CHAPTER II
REVIEW OF RELATED LITERATURE

At initial stage of the present study, a collective body of research work, related to involved variables i.e. academic achievement, cognitive styles, personality traits/factors, and adjustment was examined extensively, so that proper guidelines and directions from objectives, hypotheses, methodologies and findings may be sought to assist the various steps of the present study like determination of objectives, formulation of hypotheses, selection of methodology and to get an understanding of relationships between different related variables. Following is the (chronological wise) related literature discussed.

2.1. Literature Related to Academic Achievement

Kolwadkar (1980) conducted a study of gifted children in relation to their personality traits, level of adjustment and academic achievement and found that socioeconomic status, father’s occupation, education of parents, size of family, ordinal position, health status were significantly related to academic achievement; adjustment was positively correlated with academic achievement in case of boys.

Gupta (1987) studied relationship between locus of control, anxiety, personality traits, level of aspiration and academic achievement of secondary school students with the objective to assess the magnitude and direction of relationship of locus of control, anxiety, personality traits, level of aspiration with academic achievement by taking a sample of 670 students of average intelligence drawn from a population of 3780 students of class XI of Hindi medium school of Allahabad city and found that locus of control, anxiety, level of aspiration was correlated negatively with academic achievement; socio economic status had significant positive correlation with academic achievement; boys were high achievers, more internally controlled and less anxious than girls.

Singh (1988) studied the influence of residential place on the achievement of students with the objective to study the effect of location on the achievement level of students by taking a sample of 650 adolescents within the age range of 17 to 20 years and found that the urban students had better academic achievement than rural students, the reason behind this may be the facilities and exposure provided to urban learner.

Rajput (1989) studied the educational aspiration and academic achievement of secondary school students with the objective to examine the influence of family factors on the academic achievement of adolescents by taking a sample of 1000 higher secondary school students through stratified random sampling technique and found that the academic achievement of students was influenced in proportion to their parental encouragement; there
was no effect of socio economic status on the academic achievement of the students, but academic achievement of urban students was influenced by the socio economic status of family; academic achievement was influenced by their family environment.

Ojoawo (1989) studied the effects of differential distribution of resources on school performances in an examination and found that location of schools in Oyo state had significant effect on school academic performance and there was significant difference in the performance between the students of rural and urban schools.

Tripathi (1991) studied achievement motivation and its correlates of high school students with the objective to study the relationship between academic achievement and achievement motivation by taking a sample of 445 IXth grade students selected through random sampling technique and revealed that urban science boys were generally better adjusted; achievement motivation of boys and girls was highly correlated with intelligence and achievement. Among the other correlates of achievement motivation, academic achievement was proved to be the most dominant factor.

Verma et al. (1991) undertook a study with the major objective to identify factors responsible for poor results in the secondary school examination and examining their bearing on school success. The sample consisted of 515 randomly selected students of class X from different academic streams and found that students’ who expressed high degree of ego involvement, indicated the degree of persistence and secured better marks in their final examination.

Wongoo (1991) conducted a study to find out whether the students from government and private schools differ significantly so far as their socioeconomic status and academic achievement was concerned and found that the government and private school students from highly advanced, advanced and normal schools differed significantly so far as their socioeconomic status was concerned. Discerned significant difference on academic achievement was found between the students from government and private, highly advanced and advanced schools; academic achievement of students from normal government and normal private schools did not differ significantly; relationship between socioeconomic status and academic achievement when computed on total sample (N =180) was statistically significant.

Kaur (1992) studied the interrelationship between creativity, intelligence and academic achievement of 11th grade boys and found that relationship between creativity and intelligence was low but positive; academic achievement commonly influenced the correlation between creativity and intelligence; relationship between creativity and
intelligence was non-linear; low positive relationship existed between creativity and academic achievement; creativity commonly influenced the correlation between academic achievement and intelligence; the relationship between intelligence and academic achievement was linear.

Rangappa (1992) studied self concept and reading ability in relation to achievement in mathematics of 7th class students with the objective to identify whether boys and girls, rural and urban students differ in their achievement by taking a sample of 1000 students with mean age of 12.5 years and found that the students studying in urban school performed better in mathematics than the students studying in rural school; self concept, location, gender and reading ability affected the achievement of students in Mathematics.

Nanda et al. (1994) studied the effect of cognitive style and creativity on academic achievement by taking a sample of 550 adolescents and found that rural students were significantly less intelligent and academically less aspirant than the urban students; intelligence and academic aspiration correlated positively with scholastic success of both rural and urban students and this positive nature of correlation was statistically significant.

Verma (1995) studied academic achievement of girls students in relation to their rural, urban background and found that IX grade rural students scored higher than urban students though they had lower level of aspiration and low intelligence quotient. Ecological deprivation was negatively related to achievement.

Bookman (1996) studied academic adjustment in relation to scholastic achievement of secondary school pupils by taking a sample of 545 senior secondary school students and found that academic adjustment was significantly related to the scholastic performance; the scholastic performance and locality were unrelated; there was no difference among the subjects from urban, semi-urban and rural localities with regard to scholastic performance.

Mishra (1997) examined the correlates of academic achievement of high school students and found that intelligence was significantly correlated with academic achievement for both boys and girls; the correlation between intelligence and academic achievement was higher in case of girls; socio economic status was not significantly related with academic achievement of boys and girls; academic achievement of rural students was lower than the achievement of urban students; academic performance of girls was superior to the performance of boys.

Balasubramanayan (1997) studied academic achievement in English in relation to intelligence and found that among XII grade learners intelligence was positively related to English achievement; medium of instruction and locality of residence influenced the level of achievement.
Panda (1997) studied the impact of creativity and adjustment on academic achievement and found that creativity and adjustment were essential factors for the progress of academic achievement of student. The correlation between academic achievement and creativity, academic achievement and adjustment showed that there was a linkage between them. Therefore proper stress may be given to develop creative power among the students, so that they can be balanced and ultimately secure better academic achievement.

Kumari (1998) investigated intelligence, achievement, adjustment and socio economic patterns of different sociometric group of adolescents. A sample of 529 students was drawn from nine schools (government and private) of Jalandhar city (Punjab). The sociometric status of these students was worked out on the basis of a sociometric questionnaire and four extreme groups of populars, neglectees, isolates and rejectees were formed. Further it was managed to keep 50 students in each category, so that final sample consisted of 200 students of class IX. These students were administered the Jalota group intelligence test, Mittal socio economic scale, and the self prepared sociometric scale. The main findings of the study were that the group combinations of populars and neglectees, populars and isolates, populars and rejectees differed significantly on intelligence; populars accounted for significant differences from other sociometric group on achievement; there existed a positive relationship between intelligence and achievement for all the sociometric groups; positive correlation exists between achievement and total adjustment for populars, neglectees, isolates and rejectees.

Radha (1998) studied academic achievement and certain selected variables with the objective to build a discriminate function model for academic achievement in high school by taking creativity, medium of instruction, religion, socio economic status, sex and type of school as an independent variable and found that the difference between academic achievement of boys and girls was marginal and not statistically significant; students from English medium school were high academic achievers than Malayam medium schools; Navodaya Vidyalayas appeared to promote academic achievement followed by unaided schools, and students of government schools did not represent any among the high academic achiever category; socio economic status appeared to be the best predictor of academic achievement.

Koreswara et al. (1998) studied reading achievement in relation to demographic variable with the objective to study the relationship between gender and reading achievement among high school students by taking a sample of 1296 students of 8th, 9th and 10th grade and found that girls were better than boys in reading achievement; class as a variable affected reading achievement of students of 10th class were far better in achievement than 8th and 9th
Review of Related Literature

class; students of residential schools performed better than day scholar students in rural and urban area; region and locality had no significant influence on reading achievement of high school students.

Haseen (1999) studied academic achievement as a function of social class, parent child interaction, dependency behaviour and school management and found that type of school and school management effects the academic achievement of students; all the four independent variables namely social class, parent child interaction, dependency behaviour and school management had significant effect on academic achievement of adolescents; sex difference did not yield any significant effect on academic achievement.

Dangwal (2000) studied the relationship of reaction to frustration and academic achievement with the objective to study the relationship between academic achievement and aggression, types of reaction to frustration by taking a sample of 70 students of class Vth and found that relationship between intro-punitiveness and academic achievement, and extro-punitiveness and academic achievement were not significant among boys, girls and total group; in boys impunitiveness and academic achievement were significantly and directly correlated to each other; obstacle dominance and academic achievement were inversely correlated to each other; the relationship between ego defense and academic achievement was highly significant and strong.

Basant (2000) studied parental beliefs about education and child’s development and its relationship with school performance by taking an objective to study the difference in academic performance of students in relation to gender, intelligence and culture by taking a sample of 200 students selected through random sampling technique and found that there was difference in the total academic performance of students as well as in their scores in language, science, social science with respect to culture but not gender; parents beliefs about development due to learning as well as cognitive processes were relatively positive to students’ intelligence quotient as well as to their academic performance.

Suneetha et al. (2001) studied age and gender differences as factors affecting academic achievement and revealed that gender was the more important variable than intelligence quotient in deciding high academic performance, girls were among top ranking students; girls were better in interaction and concentration while boys were better than girls in language, reasoning and drilling dimension.

Chen (2001) found different factor structures on mathematics achievement and supported the effectiveness of home environment, attitudes towards mathematics and educational aspiration as the more important and consistent predictor of mathematics
achievement; peer influence, school environment and study habits had mixed inconsistent effects on mathematics achievement.

Alam (2001) studied academic achievement in relation to socio economic status, anxiety level and achievement motivation with the objective to study academic achievement in relation to socio economic status and to view the extent up to which academic achievement of the children was affected by their anxiety level and revealed significant positive relation between socio economic status and academic achievement, achievement motivation and academic achievement; and a negative relationship between anxiety and academic achievement.

Tehlan (2001) conducted a comparative study of the impact of general intelligence, level of aspiration and awareness of facilities on the academic achievement of scheduled caste students by taking students of senior secondary stage and found that general intelligence of male scheduled caste students were better than the female scheduled caste students; general intelligence of rural male scheduled caste students were better than the urban male scheduled caste students; general intelligence of female urban scheduled caste students were better than the rural female scheduled caste students; intelligence level of female urban scheduled caste students were better than the rural female scheduled caste; level of intelligence of the urban male scheduled caste students was better than the rural male scheduled caste students.

Vyas (2002) studied learning style, mental ability, academic performance and other ecological correlates of under graduate adolescent girls with the objective to study the effect of ecological correlates on the academic performance of girls students by taking a sample of 545 adolescent girls and found that most of the girls showed academic attainment of average level; no significant difference in the achievement of girls belonging to arts and science group; there was significant difference in the learning style and mental abilities of girls residing in urban and rural area.

Adepoju (2002) studied locational factors, private cost and academic performance of secondary school students and found that significant difference existed in the academic performance of students in urban and rural secondary schools particularly in English language; the locational factors did not contribute significantly to the academic performance in English language and Mathematics.

Adepoju (2002) studied the motivational variables and academic performance of urban and rural secondary school students with the objective to examine the degree of relationship among motivational variables and academic performance of students in
secondary school certificate examination by taking 100 secondary schools and 1000 senior secondary school students and found that there was an enhanced relationship of each of the motivational variables in respect to academic performance with the provision of learning materials as the most predictor variable, followed by employment of private teachers and conducive school environment respectively.

Shanthi et al. (2002) studied the influence of computer assisted instruction on achievement in science with the objective to find out the effect of computer assisted instruction on achievement in learning objectives such as knowledge, comprehension, application and skills by taking a sample of 65 students and found that students taught through computer assisted instruction showed significant difference in the attainment of the learning objectives; significant effect was observed on achievement in favour of computer assisted instruction in all aspects of learning; computer assisted instruction students scored significantly higher marks over the control group students.

Jagannadhan (2003) studied the effects of certain socio psychological factors on the academic achievement of students studying in classes VIII to X and found that the three levels of home environment as 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 0.01 level). Home environment yielded a correlation of 0.42 with academic achievement, which was highly significant. The partial correlation between home environment and achievement was 0.179, which was also significant. For boys and girls the respective correlations were 0.391 and 0.450 which were positive and significant.

Diseth (2003) compared intelligence and academic achievement of adolescent boys and girls of IX and XI class and found that among students of class XI there was no difference in the academic achievement of intellectually superior and intellectually very superior boys and girls; at other intellectual levels the academic achievement of girls was superior to that of boys. In general the intelligence test scores of boys was higher than those for the girls; in case of boys there was very high correlation between intelligence test scores and academic achievement whereas in case of girls there was average correlation.

Gakhar et al. (2003) studied creativity, problem solving and personality in relation to scholastic achievement with the objective to study the relationship between academic achievement and problem solving by taking a sample of 545 students of senior secondary school and found that problem solving ability was significant and positively correlated with mathematical achievement.
Gakhar (2003) studied relationship between emotional maturity and self concept on academic achievement of students at secondary stage with the objective to find the difference in emotional maturity of boys and girls, students of urban and rural areas, students of government and private schools, children of working and non-working mothers with a sample of 200 students of secondary stage and found that there was negative correlation between intelligence and emotional maturity; a significant correlation between emotional maturity and academic achievement of boys and girls.

Kasinath (2003) studied interactive effect of mental health, school adjustment and socio economic status on academic achievement with the objective to find out the difference among students who were well adjusted and mal-adjusted to school environment differ in their academic achievement by taking a sample of 200 students (102 boys and 98 girls) with the age range of 15-16 years and found that mental health had significant determinant effect on achievement in school subjects; students having better social and emotional adjustment attain good academic scores.

Pandey et al. (2003) studied relationship between socio economic status and academic achievement of adolescents and found significant relationship between academic achievement and socio economic status; significant difference between academic achievement of adolescents studying in different types of school depending upon the socio economic status of parents.

Varma (2003) examined the type of child rearing practices, personality and academic achievement of advantaged and disadvantaged students with the objective to find out the difference between groups with regard to personality traits, adjustment and academic achievement by taking a sample of 200 Hindu male students and found that students of advantaged and disadvantaged groups did not differ significantly on Cattell’s 14 personality factors, but there was significant difference between both the groups with respect to their academic achievement; negative relationship exists between anxiety and academic achievement; intelligence was a positive predictor variable of academic achievement; feeling of security and adjustment was related to academic achievement.

Kumaran (2003) studied organisational climate and academic performance with reference to the school, age, management and sex, and found that younger schools were better in academic performance; unaided private schools had better position than government corporation and aided private schools in all aspects of organisational climate and academic performance; mixed schools had better organisational climate aspects than unisex schools and also the academic performance was good in these schools.
Prakash (2003) studied temperament and memory as determinants of Mathematics achievement of intermediate students with the objective to study the relationship of temperamental variable with Mathematics achievement of boys and girls by taking a sample of 166 boys and 160 girls through cluster sampling technique and found that ascendance, vigorous and persistent temperaments were significantly and positively correlated with Mathematics achievement in girls; ascendance, accepting, vigorous, cooperative and tough minded temperaments were significantly and positively correlated with Mathematics achievement among boys; girls were better than boys in Mathematics achievement at high memory level.

Jayaswal et al. (2003) examined the role of parental support and academic achievement of tribal school students by taking a sample of 300 students through multistage sampling technique and found that parents of high achievers exerted significantly more support in their children’s studies than the parents of low achievers students; the parents of high achievers had higher aspiration for their children’s educational success and high prestigious occupation with attractive financial return, but the parents of low achievers were not strongly ambitious of children’s upward mobility; the high achievers parents believed in counselling for correct behaviour whereas the parents of low achievers believe in physical punishment like frequent beating. High achievers parents were liberal and allowed their children to mix with their peers whereas the parents of low achievers were authoritarian and did not allow peer mixing.

Thakkar (2003) studied academic achievement, adjustment and study habits of rural and urban students and found that there was no significant relationship in academic achievement and study habits for rural and urban students; there was positive significant difference between rural and urban students in adjustment areas of home, family, emotional and total but in the areas of social and educational adjustment the difference was not significant; there was no significant correlation between academic achievement and adjustment among rural and urban locality; a positive significant difference between low and high achieving students in the areas of home and family, personal and emotional, education, health and total adjustment; in social adjustment there was no significant difference between low and high achieving groups. On the urban locality, there was no significant difference between low achieving and high achieving students in all the five dimensions of adjustment; there was no significant difference between rural and urban boys with regards to academic achievement; adjustment pattern showed that urban boys were slightly better adjusted than their rural counter parts in the areas of home, family, personal, emotional and health
adjustment; rural boys were slightly better adjusted in comparison to the urban students in the area of social adjustment; significant difference was observed between rural boys and urban boys in the areas of home, family, personal, emotional and health adjustment.

