the class X group of students when different courses were compared. 4. Students of science scored the highest in all the six measures of the Study Habits Inventory. This was the case at all levels. 5. Girls in all classes and in arts and science courses had better study habits Inventory also at classes X, XII and XIV, the only exceptions being that for boys in element A in XII and in element F at XIV levels of education. 6. Urban students (excepting at XII) had better study habits than rural students (this reference existing amongst both sexes) and the sex difference in favour of girls could be seen amongst rural as well as urban students. 7. Study habits scores were found to consistently rise with the rise in income and with rise in the level of parent’s education. These were higher in the case of students whose factors were in service. 8. Study habits scores positively and significantly correlated with annual examination.

Jasuja (1983) studied frustration, aspiration and academic achievement in light of sex and age. The sample consisted 500 subjects (250 males and 250 females). They belonged to different classes and ages. The Frustration Test developed by N.S. Chauhan and G.P. Tiwari, Level of Aspiration Test developed by M.A. Shah and M. Bhargava were used. The data were analysed with the help of t-test and correlation techniques. The findings were: 1. Frustration and academic achievement were negatively and significantly related. 2. Girls achieved higher in the academic field and were less frustrated as compared to boys. 3. Frustration and level of aspiration were positively related. 4. Level of aspiration and frustration did affect the
There was a positive and significant relationship of proximity of mother tongue on the development of reading comprehension. But the case not the same with listening comprehension and in academic achievement in Hindi. 11. Warmhearted students preferred PMT, students having high intelligence like ACMCL and general students enjoyed the traditional method of teaching. 12. Figural creativity was related positively and significantly to the PMT. 13. There was a positive and significant relationship of verbal creativity with the ACMCL. 14. The traditional method promoted convergent thinking. 15. Students belonging to low SES preferred PMT and those of high SES preferred ACMCl and there was no correlation of SES to the traditional method. 16. A significant positive relationship was found between creativity and intelligence. 17. Teaching methods, personality, creativity, SES were not sufficient in predicting the variance in the listening comprehension, reading comprehension as well as achievement in Hindi. 18. Contribution of the ACMCL and PMT was the maximum towards listening comprehension rather than towards reading comprehension.

Doctor (1984) conducted a study related to the classroom climate and psyche scores of classes. Thirty classes, which covered 1279 pupils from all types of schools, were selected from Valsad and Surat districts. The tools used were the Classroom Climate Scale, Junior Index of Motivation Scale, Students' Expectancy, Adjustment, Classroom Trust and Dependency and Independency Scale. Besides, a scale to measure the behaviour of the teachers and the pupils and Ohio Sociometry Scale to measure the sociability of the pupils were used. The major findings were: 1. Each classroom had its own individuality. A Classroom with high classroom climate had high pupil's psyche. 2. Classroom climate had consistency with academic achievement. 3. Academic achievement was highly dependent on 'Independency of pupils' 4. Adjustment was closely linked with classroom
rust and expectancy. 5. Classroom climate and pupils psyche were more connected with independency and dependency. 6. Academic achievement was dependent on teacher and pupils’ behaviour, pupil’s psyche and classroom climate. 7. From the climatograph, it was found that in independency, academic motivation, legitimacy, etc., the scores of most of the schools were less than the scores on other variables taken in the study.

Lall (1984) studied child rearing attitudes, personal problems and personality factors as correlated of academic achievement. A random sample of 400 classes IX and X students (200 boys and 200 girls) was selected from two high schools of Bhagalpur city (Bihar). Singh's Parental Attitude Scale, Verma's Youth Problem Inventory, Levenson's Locus of Control Scale, Sinha's M.A. Self analysis Form, and Eysenck's Personality Inventory were used. Academic success was determined by marks obtained by students in the annual examination. Correlations, t-test, etc. were employed to analysed data. The major findings were 1. Restrictive and protecting attitudes of parents were positively and significantly related to youth problems and anxiety. 2. Restrictive attitudes of parents were negatively and significantly related to internal locus of control and extraversion, whereas they were positively and significantly related with powerful others, locus of control and neuroticism. Protecting attitudes of parents were positively and significantly related to academic success of boys. 3. Loving attitudes of parents were positively and significantly related to powerful others, locus of control, extraversion and neuroticism. 4. Academic success was negatively and significantly related to personal problems and sensitivity, anxiety and neuroticism. Internal, Powerful others and locus of control of reinforcement were not significantly related to academic success. 5. Boys were more internally oriented and neurotic than girls, while girls were subjected to more restriction by parents and were more anxious than boys.
Malik (1984) compare first generation learners (FGLs) with others or non-first generation learners (NFGLs) belonging to the same socio-economic status in the Kashmir Valley in respect of their academic achievement and adjustment. The sample for the study consisted of 150 urban boys, 140 rural boys, 140 urban girls, and 100 rural girls equated on socio-economic status and intelligence. Raven's Progressive Matrices, S.N. Socio Economic Rating Scale, Bell's Adjustment, and a questionnaire constructed by the investigator to classify the sample as first generation learners and non first generation learners were used. Chi-square test and t-test were used to draw conclusions. The major findings of the study were: 1. The FGLs had significantly lower academic achievement than the NFGLs. 2. There was no significant difference in home adjustment of FGLs (rural boys adjustment than FGLs) 3. Health adjustment of students (rural boys and girls, urban boys and girls) was independent of the fact that one group had NFGLs and the other FGLs. 4. Social adjustment of students (rural boys and girls, urban girls) was independent of the fact that one group had FGLs. 5. Emotional adjustment of students (rural boys and girls) was independent of the fact that one group consisted of FGLs and the other of NFGLs. But there was a significant difference in emotional adjustments of FGLs and NFGLs (urban boys and girls).

Nagose (1984) studied a factorial study of divergent abilities, aptitudes, level of aspiration, and scholastic achievement. The sample of the study consisted of 429 junior college students 53 from science stream, 159 from commerce stream and 117 from arts stream. Scale of level of Aspiration developed by the researcher; Torrance Test of creativity Verbal form (A) and University Training College Differential Scholastic Aptitude Test were used. The following were the findings of the study: 1. The predictive ability of the battery of nine independent variables was 0.72. 2. High scholastic
achievement in the science stream was more dependent on high intellective abilities. 3. Divergent thinking abilities added substantially to better scholastic achievement in the arts and commerce streams. 4. Numerical ability and deductive reasoning were important determinants among intellective abilities for high scholastic achievement in science stream. 5. Verbal ability and deductive reasoning were important determinants among intellective abilities for high scholastic achievement in the arts and commerce streams. 6. Divergent thinking ability (composite) was significantly related to scholastic achievement irrespective of academic stream. 7. Originality was an important determinant among divergent thinking abilities of high scholastic achievement in science and arts streams. 8. Flexibility was an important determinant among divergent thinking abilities of high scholastic achievement in the commerce stream. 9. There was a differential pattern of variables responsible for achievement in the science, arts and commerce streams. 10. Unrealistic level of aspiration adversely affected scholastic achievement.

