CHAPTER - II
REVIEW OF RELATED LITERATURE

2.00 Introduction

Review of related literature is an essential aspect of a research work. Related literature provides the basic ground to the researcher for his problem of research. It is of great help to the literature and works as guide for him. Review of related literature serves as a pointer to the lacunae in the concerned piece of research work.

Indeed, a review of related literature provides the academic guidance to the researcher. According to C.V.Good (1959), survey of related literature helps us to know whether evidence already available to solve problem adequately without future investigation and thus may save duplication. It may contribute to general scholastic ability of investigator by providing ideas, theories and explanations, help in formulating the problem and may also suggest the appropriate method of research.

Related literature refers to the similar or related studies made by previous research workers in the same field. Related studies motives the researchers for understanding the study in hand and lays a foundation for his entire investigation. It contributes a particular knowledge to the investigator and he notices the gaps in knowledge, thus they help his or her finding to identify areas where investigations of facts, concepts, theories and bibliographies etc. are needed. They help to avoid duplicacy and provide new knowledge to the researcher where one can evaluate and interpret the significances of one’s findings. Published literature is the fruitful source which may stimulate researcher devise hypothesis of his or her own. The review of related literature is certainly helpful in acquainting the researcher with some current knowledge of the subject but in addition, the review of literature serves some of the other purposes too. As, for example the review of related literature, firstly, enables the researcher to define and delimit of his field of research. Secondly, the investigator gets the up-to-date information about the area of his problem. This exercise makes the investigator alert and careful about the duplicacy of the work. Another important aspect also covered by review of related literature is that the researcher gets clear cut understanding about the research methodology. He can find out the appropriate methodology of research relating to
his problem and accordingly the researcher can select the tools for the collection of data. The review of related literature shows the guidelines to the investigator, which needs to be done seriously and honestly for launching of the research study. Researcher takes the advantage of the knowledge which has been accumulated in the past as a result of constant human endeavour. It can never be undertaken in isolation of the works that have already been done which are directly or indirectly related to a study proposed by a researcher. A careful review of the research journals, books, dissertations, thesis and other sources of information on problem to be investigated is one of the important steps in the planning of any research study. A review of the related literature must be done thoroughly for any well planned research study. The review of related literature gives the researcher an understanding of the research methodology, which refers to the way of conducting the study. It helps the researcher to know about the tools and instruments, which proved to be useful and promising in the completion of present study. The related literature is immensely effective in providing the insight into statistical methods for computing the results of the study in hand. The review of literature indicates the list of various recommendations for the studies in hand. In addition to it, the literature shows a large number of studies conducted in India and abroad for supporting the present study.

2.10 Literature Studies Related to Academic Achievement

The formal system of education has its own hierarchy based on academic achievement and performance. Academic achievement is the attained ability or degree of competence in school tasks usually measured by standardized tests and expressed in age or grade units or norms derived from a wide sampling of pupil’s performance. It is determined on scores one obtains in tests and examinations. Good performance in learning institutions has always been of interest to educational and counselling psychologists, as well as parents, guardians, teachers, education policy makers. This is the born out of the desire to make the product of teaching-learning, academic performance qualitative. This becomes more pertinent in a success-driven society where academic achievement is a significant measure of success in life. Within the frame of this assertion, researchers and educational psychologists have defined, theorized and conceptualized academic achievement.
Dandapani (1976) in the study, “A study of the effect of a group guidance programmed upon the academic achievement of high school underachievers” found that academic achievement of the counselled underachievers was significantly greater than that of non-counselled underachievers and normal achievers.

Joshi (1981) in the study between urban and rural areas found that for the urban areas, there was a significant relationship between the achievement scores and the essay performance. It could be said that in the urban areas the high achievers were also mostly creative whereas for the rural areas; there was low relationship between the achievement score and the creative scores.

Singh (1984) found that self-concept of academic ability was significantly and positively related to academic achievement. A study conducted on Poona University found that the students from high achieving schools were higher in intelligence than the low achieving schools and the students from the low achieving schools were more anxious than the students of the high achieving schools. Another study conducted 1984 (Singh) and he found that rural students received lower marks than urban students and there was a positive correlation between level of aspiration and achievement.

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 schools 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.

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.

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 IX 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.

Wongoo (1991) conducted a study to find out whether the students from government and private schools differ significantly so far as their socio-economic status and academic achievement was concerned and found that the government and private school students from highly advanced and normal schools differed significantly so far as their socio-economic 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 girl’s 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; socioeconomic 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 achievement in English; 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 socioeconomic 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’s 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.
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 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.

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.

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. Another Study conducted on 2002 (Adepoju) 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.

Parida, Sucharita (2003) studied effect of Socio-Economic Status,
School Environment and Medium of Instruction on the Mental Abilities and Academic Achievement of School Children. The objectives were: 1. To assess the socio-economic background of the school students and categorize them as per the intra-variables. 2. To assess the environmental conditions available in different institutions. 3. To measure objectively the mental abilities of the concerned students through appropriate intelligence tests in relation to different variations. The study is ex-post-facto causal comparative. The random sampling technique adopted by the investigator for drawing the sample of 325 boys and girls from two types of management in government schools and non-government schools of Oriya and English medium schools is quite appropriate. Intelligence Test by Mishra (1984) and SES Scale and School Environment Scale were used by the Investigator. The data have been analyzed using appropriate statistical techniques, both descriptive and inferential. Mean, Median, Mode, SD, t-value and F-value, coefficient of correlation and coefficient of multiple determinations have been accurately computed and well interpreted. The distribution of scores of the respondents on mental ability test reveals that there is negligible difference in the measures of central tendencies due to sex variation whereas wide disparity in mean and median is observed in case of management variation.

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 \( (F=17.23 \text{ at } 0.01 \text{ level}) \). 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 were 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.

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.

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 levels.

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.