Gakhar et al. (2004) studied social stress, locality and gender as the factors affecting academic achievement with the objective to study how social stress, locality and gender and their various interactions separately affect the academic achievement and reasoning ability of the students by taking a sample of 769 student of Jammu division and found that rural students as well as male rural students scored high academic scores as compared to their counterpart. Rural students scored higher on reasoning ability test than urban students, although locality was affecting the reasoning ability of the students significantly at 0.01 level.

Srivastava (2004) studied academic achievement in physics of secondary school students of various organizational climate by taking a sample of 400 students of co-educational and single gender school and found that closed vs paternal type of school climate had significant difference in the achievement in physics of XI class pupils whereas no significant difference was observed in the academic achievement in physics of XI class pupils between the familiar and open climate.

Ganguly (2004) studied determinants of academic achievement in rural and urban areas and found that parental care about child’s education, emotional climate at home and socio-economic status of family had a positive correlation and crowded living conditions at home had a negative correlation with the academic achievement of students in rural and urban areas; library facilities, teacher’s training, teacher’s classroom behaviour and attitude towards teaching had a positive correlation and student teacher ratio had a negative correlation with the academic achievement of students; peer influence and movies had significant and positive, and the distance between home and school had significant negative correlation with achievement of students; attentiveness to study, school attendance, health and interest in study had a positive correlation with students’ achievement.

Mehera (2004) explores a study on the achievement at secondary level with the objective to assess the students’ achievement in Mathematics, the nature of major learning environment, scientific attitude and attitude towards subject with a sample of 600 students of urban and rural areas of Burdwan district in West Bengal and found that achievement in Mathematics was significantly related to major learning environment; urban students showed significantly higher achievement in Mathematics, better learning environment and better attitude towards Mathematics leads to good academic scores; no sex wise difference was in achievement of students in Mathematics.
Bhuvaneswari et al. (2004) studied the relationship between spatial ability and achievement in Science and Mathematics among high school children by taking a sample of 320 students and found that there was no significant difference in the category of gender and type of school for achievement; there was a significant relationship between spatial ability and achievement in Science and Mathematics.

Reddy et al. (2004) studied the school effectiveness factors and their contribution towards enhanced learning achievement by taking a sample of 242 middle schools students selected through simple random sampling technique and found that learning achievement of the rural students was lower than the achievement of the urban students; academic performance of girls was superior to the performance of boys; there was low and positive relationship between physical, curricular and administrative factors on the learning achievement of pupils in each subject; relationship between administrative factors of school effectiveness and learning achievement was negative and not significant.

Pandey (2005) studied parental disciplining behaviour and academic achievement of adolescents and found that there was a positive effect of father’s disciplining behaviour upon academic achievement of urban adolescents of high intellectual level; rural adolescents showed positive and significant impact of mother’s disciplining behaviour upon academic achievement of average intellectual level.

Varte et al. (2005) studied intelligence and academic achievement in relation to parent child relationship with the objective to study the influence of parent child relationship on intelligence and academic achievement of high school students by taking a sample of 450 students selected through stratified random sampling technique and found no gender difference on intelligence, academic achievement and parent child relationship.

Panda (2005) studied correlation between academic achievement and intelligence of class IX students with the objective to study the relationship between academic achievement and intelligence by taking a sample of 765 secondary school adolescents studying in government, aided and private schools and found that there was low relationship between intelligence and academic achievement in different categories of school and also there was a significant difference in academic achievement of students studying in different categories of school.

Panigrahi (2005) studied academic achievement in relation to intelligence and socioeconomic status of high school students with the objective to examine the influence of intelligence and socioeconomic status on academic achievement of high school students by taking a sample of 100 students from Bhubaneswar city of Orissa and found that there was
significant and positive correlation between academic achievement and intelligence; high intelligence leads to better academic success; a low positive correlation between academic achievement and socioeconomic status; there was no significant difference between boys and girls with respect to academic achievement.

Oyesoji (2005) studied correlates of learning styles on academic performance of secondary schools adolescents and found that there existed a significant relationship between learning styles and academic performance of secondary school adolescents; three senses of learning viz. auditory, visual and kinesthetic significantly contributed to academic performance.

Rajasekar (2005) studied higher secondary students’ achievement in computer science with the objective to study the achievement of students in computer science by taking a sample of 410 first year higher secondary students and found that there was no significant difference between boys and girls, urban and rural students, and students studying in private and government schools in respect of their achievement in computer science.

Sindhu (2005) studied teacher’s motivation, student adjustment and their academic achievement with the objective to compare school adjustment of boys and girls and their achievement level by taking a sample of 680 students of Xth class from Kendriya Vidyalayas through stratified random sampling technique and found no significant difference in the achievement of boys and girls; better liking of teachers contributed to better achievement of boys; girls displayed superior adjustment as compared to boys.

Vamadevappa (2005) studied the impact of parental involvement on academic achievement among higher primary students with the objective to find out the extent of relationship between parental involvement and academic achievement by taking a sample of 200 students studying in 7th standard and found that there was a positive and significant relationship between parental involvement and academic achievement; significant difference in the achievement scores of boys and girls of high and low parental involvement; significant difference between boys and girls in their academic achievement.

Dwivedi (2005) studied the influence of school environment and approval motive on academic achievement of students with the objective to compare educational attainment of students belonging to different categories of schools according to their environment by taking a sample of 400 Xth class students from sixteen different institutions and found that students from schools with enriched environment had significantly better academic achievement than the students from poor school environment; academic achievement of students of urban schools was significantly higher than that of students of rural schools; the students who were
high approval seekers had significantly greater achievement than the students who were low approval seekers.

Singh (2005) studied the determinants of learner achievement at primary stage and found that high socio economic status was positively related with achievement, the achievement of students belonging to SC/ST groups was low; achievement of government school students was also poor.

Nirmala et al. (2006) studied optimization of academic achievement in mathematics with the objective to study the contributing factors and optimizing variables of academic achievement in Mathematics by taking a sample of 900 students from higher secondary classes and found that mathematics information processing skill, decision making skill and attitude towards mathematics had a significant contribution towards the academic achievement in mathematics; among the five factors of information processing skill two of them (surface disintegrated and strategic study) had played a significant role in getting maximum aggregate marks in mathematics; as regard the decision making, all the five factors (approach, internal, external, avoidance and quick) had played a prominent role in maximizing the aggregate performance in mathematics.

Vijayalakshmi et al. (2006) studied the relationship between stress and mathematics achievement with the objective to study the impact of gender, year of study, management, medium of instruction, parental educational qualification on mathematics achievement of students by taking a sample of 180 students and found that there existed a negative and low correlation between students stress and mathematics achievement; gender, year of study, management, medium of instruction and level of parental educational qualification do not had any effect on mathematics achievement; students studying in urban locality colleges were having higher mathematics achievement when compared to semi-urban and rural localities.

Vaidya (2006) studied educational aspiration of higher secondary students and compare the academic achievement of students of formal and non formal education and found that there was significant difference in the academic achievement between the students studying through formal and non formal education in Telgu test; significant difference exist between students studying through formal and non formal mode of education in their academic achievement in the areas of vocabulary, reading comprehension, writing and grammar; students from non- governmental school had higher educational aspiration than the students from government school.

Fitz (2006) studied academic achievement of students in relation to their preferred learning, thinking styles and study skills and found that weaker preference for imaginative
thinking style was likely to obtain poor academic achievement or vice versa. As regard the other thinking styles viz: logical thinking style, fractional thinking style, divergent thinking style, convergent thinking style, creative thinking style, intellectual thinking style, optimistic view of problem solving thinking style and analytical thinking style were not significantly associated with academic achievement of the students.

Bajwa et al. (2006) compare personality adjustment and academic achievement of senior secondary students of co-educational and single gender schools and found that there was a significant difference in academic achievement of girls studying in co-educational and single gender school; significant difference in academic achievement of boys studying in co-educational and single gender school.

Chamundeswari et al. (2006) studied general mental alertness and intelligence in relation to academic achievement of students at the secondary level with the objective to investigate the possible differences between academic achievement in Mathematics of students at secondary level in different types of school by taking a sample of 291 students and found that there was a significant difference between achievement in Mathematics of students at secondary level in government, aided and matriculation, government and government aided, matriculation and corporation schools; there was no significant difference between achievement in Mathematics of students at the secondary level in corporation and government, corporation and government aided, government and matriculation schools; there was significant correlation between mental alertness, intelligence, achievement in Mathematics and English of students at the secondary level in different types of school.

Sharma (2007) studied problem solving ability and scientific attitude as determinant of academic achievement of higher secondary students and found that high achievers had high problem solving ability in comparison to average and low achievers; there exist positive relationship between achievement, problem solving ability and scientific attitude.

Rajendran et al. (2007) studied parents’ education and achievement scores in chemistry with the objective to investigate the influence of parents education level on the achievement scores of students by taking a sample of 120 students and found that there was no significant difference between achievement of boys and girls in the post test, when the parents education was taken into consideration; there was no significant difference among achievement of zoology students in the post test, when the parents education is taken into consideration; there was no significant difference among the achievement of boys and girls of experimental group in the post test, when their parents education is taken into consideration.

Dange et al. (2007) studied library facilities and the academic achievement of
secondary students with the objective to find out the correlation between library facility and academic achievement of secondary students by taking a sample of 100 students in the age group of 16-17 years and found that intelligence and academic achievement were directly related to the psychological character of an individual; reading ability, concentration and sitting hours improves the academic scores of students.

Rajendran et al. (2007) studied that are rural students inferior to urban students in their achievement scores in chemistry at college level and found that there was no significant difference among the achievement of boys as well as girls in the post test of chemistry; locality of students (urban/rural) had no influence on the achievement scores of students at college level.

Domenich et al. (2007) studied thinking styles and achievement of higher secondary students with the objective to study the relationship between different thinking styles and achievement by taking a sample of 765 students from senior secondary schools and reported that oligarchic style contributed negatively and hierarchic style contributed positively to achievement in social sciences.

Gafoor et al. (2007) studied the effect of private tuition on achievement in science of secondary school pupils and found that there was significant difference between achievement in science of pupils belonging to tuition and non tuition groups, when intelligence and achievement motivation were controlled; achievement in science did not differ in two groups, but the pupils of low achievement motivation improved their achievement in science by receiving private tuition.

Prashad (2007) studied the correlation between level of aspiration & school achievement in relation to gender and caste and found that gender and achievement of students didnot have interactive effects on level of aspiration; the high achievers students had higher aspiration level in comparison to low achievers students.

Singh et al. (2007) studied the impact of caste, gender and habitat on achievement in Mathematics at upper primary school level with the objective to study the impact of caste, gender and habitat on achievement by taking a sample of 200 students of eighth class and found that boys were better than girls on achievement in Mathematics and students of urban areas were better in achievement than the students of rural areas.

Uniyal (2007) examined corelational study of level of aspiration and scholastic achievement in relation to gender and caste with the objective to study the level of aspiration that determined the scholastic achievement by taking a sample of 514 adolescents and found that there exists a very high significant difference in between the high and low achiever
students in overall aspiration scale; gender and achievement of students do have interactive effects on level of aspiration; level of aspiration was significantly influenced by scholastic achievement of students.

Meera et al. (2008) studied classroom learning environment and self esteem as correlates of achievement in social studies and found that achievement in social studies vary with regard to difference in the self esteem of student’s; achievement in social studies for boys and girls vary with regard to difference in their classroom learning environment.

Adeniyi et al. (2008) studied five variables as predictor of academic achievement among school going adolescents and found that the causative factors of academic performance as resident in the family, school, society and government were not significant in predicting the secondary students’ performance in two major subjects (English and Mathematics). But there was significant relationship between the causative factors resident in the child and the academic performance of the school.

Alim et al. (2008) studied mother’s working status and academic achievement of adolescents and revealed that there was significant difference in academic achievement of children of working and nonworking mothers; significant difference in academic achievement of boys and girls of working mothers; significant difference in academic achievement of boys and girls of non working mothers; academic achievement of boys of working and non working mothers also showed the same trend.

Subramanyam et al. (2008) studied academic achievement and emotional intelligence of secondary school children and found that there was no significant difference with regard to the impact of gender on emotional intelligence and academic achievement, besides there being no relation between academic achievement and emotional intelligence.

Gafoor et al. (2008) studied thinking styles and achievement of higher secondary students and found that there was influence of external (positively) and conservative (negatively) thinking on achievement in physics. Also thinking styles had significant influence on achievement in physics.

Pandey et al. (2008) studied significance of difference between male and female adolescents on academic performance, achievement motivation, intelligence and socio economic status and found that there was no significant difference between male and female adolescents on the measure of academic performance.

Sridevi et al. (2008) studied relationship of emotional intelligence, adjustment, self concept and scholastic achievement of higher secondary students and found that there was a positive relationship between emotional intelligence, adjustment, self concept and
achievement of higher secondary students

Babu et al. (2008) studied the achievement of higher secondary students in accountancy and their parental encouragement with the objective to find out whether there was any significant difference in gender, locality and family type with respect to higher secondary student’s achievement in accountancy and found that there was significant and relatively low relationship of higher secondary students in respect of achievement in accountancy and parental encouragement; no significant relationship in respect of parental encouragement and achievement in accountancy for female students, urban students and students belong to joint family system; males, rural students and students of nuclear families showed better achievement than that of their counterpart.

Chadha et al. (2008) studied the impact of optimistic and pessimistic attitude on academic achievement of adolescents and signifies that the optimistic pessimistic attitude had significant relationship with academic achievement among male and female adolescents as well as adolescents of science and arts stream.

Paltasingh (2008) studied relationship among creativity, intelligence and achievement scores of secondary school students with the objective to study the correlation between creativity and intelligence; intelligence and science achievement; intelligence and scholastic achievement by taking a sample of 180 subjects of IX class from Oriya medium secondary school and found that there was significant positive correlation among creativity and science achievement, creativity and scholastic achievement, intelligence and science achievement as well as intelligence and scholastic achievement.

Mittal (2008) studied academic achievement of secondary level students in relation to their mental health and locality with the objective to study the academic achievement of secondary level students of different localities by taking a sample of 640 students of secondary level and found that there was significant difference in academic achievement of secondary level students of different localities; academic achievement of urban locality was better than the academic achievement of rural locality of secondary level students; urban locality students had better teaching learning environment at school as well as at home than students of rural locality; relationship between academic achievement and mental health of students of secondary level of urban locality was highly significant; there was no significant difference between correlation coefficient of academic achievement and mental health of secondary level students of different localities.

Dhall et al. (2009) studied intelligence as related to self confidence and academic achievement of school students with the objective to explore the relationship between
intelligence and academic achievement among secondary school students by taking a sample of 1000 students and found that there was a significant relationship between academic achievement and intelligence of secondary school students; there existed a significant difference between boys and girls of secondary school in terms of intelligence; there existed significant difference between boys and girls of secondary school in terms of academic achievement.

Noorjehan et al. (2009) studied factors affecting academic achievement of IX standard students in mathematics and found that factors like mathematical creativity, attitude towards mathematics, achievement motivation and a low level of anxiety influenced the academic achievement in mathematics at secondary stage and recommend the inclusion of curricular and co-curricular programmes to improve performance in mathematics.

Aruna et al. (2009) studied academic achievement in relation to social phobia and socio economic status and found that there was no significant difference in the achievement of social studies for the students paired as government and private school; management of school and social phobia were not the factors influencing the achievement in mathematics; significant difference in achievement in social studies was observed for the students paired as boys and girls, rural and urban students, and high and low socio economic status groups. This indicates that factors like gender and socio economic status were the factors influencing the achievement in social studies.

Mohanty (2009) studied social correlates of academic achievement of rural underprivileged primary school girls and found that socio economic status was a potential social correlate of academic achievement; home environment had positive correlation with academic achievement in case of low achievers only; school environment failed to establish any relationship with the achievement level of high and low achievers.