Pal (1984) conducted a study of factor analysis cum factorial study of socio-psychological variables related to scholastic achievement of higher secondary school-going pupils. The sample consisted 240 subjects belonging to different SES, sex and scholastic achievement levels were selected by following the stratified random sampling method. Sherry and Verma's Family relationship Inventory (FRI), Singh and Saxela socio-Economic Status Scale, Singh and Tiwari's Level of Aspiration Test, Rastogi's Self-Concept Scale, and Srivastava's and Tiwari's Anxiety Scale were used. Data were analysed with the help of analysis of variance of equal cell size, t-test, Duncan's Range Test and Hotteling's Principal Axis Solution method. The findings of the study were: 1. Parent's acceptance promoted scholastic achievement while mother avoidance as well as more concentration demoted
scholastic achievement. 2. Males surpassed females in father acceptance while females surpassed males in mother avoidance as well as mother concentration. There was no impact of sex mother acceptance, father avoidance and father concentration. 3. SES did not play any role in father acceptance and avoidance. The children of middle SES revealed maximum magnitude of mother acceptance, whereas the low SES group displayed minimum magnitude. Children of low social class promoted mother avoidance as well as father concentration, whereas the high social class children demoted it. 4. High scholastic achievers belonging to the middle social class promoted the maximum magnitude of father acceptance, whereas its minimum magnitude was availed the low scholastic achievers belonging to the high social class. The maximum magnitude of mother avoidance was availed the low scholastic achievers belonging to the middle SES whereas was scholastic achievers belonging to high SES displayed the minimum magnitude of mother avoidance. The maximum magnitude of father acceptance was availed of in males belonging to the high social class whereas females belonging to the same social class displayed the minimum magnitude of father acceptance. Females belonging to the high social class displayed the maximum magnitude of mother concentration whereas males of the same social class displayed its minimum magnitude. The maximum magnitude of father concentration was seen in males belonging to low SES whereas of high SES displayed the minimum magnitude of the same. 5. In the middle social class the maximum magnitude of father avoidance was displayed in the low achieving males. Low scholastic achievers promoted more father avoidance in the high social class, while high scholastic achievers in the middle social class tended to do so. 6. High scholastic achievers promoted predominantly verbal, non-verbal and total intelligence in comparison to their low achieving counterparts. 7. Males were more intelligent than females. 8. SES did not play any role in non-verbal as well as
total intelligence. Children of high social class possessed more verbal intelligence as compared to lower social class children. 9. Male as well as female high scholastic achievers promoted predominantly non-verbal intelligence in comparison to their low scholastic achieving counterparts. Maximum non-verbal intelligence was availed of in high scholastic achieving females, whereas low scholastic achieving males displayed the minimum magnitude of the same. No significant effect of interaction between scholastic achievement and SES on intelligence was found. Females of the high as well as the middle social class promoted non-verbal intelligence. Males in the low social class tended to do so. In females, nonverbal intelligence increased with the increase in the SES whereas in males it was just the reverse. 10. There was no significant effect of interaction between scholastic achievement, sex and SES on the intelligence of students. 11. High scholastic achievers promoted self-concept in comparison to low scholastic achievers. 12. Low scholastic achievers promoted aspiration as well as anxiety in comparison to high scholastic achievers. 13. Sex had a significant impact on aspiration and anxiety—whereas males promoted aspiration, females surpassed the males in anxiety. 14. SES had a significant impact on aspiration. Pupils from low SES displayed the maximum magnitude of aspiration, while its minimum magnitude was seen in pupils of high SES. 15. Male low scholastic achievers displayed the maximum magnitude of aspiration, while its minimum magnitude was seen in male high scholastic achievers. Both male as well as female low scholastic achievers surpassed their high scholastic achieving counterparts in aspiration. On the other hand, among low achievers males superseded in females in aspiration, whereas among high achievers, females tended to supersede males. 16. Males belonging to middle SES had maximum magnitude of the aspiration, whereas females of high SES displayed minimum magnitude of the same. Both males as well as females of
middle SES surpassed their high SES counterparts in aspiration and in both the SES classes, males promoted aspiration more in comparison to females. In the case of high achievers, the maternal role cum intellectual goal-setting factor emerged. It comprised mother acceptance, mother avoidance, verbal intelligence, self-concept, and level of aspiration. On the other hand in the case of low achievers, two factors emerged. The first factor was parental acceptance-rejection and subjects’ self-actualization cum motivational variables. It consisted of mother acceptance, father acceptance, father avoidance, verbal intelligence, total intelligence, self-concept and level of aspiration. The second factor was maternal involvement cum subjects’ intelligence, which comprised mother acceptance, verbal intelligence and non-verbal intelligence.

Rajput (1984) Studied academic achievement of students in mathematics in relation to their intelligence, achievement Motivation and socioeconomic status. For development and standardization of the achievement test in mathematics a sample of 1000 students taken from various central schools. In the second stage, the study was conducted on a sample of 435 students (boys and girls) of grade V from various central schools. Raven’s Standard Progressive Matrices for intelligence, the Aronzon Graphic Expression Test for measuring achievement motivation, Kuppuswamy’s Socio-economic Status Scale (1962) were used. The data were analysed with help of three-way (3x3x3) analysis of variance. The findings of the study were: 1. Intelligence affected the achievement of students in mathematics significantly at all the three levels, i.e. high, average and low. There was superiority of the high intelligent group of students over the average and low intelligent groups of students in their achievement in mathematics. Further, the average intelligence group was better achievers in mathematics than the low intelligence group. 2. In neutral classroom
conditions, the achievement of students in mathematics was not affected by their achievement motivation. 3. The socio-economic status of the children affected the achievement of students in mathematics. The high socio-economic status group and the average socio-economic status group of students did not differ significantly on achievement in mathematics. Achievement of high socio-economic status and low socio-economic status students in mathematics differed significantly. Average and low socio-economic groups differed to give significant results on their achievement in mathematics. 4. The double and triple interaction effects between the variables of intelligence, achievement motivation and socio-economic status were not significant.

Srivastava (1984) investigated relationship of reading ability with general mental ability, socio-cultural status and school achievement. Four hundred and eighty students of class VII constituted the sample of the study. The tools used were Raven's Advance Progressive Matrices and Dabas's Socio-Cultural Status Scale, reading ability tests and Tarang's Vocabulary Test. t-test was used for hypothesis testing. The major findings of the study were: 1. The correlation of socio-cultural status with intelligence, various measures of reading ability and different areas of school achievement had by and large been significant, and whenever it was found to be significant the size of correlation tended to be small. 2. The correlation of intelligence with various measures of reading ability, and the achievement in different school subjects, ignoring few exceptions, was positive, significant and fair sized. The median correlation of intelligence with the measures of reading ability was 0.343 and with school achievement it was 0.324. 3. The correlation amongst various measures of reading ability as well as its relationship with school achievement but for one exception, were positive and significant. The median correlation among different measures of reading ability was 0.549
and of different measures of reading ability with measures of school
achievement was (0.504) \( r \). A positive and significant correlation was found
between measures of reading comprehension and various measures of school
achievement with a reading comprehension and various measures of school
achievement with a median (\( r = 0.549 \)). The highest correlation were found
between comprehension, i.e. reading for main idea and details and different
measures of school achievement with a median being a (\( r = 0.571 \)).

Comprehension was found to be the most significant contributor to school
achievement in almost all the four subjects (Hindi, social studies, science
and mathematics) in all the four schools. Word meaning was a significant
contributor to the achievement in social studies and science in the three
schools and to achievement in Hindi in one school. Intelligence and socio-
cultural status contributed significantly to the variance in mathematics
achievement in the case of three schools and socio-cultural status in Hindi
achievement in the case of one school.