Bhuvaneshwari 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.

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 socio-economic status of high school students with the objective to examine the influence of intelligence and socio-economic status on academic achievement of high school students by taking a sample of 100 students from Bhubaneshwar city of Odisha 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 socio-economic status; there was no significant difference between boys and girls with respect to academic achievement.

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 IXth 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.

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 IXth 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.

Vaidya (2006) studied educational aspiration of higher secondary students and compared 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 Telegu test; significant difference existed 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 nongovernmental 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.

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 existed positive relationship between achievement, problem solving ability and scientific attitude.

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.

Uniyal (2007) examined correlational 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 existed a very high significant difference in between the high and low achiever students in overall aspiration scale; gender and achievement of students did have interactive effects on level of aspiration; level of aspiration was significantly influenced by scholastic achievement of students.

Chaudhary, Vineeta (2008) conducted a study on “Impact of academic achievement on creativity”. The study used a sample of 500 high school students were taken from different schools. A verbal and non-verbal test of creativity of Baquer Mehdi we administered. Creative and non-creative students were categorized by applying Jalota’s Mental Ability Test. Scores of the final examinations were used as the academic achievement of the students. The result showed that the values of the correlation coefficient for the two variables as creativity and academic achievement among the creative students was found to be
0.234 and among the non-creative students 0.14, respectively. A significant correlation was found between these two variables of the creative students. It revealed that creative students who scored higher of creativity measures, would also score higher on academic achievement and vice versa. On the other hand, no significant correlation was found between these two variables among the non-creative students. It was concluded that the relationship between creativity and academic achievement was positive and significant in case of higher achievers or creative students but negligible in case of non-creative. Hence, it was found that high achievement accomplishes as an index of creativity and the examination marks were the reliable criterion of academic achievement.

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 varied with regard to difference in the self-esteem of students; achievement in social studies for boys and girls varied with regard to difference in their classroom learning environment.

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.

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 students 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 was found in respect of parental encouragement and achievement in accountancy for female students, urban students and students belonging to joint family system;
males, rural students and students of nuclear families showed better achievement than that of their counterpart.

Singh, Palta (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 Odia 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.

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.

Alam (2009) conducted a study on “Academic Achievement in relation to creativity and achievement motivation: A correlational study”. The study used a sample of 450 students studying in tenth class and which was drawn using survey method. The tools used were creativity test by Baquer Mehdi and Achievement Motivation Scale by Beena Shah. Objectives of the study were: to find out the relation of academic achievement with creativity and achievement motivation; to compare boys and girls, urban and rural, with regard to their creativity, achievement motivation and academic achievement. The findings and analysis presented, led to the conclusion that creativity and achievement motivation had a significant bearing on academic achievement of students. George (1983) has mentioned, “The future of any country depends on the quality of its young people, their motivation, their aspiration, and their ambitions and in the final analysis, their character, thereby highlighting the importance of this study”.

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.

Devi, Uma (2009) on her study relationship between problem-solving ability and academic achievement of secondary school students found that there was no significant difference in problem solving ability of boys and girls and student studying in private and government schools. A positive relationship was found between the problem solving ability and ability and academic achievement of ninth standard students.

Yomgam, Bige (2009) undertook a study to find out the academic achievement of secondary students in Arunachal Pradesh, and found that there
was a wide gap among the different categories of students viz., Male, Female, Tribal and Non-tribal in their academic achievement in the subject namely, English, Hindi, Mathematics, Science and Social studies.

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.

Boruah, Jahnabee Lahkar (2010) did a study on academic achievement, achievement motivation and modernity attitude: a study on the tribal secondary students in Assam. The study indicated that academic achievement, academic motivation and modernity attitude were related each other and positive relationship had been found. It was found that there was significant difference in the above variable of Tribal students belonging in male and female, rural and urban areas.

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.

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 might be that science achievement depended on memory, recall, knowledge and hard work whereas scientific attitude involved scientific temper of mind, rational thinking, open mindedness, objectivity, etc.

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.

Mahajan, Monica (2011) conducted a study on “Academic Achievement in relation to Emotional Intelligence and Spiritual Intelligence”. The study used a sample of 140 students studying in class XI from four schools of District Hoshiarpur. The findings of the study were: there existed no significant difference between the emotional intelligence of boys and girls. There existed no significant difference between the spiritual intelligence of boys and girls. There existed positive and significant relation between academic achievement and emotional intelligence of boys and girls. Also, the relationship was found positive and significant for boys and girls separately. There existed positive and significant relationship between academic achievement and spiritual intelligence of boys and girls. Also, the relationship was found positive and significant for boys and girls separately. There existed positive and significant relationship between emotional intelligence and spiritual intelligence of boys and girls.
Preeti (2013) conducted a study on “Role of Emotional Intelligence for Academic Achievement for Students”. The study used a sample of 650 pupils in British secondary education (means age 16.5 years). In her study she found that in emotional intelligence and academic achievement the outcomes are the factors which were significantly related to emotional intelligence and their effect on academic achievement and by emphasizing on those we could improve the quality education for high academic achievement and social intelligence as well by students.

Rafiq et al. (2013) investigated a study on “Parental Involvement and Academic Achievement; A Study on Secondary School Students of Lahore, Pakistan”. The study used a sample of 150 students (boys and girls) of 9th class of secondary (public and private) schools. Four schools were selected through simple random sampling which included one boy and one girl from each of the public and private schools categories for equal representation of both boy and girl students in the sample frame. Survey questionnaire was used as a tool for data collection. After the analysis of data, it was found that parental involvement had significant effect in better academic performance of their children. The study proved that parental involvement enhanced the academic achievements of their children.