Choudhary (2009) studied family patterns and academic achievement of students and found that students from urban joint family were better in academic achievement than the students coming from rural joint family; students coming from urban nuclear family were better in academic achievement than the students coming from rural nuclear families; urban students were better in academic achievement than rural students.

Gurubasappa (2009) studied intelligence and self concept as correlates of academic achievement of secondary school students with the objective to find out the relationship between academic achievement with intelligence and self concept by taking a sample of 400 students and found that there was high significant correlation between academic achievement with intelligence and self concept; there was significant difference in the academic
achievement of students with different levels of intelligence and self concept; there was significant difference in the academic achievement of students in context of gender, type of school, medium of instruction, locality and socio economic status.

Singh (2010) studied mental health in relation to spiritual intelligence, altruism, school environment and academic achievement of senior secondary students and found that male students had significantly higher level of academic achievement than female students; students residing in urban area had significantly higher academic achievement than students residing in rural area; academic achievement of students studying in aided schools was significantly higher than students studying in government schools; academic achievement of students studying in unaided schools was significantly higher than students studying in government school; academic achievement of students studying in aided schools was significantly higher than students studying in unaided schools.

Mehta (2010) studied personality needs and academic achievement of secondary school students with the objective to find out the relationship between personality needs and academic achievement by taking a sample of 120 students (50 high achievers, 70 low achievers) from five schools by using systematic sampling technique and found that need achievement, need dominance, need nurturance and need endurance were positively and significantly related to students academic achievement while need succorance, affiliation, abasement and aggression were significantly but negatively related to academic achievement.

Lal et al. (2010) studied emotional intelligence of scheduled caste students in relation to academic achievement with the objective to study relationship between emotional intelligence and academic achievement of male and female students of arts and science stream by taking a sample of 300 students from Meerut region through cluster random sampling technique and found that the male scheduled caste students having high emotional intelligence and academically superior to their counterpart; there was significant difference between mean achievement scores of male scheduled caste students of arts and science stream having high and low emotional intelligence; there was no significant difference between mean achievement scores of female scheduled caste students of arts stream having high and low emotional intelligence.

Vasanthi (2010) studied learning environment and academic achievement of higher secondary physics students with the objective to study the relationship between learning environment and academic achievement by taking a sample of 223 students of Mathematics and Science group and found that the correlation between learning environment and academic
achievemen
t of hindu students, non BC students, and rural students vary significantly.

Gakhar et al. (2010) studied intellectual and non intellectual correlates of scientific attitude with the objective to find the relationship of intelligence and science achievement (intellectual variable) and socio economic status, scientific interest and home environment (non intellectual variables) with scientific attitude by taking a sample of 740 IXth class students selected on the basis of multistage randomization technique from eight districts of Punjab and found that science achievement was not significantly correlated with scientific attitude. The reasons may be that science achievement depends on memory, recall, knowledge and hardwork whereas scientific attitude involves scientific temper of mind, rational thinking, open mindedness, objectivity etc.

Singh et al. (2010) studied the influence of spiritual intelligence on academic achievement of adolescents with the objective to study the influence of spiritual intelligence, gender, type of school and their interaction on academic achievement of adolescents by taking a sample of 934 students with a mean age of 16.64 years through cluster sampling technique and found that academic achievement of adolescents with low spiritual intelligence were better than adolescents with average spiritual intelligence; male adolescents had higher academic achievement than females; academic achievement of adolescents studying in aided schools were better than adolescents studying in government schools; academic achievement of adolescents studying in unaided schools were better than adolescents studying in government schools; academic achievement of adolescents studying in aided schools were better than adolescents studying in unaided schools.

Vijayakumari (2010) studied correlates of academic achievement of secondary school students with the objective to study the relationship of academic anxiety and achievement motivation with academic achievement, and to find out the interaction effect of academic anxiety, achievement motivation and gender on academic achievement by taking a sample of 400 students of IXth class through stratified sampling technique and found that academic achievement was negatively related to academic anxiety and positively to achievement motivation; the interaction of academic anxiety and achievement motivation on academic achievement was not significantly different for boys and girls; the interaction effect of gender and academic anxiety on academic achievement did not differ significantly for different levels of achievement motivation; the interaction effect of gender and achievement motivation on academic achievement did not differ significantly among different levels of academic anxiety.

Sarsani et al. (2010) studied achievement in Mathematics of secondary school
students with the objective to find out the differences in Mathematics scholastic achievement test in relation to gender, caste, type of school, nativity and medium of instruction at secondary school level by taking a sample of 480 students and found that girls performed better than boys in Mathematics scholastic achievement test; caste did not influence the performance in Mathematics scholastic achievement test; type of school, medium of school and locality influenced the performance in Mathematics scholastic achievement test.

Singh (1984) studied the effect of level of aspiration on achievement and found that rural students received lower marks than urban students and there was a positive correlation between level of aspiration and achievement. Yadav (1984) found that intelligent quotient was a reliable predictor of academic achievement and it was highly associated with the abilities related to cognitive development. Samal (1990) studied the relationship between planning and academic achievement of boys and girls and found that there was no significant difference between boys and girls with regard to academic achievement. Giraudo (1990) studied the relationship between family environment and school performance among 5th, 6th and 7th grade students and indicated that there existed positive relationship between family environment and academic achievement. Sharma (1990) found that subjects having high need for achievement were significantly scored higher in academic achievement in comparison to subjects having low need for achievement. Lalithamma (1995) studied the performance of students in relation to gender and found that there was significant difference in the performance of boys and girls in mathematics, the difference being in favour of boys. Addington (1997) found that parental involvement in student’s academic lives influenced students’ mathematics achievement.

2.2. Literature Related to Cognitive Style

Witkin et al. (1977) made a longitudinal study entitled role of field dependent and field independent cognitive style in academic evolution with the purpose to assess hypotheses derived from field dependence theory about the role of cognitive style in student's academic achievement. The result of the study revealed that correlation between group embedded figures test scores and the scholastic aptitude test-verbal (SAT-V) scores were quite low; cognitive style was not significantly related to overall school achievement; it was related to achievement in specialized areas.

Hulffish (1978) studied the relationship between field independent, sex, sex-role-identity, self esteem and intelligence. On the basis of standard multiple regression and analysis of covariance, results revealed that males were more field-independent than females; the subjects with relatively masculine role identities were more field-independent than the
subjects with feminine role identities irrespective of gender; though intelligence had a significant positive relationship with field independent, it did not account for the sex identification in perceptual style.

Swanson (1980) conducted a study on the relationship of birth order, intelligence, academic achievement and field dependence, independence on a sample of eighth grade science students and found correlation of 0.39 (significant, positive and low) between group embedded figure test scores i.e. field dependence, field independence and achievement in science after controlling intelligence and family size.

Vanduyne (1980) explored the relationship between field independence and field dependence, achievement, withdrawal from the course and school related attitudes under mastery method of instruction by taking a sample of 250 senior secondary school adolescents selected through random sampling technique and revealed that field independence-dependence, attitude towards the subject matter and attitude towards the mastery method of instructions were all related to achievement.

Zung (1982) studied the effects of field independence on programmed instruction and normal instruction conditions in learning achievement by taking a sample of 80 students and found that in a group of field independent students, achievement was not significantly different under programmed instruction and normal instruction conditions; the effects of programmed instruction were apparent when tested on a field dependent group using difficult learning material.

Chatterjee et al. (1982) examined differences between urban and rural males in field dependency and geometrical figure recognition capacity (GFR), and found that urban students to be more field dependent and to have greater geometrical figure recognition capacity; better adjusted field independent students had significantly higher scholastic achievement than poorly adjusted field dependent students.

Saracho et al. (1982) studied the relationship of teachers’ cognitive style to pupils’ academic achievement and revealed that field independence was associated with high achievement whereas field dependence was associated with low achievement. When teachers and children were matched, the children with field independent teachers showed greater achievement gain than children with field dependent teachers.

Utley (1983) made a cross cultural investigation of field dependence/independence as a psychological variable and found that male students were more field independent than female students. Scores of field independence were significantly related to the scores of intelligence and reading achievement. Field independent learners can perceive the content
analytically and learns social material only as an intentional task for their self defined goals and reinforcement.

Gosnel (1983) investigated the relationship between students’ cognitive style on the field dependence and field independence dimension and their writing process with the objective to study the relationship between field independence-dependence cognitive style and academic success on achievement of nursing students by taking a sample of 350 under graduate students selected through purposive sampling technique and found a significant relationship between cognitive development and academic achievement \((r=0.38\) and \(P=0.001)\).

Copeland (1983) studied the effectiveness of cognitive style over the conventional group learning by taking IX grade science students and found that field independent groups had a marginal advantage over field dependent group; field independent subject’s performance was significantly better than field dependent subjects in analogical problem-solving and subjects who were provided with a principle based content performed better than subjects who were provided a procedure based content; there was no significant differences in student performance on French version of mathematics test.

Canning (1984) analysed cognitive style, hemispheric preference and personality types of 72 economically disadvantaged secondary school students selected through random sampling technique with the objective to study the relationship among their characteristic and academic achievement and found that 72 subjects who participated were categorized as field dependent (86%) sensing (72%) and left hemispheric (49%). The results of his study showed positive correlation between cognitive style and academic achievement.

Bowers (1984) studied the relationship of cognitive style and interpersonal effectiveness to academic achievement and satisfaction with the objective to examine the relationship of cognitive style and interpersonal skill to achievement and attitude in two dental hygiene program components i.e. science lecture courses and clinical courses by taking a sample of 200 students and revealed that grades, traditional predictors, interpersonal skills significantly contributed to achievement prediction in both program components; cognitive style significantly contributed to achievement prediction in clinical cases only.

Duggar (1985) examined the effectiveness of field dependent/ field independent instructions on the mathematics problem solving ability and revealed significant differences in the mathematics problem solving ability between field dependent and field independent groups. The conclusion supported that the field dependent-independent cognitive dimension applied to teaching improve the students performance in mathematics problem solving.
ability.

Witkin et al. (1984) examined field dependence/independence and suggest a reciprocal influence on student and teacher cognitive style on perceived satisfaction and performance in classroom context; field dependent people tend to showed more interpersonal orientation in their psychological functioning in contrast to more self reliant, self structuring approach of field independent people; the more field independent the person, the greater the tendency to ask others for help; conversely, the more field dependent the individual, the greater the tendency to structure problem solving strategies independently.

Mrosla (1984) studied the difference between field dependent-independent cognitive style of low and high achieving Mathematics students with the objective to study the effect of achievement in relation to field dependent-independent by taking a sample of 675 students from different categories of high school and found that low achieving mathematics students were more field dependent than high achieving mathematics students in high school; for dropouts there was significant interaction of achievement with respect to field dependence.

Randolph (1984) studied the relationship among cognitive style, achievement in science, personality and sex of student with the objective to investigate the relationship between cognitive style and achievement in science and found that there existed significant correlation between field independent and science achievement; there was no significant difference between the performance of males and females in science achievement.

Crow et al. (1984) studied perceptual orientation of community college students and their attitude towards science and found that field independent students showed positive attitude and scored significantly high in science achievement than field dependent students with negative attitude towards science.

Saracho (1984) conducted a study to determine whether field independent students show higher level of academic achievement than field dependent students, and the extent to which this difference was affected by gender and grade level. The results of the study showed that student's cognitive style and grade level were related with each other and field independent subjects were higher achievers than field dependent subjects.

Duggar (1985) compared the effects of two contrasting instructional approaches representing the field dependence-independence cognitive dimension on mathematical problem solving performance and found significant difference in the mathematics problem solving post test and gain scores of two treatment groups receiving field dependent and field independent instructions over the control group. The conclusion supported the assumption that the field dependence-independence cognitive dimension applied to teaching improves the
students’ performance in mathematics problem solving ability.

Jacoby (1985) studied the relationship between field independence, problem solving ability, science achievement and intelligence using an analogy based problem solving method and found that field independent subjects scored significantly higher on the problem solving task than the field dependent; field independent subject using an analogy scored significantly higher on the problem task than field dependent subjects who did not use an analogy; cognitive style of subject may influenced successful use of analogy based problem solving strategies in the solution of new paradigm problems.

Nelson (1986) studied the effect of field independent-dependent cognitive style on achievement in tele course and found no significant difference between the attitude of field dependent and field independent students enrolled in a tally course; students with field independent learning style scored higher grades than students with field dependent style; there was no association between field independence/dependence and course completion.

Paul (1986) conducted a study of cognitive style of high school students of home science in relation to age and achievement. The objective of the study was to study the relationship between cognitive style and their achievement in home science and found that cognitive style was positively and significantly correlated with achievement in home science.

Yore (1986) investigated the effect of lesson structure and cognitive style on science achievement of elementary school children and found that high structure lessons resulted in higher achievement than low structured lessons; field independent students achieved significantly higher science scores than field dependent students.

Marx et al. (1987) explored the relationship between student’s perception of teacher’s instruction, cognitive style and achievement, and also examined how cognitive style and student’s ability to perceive responses jointly relate to students achievement. The results indicate that measures of perception and cognitive style were related to achievement even after controlling verbal ability.

Roszkowski et al. (1987) observed that field dependent- field independent was related with the academic achievement, the relationship between field dependent- field independent and academic achievement became insignificant when control for intelligence was made.

Kiewra et al. (1988) tested the factual and higher order achievement of 195 field independent and field dependent college students after exposure to lecture material by an immediate test without review of notes, and by a delayed test with a review of notes. As compared to field dependent subjects, field independent subjects achieved higher scores on factual and higher ordered tests. Reviewed detailed notes led to higher order achievement
Rai et al. (1989) made an attempt to answer whether student's cognitive style were differently related to total academic attainments by administering Group Embedded Figure Test on 216 post graduate students of different faculties (natural science, social science, commerce and language). The result indicates that science students were significantly more field independent than the students of other faculties. In the continuum of field independence to field dependence, science subject was followed by commerce and social science streams. The students in language were field dependent than those of other educational subjects. The interaction effect of achievement in literature and sex was found to be insignificant, $F(1,116) = 1.29$, $p>0.05$. The insignificant interaction effect means that the effect of high and low achievement in literature on FD-I cognitive style did not depend upon the gender of the subject. It may also be said that the effect of gender on FD-I cognitive style did not depend on high and low level of achievement in literature. The interaction effect of achievement (mathematics) and gender was insignificant, $F(1,116) = 0.02$, $p>0.05$. The insignificant F-value indicates that the effect of achievement in mathematics on FD-I cognitive style did not depend on the gender of the subjects. The interaction effect of achievement in science and gender was insignificant $F(1,116) = 1.14$, $p>0.05$. It indicates that the effect of achievement in science on FD-I cognitive style did not depend on the gender of the subjects. It may also be said that the effect of gender on FD-I cognitive style of the subjects did not depend on the level of achievement in science. The interaction effect of achievement and gender was insignificant $F(1,116) = 0.60$, $p<0.05$. This indicates that the effect of subject's achievement in social studies on FD-I did not depend on their gender. The F-ratio for interaction effect of overall achievement and gender was insignificant, $F(1,116) = 0.09$, $p>0.05$. This indicates that the effect of overall achievement of the subjects on FD-I scores did not depend on their gender i.e. FD-I scores of the male and female subjects did not depend on the level of their achievement.

Adeyemi (1989) investigated the effect of cognitive style, instructional mode and gender of student on achievement in biology by taking a sample of 550 adolescents selected through random sampling technique and found that subjects differed significantly in their post test achievement scores on instructional mode and cognitive style factors; main effect of gender was not significant.

Gill (1989) studied the effect of training strategies on creative problem solving skills and cerebral dominance in relation to intelligence, personality and cognitive style with the objective to study the influence of training strategies and intelligence and there interaction on
academic achievement of adolescents and found that level of intelligence, personality types, cognitive style and training strategies when paired, did not show any interaction in terms of performance in creative problem solving skill in mathematics cerebral dominance.

Kardesh et al. (1988) studied effect of cognitive style and immediate testing on learning from lecture with the objective to investigate the relationship between cognitive style and problem solving ability of 400 eighth grade males and females and found that problem solving was positively correlated to cognitive style and concluded that field independent subjects were more proficient problem solvers than field dependent subjects; performance after immediate testing was in favour of male field independent students.