Sween (1984) studied academic achievement of high school students
in relation to the instructional design, intelligence, self-concept and no-
achievement. A sample of 1401 students was randomly selected from 25
schools of Chandigarh city. Jalota General Mental Ability Test (1972);
Mehta Achievement Value and Anxiety Inventory (1969) and Deo
Personality Word List (1963) were used for data collection. The data were
analysed with the help of four way (2 x 2 x 2 x 2) design of analysis of
variance. The findings of the study were: 1. The two levels of instructional
design, viz. programmed instruction and adjunct programming differed in
their effectiveness's with respect to mean gain scores. Programmed
instruction was found to be more effective than adjunct programming. 2.
High intelligent students scored significantly better than low intelligent
students. 3. Students with high self-concept achieved significantly higher
scores than those with low self-concept. 4. High achievement motivated students gained significantly more than low achievement motivated students. 5. In instructional design did not interact with either self-concept or n-achievement or intelligence of students to cause any variable in their performance. 6. Intelligence interacted significantly with n-achievement to affect the mean gain scores of students on the criterion test. The difference between the two groups of intelligence of high achievement motivated students was more than the difference between the same groups of low achievement motivated students. 7. The factor of intelligence interacted with both high and low self-concept to produce a significant difference in mean gain scores of the students. However, the variable of self-concept interacted with only high level of intelligence to produce statistically significant results. 8. The variable of n-achievement interacted significantly with the factors of self-concept to affect the performance of students. The students. high both on n-achievement and self-concept, performed significantly better than those low on both these variables. 9. The three-way interaction between n-achievement, intelligence and self-concept showed a significant F-ratio. 10. The interaction between the variables of n-achievement and instructional design was independent of the variable of self-concept. 11. Instructional design, intelligence and self-concept did not interact with each other in a three-way interaction to produce significant variance in the mean gain scores. 12. A perusal of four-way interaction between instructional design, an achievement, and self-concept showed a non-significant F-ratio.

Deka (1985) study was undertaken to find out the causative factors behind the academic success or failure of the students by mainly comparing the characteristics of the high and low achievers. The sample consisted of 80 students from six high schools of Darrang district, equally representing three
distinct criterion achievement, residence and sex. The selected high school represented the district headquarters, growing townships comprising suburban and rural areas. Apart from the previous examination marks of the students, vocabulary, spelling, knowledge and arithmetic tests were used to measure achievement variables. Using t-test, chi-square test; etc. determined the significance of differences between successful and unsuccessful students.

The major findings were:

1. Low-achievers always performed poorly in their school examinations and had greater incidence of school failure. Low proficiency in certain basic subjects such as vocabulary, spelling, general knowledge and arithmetic was significantly and positively related to school failure. Proficiency of the students in their basic subjects was not affected by residence and sex variables.

2. School failure was significantly and positively related to general mental ability. Intelligence of high and low achievers was not affected by residence and sex variables. Low schools achievement was significantly and positively associated with inferior leadership qualities and less adventurousness. School failure was unrelated to creativity skills, n-achievement and certain personality characteristics. Sex affected certain personality factors such as adventurousness, tender mindedness, self-sufficiency, emotional stability and excitability.

3. School success and failure were significantly and positively related to family income, involvement domestic activities and home study, while they were unrelated to parental education and occupation.

4. School failure was positively associated with school attendance, preparation of schoolwork, understanding of lessons, preparation for examinations, favourable attitude of teachers and early school leaving. School attendance and home study were not affected by residence and sex. The urban low achievers or low achieving girls did more domestic work than high achievers. Father's education of urban low achievers was inferior to that of urban high achievers.

5. School failure gave rise to unfavourable attitude towards teachers and two major
subjects of study—English and mathematics. Incidence of school success and failure was positively associated with study facilities at home and future vocational plans. High achievers preferred to enter some standard vocations like medicine, engineering and high school and college teaching, while low achievers contemplated becoming primary teachers, nurses, clerks, businessmen and technical workers. Caste, physical health conditions and attitude towards school were unrelated to academic success and failure.

Dixit (1985) conducted a comparative study of intelligence and academic achievement 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. Jallota's Group General Mental Ability Test was administered to measure mental ability and marks obtained by them in the annual examination were taken as the criterion of academic achievement. The main findings of the study were: 1. Among class 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 the boys. 3. Among class IX students there was no difference in the academic achievement of intellectually very superior and intellectually superior boys and girls. 4. At all the other intellectual levels the academic achievement of the girls was superior to that of the boys. 5. In general the intelligence test scores of the boys were higher than those for the girls. 6. In case of the boys there was very high correlation between intelligence test scores and academic achievement. 7. In the case of girls there was an average correlation between intelligence test scores and academic achievement.

Jagannathan (1985) studied to find out the effects of certain socio-psychological factors on the academic achievement of children studying in
Classes V to VII. Achievement Tests in Telugu, mathematics, general science and social studies, a questionnaire for pupils and their teachers to measures 'pupils' role expectations', a questionnaire to measure 'pupils' perception of school environment were used for data collection. The multi-stage random sampling procedure was used in the selection of the sample from three districts (Anantapur, Cuddapah and Nellore) under the S.V. University. From each of the three districts four primary, six upper primary and four high schools were selected randomly. This led to the selection of a total number of 42 (12 primary, 18 upper primary, 12 high schools) from the three districts. The sample consisted 1200 representing the three classes, both sexes and also rural and urban areas. The main findings of the study were: 1. The three levels of school environment, viz., low perception, moderate perception and high perception indicated 43.74 percent, 47.72 percent and 51.61 percent of mean academic achievements respectively. The results of F-test revealed at the mean differences were found significant at 0.01 level. However, Krammer's test showed that only the high group differed significantly from the middle and low groups. The zero-order correlations between pupils' perception of school environment and academic achievement yielded a positive correlation 0.184 on the whole sample and 0.26 on the sub-sample and they were significant at (0.232) separately also produced positive and significant correlations. The partial correlations between the two variables when the other independent factors were haled constant were not significant on the whole sample and on the sub-sample. Inter-correlations among the independent factors indicated that school environment had a positive and significant relationship with socioeconomic status, academic motivation role expectations and home environment. However, all the correlations were low except with role expectations. School environment and intelligence were not found to be 42.51, 46.23 and 55.6 respectively. The mean difference were fond highly significant, beyond the
0.01 level. But the means between moderate and incongruent groups did not differ significantly. The simple correlations between the role expectations and academic achievement were found to be 0.309 for the whole sample and 0.422 for the sub-sample. The 'r' values for boys and girls were 0.285 and 0.351 respectively. All the correlations were found significant beyond the 0.01 level. On the sub-sample, for boys and girls separately, the correlations were found positive and significant. The partial correlations between these two factors, when the effects of other independent variables were nullified, on the whole sample and sub-sample were also found significant at 1 percent and 5 percent levels respectively. Inter-correlations among the independent socio-psychological factors revealed that, role expectations commanded moderate, positive and significant relationship with all the independent factors. But its relationship with socio-economic status and school environment yielded a low relationship. From the above results it was inferred that pupils' role expectations had a profound influence on academic achievement. 3. The three levels of home environment, low, middle and high, obtained 41.38, 47.05 and 62.37 of mean academic achievement respectively. Statistically the differences between the means yielded a significant effect of home environment on academic achievement (F = 17.23 at 1.01 level). Krammer's test revealed that the differences between the high and middle, the high and low were significant at 0.01 level. Home environment yielded a correlation of 0.42 with academic achievement and was found highly significant. The partial correlation between home environment and achievement was found to be 0.179, which was also significant. For boys and girls the respective correlations were 0.391 and 0.45., which were positive and significant. The inter-correlations between socio-psychological variables showed that, home environment had a positive and significant correlation with other independent factors. The relationship of home environment with socio-economic status and school environment
was significant at 5 percent. It had the highest degree of association with pupils' role expectations. In the relationship with academic achievement, home environment occupied the third place after intelligence and academic motivation. 4. With the five independent predictors, viz., socio-economic status, school environment, role exception, academic motivation and intelligence on the whole sample the multiple correlation yielded a value of 0.524. This value indicated that the strength of the relationship between academic achievement (dependent) and the above independent variable combined with optimal weights was 0.53. The proportion of variance explained by all the five variables in academic achievement was 0.275 (27.5 percent). Out of this variance intelligence accounted for maximum variance (12.7 percent), socioeconomic status (0.8 percent), and school environment (0.7 percent). The regression analysis indicated that 63.5 percent variance had still to be accounted for in academic achievement by other than the variables considered here. It was observed that almost the entire variance was explained by the first three variables and the role of socio-economic status and school environment was very limited, even negligible.