Sethi et al. (2013) conducted a study on “Anxiety and Academic Achievement of Senior Secondary School Students”. The study used a sample of 150 students (74 boys and 75 girls) of class XII students from different schools of Dehradum district. The sample was selected by using simple random sampling technique. The findings of the study were: (i) English medium schools and Hindi medium students have high level of anxiety; (ii) Boys and Girls of senior secondary class have similar anxiety; (iii) Boys of senior secondary class of English medium schools and Hindi medium schools do not differ in anxiety level and (iv) The relationship between anxiety and academic achievement of senior secondary students is negligible. There are negative correlations between the two variables.

Bijoy, Soni and Jadab (2014) conducted a study on “Evaluation of Social Science Curriculum at Elementary Stage in Assam”. This study is conducted on a sample of 550 students and teachers selected from 20 schools from urban and rural settings of Lakhimpur District. The sample is comprised of 400 students
taking 200 each from rural and urban with 100 each belonging to males and females from both the areas respectively. Similarly, teacher’s sample of 150 was consisted of 75 each from rural and urban with 50 and 25 males and females respectively from rural and urban areas. The descriptive survey method was used for data collection using questionnaire for Evaluation of Social Science Curriculum (QESSC) and Attitude Inventory Towards Evaluation of Social Science Curriculum (AITESSC). On the basis of the analysis of the responses of the whole sample, 94% students and 97% teachers reported that social science helps the learners to adjust with the social and physical environment. It also found that Social science is the applied branch of social sciences introduced in the curriculum at school state with a view to developing proper attitudes, sensibilities and skills in future citizens.

Suresh, Soni and Jadab (2014) conducted a study on “A Study of Adjustment, Level of Aspiration, self-concept and Academic Achievement of Visually Handicapped School Children of Assam”. The data were collected from a sample of 400 visually handicapped children 200 boys and 200 girls who were studying in the classes VI to X (age 12 to 16 years) in six visually handicapped schools of lower and upper Assam selected by using simple random technique. The descriptive survey method was used for data collection using (i) Adjustment Inventory standardized by A.K.P Sinha and R.P.Singh; (ii) Self -Concept Inventory standardized by Raj Kumar Saraswat; (iii) Level of Educational Aspiration constructed by J.C.Soni and (iv) Academic Achievement from School Record. The study reported that the adjustment of visually handicapped boys and girls was found similar on overall adjustment. It also revealed that there existed no relationship between (a) adjustment and level of educational aspirations; (b) adjustment and self-concept and (c) adjustment and academic achievement of visually handicapped children. In another study conducted by Suresh, Jadab and Soni (2015) found that on (i) The adjustment of visually handicapped boys and girls are found similar on overall adjustment; (ii) The results of the study further show that visually handicapped boys and girls do not differ significantly in respect of academic achievement; (iii) The study revealed that there exist no relationship between adjustment and academic achievement of visually handicapped children and (iv) The interaction between adjustment no impact on academic achievement.
Gogoi. Nitul, Dutta. Jadab & Soni, J.C, (2016) “A Comparative Study on Academic Achievement and Intelligence of Class X Students of Jawahar Navodaya Vidyalaya and Kendriya Vidyalaya in Lakhimpur District, Assam”. The data were collected from 120 students (60 JNV and 60 KV). Group Test of Mental Ability by Dr. S. Jalota (1976) was used to find out intelligence of students and for measuring academic achievement the Board Examination marks of the students were used. The main finding of the study was

i) There is no true difference between the students of JNV and KV on academic achievement.

ii) There is no true difference between JNV and KV students for both males and females on academic achievement.

iii) There is no true difference between JNV and KV rural and urban students on academic achievement.

iv) There is no significant difference between JNV and KV female students on intelligence.

v) There is significant difference between the students of JNV and KV on intelligence in the whole sample.

vi) There is significant difference between the students of JNV and KV rural and urban students on intelligence and

vii) There is significant difference between JNV and KV male students on intelligence.

Summary of Review of Related Literature in Academic Achievement

and Preeti (2013) found on their studies that academic achievement related to other variables was positively significant, that means there are positive correlation academic achievement and other variables.


2.20 Literature Studies Related to Emotional Maturity

Verma (1977) in his study found mean significant difference in the emotional warmth, acceptance, achievement, IQ in the rural and urban boys and girls. There was more emotional relationship among students in the classroom of private schools. Similarly, Khan (1980) in his study found that tension was more among youth who hailed from urban areas than among those who hailed from rural areas.

In Salunke’s (1979) study, it was observed that educational facilities and emotional happiness in the home contributed positively to the academic achievement. Saun (1980) observed a significant difference between the high and low achieving females in health, social, emotional and educational areas of adjustment.

Upamanyu, Upamanyu and Vasudeva (1980), tested 100 male students to find out the correlation among extroversion, neuroticism and emotional maturity. The result showed that extroversion and neuroticism were positively related with each other and inversely with emotional maturity.

Krishna (1981), found that neuroticism and extroversion were positively related with emotional maturity. Two groups of 30 students were studied by
Satyanarayana and Kumar (1982), to find out the relationship of self-concept and social self-concept with emotional maturity. The results showed that both the self-concepts had no emotional maturity.

Arya, A. (1984) conducted a study on emotional maturity and value of superior children in family. The objectives of the study were to find relationship between intelligence and emotional maturity of boys and girls separately. Second objective was to find out relationship between intelligence and values of boys and girls. The study found that superior boys and girls did well on the emotional maturity tests, superior intelligence showed high relationship with emotional maturity.

Tyagi (1985) pointed out that emotional maturity was positively correlated to personal, social and overall adjustment and female subjects scored higher on emotional and overall maturity.