Sheikh (1990) studied cognitive style in relation to intelligence, creativity and academic achievement of 185 adolescents of government school. The results indicated that high intelligent and high creative group tend to be more field independent than average and low intelligent and creative group. Average intelligent groups were more field independent than low intelligent group but high and average creative group do not show any significant difference in the cognitive style; female students had greater field independence than their counterpart male adolescent.

Verma et al. (1991) studied the effect of cognitive style on scholastic achievement and showed that field independent cognitive style group obtained significantly higher mean scores in English, Math’s, General Science, Social Studies and Drawing and in total than their field dependent counterpart.

Tripathy (1991) studied cognitive functioning, affective adjustment and academic adjustment of the tribal children in Orissa and found that tribal children in integrated schools showed more field independent cognitive style than tribal children in tribal schools, and the non-tribal children in integrated schools performed better in cognitive style test as compared to tribal children in tribal schools; family setting variables such as occupation of the father, income of the family, education of the parents, studying time and housing facilities were positively related to conservation and cognitive style as well as to the academic achievement of children in all the groups.

Wolf (1992) used canonical correlation to investigate the relationship among set of variables associated with individual differences and found that cognitive style, affective or social traits were measures of academic process; canonical correlation confirmed significant correlation between cognitive style and academic success set, and between the field dependence-independence set and the academic success set.
Behal (1992) revealed that high ability students acquired mathematical concepts better than average and below average ability students irrespective of model of teaching; high ability field independent students achieved significantly higher scores in mathematical concept test than average ability field independence and below average ability field independent students; high ability and field independent students also scored higher marks than high ability high-dependence, average ability field-dependence as well as low ability field-dependence.

Pandey (1992) studied divergent thinking in relation to scholastic achievement, cognitive style, self concept and interest pattern with the objective to find out the partial and multiple correlation between divergent thinking, self concept, cognitive style, interest pattern and scholastic achievement by taking a sample of 349 students of tenth class and found that there was a significant relationship between divergent thinking and cognitive style, scholastic achievement and cognitive style; significant correlation between cognitive style and different dimensions of divergent thinking showed that learners with more complex analytical cognitive structure showed greater ability of divergent thinking; significant correlation between scholastic achievement and different dimensions of divergent thinking showed that divergent production was due to high scholastic achievement; field dependent students were better than field independent in their divergent thinking.

Canning (1993) studied relationship between cognitive style and achievement of students and identified that field independent students should be provided with curriculum and materials that are concrete, personal, visual and manipulative for improving performance.

Gosweli (1993) studied the relationship between cognitive development and academic success and found significant relationship between cognitive development and academic success \( (r=0.39; p<0.01) \); between cognitive development and cognitive style.

Dutt (1993) studied cognitive style in relation to intelligence and problem solving ability and found that cognitive style was significantly contributing to the problem solving ability scores, thereby showing that cognitive style affect the problem solving ability irrespective of training strategies; the group having field independent cognitive style scored higher mean than field dependent group on problem solving ability test.

Copeland (1993) examined the cognitive style of male and female students and found that students showed diverse cognitive style; males were slightly field independent.

Dutt (1993) studied problem solving ability in science of high school students in relation to anxiety level, cognitive style and intelligence with the objective to view the
relationship between cognitive style of learner and problem solving ability by taking a sample of 300 students of class Xth with an age range of 14-15 years and found that cognitive style of the learner significantly contributed to the problem solving ability scores, cognitive style affect the problem solving ability irrespective of training strategies; the group having field independent cognitive style scored higher mean than the field dependent group on problem solving ability test.

Stabler (1994) determine which of the independent variables viz. the field dependent-independent cognitive style, race, gender, age or socio economic status had the greatest impact on the student’s formal level of reasoning. The group embedded figure test and logical reasoning test showed an internal reliability of 0.91 and 0.81 respectively. Males, females and low socio economic status subjectees tended towards field independence. About 24 percent of the sample reasoned at the formal operation level and 28 percent displayed a field independent style. The chi square test, ANOVA and co relational analysis showed that logical reasoning test scores were positively related to group embedded figure test scores.

Robinsen (1995) studied the effects of two approaches to basic programming on the achievement and attitude of field independent and field dependent students. Six intact computer literacy classes were randomly assigned to two groups, each receiving basic computer programming allowing to their treatment condition. One treatment consisted of instructions based on text and mathematical content and second treatment consisted of instructions based on text and graphic or picture context. Results indicated that alternative methods of instruction in basic computer programming significantly affect programming achievement on application problem. But no significant difference on basic programming achievement was obtained when considering the interaction of either cognitive style or gender.

Lettri (1995) conducted a study on cognitive profile as the basic determinant of academic achievement. The results of this study indicated that a cognitive profile separate seventh and eighth grade subjects into significantly different achievement level groups, measured by standardized test. Also the results indicated that, the cognitive profile was a basic determinant of an individual's level of academic achievement and could accurately identify specific learning deficits that significantly contributing to low academic achievement.

Kiranmayi et al. (1996) studied the influence of socio economic status on cognitive style and academic achievement and found that higher socio economic subjects were field independent and showed better achievement, whereas lower socio economic subjects tended
to be field dependent and had lower level of academic achievement; cognitive style of field dependent had significant positive relationship with academic achievement.

Theraken (1996) studied the effect of urban and rural upbringing on cognitive style by taking a stratified random sample of 80 subjects, 40 students were taken from urban 40 from rural areas. The results showed that urban males were more field independent than urban females; sex differences did not affect the cognitive style of rural adolescents.

Kellecher (1997) explored possible differences in field-dependent /field-independent among different fields of commerce students. The group embedded figure test was administered to 29 male and 32 female students. Result indicates that commerce students were moderately field independent; males did not differ significantly from female on group embedded figure test scores.

Chiu (1997) conducted a study of relationship of cognitive style and manifest anxiety to academic performance among Chinese children and found that cognitive style was related to academic achievement and emotional responsiveness of children.

Sureshan (1997) studied the interaction effect of cognitive style and classroom environment on biology students of secondary school and found that there was significant difference between boys and girls with respect to cognitive style.

Helen (1998) studied the difference between field dependent / field independent cognitive styles of low and high achiever mathematics students. The results showed that the low achiever students were more field dependent than high achiever students; female students in traditional schools were more field dependent than male students.

Kirk (2000) investigated the relationship of attitude towards science, cognitive style and self concept to achievement in chemistry at the secondary school level. Results indicated that field independence was significantly correlated with problem solving, academic and laboratory achievement; better attitude towards the social benefit and problems accompany scientific progress which was significantly correlated with higher achievement on all the academic measures of chemistry.

Engemann (2000) attempted to determine whether or not any relationship exists between chemistry problem performance and field dependent-independent cognitive style, logical reasoning ability, mental capacity, age, gender and academic level and compared the problem solving strategies employed by advanced notices and experts in chemistry. Analysis of variance conducted to look for significant effects of academic level in field dependent-independent cognitive style provided evidence of a significant relationship between mental capacity and academic level (0.01). A multiple regression analysis further reported that
problem solving performance was related to an interaction between logical reasoning ability and mental capacity.

Naufal (2000) investigated interaction between cognitive style of field dependent (field dependence, field neutral, field independence) and learning strategies (advance organizer, concept map and outline number learning strategies) on student’s performance in a hyper media environment. Results revealed no significant interaction between cognitive style and learning strategies; field independent students scored significantly better than field dependent students.

Cakan (2000) investigated the interaction of cognitive style and assessment format (multiple choice-MC and performance based assessment – PBA) in second language proficiency for eighth grade students. Phase I consisted of a quantitative study investigating performance difference between field dependent and field independent students on different test formats. Phase II consisted of a qualitative study to investigate assessment preference and study habits of field dependent- field independent student’s. Results revealed that cognitive style had a statistically significant effect on student performance whereas the effect of gender, ethnicity socio economic status of students was not significant. A two factor split-plot analysis revealed a significant interaction of cognitive style and test format. Field independent students performed better than field dependent students in the MC, but no indication of such difference was observed for the PBA; field dependent students scored better on the PBA than they did on the MC and the field independent students scored better on the MC.

Verma (2002) studied women’s learning style in relation to certain demographic factors and academic achievement with the objective to find out the relationship of women students’ learning styles with certain demographic factors with academic achievement by taking a sample of 406 women students of grade XII and revealed that women students belonging to private institutions were higher with reference to independent, dependent and avoidant learning styles and women students of government institutions were superior to their counterparts on participant learning style; arts women students were higher in the use of collaborative learning style than science women students; significant difference in dependent, participant and avoidant learning style among high and low achieving women students on the independent and dependent styles, high achievers were superior than low achievers and in the avoidant learning style low achievers were higher than their counterparts high achievers.

Riding et al. (2003) explored that both working memory capacity and cognitive style
had independently affect performance on school type tasks but their effects in interaction was not considered. The aim of this study was to consider the relationship between working memory, cognitive style and gender on overall learning behaviour, performance on range of school subjects. It was found that for overall learning behaviour, there was an interaction between working memory capacity and cognitive style with the wholist analytic style dimension, memory made a marked difference for analytics but had little effect for wholists; and with the verbal imagery dimension verbalisers were affected but not imagers with the school subjects, these differed in terms of their sensitivity to gender, memory and style.

Sarpage (2003) studied the influence of field dependence/field independence cognitive style on student’s achievement and found that cognitive style of field dependence/field independence was positively related to student achievement.

Banerjee (2003) studied adjustment patterns and cognitive style of creative and non creative students with the objective to explore the relationship between cognitive style and creativity, and between adjustment and cognitive style by taking a sample of 567 students and found that there was a significant correlation between creativity and cognitive style and there was no significant difference in the cognitive style of VII & VIII grade students; cognitive style and adjustment patterns revealed no difference due to grades; field independent students made better adjustment in home and school area.

Bagchi (2004) studied scholastic achievement in life science in relation to cognitive style of social disadvantaged group of secondary students with the objective to determine the relationship between the scores of boys and girls on cognitive style and scholastic achievement, and to predict the scholastic achievement of boys and girl students by taking a sample of 689 students of class Xth and found that in case of girls there existed a low and positive relationship between scholastic achievement of life science and cognitive style; the regression equation for prediction of scholastic achievement indicates that about 23% of variance of scholastic achievement in life science explained jointly by cognitive style and social disadvantaged group.

Albert (2004) conducted a study of relationship between cognitive style, gender, intelligent quotient and academic achievement of high school students and recorded a low but significant correlation between cognitive style and academic achievement.

Parikh (2004) studied the relationship of cognitive style and academic achievement of boys and girls and found that achievement was not related to cognitive style; boys and girls do not differ in their cognitive style.

Dani (2004) studied scientific attitude and cognitive style of higher secondary
students and found that boys and girls did not differ in their cognitive style; science students possessed higher field independence ability than arts and commerce students; city students possessed higher field independence than town and village students; early adolescents were more field independent than middle and late adolescents.

Zhang (2004) examined the nature of field independent-dependent construct against academic achievement as well as thinking style as defined in Sternberg’s theory of mental self government. Participants responded to the group embedded figure test and the thinking style inventory. Student’s academic achievement was examined in relation to field independent-dependent and thinking style score. Major findings were that field independent-dependent and thinking style construct were unrelated; particular thinking styles were related to the students overall achievement in mathematics course.

Debut (2005) studied cognitive style and cognitive ability of tribal and nontribal school students and found that tribal pupils were more oriented towards field dependence-independence than nontribal; male and female tribal and nontribal students differed in field dependence, whereas this difference was not noticed in case of field independence; cognitive style was associated with academic achievement.

Panda (2005) studied the effect of cognitive style and adjunct question on learning from connected discourse and found that field independent students learn and retained prose significantly more than field dependent students; field independent students proved to be significantly superior to field dependent students in processing and comprehending scientific textual material, at all levels of question, and at both the retention test.

Pureydathil et al. (2005) examined the cognitive processes and adjustment of TV viewers and found that light viewers were better than heavy viewers in the cognitive skills of analytical thinking, figure evaluation, similarity exploration and verbal facility; heavy viewers were more inquisitive than the light viewers; in adjustment, the light viewers were better and girls were better than boys.

Sayed (2006) studied the relationship between cognitive style and personality traits of secondary school students and found significant differences between field dependent and field independent groups on personality factors A, B, C, D, E, G and Q4; field dependent students were reserved, less intelligent, affected by feelings, excitable, assertive, having weaker super ego, uncontrolled and tensed; field independent students were warm hearted, more intelligent, emotionally stable, undemonstrative, obedient, having strong super ego, controlled and relaxed; no significant difference existed between field dependent and field independent groups on the personality factors F, H, I, J, O and Q2.
Altan et al. (2006) in their study investigated the cognitive style, achievement scores and attitude towards computer among university students and found that there was no significant relationship between cognitive style and academic achievement; cognitive style and attitude towards computer.

Malathi et al. (2006) studied the learning style of higher secondary students of Tamil Nadu with the objective to find out the correlation between learning style and achievement of higher secondary students by taking a sample of 160 students and found that the learning style of higher secondary students was good and there was no significant difference in the learning style of higher secondary students in terms of their class and type of school; significant difference in learning style between boys and girls studying in higher secondary school and the correlation was higher between learning style and achievement which indicates that higher the achievement scores, the better the learning style among higher secondary students.

Aruna et al. (2006) studied the influence of cognitive style, intelligence and classroom climate on process outcomes in science by taking a sample of 1000 pupils of standard IXth of secondary school of Kerala through proportionate stratified sampling technique and found that boys and girls differ significantly at 0.01 level in the mean scores of cognitive style, intelligence, classroom climate and dependent variable process outcomes in science; urban and rural school students were not significant at 0.05 level with regard to cognitive style and the high mean score was associated with urban subjects; government and private school students were not significant at 0.05 level for cognitive style and intelligence; the relationship between cognitive style and process outcomes in science was significant, positive but low; cognitive style and intelligence had significant effect on process outcomes in science; the main effect of cognitive style and intelligence on process outcomes in science was significant implies that the level of process outcomes in science was different for different levels of cognitive style and intelligence.

Geetanjali (2006) studied the academic achievement in relation to cognitive style and hemispheric style at secondary stage and found that cognitive style had a significant effect on students achievement; more the field independence of the students, higher the academic achievement.

Mehra et al. (2008) studied the effect of cooperative learning on achievement and retention in Mathematics with different cognitive styles by taking a sample of 112 students of 7th grades and found that students when exposed to cooperative learning yielded better mean
gain on achievement and retention scores as compared to those taught through conventional group learning; field independent and dependent students yielded comparable mean gain on achievement scores but field independent students exhibited better retention than field dependent group of students; field independent and field dependent students yielded better mean gains on achievement and retention scores through cooperative learning than conventional group learning.

Kenth (2009) made an investigation of cognitive style, learning style and study skills as predictors of academic achievement of prospective teachers and found that examination mastery along with cognitive style and imaginative style was found to be a good predictor of academic achievement.

Bieri et al. (1958) reported significant correlation between field independent and mathematical ability among college students. Yeatts et al. (1971) and a number of studies (Panda, 1998; Zung, 1982) revealed that there was no significant relationship between cognitive style and achievement of students. Kagan et al. (1975) assessed the importance of cognitive style in determining the school achievement and found a significant correlation of field independent with reading ability and Mathematics achievement. They also supported the preposition that field dependent subjects were low achievers in school. Randolph (1983) found significant relationship between field independence and achievement \( (r=0.586; p<0.001) \). Copeland (1983) found that students with higher group embedded figure test scores would receive higher course grades and students with lower group embedded figure test would receive lower course grades. Roherge et al. (1983) found that field independent students scored higher than field dependent students on total mathematics concepts and problem solving tests. Peterson (1984) studied the significance of cognitive style in achievement and indicates that field independent students perform better in mathematics than field dependent students while later are better at learning material. Lata (1986) studied the relationship of cognitive style with scholastic achievement and intelligence and found that cognitive styles were uniform and regular and have positive relationship with scholastic achievement.