Kumari (1985) conducted an experimental study of interaction effects of deductive, inductive strategies, creativity and learning objectives on achievement. The sample was selected by the stratified sampling technique. Baqer Mehdi's Test of Creative Thinking ability was administered to class XI students of four selected institutions. The high creative and low creative were selected by using 25 percent top and 25 percent bottom groups. In all, 75 high creative and 75 low creative were obtained in both the boys' and girls' groups separately. The data were analysed by using analysis of variance followed by t-test. The findings were: 1. Inductive and deductive strategies were equally effective with regard to students' achievement. 2. The combined strategy was more effective than inductive and deductive
strategies taken separately. 3. Creativity and sex factors did not have an interaction effect on achievement. 4. The strategies of instruction, creativity and sex factors did not have any interaction effect on achievement of students. 5. The instructional strategies were more effective at knowledge level than at comprehension level of achievement. 6. The combined and inductive strategies did not interact with taxonomic categories with regard to achievement of students. 7. High creative performance was higher than that of low creative. 8. The performance of high creative was greater through inductive strategy and that of low creative through a combined strategy. 9. Combined and deductive strategies were equally effective for both high and low creative. 10. The deductive strategy was more effective at knowledge level than the combined strategy. 11. The combined strategy was more effective at comprehension level than the deductive strategy. 12. The deductive strategy was more effective at comprehension level than the deductive strategy. 14. The high creative and low creative had greater attainment at knowledge level than comprehension level. 15. The achievement of high creative student was higher than that of low creative students at knowledge and comprehension levels. 16. There was no significant interaction effect among strategies of instruction, creativity and taxonomic categories with regard to achievement of students.

MITRA (1985) conducted a study of some determinants of academic performance in preadolescent children. The sample consisted of 400 students, 200 boys and 200 girls, of classes IV to VII and age 9 to 13+. The tools used were the group Intelligence Test in Bengali for juniors by G.B. Kapat, a questionnaire in Bengali of achievement motivation construction and standardized by Durgadas Bhattacharya, Eysenck's Personality Inventory for juniors adopted in Bengali by Arti Sen, and the students' annual examination marks. The statistics used were the product moment correlation
and linear regression analysis. The findings were: 1. Intelligence was the most significant correlate of achievement irrespective of sex. 2. Achievement motivation and extraversion positively and significantly correlated with academic achievement for both sexes, but both lost their significant effect on academic achievement when intelligence was partially out. 3. Students possessing relatively higher extraversion tended to achieve relatively higher, but neuroticism was not a factor that influenced achievement. 4. There were no sex differences at the preadolescent level with regard to intelligence, achievement motivation and extraversion, but the boys were more neurotic than the girls. 5. The prediction equation of academic achievement from its correlates accounted for three fifths of the variance and it did not significantly vary with sexes.

Pandey (1985) studied cognitive process and motivational patterns of deprived students in relation to their achievement. The study is a descriptive field research and includes composite characteristics of casual comparative and correlational survey researches. 600 students of both sexes were randomly selected from junior high schools studying in Hindi medium high schools and intermediate colleges of Varanasi City. The age of the subjects ranged from twelve to fourteen years. For realization of the objectives of the study, 100 high and 100 low deprived students were selected were selected from the sample of 600 students. The Verbal Reasoning and Numerical Ability Test by J.M. Ojha, the Preadolescent Level of Aspiration Test by Uday Pareek, T.V. Rao, B.R. Sharma and R.P. Ramalingaswamy, for measuring self concept of students and the Swatva Bodh Parikshan by G.P. Sherry, R.P. Verma and P.K. Goswami were used to collect the data. A Deprivation Scale, Academic Anxiety Scale and three achievement tests constructed by the investigator were also used. The Kolmogorrov-Smirnov Two sample Test and Spearman Rank Correlation with tried observations
were used to arrive at conclusions. The major findings were: 1. Low deprived students (boys and girls together) scored significantly higher than high deprived students on verbal reasoning ability, concept formation, intellective performance, level of aspiration and self concept variables. The also performed higher in social studies, science and Hindi in comparison to high deprived students. 2. It was found that, except for the self concept and achievement in Hindi, high deprived boys and girls did not differ significantly. 3. High deprived boys possessed a significant relationship between achievement in social studies, science and Hindi and concept formation ability. 4. Level of aspiration was found to be significantly correlated with social studies, achievement for both boys and girls in the case of low deprived as well as high deprived group. 5. It was found that academic anxiety lowered achievement in social studies among high deprived girls, in science among low deprived boys, and in Hindi among high deprived boys and low deprived girls.

Verma (1985) the study was designed to find out whether students from the Scheduled Tribes differed from the students belonging to Scheduled Castes with respect to academic achievement, attitude towards school, attitude towards medium of instruction, socio-economic status, self-concept and adjustment in school. The sample consisted of 1049 randomly selected from junior high school students of which 557 belonged to Scheduled Tribes, 63 belonged to Scheduled Castes and 429 were from other castes. Aggregate marks in the junior high school examination were taken as the criterion of academic achievement. The Hindi translation of Kevin Marjoribank's Scale, An attitude scale devised by the researcher, Pareek and Trivedi's Scale of socio-economic status, Hindi translation of Peers Harris Children's self-concept Inventory and Bhagia's Adjustment Inventory was used. Major findings were: 1. The mean achievement of the Scheduled Caste students
was significantly lower than that of tribal students and students from the other castes. However, there was no significant difference in the mean achievement of students belonging to the Scheduled Tribes and those belonging to other castes. 2. Students from higher castes had a more favourable towards the school when compared to students from the Scheduled Tribes and Scheduled Castes. 3. Students from higher castes had a more favourable attitude towards the medium of instruction when compared to students from the Scheduled Tribes or Scheduled Castes. 4. Students from the Scheduled Tribes had a higher socio-economic status when compared to students from the Scheduled Castes or other castes. 5. There was no significant difference between tribal and other caste students as regards self-concept. 6. The mean school adjustment score of the tribal group was significantly poorer than that of the non-tribal group. However, there was no significant difference between the mean adjustment score of the Scheduled Caste students and other groups.