Sabapathy (1986) conducted a Study on the “Relationship of Manifest Anxiety Emotional Maturity and Social Maturity of standard X Students to their Academic Achievement”. The study used a sample of 574 boys and 531 girls selected from private aided, private unaided, corporation and government schools which was based on the stratified proportionate random sampling technique. Students were selected from both Kannada and English medium schools. In his study he found that manifest anxiety was negatively and significantly related to achievement in mathematics, achievement in general science, achievement in social studies and total academic achievement. Emotional maturity was positively and significantly related to achievement in mathematics, achievement in general science, achievement in social studies, and total academic achievement. Social maturity was significantly and positively related to achievement in general science only, but not to achievement in mathematics or total academic achievement. Girls were higher achievers in mathematics, general science and social studies when compared to boys. Students from English medium schools scored higher in all areas of academic achievement over students from Kannada medium schools. Students from private schools scored higher than students from government schools. Emotional maturity, socioeconomic status and social maturity turned out to be significant predictors of total academic achievement.

Gupta, Poonam (1989) conducted a comparative study on “Male and Female Adolescent School going students on Emotional
Maturity and Achievement in Curricular and Co-Curricular activities”. The Objectives of the study were: 1. To compare male and female adolescent school going students on emotional maturity, co-curricular and curricular activities. 2. To compare behavior of boys and girls due to age level. The sample comprised 200 girls and 200 boys studying in high school and intermediate classes of Agra City who were selected on the basis of the random number table. The tools used in the study were Emotional maturity Scale developed by Yashvir Singh and Mahendra Bhargava and Curricular and Co-curricular Activities Questionnaire developed by the investigator. Statistical techniques used for data analysis were chi-square, F-ratio and t-ratio. The findings of the study were: 1. The girls were more sober and well behaved as compared to boys of this age. The characteristic behaviours of the girls were that they were shy, reserved and more sober as compared to boys. 2. Boys behaved more openly and were more interested in bold activities. 3. Boys were more interested in cricket and hockey while girls preferred the activities like painting, reading magazines, singing and decoration.

Dean and Bruton B. T. (1989) examined the relationship of emotional maturity with alienation and social background factors and reported inverse relationships between alienation and emotional maturity.

Heise (1989) in his study found that emotional instability was inversely related to the self-concept of a person. Hussain (1989) explored the emotional maturity of normal and delinquent children. The sample consisted of 30 normal and 30 delinquent children. It was found that the delinquents were emotionally less stable and more aggressive than normal children.

Chaudhary and Bajaj (1993) in their study on emotional maturity as a correlate of the Mental Health of adolescents compared the emotional maturity of adolescents staying at home and orphanage. Adolescents staying at home have higher level of emotional maturity as compared to their counterparts staying at the orphanage as found the study.

Singh, R.P (1993) conducted a study on “Emotional Maturity of Male and Female Students of Upper and Lower Socio-Economic Status”. The total sample consisted of 640 adolescent students of Aligarh. There were 321 male and female students of upper Socio-Economic Status and 320 male
and female students of lower Socio-Economic Status in age ranging from 15 to 19 years. The subjects were chosen on the basis of Stratified Random Sampling method. These 640 subjects were then administered Emotional Maturity Scale of Yashvir Singh and Mahesh Bhargava. The findings of the study were: 1. The statistical analysis revealed that mean scores of male and female students of higher socio-economic status were lower than the corresponding mean scores of male and female students of lower socio-economic status in all the five areas of Emotional Maturity Scale. 2. In the total area of the emotional maturity the mean scores of male and female students of higher socio-economic status were lower than the corresponding mean scores of male and female students of lower socio-economic status. The ‘r’ value was significant. 3. The mean scores of female students were slightly lower than the corresponding mean scores of male students in social disintegration. 4. In the total area the mean score of male students was significantly lower than the mean score of female students.

Kaur, J. (1995) conducted a study on the impact of attitudes of violence and non-violence on the levels of emotional maturity and adjustment patterns of college going students. She found that most of the college going girls were more emotionally stable as compared to college going boy students. She also summarized that 'emotional maturity was the ability to govern disturbing emotions'.

Arya, A. (1997) studied the emotional maturity and values of superior children in family and found that superior boys and girls did well on the emotional maturity test. Superior Intelligence showed high relationship with emotional maturity of children.

Baron (1997) found that there was moderate yet significant relationship of emotional, social and academic achievement with psychological problems. Landau, E. (1998) related giftedness to child's intelligence and found that even the highest intelligence cannot reach its full realization if it lacks emotional maturity.

Sangeeta (1998) viewed that emotional maturity is a stage, which is achieved after a long period and it is very essential in human life. A person will be called emotionally mature when he is able to display his emotions in an appropriate degree with reasonable control.
Anju (2000) found that there existed a positive and significant relationship between emotional maturity and intelligence of student which implied that more intelligent the person was, more emotional mature he was. The relationship between emotional maturity and intelligence of girls came out to be significant.

Kaur (2001) conducted a study on a sample of 356 adolescents and revealed significant relationship between emotional maturity and intelligence. However, no significant relation was observed between emotional maturity and academic achievement. Further, she found no significant difference in the emotional maturity of boys and girls, adolescents of urban and rural areas but significant difference in the emotional maturity of arts and science students. These studies showed the relationship between: Emotional Intelligence & Stress, Emotional Intelligence & Achievement, Achievement and Adjustment, Emotional intelligence and Adjustment Stress, Adjustment and Achievement, Emotional intelligence, Achievement Motivation and Academic Achievement and Emotional intelligence and Personality traits, etc.

Kaur, M. (2001) conducted a study on “Emotional Maturity of Adolescents in Relation to Intelligence, Academic Achievement and Environmental Catalysts”. The objectives of the study were: 1. To find out relationship between emotional maturity and intelligence, academic achievement and environmental catalysts of adolescents. 2. To find out the differences in the emotional maturity of adolescents of rural-urban areas, between boys and girls, studying in arts and science streams, studying in government and recognized private senior secondary schools. 3. To find out the differences in the emotional maturity of boys and girls, hostellers and day scholars and children of working and non-working mothers. 4. To find out the difference in emotional maturity of adolescents up to 15 years and above 15 years of age, and those who are youngest and those who are eldest in the family. The survey method was used by the researcher. The sample comprised 350 students of class XI from 11 schools of Punjab state and was selected by random sampling. Emotional Maturity Scale by Singh and Bhargava, Group Test of General Mental Ability by Tandon, and Environmental Catalyst Scale by Kalra were used for data collection. Class X Academic Achievement scores were taken from
school records. The data were analyzed by correlation and \( t \)-test.