2.3. Literature Related to Personality Traits

Lohithakshan (1961) studied the personality traits of educationally backward children and found that educationally backward children were inferior with regard to confidence, persistence, attitude towards school work, sociability, sensitivity to praise and blame and regard for self, tended to be less enterprising in school work, less envious and less cheerful although less adjustable.
Rushton (1966) in a study found that school students having trait of emotional stability (C+), relaxed (Q4), perseverance (G+), easy going (A+), dominance (E+), happy go lucky (F+), internally restrained (J+) and self control (Q3+) tend to be higher in scholastic achievement.

Ainsworth (1967) studied the personality factors in relation to scholastic achievement and revealed that conscientiousness (G+), self sufficiency (Q3+) along with intelligence (B+) were the most promising factors in the prediction of school attainment.

Bhatnagar (1967) found relationship between personality characteristic and academic achievement by relating personality variables to academic achievement after controlling the effects of socio economic status, intelligence, school difference and age difference; academic achievement, act differentiate at different levels of age and intelligence for different types of personality.

Cattell et al. (1968) attempted to predict school achievement and creativity from ability, personality and motivation measures and reported that the primary source traits of conscientiousness (G), submissive (E), friendship (A) and dependability (Q) were related to achievement.

Bachtold (1969) studied the personality characteristic of 227 over and under-achiever bright 5th grade students’ with the help of children’s personality questionnaire and found that successful female achievers got higher scores on credibility, self confidence and self control compared to under achievers; successful male achievers scored higher on emotional stability, seriousness and sensitivity in comparison to under achievers.

Eysenck et al. (1969) analysed scores of 4000 boys and girls by using Eysenck Personality Inventory in relation to performance on scholastic ability revealed that extraverted girls were scholastically superior where as extraverted boys were scholastically poorly adjusted; extraverted girls doing unexpectedly poor performance on ability achievement tests.

Johnson (1970) studied personality differences between low and high achieving boys using the personality inventory for children. Results showed that low achievers were generally less emotionally adjusted and mature than average achievers.

Cattell (1971) studied personality and intelligence quotient measures as predictors of school achievement by administering ‘high school personality questionnaire’ and the ‘culture fair intelligence test’ and concluded that factor B (intelligence) and factor G (conscientiousness) follow a developmental sequence in their relationship to achievement. In 6th grade, factors A (warm-hearted participation) is important, but in 7th grade, it was not. In
7th grade, factor C (emotional stability), factor J (desire or group action), factor O (self-assuredness) and factor Q3 (exacting will power) become important, although they were not in 6th grade; some personality factors were specifically related to individual areas. In both 6th and 7th grade, factor H (adventurousness) was related to achievement in mathematics; in science the higher achievers were tough minded (factor I) and it helps in mathematics if their dominance (factor E) scores were high.

Dhaliwal (1971) study personality correlates of academic success failure. Three contrasting groups as overachieving, normal achieving and underachieving students were formed. These groups were neutral as regards intelligence but differ significantly in terms of academic achievement. The results revealed that study habits, adjustment in home, school and emotional areas, emotional stability and verbal intelligence had positive relationship with academic achievement; while social adjustment, insecurity feelings and reserved-outgoing, obedient-assertive, placid-apprehensive, sober-happy go lucky and relaxed–tense dimensions of personality had negative associations with academic over-under achievement; anxiety and need for achievement had curvilinear relationship with over-under achievement.

Reddy (1973) studied the relationship between personality factors and academic achievement and revealed that personality factors namely A, C, G, H, F, L, J, K, Q1, Q3 and Q4 were significantly associated with achievement in one or the other subject.

Aggarwal et al. (1973) in a psycho social study of academic achievement of over and under achievement at secondary school level and found that under achievers were comparatively less emotionally mature, less calm, less placid, less prone to getting into difficulties less able to face reality and possessed less ego strength than over achiever students.

Walaytiram (1974) studied the effects of personality factor, achievement motivation and achievement of upper and lower intelligence level by taking a sample of 450 students of 12th grade selected through random sampling technique and found that personality had significant correlation with achievement which influenced on all subjects (Math, Science, Hindi, Social Science). In case of lower intelligence group the traits related to the stability of neuroticism, extraversion, introversion were significant with academic achievement.

Srivastava (1974) examined the effect of achievement motivation and personality characteristic on academic achievement by taking a sample of 931 male students of class Xth and found that when intelligence was constant, personality trait relaxed-tense was correlated with achievement motivation and it influenced academic achievement when intelligence and socio economic status were held constant.
Beedawat (1976) studied the personality characteristics of under achievers and found that under achievement was higher in science group girls and they possessed the trait of outgoing, warm hearted, easy going and average emotionally stability.

Tiwari et al. (1976) studied the differential personality correlates of high and low achievers at the same level of socio economic status and found that high achievers were significantly better adjusted than low achievers in the areas of emotional and educational adjustment but not in the area of social adjustment; low achievers were below average in intelligence and more anxious than high achievers who were above average in intelligence but low in anxiety.

Joshi et al. (1977) conducted a study with a view to discovering non-intellectual aspects of personality that were related to intellectual achievement and found the traits which were significantly higher for the high achievers were Do (dominance), Cs (capacity for status) Sy (sociability), Sa (self acceptance), Ac (achievement by conformity) Re (responsibility to tolerance), Ai (achievement by independence), Ie (intellectual efficiency), and Fe (feminity) on one scale and Fx (flexibility) having higher mean for low achievers.

Malik (1977) studied the relationship of intelligence and certain personality factors with achievement in chemistry of 10th class students. The investigator took a sample of 230 students (140 boys and 90 girls) and use ‘Edward Personal Preference Schedule’ and ‘General Mental Ability Test’ as tools and found that intelligence and academic achievement were significantly correlated; intelligence was not correlated with any of the personality characteristics.

Gupta (1978) studied personality characteristics of tenth grade under and over achievers of both sexes and found that the magnitude of over and under achievement among high school adolescents was very high; the magnitude of under achievement and over achievement was greater among boys than girls; certain personality factors were specifically related to achievement of a particular gender as factor B and J with that of male adolescents and factor C, D and O with that of female adolescents.

Kalia (1978) studied the personality factors of adolescent school going girls of Shimla city from age 13 to 16 years while comparing the girls of different age groups with different personality factors, the course of development of each of these factors were also studied and found that for factor A the 16 years old girls were easy going, co-operative, attentive to people, soft-hearted, adaptive, laugh-readily and good-natured compared to 13 years and 14 years old girls, who were cool, critical, aloof, precise, objective, stood by their own ideas and were prone to sulk; on factor B none of the age groups differed from each other significantly;
on factor C the 14 years old girls were emotionally stable, had high ego strength, faced reality and were calm compared to 16 years old girls, who were affected by feelings, emotionally less stable, easily upset, had low ego-strength and were changeable; on factor G, 14 years old girls were determined, responsible, dominated by a sense of duty, concerned about moral standards, and emotionally disciplined compared to 16 years old girls who were quitting, fickle, indolent, undependable, self-indulgent and disregard obligations to people; on factor Q3 none of the age groups differed significantly from each other.

Gupta (1978) examined the personality characteristic of 10th grade over and under achievers and reported that over achievers boys as well as girls differ significantly from under-achievers on personality factor G (conscientiousness), H (adventurous) O (self assuredness); among boys, over achievers were significantly higher on factor B (intelligence) than under achievers; in case of girls over achievers were significantly higher on personality factor C (emotional stability) and significantly lower on factors D (excitability) and O (apprehensiveness).

Gupta (1978) examined the personality adjustment in relation to intelligence, gender, socio economic background and personality dimension of extroversion and neuroticism, the results indicates that there was positive and significant relationship between personality adjustment and extroversion-introversion; neurotics were significantly and negatively associated with personality adjustment; adjustment and neuroticism to be correlated negatively (-0.68); adjustment and extroversion correlated positively (r=+0.3), and extroversion and neuroticism to be independent factors.

Tandon (1978) investigated into personality characteristics, anxiety level, home environment and the relationship between personality traits and home environment of 10th class students. The sample of study was 200 failed students and 200 first division with an intelligence quotient of 110 and above and found that male underachievers were easy going and outgoing, emotionally less stable, low in frustration, shy, apt to inferiority feelings, pessimistic, moody, depressed and highly anxious; female underachievers were pessimistic, harsh, assertive and highly anxious,

Srivastava et al. (1980) studied academic achievement in relation to personality factors and found that eight factors out of 14 factors of personality show similar direction (positive correlation) of contribution towards academic achievement. These factors were A+, B+, C+, D−, H+, I−, O− and Q2+.

Gupta (1982) conducted a study related to personality characteristics of ninth grade over and under achiever boys and girls at different levels of achievement motivation and
found that academic achievement was significantly correlated with intelligence but no significant correlation between intelligence and over-under achievement; achievement motivation was significantly correlated with academic achievement; the group of low motivated over achieving boys were more vigorous and zestful than the group of under achieving boys; low motivated group was least vigorous and zestful; over achieving boys were less expedient and less shy and had less undisciplined self conflict than the under achieving boys; the average motivated boys did not differ from low motivated boys in scholastic ability, expediency, shyness and undisciplined self conflict; neither the two levels of achievement nor the three levels of achievement motivation differed significantly on personality factors A, B, C, E, O and Q3 for boys, and A, D, F, I, O and Q2 for girls.

Reddy (1983) studied the relationship between personality factors and academic achievement and indicates a significant relationship between personality factor B, C, H, F, Q1 and Q4 on academic achievement.

Jogwar (1983) studied the personality correlates of high and low achievers in biosciences by taking a sample of 845 IXth grade students by using proportionate random sampling technique and found that the scores of high school biology students and personality factor endurance and aggressiveness were significantly associated.

Booth et al. (1983) in their study of neuroticism and school attainment found that neuroticism showed a significant co-relation with school environment; children with high neuroticism scores, were less successful than those with low neuroticism scores; extroversion showed no significant correlation with school attainment, gender difference produced an overall non-linear relationship; extroverted girls and extroverted boys tended to be more successful in school work than children with opposite personality characteristics; girls who were stable extrovert and boys who were stable introvert showed the highest school attainment scores.

Rajiv (1983) reported that in case of high achievers the two personality needs namely exhibition and endurance were positively and significantly related with scholastic achievement. In case of low achievers, no personality needs was related with scholastic achievement.

Koul (1984) studied the personality traits of high achievers and found that high achievers in mathematics were more intelligent, realistic, sturdy and dominant with high ego strength. After making a factor analysis, the differentiating traits of high achievers were reduced to three factors namely the factor of venturesomeness, self confidence and preservance.
Menon (1984) undertook a comparative study of personality characteristics by evolving multimedia approach of over and underachievers of high ability. Over and under achieving groups of children were selected through stratified random sampling technique giving proportional weight to rural-urban, boys-girls of co-educational schools. The results revealed that over-achieving group of boys and girls of superior ability as well as the general group was less extravert and maladjusted while underachieving boys of general group was less sociality active and masculine; over achieving group of boys and girls of superior ability showed greater academic interests and endurance, that overachieving girls from general group and overachieving boys of both groups have greater general ambition and that overachieving boys and girls of both groups have greater persistence.

Entwistle (1985) studied relationship of neuroticism and school attainment and found that neuroticism showed significant correlation with school attainments; children with high neuroticism scores were less successful in their school attainment than those with low neuroticism scores.

Santokey (1988) studied the personality factors of high achievers and low achievers in biological sciences and found that low level of intelligence showed a tendency of concrete thinking, having lower scholastic and mental capacity in comparison with the one who possessed the higher level of intelligence and were capable of abstract thinking, brightness and higher scholastic. Under achievers in bio sciences were more excitable, demanders and over active. Higher achievers showed higher scores on factor O, D and J who were tender minded, dependent, over protected, more phlegmatic, more vigorous, zestful and ready to act where as lower achievers were doubted, obstructive and unwilling to act.

Singh et al. (1988) tried to find the relationship of intelligence and certain personality factors with academic achievement at high school level and found that intelligence was positively and significantly related with academic achievement in different subjects; mathematics was significantly correlated with achievement and dominance variables of personality.

Cithatoon (1988) examined the personality patterns of high and low academic achievers and found that high achievers obtained a higher mean value on personality factor H and lower mean value on factor I than the low achievers; rural students achieved higher mean value on factors E and Q1 than their urban counterparts; on factors D, I and O girls achieved higher academic scores, on factor H girls were lower than boys; achievement locality interaction did not affect the personality traits significantly; interaction between achievement and gender significantly affects the personality factor C, Q2 and Q4; on factor E, F, G and Q3
the interaction effect of locality and gender was significant; interaction of achievement, gender and locality did not had any significant effect on any personality factor; high academic achievers were adventurous, active/impulsive, socially bold and tough minded whereas low academic achievers were more shy, timid, threat, sensitive and tender minded; rural students tended to be more assertive and self sufficient whereas urban students were obedient and group dependent; male students were more phlegmatic, adventurous, tough minded and placid in comparison to female students who were more excitable, shy, tender minded and apprehensive by nature.

Singh et al. (1989) studied personality characteristics of high and low creative college students with the objective to study personality characteristics of high creative and low creative adolescents with the help of a projective test by taking a sample of 175 Hindi knowing college students of intermediate level within the age range of 17-20 years and found that high creative adolescents were more introversive than the low creative’s who were more extroversive; intelligence was positively correlated with academic achievement; the creative’s were more able to mobilize their resources for adjustment.

Jain et al. (1989) studied the development of personality and vocational preference of students at various stages of adolescence with the objective to examine developmental patterns of personality by taking a sample of 900 students between the age group of 12 to 18 years and found that personality factors B (less intelligent/more intelligent), D (undemonstrative/excitable), E (obedient/assertive), G (disregards rules/conscientious), I (tough minded/tender minded), Q2 (socially group dependent/self sufficient) and Q3 (uncontrolled/controlled) significantly changes.

Joshi (1990) studied the relationship of personality and academic achievement of secondary school girls and found that overall achievement was not significantly correlated with personality.

Devi (1990) studied pupil's academic achievement in relation to their intelligence and neuroticism and found that girls had significantly higher academic achievement than boys; boys showed a higher neurotic tendency than girls; academic achievement was negatively correlated with neuroticism.

Mittal (1990) compare self concept and personality factors of scheduled castes and non scheduled castes students and found that scheduled castes and non scheduled castes students differed significantly on personality factor B, F, H, O and Q3 while for other factors the difference statistically was not significant; scheduled castes and non scheduled castes boys differed significantly on personality factor B, F, G, H, M, N and Q3; scheduled castes
and non scheduled castes girls did not differ significantly on all personality factors; scheduled castes girls and boys differed significantly on personality factor B, F, G, H, M, N, O and Q3; non scheduled castes girls and boys differed significantly on personality factors A, B, F, G, I, O and Q3.

Bhatnagar et al. (1991) aimed to find out the relationship between personality needs and academic achievement on the basis of multimedia package of high school students keeping age and intelligence constant. For predicting academic achievement on the basis of personality needs 1941 male students of XI class (912 of humanities, 476 of commerce and 553 of science group) formed the sample. It was found that need for achievement, autonomy, interaction, succorance, dominance, nurturance, endurance and aggression were positively correlated and need for deference, affiliation and abasement were negatively correlated with academic achievement.

Joyce (1991) studied the personality characteristics which differentiate achiever and under-achiever high school students from socio economic environment and concluded that high achievers were characterized by high concept of ability, lack of need for aggression, positive self concept and a tendency to perceive high percentage for achievement in their particular subjects.

Roy (1992) studied personality differentials of adolescents with scientific creativity in relation to environment with the objective to study personality differences between low and high scientifically creative adolescents in terms of Cattell’s trait theory and found that typical high scientific creative adolescent were more resolved, critical, more abstract thinker, more stable emotionally, more excitable, more independent, serious and prudent, more expedient, more venturesome, more tough minded, more individualistic, more self assured, self sufficient, self disciplined and more relaxed than low scientific creative adolescents.

Dadu (1992) studied personality, values and religious attitudes of urban and rural males and females in purview of socio economic status and found that between rural male and female students the difference was statistically significant for A, Q1 and Q4 personality factors; rural male and urban male students did not differ in their personality traits; between rural and urban female students significant difference existed in respect of Q1; between urban male and female students significant difference existed in respect of Q1.