Vimla (1985) studied track performance of secondary school students in relation to achievement motivation, socio-economic status and school adjustment. Sample of the study consisted of a group of 430 male secondary athletes who were expected to participate in zonal and inter-zonal competitions of a school athletic meet of Delhi state. Rao's Achievement Motivation Test, Srivastava Socio-Economic Status Scale and Bhagia School Adjustment Inventory were used. Performance in track events was measured through time and distance covered. The findings of the study were: 1. There was a significant and negative relationship between socio-economic status scores and performance scores in track events (100 and 400 meter races). 2. There was a significant difference the mean track performance scores of high socio-economic status and low socio-economic status track athletes. Low socio-economic status athletes had high performance in track events as
compared to high socio-economic status athletes. 3. There was a highly significant and positive relationship between achievement motivation scores of track athletes and their performance scores. 4. There was significant difference in performance in track events between athletes having high and low achievement motivation. The high achievement motivation athletes had high performance in track events. 5. There was a high and positive relationship between school adjustment and performance in track events. 6. There was significant mean difference in performance in track events of high and low adjusted athletes in school situations. 7. The high-adjusted athletes in school situations had higher performance in track events than their less adjusted counterparts. 8. Socio-economic status, achievement motivation and school adjustment factors played a significant role in determining the performance in track events of athletes. These factors could predict the performance in track events, especially the 100 meter and 400 meter races.

Das (1986) studied peer influence and educational aspiration of secondary school students. The sample of the study consisted 820 students of class X of 20 schools of Assam state. Bora's Group Verbal Examination of General Intelligence Test, Narain Rao's Socio-economic Status Rating Scale, an Adapted Version of Mathur's Educational Aspiration Scale, the Peer Influence Scale prepared by the investigator, and examination scores of the HSLC examination were used. Analysis of variance and regression analysis were used for analysis of data. The major findings of the study were: 1. Peer influence was stronger among the students of rural schools in comparison with those of urban schools. 2. Peer influence was strongest among students of boy’s schools and least in the girl’s schools. 3. The educational aspiration of students belonging to urban schools was higher than that of students of rural school. 4. The high intelligence group had high educational aspiration than the students of low intelligence group. 5. Students of the high socio-
economic status group had higher educational aspirations than students of the low socio-economic status group. 6. Intelligence was the most powerful predictor of academic achievement, contributing 40.26 percent of total variance. 7. Education aspiration was the second most powerful predictor bearing 8.58 per cent of variance. 8. More predictability was observed in the rural group in comparison with urban group. 9. The highest predictability was observed in the coeducational school group which accounted as 67.22 percent of variance in comparison with the boys school group (56.61 per cent) and the girls school group (47.38 percent).

Deshpande, (1986) conducted a study related to interactive effects of intelligence and socio-economic status of students and homework on the achievement of students. The study was conducted in three phases. The first phase was an attitudinal study on 382 secondary school students, 224 parents and 162 teachers. In the second phase, a 3 X 2 X 2 factorial experimental design with three levels of intelligence (high, average and low), two levels of homework (twice a week, once a week) and level of delay in evaluation (immediate and delay of three days) was set up on the basis of scores on an intelligence test. The 60 students in each group were further subdivided randomly into four groups, each consisting of 15 students. The final sample, due to experimental mortality and other reasons, was only 114 secondary school students. The experimental design in the third phase was a 3 X 3 X 2 factorial design with three levels of intelligence, three levels of socioeconomic status and two levels of homework (homework given and not given). The sample for this phase of the study consisted of 191 secondary school students. The instruments were three Likert-type scales to measure attitudes of students, teachers and parents. All the scales had content validity and their reliabilities (split-half) were 0.8571, 0.78 and 0.74 respectively. Parallel-form achievement tests in a topic in standard IX, biology, were
constructed (the reliability coefficient was 0.712). Intelligence was measured by the Chinnamma Satyananda Verbal Test and socioeconomic status was measured by Kuppuswamy's scale. The gain scores in achievement of the students were analysed by using the two-way analysis of variance by the technique of unweighted means for unequal cells as well as one-way ANOVA and t-tests. The findings were: 1. Students, parents, teacher's girl students and students of middle and upper socioeconomic status had a more favourable attitude towards homework. 2. No significant differences in their attitudes towards homework were found when teachers were classified under the four variables of marital status, sex, age and teaching experience. 3. Parents with an only child had significantly less favorable attitudes towards homework than parents with two or more children. 4. The amount of homework was not significantly related to achievement of students. 5. Intelligence was significantly related to achievement at the 10 per cent level. 6. Intelligence was significantly related to achievement at the 1 per cent level. 7. The trend of the relationship between homework and achievement indicated that students who were given homework performed better.

Dhar (1986) studies personality profiles of the socially rejected and their academic performance. A sample of 76 rejectees was identified out of 1020 university students on sociometric questionnaire. The tools used in the study were (i) A locally developed sociometric questionnaire, (ii) the Cattell 16 PF (1934) Questionnaire and (iii) the academic performance of the students. The data were analysed with the help of t-test and chi-square. The findings of the sixty were: 1. The rejectees had a specific personality profile characterized by a set of traits, namely assertiveness, happy-go-lucky, suspiciousness, forthright, and apprehensive. 2. The rejectees were characterized by a cluster of traits on the 16PF questionnaire, namely, affected by feeling, sober expedient, susoucious, practical, shrewd, and
apprehensive. 3. The degree of rejection did not vary with the degree of traits. 4. The girls varied on a set of personality factors from the boys. Girls were sober, shy, tender-minded, apprehensive, and undisciplined, whereas boys were happy-go-lucky, venturesome, tough minded, placid and controlled. 5. Academic performance of rejectees was poor. 6. Academic performance did not vary with the degree of rejection.

Kuraishy (1986) studied the relationship between art education and achievement in other school subjects at the secondary school stage. A representative sample of 465 students (195 boys and 270 girls) studying in class IX of secondary schools of three fairly large cities of Uttar Pradesh was divided into an Art Group (AG) and a Non-Art Group (NAG). Home Background which consisted of two Questionnaires constructed by the investigator, one for AG and the other for NAG for eliciting the experiences of art activities the students were exposed to at home and in schools, and Socio-Economic Status Scale developed by Kuppuswamy, art aptitude-Torrance Test of Creative Thinking Form A entitled Creatively with Figures, Mohsin's General Intelligence Test were employed. Coefficients of correlation and multiple correlations were employed to study the relationship between different variable. The major findings of the study were: 1. The coefficient of multiple correlation (R) was significant for the AG and insignificant for the AG. The students who had received formal training in art achieved more than those who had not received such training. 2. The coefficient of correlation obtained between home background and academic achievement was significant for all the groups, showing thereby that socio-economic status and experience of art activities were positively and significantly related to over-all academic achievement. 3. The relationship between art aptitude and academic achievement was positive and significant for most of the groups. 4. A comparison of the academic achievement of
boys and girls of the AG and BAG revealed that there was no differences were significant. 5. the coefficient of partial correlation was computed to find the relationship between the integration of art with other subjects and academic achievement when the variables of home background and art aptitude were held constant. It was found that there was no difference between the performance of the two groups (AG and NAG).

Mehrota (1986) investigation was designed to study the relationship between intelligence, socio-economic status of the family, personality adjustment, anxiety and academic achievement of high school students. The sample for the study consisted of 535 class X students. Around 260 of them were boys and 275 girls. Jalota's Group General Mental Ability Test, Kuppuswamy's Socio-economic Status Scale, Saxena's Adjustment Inventory and Kumar's Indian adaptation of Sarason's General Anxiety Scale were used. Marks in the high school examination were taken as the criterion of academic achievement. The main findings of the study were: 1. Both for the boys and the girls there was an inverse relationship between level of anxiety and academic achievement. 2. Both for the boys and the girls there was a positive relationship between socio-economic status of the family of the students and academic achievement. 3. There was positive relationship between intelligence and academic achievement. 4. There was a positive relationship between level of adjustment and academic achievement. 5. In general, the girls had a comparatively higher level of anxiety than the boys.