The findings of the study were: 1. There was significant negative correlation between intelligence, environmental catalysts variable, academic achievement, urban and rural, boys and girls, hostellers and day scholars, youngest and eldest in the family and emotional maturity of adolescents. 2. There was significant difference in the emotional maturity of science and arts students. The adolescents of science stream were more emotionally mature as compared to the adolescents of arts stream. 3. The adolescents of government schools were more emotionally mature as compared to the adolescents of private school. The difference was significant. 4. Adolescents of working and nonworking mothers did not differ significantly from each other in their level of emotional maturity. 5. The adolescents who were less than 15 years ago were at a higher level in their emotional maturity than the adolescents who were more than 15 years of age.

Upadhyay, S.K. and Upadhyay, Vikrant. (2003) studied “Emotional Stability and Academic Achievement of Boys and Girls at Secondary Level.” at Ph.D. level and concluded that emotions have both direct and indirect and indirect effect on personality. The direct effect came from physical and mental disturbances, while indirect came from reactions of members of the social group around the person who was experiencing the emotion. If the emotions were unpleasant or uncontrolled, they were damaging to the personality pattern. If pleasant and controlled then they had vice versa effect on life. The main findings were: 1. Boys were significantly emotionally stable than girls. 2. There was no significant difference between boys and girls in academic achievement. 3. There was no significant relationship between emotional stability and academic achievement of the students.

Gakhar, S. C. (2003) conducted a study on “Emotional maturity of students at secondary stage: self-concept and academic achievement”. The study used a sample of 200 students of secondary stage, the study revealed: (i) there is significant difference in the emotional maturity of students of government and private schools; (ii) there is significant difference in the emotional maturity of students who are hostellers and day scholars; and (iii) there is significant difference in the emotional maturity of children of working and non-working
mothers and the academic achievement on self-concept. It was found a significant negative correlation as found between self-concept and emotional maturity. It was also found negative correlation between academic achievement and emotional maturity. There was significant difference in the emotional maturity of boys and girls. It was revealed that there was significant difference in the emotional maturity of students belonging to urban and rural areas and emotional maturity of students of rural areas is more as their mean scores on emotional maturity inventory was less. There was significant difference in the emotional maturity of students who studied in government and private schools. Further, emotional maturity of students of private schools was more as compared to their counterparts due to low mean score on emotional maturity scale. It also showed that there was insignificant difference in the emotional maturity of students who lived in hostels and those who are day scholars. The study also revealed that there was insignificant difference in the emotional maturity of children of working and non-working mothers.

Baron (2004) found that there was moderate yet significant relationship of emotional, social and academic achievement with psychological health.

Ronald E. McNairs (2004) in his research on 'Learning pace of school children in regard to emotional maturity' found that students with a higher level of dedication, commitment, desire and emotional maturity could make effective learning and learned as much as they wanted.

John Templeton (2004) in his report on 'Emotional Maturity of Children revealed that children who had low emotional maturity have very complex attitudes and policies and were not very social.

Upadhyay, Vikrant and Upadhyay, S.K. (2004) studied “A study of emotional stability and academic achievement of boys and girls at secondary level” at Ph.D. level and concluded their main findings: 1. Boys are significantly emotionally stable than girls, 2. There is no significant difference between boys and girls in academic achievement. 3. There is no significant relationship between emotional stability and academic achievement of the students.

Darwin, Nelson (2005) in his research related to 'Emotional Intelligence and Emotional Maturity' stated that if we wanted our children to be emotionally mature, we must focus on their early childhood education; which affected certain level of social and emotional maturity.
Peter Lichtenberg (2005) conducted a study on 'Emotional Maturity across Life Span' and found that only that man had ability to work with others who had emotional maturity and stability. He focused on ageing as well as personality and emotional maturity across life span in his research work.

Lekhi, V. (2005) made a study on “Emotional Maturity of Adolescents in relation to Cognitive and Non-Cognitive Variables”. In her study she used a sample of 939 adolescents of XI class studying in Sr. Secondary schools of Punjab state and found significant correlation between intelligence and emotional maturity. It meant that when the I.Q level of the students was more then they showed high class of emotional maturity and their behaviour reflected a balanced personality.

Markham (2005) conducted a study on “Effects of positive emotional refocusing on emotional intelligence and autonomic recovery form stress in high school students”. The Study investigated the effect of positive emotional refocusing on emotional intelligence (the Intrapersonal, Stress Management, and Adaptability subscales of the EQ-i YV were used); heart rate variability, and trait anxiety in a sample of 99 grade nine students (62 trained, and 37 in the waiting group). No changes in EI or trait anxiety occurred due to training, though training did lead to significantly increased coherence during autonomic recovery from stress. Among students categorized as low anxiety, there was a positive correlation between EI and coherence and a negative relationship between trait anxiety, interpersonal intelligence and the stress management subscale.

Sharma (2006) in her study compared all the six dimensions of mental health between male and female adolescents. No significant difference was found in emotional stability, over adjustment, autonomy, and security-insecurity, self-concept, and intelligence measures of mental health between male and female’s adolescents as well as between those belonging to urban and rural areas.