Dhillon (1993) studied correlates of under achievement and revealed that academic achievement and extroversion was closely related; under achiever boys and girls were generally extroverts and at the same time they possessed neurotic trait as well; the girls were more neurotic as compared to boys; higher the achievement motivation, the higher was the
level of achievement.

Sood (1993) studied the predictors of academic achievement in some selected professional courses with the objective to identify a combination of personality factors which would optimally predict academic achievement by taking a sample of 606 students from four professional courses and found that high intelligence, higher superego strength and social awareness lead to an increase in the academic achievement of an engineering student; high intelligence, frustration or tension and self assurance or confidence lead to increase in the academic achievement of a medical student; there was a positive and significant correlation between academic achievement and personality factors A, B, C, G, Q3 and negative and significant correlation between academic achievement and personality factors O and Q4 of law course; personality factors of shrewdness, socially aware, high intelligence contribute positively to academic achievement; personality factors of high ergic tension, stronger superego strength and high intelligence contribute positively to academic achievement but personality factors of untroubled adequacy and artlessness contribute negatively to the academic achievement; personality factors of pretension, radicalism, high ergic tension, stronger superego strength, venturesome, self sufficiency contribute positively to academic achievement but personality factors of artlessness, tough minded, reserved, untroubled adequacy contribute negatively to the academic achievement of the students of management; personality factors of high intelligence, stronger superego, emotionally stable, self sufficiency contribute positively to academic achievement but practical, desurgency, untroubled adequacy, submissiveness contribute negatively to the academic achievement of law students; the correlation of academic achievement and personality factor of shrewdness, high intelligence, group adherence, conservatism of temperament of engineering students was positive and significant; the correlation of academic achievement and personality factors of high ergic tension, superego strength, self assured, radicalism, tender minded, intelligence of medical students was positive and significant; the correlation of academic achievement and personality factors of pretension, artlessness, tough minded, reserved, radicalism, tense, stronger superego, self assured, venturesome, desurgency, self sufficiency of the students of management is significant; the multiple correlation of academic achievement and personality factors of high intelligence, superego strength, practical, desurgency, self assured, pretension, emotionally stable, submissiveness, artlessness and self sufficiency of law students was positive and significant.

Sheikh (1995) studied personality traits, psychogenic needs and academic achievement of rural and urban female students in relation to their cognitive style and found
that female adolescents belonging to rural and urban residential background do not differ significantly on 14 personality traits viz. A (reserved/warmhearted), B (less intelligent/more intelligent), C (affected by feelings/emotionally stable), D (undemonstrative/excitable), E (obedient/ assertive), F (sober/enthusiastic), G (disregards rules/conscientious), H (shy/adventurous), I (tough minded/tender minded), J (zestful/circumspect individualism), O (selfassured/apprehensive), Q2 (socially group dependent/self sufficient), Q3 (uncontrolled/controlled), Q4 (relaxed/tense); female adolescents with field independent and field dependent cognitive style did not differ significantly on personality traits except on factor B (less intelligent/more intelligent) and factor Q3 (uncontrolled/controlled); there was no interaction between residential background (rural/urban) and cognitive style of female adolescent students with regard to thirteen personality traits. For factor Q4, there was significant interaction between residential background (rural/urban) and cognitive style; urban field independent female students were significantly more tensed than their rural field independent counterpart. But rural and urban field dependent female students were more or less similar on factor Q4; there was no significant difference in the mean score of academic achievement of rural and urban female students; female students with field independent and field dependent cognitive style differ significantly with respect to their academic achievement; field independent female students achieve higher scores than their field dependent counterpart; there was no significant interaction between residential background and cognitive style of female adolescents with respect to their academic achievement.

Bhatnagar (1995) studied the personality correlates of autonomy with academic achievement in general and reported that need for autonomy, succorance, dominance, nurturance, endurance and aggression correlate positively and need for affiliation and abasement correlate negatively with academic achievement of students.

Astington (1996) studied the personality traits of both boys and girls by taking a sample of 345 students of ninth class and found that boys with the best relative academic achievement received higher rating in persistence, independence and interest and considered themselves less extraverted and less sociable than did their fellow students who performed less well academically.

Mishra (1997) examined the correlates of academic achievement of high school students and found that personality factor except self sufficiency was not significantly related with academic achievement of both boys and girls; the personality factor self sufficiency was significantly related to achievement only in case of boys.

Pandey (1998) studied personality traits of deprived pre-adolescents with the
objective to find out whether any gender difference existed in the personality traits of deprived students by taking a sample of 250 students of class IX and found that deprived girls differ from normal girls on planned working, hesitation, independence, perseverance, lethargy, questioning attitude, initiative, adaptability and tolerance but no significant difference on crookedness, self sufficiency, reticence, egoism, social orientation tendency, group dependence, dominance, pessimism, work anxiety and creative motivation; deprived boys differ significantly from normal boys on planned working, emotional disturbances, analytical power, hesitation, questioning attitude, initiative adaptability and tolerance. Both the groups showed no difference on crookedness, self sufficiency, reticence, egoism, social orientation, alienation tendency, independence, group dependence, perseverance, dominance, initiative, creativeness, motivation and tolerance factors; deprived boys had more negative personality as compare to their female counterpart. In normal group both boys and girls had hesitation and lethargy in them; girls showed independence and tolerance in them whereas boys had analytical power and work anxiety in them.

Suresh et al. (1998) studied achievement motivation and decision making styles among university students and found that achievement motivation was positively related to vigilant decisions. In tenth grade, three factors of ‘high school personality questionnaire’ viz. intelligence, conscientiousness and self sufficiency were positively related to achievement.

Verma et al. (1999) studied personality traits as correlates of academic achievement and found that three personality traits B, G and Q2 had significant association with academic achievement, this means that subjects who had high intelligence, who were conscientious and self sufficient had more chances of having the higher level of academic achievement and the subjects who were less intelligent, who disregard rules and socially group dependent were more likely to suffer in respect of their academic achievement; personality factors A, C, D, E, F, H, I, J, Q, Q3 and Q4 do not contribute substantially towards academic achievement.

Dhila et al. (1999) studied the personality differences between pupils of sainik and non-sainik schools with the objective to investigate the difference in personality structure of male students of sainik and non-sainik schools by taking a sample of 160 boys between the age range of 11 to 15 years and found that sainik school students were more emotionally stable, active, enthusiastic, optimistic, self-confident, placid, self disciplined, compulsive and had strong control over emotions than non-sainik school students; non-sainik school students were shrewder and less submissive than sainik school students; the sainik and non-sainik students were equal in intelligent, outgoing, venturesome, zestful and composed.

Vijaya (1999) compared personality traits of male and female students and found that
male respondent were superior in traits like decisiveness, emotional stability, masculinity and ego strength whereas females were superior in traits like responsibility, friendliness and curiosity.

Dhar (1999) studied personality profiles of socially rejected and their academic performance, found that the rejectees had a specific personality profile characterize by a set of traits namely assertiveness, happy go lucky, suspiciousness, forthright and apprehensive; girls were sober, shy, tender-minded, apprehensive and undisciplined whereas boys were happy go lucky, venturesome, tough minded, placid and controlled; academic performance did not vary with the degree of rejection.

Joshi (2000) studied neuroticism, extroversion and academic achievement as related to gender and culture and found that there was difference between boys and girls of rural area on neuroticism and extroversion; difference existed between the girls of urban and rural area on neuroticism, extroversion and academic achievement while the boys of urban and rural area differs on extroversion and academic achievement.

Khadi et al. (2000) examined the personality traits of rural boys and girls of 8-18 years and found that boys and girls of age group 10-13 years fall in high range of curiosity, guilt proneness, individualism and tension; boys were high on sensitivity while girls were high on excitability; both boys and girls were low on morality, self control, social warmth; boys and girls of age group 8-10 years and 13-18 years had better personality traits than 10-13 years; boys and girls of age group 10-13 years were high range in guilt proneness, individualism and tension were low on morality, self control and social warmth.

Upadhyay (2000) examined the personality differences between rural and urban students and found that there was no significant difference between the personalities of rural and urban students.

Khan (2000) studied about gifted achievers and underachievers on personality, need achievement and socio economic status with the objective to find out the factor pattern associated with gifted achievers and underachievers with a sample of 128 gifted over achievers and 100 gifted underachievers and found that low achieving gifted children were more likely to show behavioural immaturity, emotional instability, feeling of inadequacy and certain nervous symptoms than gifted high achieving students; high achievers had greater feeling of individual worth, greater ability to persist and cope with their own emotional disturbances.

Saxena (2000) found underachievers to be submissive, timid, brooding and dependent type of immature individuals as compared to overachievers who were having high aspiration
for higher achievement, sufficient endurance and capacity for fighting; underachievers were burdened with number of problems, had poor study habits and were unaware about actual difficulties; age factor showed negative relationship with achievement.

Sharma (2001) studied the development of social norms among different personality groups and found that introvert females showed better retention in reasoning concepts than their counterpart i.e. male and extrovert; extroversion was positively related to academic achievement for both male and female.

Gakhar (2003) studied creativity, problem solving and personality and found that in residential schools seven personality factors viz. A, B, E, F, H, N and Q1 whereas in non-residential school five personality factors as A, B, C, G and I showed positive and significant correlation with mathematics achievement.

Khatoon (2003) studied personality patterns of high and low academic achievers and found that high achievers obtained a higher mean value on personality factor H and lower mean value on factor I than the low achievers; rural students achieved higher mean value on factor E and Q2 than their urban counterparts; on factor D, I and O girls achieved higher mean value; on factor H they were lower than boys; achievement locality interaction did not affect the personality traits significantly; interaction between achievement and gender significantly affect personality factor C, Q2 and Q4; on factor E, F, G and Q3 the interaction effect of locality and gender was significant; interaction of achievement, gender and locality did not had any significant effect on personality factor.

Suresh (2003) studied relationship of extraversion-introversion in adolescents to their adjustment and academic achievement and found that the relationship between introversion and home adjustment, introversion and total adjustment was negative in total sample; the relationship between introversion and academic achievement was positive in adolescents who belong to high income families; the relationship between introversion and achievement in English was negative in adolescents who belong to the group ‘both the parents alive’; there was no relationship between extraversion-introversion and adjustment at home and community in adolescents who belong to the group ‘both the parents not alive’.

Singh (2003) in a comparative study of stress among male and female teachers in relation to their personality needs and adjustment and found that highly adjusted as well as poorly adjusted male and female teachers show equal degree of stress; relationship between stress and adjustment of degree college male teachers was not significant; adjustment and personality needs jointly had positive and significant correlation with stress in male and female teachers at 0.01 level.
Chauhan (2004) studied learning styles of high school students in context of their adjustment, extroversion and introversion with the objective to analyse the learning style preferences of urban and rural male/female pupils by taking a sample of 900 students of Xth class studying in government school and found that the locality influenced the degree of preference for various learning styles; adjustment status had significant impact on the preference for short attention span vs long attention span in case of urban-rural male and rural female; there appeared no linkage between learning style preferences of extrovert pupils with their adjustment status in general; there was a positive linkage between the introvert pupils adjustment status and their preference for learning style but it may not be up to the significant level; there might be a positive linkage of extroversion/introversion personality type of poor adjusted pupils with various learning style preference, but it was significant; a positive linkage was observed between the extroversion and introversion personality type of poor adjusted pupils with their degree of preference for learning style.

Mehrotra (2004) studied difference in personality profile of male and female candidates as revealed by thematic apperception test responses and indicates that girls were better equipped with qualities like organizing ability, power of expression, social adaptability, sense of responsibility and determination whereas boys were high in effective intelligence, self confidence and courage.

Sarala et al. (2004) in his study of personality traits of street children found that street boys scored more value on B, C, F, H, I, N, O and Q4 dimensions of personality than street girls and indicating that boys were more intelligent, emotionally stable, happy-go-lucky, venturesome, tender minded, shrewd, apprehensive and tensed.

Vig et al. (2004) studied developmental changes in personality traits of rural punjabi children and indicated that intensity of personality traits changed with increase in age; personality traits like boldness, competition and morality increased with increase in age in both boys and girls whereas general ability decreased with increase in age; boys were most sensitive at 9-11 years of age whereas girls were least sensitive at this particular age; tension was more in 6-8 year old boys and girls than children of other age groups; boys and girls at 12-18 year of age were socially more warm; similar developmental trend was observed for boys and girls except for sensitivity and guilt proneness.

Jahan (2004) examined personality profile of students of science, arts and commerce at higher secondary level of education in relation to their academic achievement and found that the overachievers of science stream were more reserved, intelligent, emotionally stable, excitable, obedient, sober, conscientious, shy, self assured, self sufficient, controlled and
relaxed as compared to underachievers; the overachiever of arts stream were more warm hearted, intelligent, affected by feelings, undemonstrative, assertive, enthusiastic, conscientious, zestful, apprehensive and tensed as compared to underachievers; the over achievers of commerce stream were more reserved, intelligent, affected by feelings, sober, conscientious and self assured as compared to the underachievers.

Asthana (2005) studied internal and external conditions of control as determinants of performance, in relation to personality characteristics and individuals locus of control and found that internal, warm hearted, emotionally stable and assertive individuals performed better if they worked under intrinsic motivation; those who were reserved in nature performed better under the condition of external reinforcement; those who were relaxed and were external in their locus of control did not perform well under any conditions of control; those who were warm hearted, assertive, adventurous and tense performed well academically irrespective of conditions of control.

Kazmi (2005) studied the personality profiles and cognitive factors of academic failure among science and arts students at various levels and found that the relationship between different personality factors viz. intelligence, conformity, achievement motivation, study habits, memory span and academic failure were not significant; failures differed in their personality interact characteristics and cognitive make up; gender difference did not interact with any personality characteristics for academic failure; personality characteristics and cognitive factors interacted on the failure’s of academic achievement.

Sood (2005) studied the predictors of academic achievement in some selected professional courses and found that personality factors of shrewdness, social awareness and high intelligence contributed positively but group adherence, praxarnia practical and conservatism of temperament contributed negatively to academic achievement in engineering course; personality factors of high ergic tension, stronger super-ego strength, radicalism, tender minded pretension and high intelligence contributed positively but personality factors of untroubled adequacy and artlessness contribute negatively to academic achievement of medical students.

Ananthasayanam et al. (2005) studied personality traits in relation to language skills among engineering college students with the objective to find out the influence of selected personality traits on language skills by taking a sample of 135 students and found that personality traits especially emotional control, courtesy and attitude towards life contributed more to the development of language skills; personality traits of low and moderate groups do not support in developing language skills.
Bajwa et al. (2006) studied academic achievement in relation to personality, stress and well being with the objective to study academic achievement in relation to personality by taking a sample of 180 students of XIth class and found that correlation between academic achievement and psychotocism was negative and insignificant; correlation between academic achievement and neuroticism was positive and insignificant; correlation between academic achievement and extraversion was negative and insignificant.

Suresh et al. (2007) studied the influence of personality on the environmental awareness ability of college students and found that gender did not affect the personality of students whereas subject specialization, residential area, parental income and parents’ level of education significantly influence certain dimensions of personality; locality of the students had a significant influence on the extraversion, sensation, intuition and perception dimension of personality.

Ravi (2008) studied learning discrepancy in relation to personality factors among primary school students and found that the personality traits of boldness, confidence, verbal ability contributed positively to their scholastic achievement; the over achieving groups of superior and general ability were less extraverted and less maladjusted than under achievers.

Kusum (2010) studied the effect of personality of 12th grade students on their achievement with the objective to find out whether high and low achievers differ significantly on extroversion-introversion, neuroticism, psychotocism by taking a sample of 200 students from ten randomly selected secondary schools located in Delhi and found that high achievers were more extrovert than the low achievers; there was significant difference between high and low achievers on neuroticism and high achievers were more neurotic than low achievers; both high and low achievers were psychotic averagely but low achievers were more psychotic than the high achievers.

Ponraj et al. (2010) studied computer assisted instruction in Zoology in relation to learners’ personality with the objective to study the difference in students’ achievement scores in zoology of control and experimental group at pre and post test stage in relation to gender, locality of the student, parental education and occupation by taking a sample of 180 students from XI standard and found difference in the achievement of boys and girls, achievement of students with and without computer knowledge, achievement of days scholar and hostel student was not significant; difference in the achievement of rural and urban area students was significant; difference in the achievement of extroversion and introversion, thinking and feeling, judging and perceiving personality type student was significant; difference in the achievement of sensing and intuition personality type students was not
significant.