Misra (1986) studied the influence of socio-economic status on academic achievement of higher secondary students in rural and urban areas of Kanpur. The sample for the study consisted of 1000 secondary school students. Of them, 500 were boys and 500 girls. Both among the boys and the girls, 300 belonged to the urban and 200 to the rural areas. The Samoohik Mansik Parikshan by Tandon, Singh-and Saxena's Socio-Economic Status
were used. Marks in the high school examination were taken as the criterion for academic achievement. The main findings of the study were: 1. There was a positive relationship between socio-economic status, and academic achievement of the students. 2. There was a positive relationship between the intelligence test score and academic performance of the students. 3. Intelligence positively affected academic performance of the students. 4. The academic achievement of the rural students was lower than the achievement of the urban students. 5. The academic performance of girls was superior to the performance of boys.

Naidu (1986) compared the academic achievement of the students of formal and non-formal education. 300 students selected from standard V of formal school and 300 learners selected from the fourth stage learners in non-formal education centers. Telugu Test, Arithmetic Test, Problem Areas Test, Academic Achievement Motivation Inventory, Perception of School Environment Questionnaire and Home Environment Schedule were used. The major findings of the study were: 1. There existed a significant difference in the academic achievement between the students of formal and non-formal education in the Telugu test. 2. There was a significant difference between formal and non-formal students in their academic achievement in the areas of vocabulary; reading comprehension; writing; and grammar of the Telugu test. 3. There was a significant difference in academic achievement between the students of formal and non-formal education in the arithmetic test. 4. There existed a significant difference between formal and non-formal students in their academic achievement in the areas of numeration and notation; addition; subtraction; multiplication and division; fractions; Indian money; units of length, capacity and weight; measures of time; geometry; and business mathematics of the arithmetic test. 5. The difference between academic achievement of the formal and non-formal
groups in the problem areas test was significant. There was a significant difference between formal and non-formal students in their academic achievement in the areas of food and water; clothing and housing; health and hygiene; plants and animals; solar system; transport and communication; national natural resources; society and nationalism of the problem areas test.

Sonakey (1986) compare personality factors and achievement motivation of high and low achievers in natural and biological sciences. The sample comprised 482 boys and girls (251 high achievers and 231 low achievers) for the main study, 100 randomly selected subjects studying in class X for developing regression equations and 40 subjects for case study. The tools used were HSPQ (Form A), Gopal Rao's Achievement Motivation Test, the Achievement Motivation Test of Prayag Mehta, a Socio-Economic Index by the researcher and Raven's Progressive Matrices. A 2 X 2 X 2 factorial design was adopted. For data analysis t-test, multiple regression analysis were used. Major findings were: 1. High achievers were more intelligent (factor B+), less excitable (D -), tough minded self-reliant and realistic (1-) than low achievers as groups (boys and girls taken together) in biological sciences. 2. High achievers were more intelligent (B+), less excitable (D -), undisciplined, having self-conflict (Q3 -) and relaxed, tranquil, un frustrated (Q4 -) than low achievers in natural science. 3. The high achievers differed significantly from low achievers in factors B+, D - and Q3 + when socio-economic status was held constant. 3. The achievement motivation as measured by G.Rao's Achievement Motivation Test was poor predictor of achievement in biological as well as natural sciences. 4. High achievers as groups (boys and girls) came from higher socio-economic status background. Besides, high achievers and low achievers did not differ significantly on achievement motivation. 5. The socio-economic status and sex of the high achievers and low achievers did
not interact with each other to bring about the differences in achievement motivation of the subjects. 6. The socio-economic status and achievement motivation had positive association with achievement in biological sciences as well as in natural sciences. 7. Personality factors were consistently associated with achievement in natural as well as biological sciences. Factors E-, G-, I+, Q3+, Q4 - and neuroticism+ came out as Q4 + and Neuroticism- could predict achievement in natural sciences. 8. Adler's will to superiority, the principle of fixation of goals and style of life were confirmed because most of the high achievers formulated their respective course of action according to their goals. 9. Murray's theory of personality of growth and development was supported by the data. 'No brain, no personality', and motivation principles were found potentlly operative to determine the behaviour of high and low achievers. 10. The education of mothers was found particularly operative in bringing about the high achievement. 11. The high achievers were charged with a high level of motivation to realize higher goals in their lives and they came from very high socio-economic status backgrounds and also from highly educated families.

Gupta (1987) conducted a study of relationship between locus of control anxiety, level of aspiration academic achievement of secondary students. The sample consisted of 670 students of average intelligence drawn from a population of 3,780 students of the eleventh class of Hindu medium schools of Allahabad city, using the random, proportionate and cluster sampling techniques. There were 180 boys from the arts, 240 boys from the science curricula, and 180 girls from the arts, 240 boys from the science curricula, and 180 girls from the arts and 70 girls from the science curricula. The tools used were the Test of General Mental Ability (M.E. Joshi), Rotter's I.E. Scale adapted in Hindi by the investigator, the W.A. Self-Analysis Fohn (D.Sinha), the L.A.Coding Test (Ansari and G.A. Ansari), the Socio-
Economic Status Index (R.P. Verma, and P.E. Saxena) and the aggregate marks of the high school examination conducted by the UP Board. The statistical techniques used were measures of central tendency and variability for testing the normalcy of distribution. Besides, zero-order correlation, stepwise multiple regression analysis and t-test were applied to analyse the data. The major findings were:

1. Locus of control was found to correlate negatively and significantly with academic achievement for the total sample, arts and science students, boys and girls, boys and girls of the arts and science, boys of the arts group belonging to high, middle and low socio-economic status, boys of the science group belonging to high socio-economic status only and girls of science group belonging to middle to high socio-economic status only and girls of science group belonging to middle and low socio-economic status only and girls of science group belonging to middle and low socio-economic status.  

2. Anxiety was found to have a significant negative correlation with academic achievement for the total sample, arts and science groups, boys and girls, boys of arts group and girls of science group, science girls of the middle socio-economic status, internal boys of the arts curriculum, and external girls of the arts curriculum.  

3. Level of aspiration correlated negatively and significantly with academic achievement for the total sample, arts students, boys belonging to arts curriculum, high socio-economic status arts boys and science girls and externality-oriented girls of the science curriculum.  

4. Socio-economic status was found to have a significantly positive correlation with academic achievement for the total sample, arts and science students, boys and girls, boys and girls of the arts and science groups, internally and externally controlled boys of arts and science groups, internally and externally controlled girls of arts group and internally controlled girls of the science group.  

5. All the four variables, viz., locus of control, anxiety, level of aspiration and socio-economic status predicted academic achievement but
socio-economic status and locus of control were found to be the best predictors. 6. Academic achievement and anxiety differentiated the maximum number of groups.