Nirwani (2006) conducted a study on Mental Health, Emotional Maturity and Cognitive Factors in Delinquency Prone and Non-delinquency Prone Adolescents. In her study she found: a) Delinquency prone subjects are less emotionally mature than non-delinquency prone subjects. b) Non-delinquency prone subjects have significantly better mental health as compared to their
delinquency prone counterparts. c) Non-delinquency prone subjects tend to be more intelligent than delinquency prone subjects. d) Delinquency prone adolescents get distracted easily as compared to non-delinquency prone adolescents. e) Delinquency prone adolescents are high on cognitive distortion as compared to non-delinquency prone adolescents.

Geeta S. Pastey and Vijayalaxmi A. Aminbhavi, (2006) conducted a study entitled “Impact of Emotional Maturity on Stress and Self Confidence of Adolescents”. The objectives of the study were: 1. To study the effect of emotional maturity on the stress and self-confidence of adolescents. 2. To examine the influence of some personal factors like sex, number of siblings, order of birth, parental education and income on stress and self-confidence of adolescents. The quota sample of study consisted of 105 adolescent students studying in XI and XII class of K.E. Board’s Pre University Arts and Commerce College situated at Dharwad city, Karnataka State. The age range of the sample happens to be 16-18 years. The tools used were Emotional Maturity Scale developed by Singh and Bhargav (1984), Students Stress Scale developed by Deo (1997), and Agnihotri’s Self Confidence Inventory (ASCI developed by Rekha Agnihotri (1987). The findings of the study were: 1. The adolescents with high emotional maturity have shown significantly higher stress and higher self-confidence than those with lower emotional maturity. 2. Adolescent boys tend to have significantly higher stress than adolescent girls. In case of self-confidence, girls tend to have higher self-confidence than boys. 3. The adolescents with more number of siblings have shown significantly higher self-confidence than those with fewer siblings. 4. The order of birth of adolescents has not influenced their stress and self-confidence significantly. 5. Adolescents with differential educational level of their fathers have shown significant difference among themselves in their stress whereas the difference is not significant in other comparisons. 6. Adolescents with varying degrees of family income level do not differ significantly in their stress and self-confidence.

Suneetha and Vijayalaxmi (2007) conducted a study on “Self- Concept, Emotional Maturity and Achievement Motivation of the Adolescent Children of Employed Mothers and Homemakers”. The study used a sample of 75 adolescents
of employed mothers and 75 adolescents of homemakers, studying in 8th and 9th standards in Hubli-Dharwad cities of North Karnataka. In this study they found that the adolescent children of homemakers had significantly higher in various dimensions of self-concept such as intellectual and school status, anxiety, happiness and satisfaction. It was also noticed that children of employed mothers had high emotional maturity and female children of employed mothers were highly achievement oriented.

Ayodhya, P. (2007) conducted a study on “Emotional problems in secondary school children and its relation to life events and scholastic achievement”. In this study aimed at studying the emotional problems of school children and their relation to stressors (life events) and school achievement, on a sample drawn from class 10 students using survey method. The objectives of the study were; to find out the difference in mean life event scores in students who have and who do not have emotional problems; to identify emotional problems in secondary school children; to calculate mean life event scores; to compare the difference in the mean life event scores in respect of gender between students who have and those who do not have emotional problems; to find out the difference in the number of life events in respect of gender between students who have and those who do not have emotional problems; to compare the difference in mean life event scores in respect of socio-demographic factors between students who have and who do not have emotional problems; to investigate scholastic achievement; to find out the difference between scholastic achievement in students with and without emotional problems; to find out the difference in mean life event scores in students with and without emotional problems in relation to scholastic achievement; to find out the difference in mean life event scores in students with and without emotional problems in relation to IQ; to compare the difference between levels of IQ and scholastic achievement; to find out the difference in emotional problems in respect of socio-demographic factors; to investigate the difference mean life event scores in respect of socio-demographic factors; to find out differences in scholastic achievement in relation to socio-demographic factors; and to find out differences in mean life event scores in respect of gender and scholastic achievement. Based on the results it was concluded that; secondary school students had significantly high rate of
emotional problems; emotionally disturbed students had high life event scores and more number of events; boys had high life event scores and more no. of events; boys outnumbered girls in decreased scholastic achievement; the emotional problems found were of minor nature. Depression was the commonest emotional problem; emotional problems did not have influence on scholastic achievement in the present study; life events too did not have influence on scholastic achievement; no difference was found with regard to socio-demographic factors and emotional disorders, scholastic achievement and life events; no association was found between scholastic achievement and intelligence in the present study because the scholastic achievement stabilized at the lower level as the sample had low mean IQ at the beginning of the study.

Aggarwal (2007) found significant correlation between emotional stability, overall adjustment, and academic achievement, intelligence measures of mental health and social maturity of adolescents. Findings indicated no significant correlation between autonomy, security-insecurity, self-concept measure of mental health and social maturity of adolescents.

Ramrakha et al. (2007) studied “Behavioural and emotional problems during childhood”. They conducted study on whether behavioural and emotional problems during childhood predicted early sexual debut, risky sex at age 21 years, and sexually transmitted infections up to 21 years. Some possible meditational pathways were also explored. Data obtained at ages 5, 7, 9, 11, 13, 15, and 21 years were used. Adjustment was made for gender, socio-economic status, parenting factors, and residence changes. Results were high levels of antisocial behaviour between age 5 and 11 years were associated with increased odds of early sexual debut and risky sex. No relationship was observed between hyperactivity and later sexual health outcomes. In contrast, high levels of anxiety were associated with reduced odds of risky sex and sexually transmitted infections. Involvement with delinquent peers explained some of the association between antisocial behaviour and early sexual debut and risky sex. A poor relationship with parents also explained some of the association between antisocial behaviour and early sexual debut. The findings demonstrated links between behavioural and emotional problems occurring early in life and later deleterious sexual health outcomes.
Usha, P. (2007) studied “Emotional Adjustment and Family Acceptance of the Child: Correlates for Achievement”. The objectives of the study were: (i) to find out the relation of achievement of mathematics with (a) emotional adjustment (b) family acceptance of the child for the total sample and relevant sub-samples; (ii) to compare boys and girls, urban and rural samples with regard to their emotional adjustment, family acceptance of the child and achievement in mathematics. Survey was the method used. The sample consisted of 700 standard IX pupils drawn from three districts of Kerala using proportionate stratified sampling technique. The tools were used such as scale of emotional adjustment; family acceptance of the child rating scale; achievement test in mathematics. Pearson’s product moment coefficient of correlation was used for the finding results. The findings were: (i) the study revealed that emotional adjustment and family acceptance of the child have a positive significant correlation with achievement in mathematics for the total sample and sub-samples; (ii) it is also found that boys and girls differ in their family acceptance and achievement but not in their emotional adjustment; (iii) rural and urban pupils differ significantly in their emotional adjustment, family acceptance and achievement in mathematics. Thus, it is found that emotional adjustment and family acceptance of the child are effective factors contributing to academic achievement.