Cattell et al. (1946), Butcher et al. (1963) and Eysenck et al. (1969) found positive correlation between extraversion and academic achievement. Saraswat (1964) investigated personality patterns of adolescents’ boys and girls within the age group between 14 to 17 years and found that girls were more optimistic, richer in vocabulary and more timid in school situations than boys. Ridding (1967) studied the relationship between scholastic achievement and personality traits and found that extraversion was correlate positively with over achievement. Khaiina (1978) conducted a study of relationship of certain personality factors with achievement in mathematics at the high school level and reported that there was no significant relationship between personality and academic achievement in Mathematics. Mishra (1997) found that personality factor (except self-sufficiency) was not significantly related to academic achievement. Kagade (1997) studied personality factors of student’s of classes VIII & IX and found that girls were more extrovert than boys. Bharadwaj (1997) studied psycho social adjustment among adolescents and found that extraversion and neuroticism were related to adjustment among adolescents. Hussain (1998) studied adjustment patterns and personality traits and found a significant relationship between adjustment and personality patterns among male and female; all personality traits and adjustment patterns were positively and significantly correlated. Chandra (1981) studied the relationship between personality factors and academic achievement of 108 students of Home Science from 1st and 2nd year classes and showed that there was no significant relationship between selected personality characteristics and academic achievement of home science students.

2.4. Literature Related to Adjustment

Kumar (1963) studied adjustment among higher secondary students and its relation to attainment and reported that class attainment was very much affected by the quality of home and school adjustment.

Saraswat (1964) compared girls and boys with a view of studying the extent to which boys and girls differ in home, health, social and emotional adjustment. One hundred and sixty normal school going subjects of both sexes and of age group 14-16 years (9th, 10th) were taken and found that subjects had almost the same problems regarding health, social and emotional areas among boys and girls.

Kumar (1966) in his study of reactions to frustration, need, adjustment and vocational interest of supernormal, normal and subnormal students and found that supernormal boys had shown best performance in the field of home, health and emotional adjustment and subnormal
boys in the field of home, health and social adjustment; the supernormal and normal boys did not differ significantly in the field of social adjustment; supernormal girls showed best performance in home, health and total adjustment whereas normal and subnormal girls did not differ significantly in the field of health, social and emotional adjustment.

Bhagia (1966) revealed that girls exceed boys significantly in their adjustment to general environment organizational aspect of school; rural school pupils exceed urban school significantly in adjustment to their teachers, mates and self; private school pupils were significantly better than government school pupils in their adjustment to teachers.

Puranik et al. (1969) studied educationally backward child in the age group of 8-12 years and reported that the backward children had adjustment problems in relation to their studies, teachers and examination.

Srivastava (1970) in his study of neurotic behaviour among school going adolescent girls and observed that neurotic girls showed poor adjustment in all aspects of adjustment viz. home, health, social, emotional and school area.

Jha (1970) makes a comparative study of adolescent boys and girls in relation to their attitudes towards school adjustment and scholastic achievement and found positive relationship between adjustment and achievement in science.

Saxena (1972) studied interests, need patterns and adjustment problems of over and under achievers and indicated that over achieving students had consistently and significantly lower number of problems of adjustment in various areas as compared to under achievers.

Sharma (1972) makes a comparative study of adjustment of over and under achievers and showed that there was significant difference among overachievers, average achievers and under achievers with regard to adjustment in school, home, social and religious areas.

Sukhia (1972) studied the adjustment of students as a determinant of academic achievement with the objective to study the relationship between adjustment, socio economic status and academic achievement by taking a sample of 450 senior secondary school students and found that adjustment scores of children having high socio-economic status was highly significant with academic achievement.

Pathak (1972) studied gender difference among school children in the area of adjustment by taking boys and girls of 14-16 years of age. The number of boys and girls were 200 in each group and found that boys were emotionally better adjusted than girls; overall adjustment of high achievers was significantly better than the low achievers.

Tiwari et al. (1976) studied aspect of adjustment as a function of value orientation of supernormal and normal adolescents and found that adjustment among females was
significant with the low economic, high aesthetic and religious value orientation; there existed no significant difference between supernormal and normal adolescents with regard to their adjustment in the field of home, health and emotional adjustment.

Pandey (1977) studied the adjustment of bright and average students and found that bright and average students differed significantly in social, health, emotional and home adjustment; bright students had more social problems than average students.

Dutt (1978) found that boys and girls were equally adjusted in their environment irrespective of their academic achievement; boys and girls were emotionally equally adjusted; high achievers boys and girls were better adjusted emotionally than low achiever boys and girls; there was significant effect of gender on educational adjustment; girls were better adjusted educationally as compared to boys and also high achiever boys and girls were better adjusted educationally as compared to low achiever boys and girls.

Sharma (1978) studied the factors underlying adjustment problems of professional and non-professional college students and revealed that non professional college students had more problems than the professional college students in the area of home adjustment; arts students had greater problems in home and health area than the engineering students; science student had greater problems in the area of home than the medical students; medical students had greater problems in social, emotional and educational area than the commerce students; socio-economic status significantly contributed towards the adjustment of professional college students.

Krishna et al. (1979) revealed that emotionally disturbed group was more neurotic, anxious insecure and poorly adjusted in home, health, social and emotional areas.

Rai (1979) conducted a study on adjustment and scholastic achievement of blind and seeing achievers and found that seeing achievers differed significantly from blind achievers in their adjustment; they differed significantly in areas of emotional and educational adjustment but did not differ in social adjustment; there was a positive relationship between adjustment and scholastic achievement.

Saxena (1979) conducted a study of relationship between adjustment and academic achievement and revealed that under achievers had significantly made poor adjustment in home, health and school area; better general adjustment was associated with better achievement.

Darsana (1980) studied the adjustment of 9th class students at various levels of security, insecurity and academic achievement and revealed that academic achievement had a significant role to play in emotional and social adjustment; there was a significant interaction
among gender, security, insecurity and academic achievement.

Kumar (1980) found that academic adjustment of female students were significantly much better than that of the male students; the normal (or stable) students had better academic adjustment than the neurotic (or unstable) students; stable introvert students had the highest academic adjustment, while the unstable extrovert student had the lowest adjustment.

Chatterjee et al. (1981) studied the pattern of self disclosure and adjustment among high and low achievers and found that male high achievers were more adjusted than low achievers in the areas of home and health; there was a significant difference between high and low achieving females in health, social, emotional and educational areas of adjustment.

Tripathi (1981) found that girls were adjusted in home but there may be a chance for lack of adjustment of girls in school. In Indian society, social stipulation is imposed on girls. So, even if they were adjusted due to their docile and submissive nature their social imposition act as an impediment to manifest their adjustment to achievement.

Sultana et al. (1981) studied personality adjustment among rural and urban students and found that rural subjects obtained significantly higher mean score on emotional, health, home, family and financial adjustment as compared to urban subjects; rural and urban students do not differ in social adjustment.

Biiopra (1982) studied non intellectual correlates of academic achievement and found that the product moment coefficient of correlation between achievement and home adjustment was 0.34 and 0.17 respectively for boys and girls, which was positive and significant.

Chopra (1982) studied non intellectual correlates of academic achievement and found that academic achievement had a positive relationship with attitude towards education; home adjustment was related to academic achievement than emotional, health and social adjustment.

Krishan (1983) found that there was no significant gender difference in school adjustment problems and also that high achieving high school students were significantly more adjusted than low achieving high school students.

Koul (1984) found that the low achieving high school tribal students (consistent failure) were significantly poorer in their emotional, social and educational adjustment as compared to their pass counterparts.

Davis et al. (1985) found that the personality patterns of talented students were socially well adjusted, emotionally matured, more dominant, assertive and independent while low achievers and backward students were dependent, attention seeking, emotionally unstable
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and unsocial in nature.

Kumar (1985) conducted a study of self concept in relation to adjustment, values, academic achievement, socio economic status and gender of high school students of Delhi and found that academic achievement was significantly related with only intellectual self concept in both the sexes; there was significant relationship between adjustment and achievement at high school level.

Desai (1985) studied social and psychological adjustment of boys and girls and revealed that the programme of sex education administered to the experimental group was very successful; the results of the programme depended on the scholastic achievement of pupils rather than on who conducted the programme and how it was conducted; greater adjustment was achieved in the higher classes; girls were better adjusted than boys in opinions and knowledge about sex education; the boys and girls of higher socio economic status showed better scores on adjustment and sex knowledge; it was proved beyond doubt that a formal or informal sex education programme was effective in changing the opinions, adjustment and knowledge of school pupils regarding sex and related manners.

Goel (1986) studied family problems of high, average and low achievers with reference to difficulties and needs of adolescents and found that high achievers had minimum family problems and the low achievers had more family problems than average achievers; achievement influenced the frequency of problem at home.

More (1988) compared the personality adjustment and academic achievement of students of different streams of military school and revealed that non-entitled defence officer boys and non-entitled civilian boys differed on emotional adjustment, social adjustment, total adjustment and academic achievement indicating that non-entitled defence officer boys faced lesser problems in these areas than the students of non-entitled civilian boys; non-entitled defence officers boys and entitled boys (wards of serving, ex-servicemen and deceased JCOs/NCOs/OR and their equivalent ranks in the navy and air force) did not reveal any significant difference in the areas of emotional, social, educational and total adjustment, personality factor A, B, C, O and Q3 and academic achievement; comparison of non-entitled civilian boys and entitled boys revealed that the problems of emotional, social and total adjustment were more acute with the non-entitled civilian boys than with the entitled boys; entitled boys were more intelligent than non-entitled civilian boys that act as a critical substratum variable that influenced the relations between children's attitudinal and cognitive attributes and their academic performance.

Goel (1988) studied the impact of family relationship on adjustment, anxiety,
achievement motivation, self concept and academic achievement of high school students and found that average achievers and high achievers had maximum problems related to home adjustment where as the low achievers had less than that of others; achievement influenced the frequency of problem at home.

Singh (1988) conducted a study of relationship of intelligence, personality and academic achievement at high school level by taking a sample of 1000 students from various schools of Chandigarh and found that high achievers had positive adjustment with home and emotional area of adjustment; intelligent students had positive relationship with academic achievement; children who were well adjusted in home and emotional areas were less adjusted in the areas of school and health adjustment.

Rai (1989) conducted a study on adjustment and scholastic achievement of low and high achievers and found that high achievers differ significantly from low achievers in their adjustment; high and low achievers differ significantly in areas of emotional and educational adjustment but do not differ in social adjustment; there was a positive relationship between adjustment and scholastic achievement.

Sharma (1989) studied the factors underlying adjustment problems of professional and non-professional college students and found that mostly students had problem in home and health area whereas engineering students had greater adjustment problems in social area; arts and teacher training students had similar adjustment problem in home, health, social, emotional and educational area; science students had greater adjustment problems in home area than engineering students; no significant difference was in adjustment problems in health, social, emotional and educational areas in these groups; medical students had more adjustment problems in social, emotional and educational area than commerce students.

Sinha (1989) in his study related to psychological analysis of factors associated with success and failure in school and found that the high achievers were less anxious, better adjusted, healthier and emotionally stable than the low achievers.

Singh et al. (1989) studied some social and familial variables in relation to school adjustment with the objective to study the relationship between high and low school adjustment groups by taking a sample of 250 students and found that students whose father was highly educated showed better school adjustment in teaching learning situation; whose father was less educated or illiterate show lower school adjustment; students whose fathers was on higher occupations were better on school adjustment, but those belonging to parents having lower occupation showed lower on school adjustment in teaching learning situation; students belonging from those families in which there were larger number of children showed
poor school adjustment; students belonging from unstable home in which one or both parents were dead also showed lower on school adjustment; students belonging from families whose economic condition was better were better on school adjustment than those whole family’s economy was poor; urban and rural dwellings make no difference with respect to school adjustment.

Sharma (1989) makes a psychological study of social, emotional and educational problems (SEEP) of male female adolescents belonging to different age levels and socio economic status in relation to their personality factors and found that for social, educational, emotional problems, middle age and later age males and females did not show significant differences and showed similar problem patterns irrespective of socio economic status; 17 year female adolescents suffering from SEEP developed and showed all the personality factors as dissimilar except on factor N while for male adolescents all factors were dissimilar except on factor Q3.

Subudhi (1990) studied adjustment of college students in relation to anxiety and intelligence, results revealed no significant difference attributable to sex either in personal or in total adjustment scores; high intelligent students had better positive attitude to life and personal work than low intelligent students, and had less feeling of inferiority and effective control over their emotions than their counterparts; high intelligent students did better adjustment at home, in school/college and in social gatherings than low intelligent students; in both personal and total adjustment male and female college students adopted similar adjustment pattern but female students differed significantly from male students in social adjustment; female students were more sociable and did much better adjustment than male students in social gatherings and social institutions.

Ramachandran (1990) found that academic adjustment significantly related to scholastic performance; adjustment problems were negatively associated with achievement.

Verma (1993) studied the creativity styles of university students and reported that students from low socio economic status and urban slum area experienced greater degree of frustration; type of school was differentially related to the level of adjustment of students.

George (1994) in a comparative study of adjustment and achievement of 10 and 11 years school students and found that extraversion was related to only few areas in adjustment and had no influence on achievement; less neurotic students were better adjusted in all areas.

Parkash (1994) studied the educational aspirations, school adjustment and values in relation to school environment and found that at +2 level students from rich school environment were better adjusted and also quality of school environment was positively
related to school adjustment.

Kukreti (1994) evaluate the difference in adjustment of students across three types of school. The preadolescents boys studying in Saraswati Vidya Mandir (SVM) and Government Junior High School (GJHS) showed better adjustment than Convent School (CS); boys of CS were emotionally better than GJHS; boys of SVM and CS had greater educational adjustment than the boys of GJHS; girls studying in SVM were better in all areas of adjustment.

Chauhan (1994) studied the relationship of achievement and adjustment and found that high achiever high school students were better adjusted emotionally and educationally than the low achievers whereas in the area of social adjustment there was no significant difference among high and low achievers; high school boys and girls were equally adjusted in the area of social adjustment while girls were better adjusted in the areas of emotional and educational adjustment.

Bajwa et al. (1994) conducted a study to explore the relationship of academic achievement with study habits, intelligence and achievement motivation and found that the coefficient of correlation between academic achievement and study habits, academic achievement and intelligence, academic achievement and achievement motivation was 0.29, 0.37 and 0.33 respectively which was significant at 0.01 level of significance, this showed that the relationship of academic achievement with study habits, intelligence and achievement motivation was significant, positive and low.

Sharma (1995) conducted a study to identify the over and under achievers and comparing them with regard to adjustment in school, social and home area and found that there was significant difference among over, average and under achievers with regard to their adjustment in school, home, social, religious and miscellaneous area; the over achievers had better adjustment than the under achiever in all these areas of adjustment; those who had more effective adjustment in school, home, social, religion, and miscellaneous areas were over achievers and those having less effective adjustment in these areas were under achievers.

Prasad (1995) in his study of development of adjustment inventory for teenagers found that boys and girls differed significantly on home and family adjustment and correlation indicated a positive direction in different areas of adjustment.

Chauhan (1995) found no significant relationship between academic achievement and intelligence of graduate students of both the sexes with their adjustment; female high achievers adjusted well with their environment as compared to their male counterparts.

Kagade (1997) critically studied personality factors of VIII and IXth grade students
and found that boys and girls were not significantly different in educational adjustment; significant difference was observed between boys and girls in home and social adjustment; there was no significant relationship between educational and home adjustment and their educational achievement; there was a significant relationship between social adjustment and educational achievement.

Kumari (1998) investigated the intelligence, achievement, adjustment and socio-economic patterns of different sociometric groups of adolescents and found that different sociometric groups differed significantly on home, health, social, emotional, school and total adjustment; positive relationship between intelligence and home adjustment for all the sociometric groups; positive correlation between achievement and total adjustment for populars, neglectees isolates and rejectees.