Kapoor (1987) conducted a study of factors responsible for high and low achievement at the junior high school level. The sample of the study selected randomly from class VIII of recognized and aided Junior High Schools of Lucknow, consisted of 1396 students (696 boys and 700 girls) of age range 13 to 14 years. Raven's Progressive Matrices Test (1985 Revision), Dr. S.P. Kulshreshta's Socio-Economic Status Scale, Dr. V.K. Mittal's Adjustment Inventory, and Dr. B.V. Patel's Study Habit Inventory were used. Besides these tools, marks in the Junior High School Examination were taken as the criterion of academic achievement and the students were divided into high achievers (those getting 60 per cent and above), average achievers (those getting 34 per cent to 59 per cent) and low achievers (those getting 33 per cent or less) categories. The findings of the study were: 1. Among both the boys and girls the high achievers tended to show a higher level of intelligence as compared to the average and the low achievers. 2. A majority of the high achievers belonged to higher SES groups and a large number of low achievers belonged to the lowed SES groups. 3. The high achievers had better home, health, social, emotional and school adjustment. The overall adjustment scores of high achievers were also significantly higher than the overall adjustment scores of the other two groups. 4. Among boys and girls, the high achievers had better study habits as compared to the average and the low achievers. The high achievers tended to plan their studies properly, had proper reading habits, could concentrate on their studies, and prepared for the examination in a better planned manner.
Mehta (1987) investigated the effects of some psychological factors on school achievement of scheduled caste and scheduled tribe students and the students as identified by the Baxi Commission in Saurashtra, Prayag Mehta's TAT Picture Test, Sodhi's Attitude Scale, Adjustment Inventory by Sinha were used. For school achievement the marks obtained by students at SSC examination were used and converted into percentage. The 2X2X2X3 factorial design was used for the study and the analysis of variance technique was used for testing the hypotheses. The major findings were: 1. The students of the backward castes as identified by the Baxi Commission were the best achievers in comparison with the other two castes when the independent variable was attitude towards discipline. 3. The students who had high achievement motivation achieved higher school achievement when one of the independent variables was attitudes towards parents and teachers. 4. Similarly, the students having high achievement motivation achieved high in school achievement and when one of the independent variables was attitude towards discipline. 5. There was no difference in the school achievement of pupils having high and low levels of attitude towards teachers and parents, while differences were found in school achievement of pupils having high and low levels of attitude towards discipline. 6. There was no difference in school achievement of the pupils having high and low levels of adjustment when one of the independent variables was attitude towards parents and teachers. The differences were found in the school achievement of the pupils having high and low levels of adjustment when one of the independent variables was attitude towards discipline and it was in favour of high adjustment. 7. Not a single interaction was significant when one of the independent variables was attitude towards parents and teachers. Four interactions were significant when one of the independent variables was attitude towards discipline. When the variables (i) achievement motivation, (ii) caste, (iii) adjustment, and (iv) achievement motivation and caste were
joined with the variable attitude towards discipline, they influenced the school achievement of the pupils.

Narang (1987) compare socio-economic and home factors affecting the academic achievement of boys and girls in the urban and rural Areas. Stratified cluster sampling was used for selection of the 1705 grade IV to VI pupils (891 boys and 814 girls) from Bombay city, the township of Thane and villages around Thane. Socio-economic Status Scale, Exposure to mass Media Scale, a questionnaire, and an interview schedule were used. The data were analysed with the help of statistical techniques like standard deviation, mean, t-test, product-moment correlation and percentage. The major findings of the study were: 1. Socio-economic status did not affect academic performance in the city, town and village areas. 2. The number of siblings seemed to affect performance. Most high achievers had only one sibling. In the village areas most of the respondents among all categories of achievers had three siblings. 3. The exposure to mass media or the extent of exposure did not affect school achievement. 4. Regularity in doing homework helped achievement while copying it from others hindered performance. 5. The relationship with the principal did not affect academic achievement. 6. In the city area, the relationship with the teacher affected the achievement of Marathi medium girls. In the town area, achievement was affected by the ability of the respondent to go to the teacher with problems. 7. Where the non-academic programme of the school was concerned, participation in co-curricular activities was related to high achievement. However, the type of activities or hobbies pursued or the type of games played did not affect it. 8. The time spent on house work, the type of house, household chores performed, and the way free time was spent did not affect achievement. However, the amount of free time affected the achievement of only girls. 9. The relationship with friends with special reference to the number of close
friends, visits to friends, frequency of visiting them, leisure activities and friction with classmates did not affect achievement. 10. Low achievement was related to being frequently scolded by the parents.

Patel (1987) conducted a study of academic achievement in relation to cognitive and personality differentials of socially disadvantaged and advantaged secondary school children of Orissa. The study was a descriptive, exploratory survey. A sample of 270 students (140 boys and 130 girls) was selected from the eight high schools of Orissa. The sample had an equal number of scheduled caste, scheduled tribe, and advantaged children with an age range of 13 to 16 years. Wallach and Kogana Test of Creativity (1965), Cattell Culture Fair Test of Intelligence (1965), Deo Personality Word List (1971), Stroop Colour Interference Test (1935), Mohan Achievement Motivation Test (1971), Utkal University Child Behaviour Rating Scale (1979) and student Aspiration for Education and Occupation Interview Schedules were used. The data were analysed with the help of chi-square, t-ratio, F-ratio, correlation, multiple correlation and regression analysis. The findings of the study were: 1. All the three groups, viz., scheduled caste, scheduled tribe, and the advantaged children, differed significantly in their achievement in academic subjects, intelligence, self-concept, creativity teacher estimation, linguistic, competence, and achievement motivation. 2. On all the variables related to academic estimation, linguistic competence and achievement motivation, the advantage children scored significantly higher than the scheduled caste and scheduled tribe children. 3. All the three groups differed significantly in their aspirations regarding education, occupation and income. 4. The advantaged children aspired significantly higher than the scheduled caste and scheduled tribe children for their education, Occupation and income. 5. The subject English was positively and significantly related with intelligence, teacher
estimation, and word record card in the case of the scheduled caste group. 6. The subject Oriya was positively and significantly correlated with almost all variables except creativity, emotional aspects of teacher estimation, in the case of scheduled caste, scheduled tribe and advantaged groups. 7. The subject Hindi/Sanskrit was positively correlated with perceived self, ideal self, social self and social aspect of teacher estimation in the case of scheduled caste and scheduled tribe groups. 8. The academic subject mathematics was found positively correlated with intelligence and achievement motivation in the case of the scheduled caste group, but in the case of the advantaged group it was significantly related with intelligence and self-concept. 9. The subject general science was positively correlated with intelligence and achievement motivation in case of the scheduled caste group, with intelligence and creativity in the scheduled tribe group, and with intelligence, linguistic competence and achievement motivation in the advantage group. 10. The subject of history/ civics was significantly related with self-concept in the scheduled caste group with intelligence and creativity in the scheduled tribe group, and with intelligence and achievement motivation in the advantaged group. 11. The subject geography was significantly correlated with ideal self and achievement motivation in the scheduled caste group, with intelligence, creativity and the motivational aspect of teacher estimation in the scheduled tribe group; and with self-concept and linguistic competence in the advantaged group. 12. Total achievement was positively related with self-concept, the social aspect of teacher estimation and achievement motivation in the scheduled caste group; with creativity and teacher estimation in the scheduled tribe group; and with intelligence, self-concept, creativity, linguistic competence, and achievement motivation in advantaged group. 13. In the case of scheduled castes, academic achievement in English was predicted by intelligence and perceived self; in Oriya, by intelligence, self-concept and creativity; in
general science, by intelligence and self-concept; in geography, by self-concept; and in total achievement by intelligence, self-concept, creativity, teacher estimation and achievement motivation. 14. In the case of scheduled tribe children, all the independent variables, viz., intelligence, self-concept, creativity, teacher estimation and achievement motivation, contributed significantly towards prediction of achievement in each academic subject, i.e. English, Oriya, Hindi/Sanskrit, mathematics, general science, history, civics, geography and total achievement. 15. The same was the case with advantaged children where all the independent variables significantly contributed towards achievement in academic subjects, except general science, history, civics and geography where self-concept appeared as a more significant predictor.