Insignificant difference in Emotional maturity of adolescent Boys of coeducation and unisex education school. (i) Insignificant difference in Emotional instability of Boys coming from coeducation and unisex education school. (ii) Insignificant difference in Emotional Regression of Boys coming from coeducation and unisex education school. (iii) Significant difference in lack of Independence of Boys coming from coeducation and unisex education school. 6. Insignificant difference in Emotional maturity of Girls and Boys coming from coeducation and unisex education school. 7. Insignificant difference in security - Insecurity of Girls coming from coeducation and unisex education school. 8. Insignificant difference in family security of Girls coming from coeducation and unisex education school. 9. Insignificant difference in school security of Girls coming from coeducation and unisex education school. 10. Insignificant difference in security - Insecurity of Boys coming from coeducation and unisex education school. 11. Insignificant difference in Security - Insecurity of Boys and Girls coming from coeducation and unisex education school. Thus there is no significant difference in Anxiety, Emotional maturity and security -Insecurity of Boys and Girls coming from coeducation and unisex education school.

Geeta S. Pastey and Vijayalaxmi, A. Aminbhavi (2009) studied “Impact of Emotional Maturity on Stress and Self Confidence of Adolescents” and concluded that as emotions did play central role in the life of an individual, one was expected to have higher emotional maturity in order to lead an effective life. It is also true that our behavior is constantly influenced by the emotional maturity level that we possess. Especially, the adolescents who are observed to be highly emotional in their dealings need to be studied. In view of this, an attempt is made in present study to find out the impact of emotional maturity of adolescents on their stress and self-confidence. Sample of the study consisted of 105 adolescents studying in XI and XII class at Dharwad city Karnataka State, India. The scales such as emotional maturity (Singh and Bhargav, 1994), Self Confidence Inventory (Rekha Agnihotri, 1987) and Students ‘Stress Scale (Deo, 1997) were administered on the selected sample. Along with responses to the above scales, some personal data information was also collected from the sample. The obtained responses were scored and converted to standard (T) scores, further subjected to ‘t’ and ‘F’-tests. The findings revealed that the adolescents with high emotional maturity have significantly high stress ($t=10.44; \ p<0.001$) and self-confidence ($t=-2.92; \ p<$
0.01) when compared to those with low emotional maturity. Adolescents with more number of siblings have shown significantly higher level of self-confidence ($r = 2.96; p< 0.01$) than their counter parts. It was also found that educational level of father had significantly influenced stress of their adolescent children ($F= 5.303; p< 0.01$). Adolescent boys tended to have significantly higher stress than girls ($t=1.72$) and girls tended to have significantly high self-confidence ($r=1.83$).

Nanda, P.K. and Chawla, Asha (2009) studied “Impacts of Age and Family Type on Emotional maturity of urban Adolescent Girls” at Ph.D. level and concluded with the results: it was very clear that type of family definite had impact on emotional maturity. Joint family system had a positive impact on emotionality because maximum percentage of girls was found to be stable and no girl was found to be externally unstable in the joint family. It might be due to the reason that in joint family system, there were more members in the family wherein there were more chances of disclosure of pent up emotions, there are more number of adults advising young ones during their stressful period where as such intimacy was not found in nuclear family, where the number of family members was very less and majority of mothers was working. It could be concluded from the results that emotional maturity was affected by age, as adolescents grew in age there came more stability in their emotions. Levels of unstability and extremely unstability decreased with age. Joint family system played a significant role in emotional maturity and stability of adolescent girls.

Tatawadi (2009) have studied the differences in emotional maturity among male and female students studying in a management school. The results revealed that the females were emotionally stronger than the males. The girls scored higher with regard to empathy, social responsibilities and interpersonal relationships than boys. They were more sensitive towards their relationships with parents, friends and siblings. All these traits helped them to acquire more emotional intelligence as compared to boys.

Usha P. and Rekha (2009) conducted a study on “Emotional competence and mental health as predictors of academic achievement among the secondary school pupils of Kerala”. The study used a sample of 530 students of Thrissur and Ernakulam districts of Kerala which was selected on the basis of gender, type of management of school and locality. They were administered Scale of Emotional Competence, Mental Health Status Scale and
Achievement Test in Physics. The hypothesis of the study were: there will be significant difference in the mean scores of emotional competence, mental health and achievement in Physics for the groups formed on the basis of sex, locality and type of management of schools; there will be significant relationship between emotional competence and achievement in Physics for total sample and sub-samples, there will be significant relationship between metal health and achievement in Physics for total sample and sub-samples, and achievement in physics can be predicted significantly in terms of the independent variables selected such as emotional competence and mental health. The findings of the study implied that emotional competence was the best predictor of achievement in Physics of secondary school pupils. Therefore, more emphasis should be laid on infusing emotional literacy into the standard curriculum and to create proper school climate to enhance the development and application of emotional skills among pupils. Mentally healthy children accept their responsibilities, make their own decisions, plan ahead, set realistic goals for themselves, and in problem solving fashion, do the best they can in the problem situations, they encounter or create. They learn how to learn and to solve problems and they take pride in enhanced intellectual efficiency. Therefore, emphasis should be laid on creating proper school climate to enhance the development of mental health of pupils.