Sharma et al. (1999) studied self concept and adjustment of adolescents in relation to their gender, school discipline, income group and academic achievement with the purpose to see the effects of need achievement upon psychological adjustment and academic achievement and found that the subjects having high need for achievement had significantly higher psychological adjustment (total, as well as individual areas of emotional and educational adjustment) in comparison to subjects having low need for achievement; there was no significant effect of need for achievement upon social adjustment.

Sharma (1999) identified the over-achievers and under-achievers and to compare them with personality factors and found that there was significant difference among the over achievers, average achievers and under achievers with regard to their adjustment in the school, home, social, religious and miscellaneous areas. The over achievers had better adjustment than underachievers in all areas of adjustment. Those who had effective adjustment in the school, home, social, religious and miscellaneous areas were over-achievers and those having less effective adjustment in these areas were under achievers; intelligence was related to adjustment in home, social, school and religious area.

Swanson (2000) studied the relationship between emotional adjustment and scholastic achievement by taking a sample of 345 students selected through random sampling technique and found that achievement of students get affected by his emotional adjustment and had positive relation with it.

Saxena (2000) studied the impact of family relationship on adjustment, anxiety, achievement motivation, self concept and academic achievement of high school students and found that family relationship played a determining role in promoting the adjustment of the students; significant difference was observed among boys and girls in the area of emotional,
social and educational adjustment but boys had better educational adjustment than girls.

Gupta (2001) studied education as a factor of social adjustment of adolescent girls across different levels of socio-economic status and found that adolescent girls studying in urban schools were significantly better in their social adjustment as compared to girls in rural school; adolescent girls studying in private school showed significantly better in their social adjustment as compared to girls in government school; adolescent girls studying in co-educational schools showed significantly better in social adjustment as compared to adolescents of girls’ school; adolescent girls studying in English medium school showed significantly better in social adjustment as compared to girls of Hindi medium school; education of father and education of mother positively influenced the social adjustment of adolescent girls; adolescent girls studying in urban, private, co-educational and English medium school belonging to the higher socio economic status showed better social adjustment.

Annaraja et al. (2003) studied the adjustment of children working in safety match industries and found that boys were better in social adjustments than girls, level of education influenced the adjustment pattern; parents occupation and family income influenced home and emotional adjustment.

Aggarwal (2003) makes a comparative study of adolescents’ level of adjustment in relation to their academic success and failure with the objective to find out the emotional, social and educational adjustment level of passed and failed adolescents by taking a sample of 200 students having 14-18 years of age range and found that the successful (passed) adolescents were significantly superior in their social, emotional and educational adjustment in comparison to unsuccessful (failed) adolescents.

Kasinath (2003) studied the interactive effect of mental health, school adjustment and socio economic status on academic achievement and found that school adjustment had a significant effect on achievement in school subjects.

Chahal et al. (2003) studied well-being of adolescents in relation to role of adjustment, personality, social support and family environment and found that for females, family cohesion, intellectual-cultural orientation, achievement orientation, socialization, classmates’ support, adjustment and sociability were significantly important contributors of well-being; for males, family conflict, organization, adjustment and classmates’ support emerged as important contributors of well-being.

Kasinath (2003) studied adjustment components of the students studying in Jawahar Navodaya Vidyalayas and found that students were better adjusted in the areas of co-
curricular activities, classroom teaching and evaluation; positive and significant correlation between residence adjustment and peer group adjustment, residence adjustment and food adjustment, residence adjustment and curriculum adjustment, residence adjustment and classroom teaching adjustment, food adjustment and peer group adjustment, food adjustment and curriculum adjustment; significant and negative correlation between food adjustment and evaluation adjustment.

Sultana (2003) studied factors in adjustment patterns of adolescents boys and girls in Bangladesh and found that girls were better adjusted than boys with regard to home; high purpose in life group students were better adjusted to their home than those having low purpose in life; adolescents with different purpose in life orientations differed in their health, emotional and general adjustment; girls were on the whole better adjusted than boys.

Saovaluk (2004) studied social maturity as a function of some psycho socio adjustment factors of bachelor of education college students and found that students having dominant personality traits were more socially matured than those having submissive personality traits; student’s having good personal social adjustment were more socially matured than those having poor personal social adjustment; students having good family adjustment were more socially matured than those with poor family adjustment.

Veereshwar (2004) studied mental health and adjustment problems of college going urban and rural girls and found that there was significant difference in the area of family adjustment between urban and rural girls; the social area held problems for both urban and rural girls and the difference between the two was significant i.e. the percentage of rural girls showed unsatisfactory adjustment in the social area; personal and emotional problems were shown less by urban girls than rural but difference in adjustment of urban and rural girls was not significant in the area of health.

Babu (2004) studied the attitude of higher secondary students towards the study of commerce and their adjustment with the objective to find out the difference in attitude towards the study of commerce and their adjustment in respect of gender, residence, type of school and medium of instruction by taking a sample of 240 pupils studying in class XIthand found that there was significant relationship between the attitude of higher secondary students towards the study of commerce and their adjustment; there was significant difference between the rural and urban students in respect of their adjustment; there was no significant difference between boys and girls, government and private school students in respect of their adjustment; students showed a very poor status in respect of their adjustment(emotional, social and educational).
Malik (2005) compare first generation learners with others belonging to the same socioeconomic status in the Kashmir valley in respect to their academic achievement and adjustment and found that first generation learners (FGLs) had significantly lower academic achievement than the non first generation learners (NFGLs); there was no significant difference in the home adjustment of FGLs (rural boys and girls, urban girls) and NFGLs, but NFGLs (urban boys) were better on home adjustment than FGLs; NFGLs urban boys were better on social adjustment than FGL but there was significant difference in emotional adjustment of FGLs and NFGLs (urban boys and girls).

Gurubasappa (2005) studied adjustment and mental ability as correlates of academic achievement with the objective to find out the relationship between adjustment and academic achievement by taking a sample of 300 students of XIIth grade and found that the students with different levels of adjustment and mental abilities differed in academic achievement; there existed a significant positive high correlation between academic achievement and adjustment, and academic achievement and mental ability.

Sindhu (2005) studied teacher’s motivation, student adjustment and their academic achievement with the objective to compare school adjustment, achievement of boys and girls by taking a sample of 680 Xth class students from Kendriya Vidyalayas through stratified random sampling technique and found that students displayed average and above average adjustment with school environment; the girls displayed superior adjustment as compared to the boys; no significant difference in the achievement of boys and girls; better liking of teachers contributed to better achievement of boys.

Mehta et al. (2005) studied the effect of family dynamics upon repression sensitization tendency and adjustment of adolescents and found that boys had poor emotional adjustment than girls; gender of the subject and his/her birth order had significant interactive effect upon emotional adjustment; social adjustment indicates that girls were socially better adjusted than boys and second born had better social adjustment than first born.

Gaur (2005) studied the influence of preksha meditation on adjustment problem of drug abused and found that the subjects of experimental group differed significantly from those of control group in health(p<0.005), social (p<0.025) and emotional areas of adjustment(p<0.005) from those of control group producing better adjustment ability in all the four areas of adjustment.

Kumar et al. (2005) studied the personality adjustment of urban and rural adolescents of both the sexes and indicates that male and female students of rural area had lower mean scores than the corresponding mean scores of male and female students of urban area in all
areas of adjustment viz., health, home, social, emotional and economic area.

Vamadeveppa (2005) studied adjustment of overachievers and underachievers in biology and found that there was negative and significant relationship between adjustment problems and achievement in biology and although poor adjustment was the cause of low achievement in biology; underachievers had poor adjustment whereas overachievers had good adjustment; no significant difference between boys and girls in health and educational adjustment areas, but significant difference in home, social and emotional adjustment; boys had better social and emotional adjustment than girls, but girls had better home adjustment than boys.

Prasadh (2005) studied adjustment and achievement of residential school students and found a significant positive relationship between achievement of students with home, educational and emotional adjustment; achievement of boys had a significant positive relationship with home, educational and emotional adjustment; achievement of girls had a significant positive relationship with home and educational adjustment.

Singh (2005) examined the adjustment patterns of rural and urban college students of Agra region and found a significant difference in the adjustment level of rural and urban students; rural students were significantly more adjusted than urban college students in home, health, social and emotional adjustment area.

Kumari (2005) studied the relationship between creativity, intelligence, adjustment and value patterns among adolescents by taking a sample of 545 students of senior secondary classes selected through stratified random sampling technique and found that level of adjustment was significantly related to the amount of intelligence; level of adjustment increased during adolescence stage.

Rawal (2006) studied personality adjustment and attitude towards authority of emotionally disturbed adolescents in relation to their home and school environment and found that emotionally disturbed students did not differ significantly as regards their level of adjustment; emotionally disturbed students belonging to various age groups did not vary significantly as regard their personality adjustment; educational status of parents of emotionally disturbed students did not vary significantly with regard to adjustment and attitude towards authority; school environment influenced total adjustment among emotionally disturbed students.

Saraswat (2006) studied self concept in relation to adjustment, values, academic achievement, socio economic status and gender of high school students and found that boys self-concept was positively and significantly related to social adjustment; girls self-concept
was positively and significantly related to home, health, social, emotional, school, as well as total adjustment; only intellectual self-concept was positively and significantly related to academic achievement in both the sexes.

Rathar (2006) studied adjustment among middle school students in relation to socio-economic status and social structure of school and found that boys as well as girls differed significantly in their adjustment but boys showed more adjustment difficulties in comparison to girls; girls were socially better adjusted than boys.

Bajwa et al. (2006) compare personality adjustment and academic achievement of senior secondary students of co-educational and single gender schools and found that there was no significant difference between girls studying in co-educational and single gender schools on home, health, social and emotional adjustment; there was no significant difference between boys studying in co-educational and single gender schools on home, health, social and emotional adjustment; no significant difference between girls of co-educational and single gender schools on total adjustment.

Mohan et al. (2006) found that academic achievement and adjustment were closely related rather than interdependent, without proper adjustment proper academic achievement was not possible as it played a vital role in one's life and facilitated the achievement in various fields; there existed a significant correlation between adjustment and academic achievement.

Singh (2006) studied the effect of socio-emotional climate of school on the adjustment of students and found that social climate of the school affects the emotional and total adjustment of students significantly; boys had significantly better health and emotional adjustment than girls whereas girls were significantly better in school adjustment than boys; girls were significantly better than boys in home and school adjustment at different levels of emotional climate of the school whereas boys were significantly better in emotional and health adjustment; social and emotional climate of the school and gender do not interact significantly with regard to home, health, social, school, emotional and total adjustment of students.

Suresh (2007) studied social adjustment and academic performance in higher secondary school students with the objective to find out the correlation between social adjustment and achievement in Mathematics by taking a sample of 526 students of eleventh standard and found that there was no significant difference in the mean score of social adjustment for the paired sub samples, this indicates that the gender difference, locality, type of management of school and monthly income of parents were not the factors influencing
social adjustment; significant difference in achievement in mathematics was observed for the students paired as government and private school, rural and urban school, average, high and low income families. This indicates that locality, management of school and monthly income of parents were the factors influencing achievement in mathematics; a positive relationship was observed between social adjustment and achievement in mathematics in boys, girls, students studying in government school, private school, rural schools and urban school, low, average and high income families. This relationship indicates that the increase in social adjustment was positively related to mathematics achievement of higher secondary school students.

Usha (2007) studied emotional adjustment and family acceptance of the child as correlates for achievement and found that emotional adjustment and family acceptance of the child had a significant positive correlation with achievement in mathematics; boys and girls differ in their family acceptance and achievement but not in their emotional adjustment; rural and urban pupils differ significantly in their emotional adjustment; emotional adjustment and family acceptance of the child were effective factors contributing to academic achievement.

Raju et al. (2007) examined the adjustment problems of school students from urban and rural schools of Visakhapatnam district and found that the adjustment of school children was primarily dependent on the school variables like the class in which they were studying, the medium of instruction present in the school, and the type of management of the school. School children residing in urban area made better adjustment than student’s residing in rural area.

Talukdar et al. (2008) studied the adjustment problems of adolescent students and found that on overall adjustment male student were better than female students; social adjustment was average in both the sexes but emotional adjustment of both the groups was unsatisfactory.

Surekha (2008) studied relationship between students’ adjustment and academic achievement and found that boys and girls from private schools were well adjusted and academically performed better than boys and girls from government schools; co-efficient of correlation between students’ adjustment and academic achievement was -0.29, which was significant at 0.01 level, which indicates that low scores in adjustment tend to accompany with high scores in academic achievement.

Ebenezer et al. (2009) studied adjustment and achievement in physics of XI standard students with the objective to find out the relationship between adjustment and achievement, and significant difference in the level of adjustment and physics achievement of class XI in
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terms of their gender and type of school by taking a sample of 331 students (207 males and 124 females) selected through stratified random sampling technique and found that there was no significant relationship between adjustment and achievement of class XI students; adjustment of class XI students was influenced by sex and type of school; the level of adjustment of male students was higher than that of female students; there was positive relationship between type of school and level of adjustment.

Anderson et al. (1963) found that emotionally better adjusted male and female students were good on academic achievement. Soman (1977) investigated the overlap of fourteen effective variables belonging to the basic personality dimensions of adjustment with achievement in mathematics and revealed that personal adjustment and anxiety had a considerable influence on achievement in Mathematics. Ranev (1979) conducted a study on college woman and revealed that achievement was positively related to psychological adjustment. Shukla et al. (1980) study the effect of adjustment of students on their academic achievement and found that correlation of adjustment was highly significant with academic achievement. Sharma (1981) found that males were better emotionally adjusted than females. Sinha et al. (1989) found that adjustment was negatively related with anxiety and neuroticism and positively related with extroversion. Prasad et al. (1995) studied social intelligence and adjustment of school students and found that social intelligence was positively related to adjustment for both boys and girls.

2.5. Summary of Related Literature

As whole in above reviewed literature a large number of studies revealed that low academic achievers were comparatively less emotionally mature, less calm, less placid, less prone to getting into difficulties, less able to face reality and possessed less ego strength than over achievers. Further, most of the researchers found that personality traits as intelligence, conscientiousness, self sufficiency, shrewdness, social awareness, strong superego, adventurous, socially bold, exhibition and endurance were positively and significantly correlated with academic achievement whereas neuroticism, introvert, maladjusted, psychotocism, paraxarnia, practical conservatism, apprehension, tense were negatively correlated. But a few studies revealed inconsistent findings regarding personality factors and academic achievement.

Most of the studies used cognitive style tool that assess field dependent and field independent category and hardly any study was conducted on cognitive style that assess systematic, intuitive, integrated, undifferentiated, and split cognitive style (that was used, assessed in the present study). Most part of these studies revealed positive correlation
between field independent and academic achievement and a negative correlation between field dependent and academic achievement. A few studies revealed no significant relation between these variables. It should be noted that population of these studies were different such as gifted, student with specific subject and specific area.

Regarding the relationship between academic achievement and adjustment, most of the researches disclosed that home, educational, emotional, health and overall adjustment was positively correlated with academic achievement. Regarding the relationship of social adjustment and academic achievement the findings were inconsistent.

Few researches showed the significant influence of gender on academic achievement without any direction and some studies showed significant gender difference regarding emotional adjustment, overall adjustment as indicating that boys showed better adjustment than girls. Regarding cognitive style inconsistent results were found on gender differences. On personality variables, large gender differences were found and a few studies showed no differences for specific personality factors.

The influence of different types of schools was assessed on academic achievement in previous literature. Majority of studies showed that academic achievement of students studying in government schools was poor. Few studies reported a significant influence of type of school on academic achievement without any direction. Particularly research in abroad revealed less significant differences in the academic achievement of government and private schools. Indian studies showed that most of the urban private school performed better than private and rural government school.

Regarding the adolescents residing in urban and rural area, the majority literature divulged the difference in academic achievement. The literature revealed that large number of research assessed on location of school rather than location of residence of students, whereas in the present study location of residence of students was assessed (as a variable). The literature showed that students studying in urban schools performed better in academic achievement than students studying in rural schools. Some studies reported significant difference in academic performance between adolescents residing in rural and urban area without any direction. A few studies reported no difference on the basis of location. Only few studies were conducted to assess the location difference for cognitive style with inconsistent results. Although some studies were conducted on location difference for personality factors, but the findings were inconsistent.