Tripathi (1987) studied correlates of academic attainment of pupils of junior high school. The sample of the study consisted of 1200 students (900 boys and 300 girls) of class VIII selected from Junior high Schools of rural as well as urban areas of three districts of eastern U.P. Group Test of Intelligence for children by tandon (1971), Four Achievement Tests of Hindi, social studies, science and mathematics, Check-list, Questionnaire on Socio-economic and Cultural Status, and Questionnaire on Educational Facilities were used for data collection. Mean, SD, percentile, product moment, correlation, regression coefficient, and multiple correlation coefficient, were used or analysing the data. The findings of the study were:
1. The average level of scores in all the selected correlates (Int, SES and EF) and academic attainment were found to be low.
2. Girls were of high SES background.
3. Boys had better scores in the intelligent test and EF questionnaire. Boys have also shown superiority in academic attainment.
4. Urban boys and girl had generally secured better intelligence scores. Boys belonging to institutions managed by private agencies have secured better
marks in the intelligence test than boys of institutions managed by local self government. 5. Urban girls of private institutions had secured better scores in SES than rural girls of institutions appeared to have better EF than the boys of local self government institutions. 7. Urban boys of private institutions had secured comparatively better scores in achievement test than their rural counterparts. Boys had secured better scores in all the four selected subjects. Urban boys and girls had secured higher marks in social studies, science, and mathematics than their rural counterparts. Urban girls had secured better marks in Hindi and mathematics than their rural counterparts. Boys and girls of privately managed institutions had secured better marks in science than their local self-government counterparts. 8. All the three correlates had a significant positive relationship with academic attainment. 9. The regression coefficients revealed that SES had EF and made a remarkable contribution to the academic success of both boys and girls.

Trivedi (1987) Studied relationship of parental attitude, socio-economic background and feeling of security among the intermediate students and their academic achievement. The sample for the study consisted of 523 girls studying in 11 intermediate colleges in Lucknow. Kuppuswamy's Socio-economic status Scale, Jalota's Group General Mental Ability Test, Sherry and Sinha's Family Relationship Inventory, and Tewari and Singh's Security-Insecurity Inventory was used for data collection. The main findings of the study were: 1. There was significant relationship between academic achievement and parental attitude and socio-economic status. 2. Students with parental acceptance showed better academic achievement than those of the parental concentration or avoidance groups. 3. Students belonging to upper socio-economic classes showed better academic achievement than students in lower socio-economic status groups. 4. There
was no significant relationship between the feeling of security-in security and academic achievement. 5. Parental attitude was significantly related to feeling of security-insecurity and socioeconomic status. 6. There was no significant relationship between feeling of security-insecurity and socioeconomic status.

Warsi (1987) conducted an experimental study of students’ perception of teachers as a function of educational level, academic achievement and school background of students. Sampling was done in two stages. In the first stage 150 students of class VIII, 138 students of class X and 129 students of class XII was selected from a public and a government school. At the second stage of sampling, on the basis of Q1 and Q3 values of aggregate percentage of marks of the students in the previous examination, 60 students from each class of the two schools were selected for the study, making a total sample of 360. A scale for the measurement of perception of perceived qualities of a successful teacher was devised by the investigator. It consisted of 16 broad categories of qualities of a successful teacher as perceived by the students with their rank order. The main findings of the study were: 1. There was a significant effect of school background of the students on their perception of teachers. 2. There was a significant effect of educational level on student’s perception of teachers. 3. There was no significant effect of academic achievement on students perception of teachers. 4. There was a significant interactional effect of school background and educational level of students on their perception of teachers. 5. There was no significant interactional effect of school background and academic achievement on students perception of teachers. 6. There was no significant interactional effect of educational level and academic achievement on students perception of teachers. 7. There was no significant interactional effect of school background, educational level and academic achievement on students
perception of teachers marks as well as with pooled teacher ratings. Cluster analysis revealed that while attitude to study habits was an important component, the amount of time for study became a significant factor in the two higher stages.

Srivastava (1988) conducted a study of aggression in adolescent boys and girls in relation to their self-concept, achievement motivation and performance. This study was conducted on 564 male and female students of Classes XI and XII of higher secondary school of Allahabad and Baroda using stratified random sampling technique. The tools used included "Who am I" test to measure self-concept, and A Forced Choice Type Sentence Completion Test. Academic performance was measured by the marks obtained in public examinations and non-academic performance was measured by teachers rankings. The statistical techniques used included product-moment correlation, and analysis of variance. Major Findings of this study are: (1) There was no correlation of aggression with self-concept, achievement motivation and performance (both academic and non-academic). However, there was a curvilinear relationship of aggression with self-concept and academic and non-academic performance, but no correlation of this sort was found between aggression and achievement-motivation. (2) The girls showed a curvilinear relationship between these two variables. (3) Both academic and non-academic performance did not contribute anything to aggression either independently or in combination. (4) Boys were higher on aggression scores than girls. (5) More high aggression subjects had more frustration as compared to low aggression subjects.

Sultana (1988) Studied school achievement among adolescent children with working and non-working mothers. A sample of 250 students of class X was selected randomly taking care that an equal number of students was selected in each maternal-employed and maternal unemployed group.
Further, 100 sample subjects whose mothers were working were from English medium and 150 sample subjects whose mothers were working were from Hindi medium school. The scholastic achievement of these students was tested on standardized achievement tests in English, Mathematics, social studies and languages. The combined scores on these four tests were considered as scholastic achievement of a student. The findings of the study were: 1. There was no difference in the achievement in English, social studies, and languages among children of working and nonworking mothers. 2. There was a significant difference in achievement in mathematics among children of working and non-working mothers, achieved more than those of working mothers. 3. There was no difference in academic achievement among children of working and nonworking mothers, studying in English or Hindi medium schools.

Mehta, Bhatnagar, and Jain (1989) studied educational vocational planning, academic achievement and selected psychological and home background variables of tribal high school students in and around Shillong. A total of 330 students of Class IX studying in 10 schools. This study covers tribal and non-tribal boys and girls, and rural and urban students. The data was collected with the help of a Student Information Blank, Vocational Planning Questionnaire, Centre's Job Values Card, and Attitude Inventory, Personal Events Scale, raven's standard Progressive Matrices, Interest Inventory by R.P. Singh and Student Problems Check-list. The chi-square test, ANOVA, and partial contingency coefficient were used for statistical analysis. Major Findings are: (1) The tribal boys and girls of Class IX in Meghalaya were older and lower on SES than their non-tribal counterparts studying in the same schools. The two groups, however, were not very different from each other in respect of various characteristics. The general socio-cultural milieu seemed to influence everyone in the State irrespective
of ethnic affiliation. However, in some of the dimensions like intelligence level, academic achievement and study habits, the tribal were slightly inferior to the non-tribal, while on others, particularly those pertaining to vocational planning, the tribal had an edge over the non-tribal. (3) Tribal girl were more independent of their parents in their job values. This may be due to a tribal practice according to which women play a more significant role in the world of work. Nevertheless, like in the rest of the world, in Meghalaya also, girls and boys were given differential treatment, with more facilities and attention being given to the boys by the parents.

It is clear from above researches done in the field of creativity, achievement motivation and academic performance, that no research has been conducted related to all these variables on government, aided and private school students at secondary level. Therefore the researcher decided to select these variables for the study.