Suman (2009) made a study of learning achievement in science of students in secondary schools in relation to their metacognitive skills and emotional competence. The study was conducted over a sample of 500 students of class IX (age between 13 to 15 years) from six secondary schools situated in South West Zone of Delhi. In this study he found that there were significant positive relationship between (i) emotional competence & learning achievement (ii) metacognitive skills & learning achievement (iii) emotional competence & metacognitive skills of the students studying in secondary schools.

Thukral, Praveen and Singh, Surjit (2010) made a study on a social maturity and academic achievement of high school students. The study was conducted over a sample of 400 (200 boys and 200 girls) high school students studying in Xth class in 8 different schools (4 urban and 4 rural) affiliated to CBSE, New Delhi. In his study he found that there existed significant relationship between social maturity and academic achievement of high school students. No
significant differences were observed between boys and girls as well as rural and urban high school students on the basis of their social maturity.

Nanda, P. and Chawla, A. (2010) studied the impact of age and family type on emotional maturity of urban adolescent girls and concluded type of family had definite impact on emotional maturity.

Joshi, Renuka and Tomar, Sapna (2010) conducted “A Study of Optimism and Pessimism on Emotional maturity, Depression and Coping Strategies among Adolescent”. The result of study revealed a significant difference between Optimists and Pessimists on Emotional Maturity and its dimensions. On Depression, Optimists and Pessimists did not differ on Sleep Disturbance and the feeling of Sadness. Optimists were found to possess a tendency of using Painful Problem Solving and Positive Reappraisal more as compared to Pessimists when in a stressful situation.

Singh, Surjit and Thukral, Praveen (2011) conducted a study on “Emotional Maturity and Academic Achievement of High School Students”. The objectives of the study were: 1. To investigate the relationship of emotional maturity with academic Achievement of high school students; and 2. To see the sex and regional difference on the basis of their emotional maturity. The sample comprised of 400 students of class X, out of them 200 were boys (100 rural and 100 urban) and 200 were girls (100 rural and 100 urban). The sample was collected by using multi-stage random sampling technique. The tool used was Emotional Maturity Scale (EMS) developed by Singh and Bhargava (1990). The findings of the study were: 1. There exists no significant relationship between emotional maturity and academic achievement. 2. No significant differences were observed between boys and girls and rural and urban students on the basis of their emotional maturity.

Singh (2011) conducted a study on 400 students of XI and XII classes in the Gurgaon district of Haryana. A positive and significant correlation was found between emotional maturity and mental health which indicated that with the increase in mental health scores there will be increase in emotional maturity.

Quadri and Shirsath (2011) conducted a study on 150 child labour students and 150 regular school going students of Jalna district of Maharashtra, and found
that there existed the positive relationship between mental health and emotional maturity among child labour students and other regular students.

Lakshmi and Krishnamurthy (2011) constructed a study on “Emotional Maturity of Higher Secondary School Students”. The study used a sample of 220 Higher Secondary Students who were selected from various schools in Coimbatore District. In this study they found that there existed significant difference between all the sub-samples except the age group of Higher Secondary Students. It also found that there was significant difference between male and female students, urban and rural students and the students who lived in joint family and nuclear family system in respect of their Emotional Maturity.

Taj and Krishnamurthy (2011) conducted a study on “Emotional Maturity and Level of Anxiety among Rural College Students”. The study used a sample of 120 rural college students (60 male and 60 female), studying in Govt. College KGF, and Govt. College Bangarpet, Kolar district, aged between 18-21 years male and female rural college students showed significant difference in the level on anxiety and emotional maturity and female college students scored high on the level of anxiety and male college students showed higher level of emotional instability.

Puar, Surjit Singh (2012) made a study on the role of social maturity in academic achievement of high school students. It was found that the social maturity contributed the highest in the academic achievement of high school students in a given set of variables. Moreover, the total variance accounted for the variable of social maturity in case of boys was lesser than those of girls and the total sample. The reduced values of partial coefficients of correlation between social maturity and academic achievement indicated the weakness in relationship between social maturity and academic achievement which was more marked in case of girls than the boys and the total sample. Boys and girls as well as rural and urban high school students did not differ significantly in their social maturity.

Singh, Rashee (2012) made a study on a comparative study of rural and urban senior secondary school students in relation to emotional maturity. She found no significant difference between rural and urban, male and female, rural male and rural female and urban male and urban female senior secondary school students in relation to emotional maturity.
Sharma, Bharti (2012) made a study on the adjustment and emotional maturity among first year college students. The purpose of this study was to study the emotional maturity and adjustment levels during the first year of college with specific emphasis on each domain of adjustment to measure the importance of each domain to the student. The first year undergraduate students in this study were found to have low level of adjustment where social, emotional and educational areas are concerned. They were expected to encounter more adjustment related problems especially in the social and emotional context. The first year students were less emotionally mature and thus faced difficulty in adjusting emotionally to the changing demands of the environment than the final year undergraduates. Because of the familiarity with the surroundings, their integration is more into the social fabric of the college.

Shah, Jyotsana K. (2012) made a study on social maturity, school adjustment and academic achievement among residential school girls. In his study he conducted on a sample of 347 girls from class ix–xii at an all-girls residential school of North India. The study indicated a significant relationship between social maturity and school adjustment. Also, significant difference existed between the school adjustments of the three group’s i.e. low, high and average levels of academic achievement.

Kumar, Tiwari Vinit (2012) made a study on a comparative study of emotional maturity among 8th to 12th class Students with the reference of internet surfing. In his study he carried out with incidental sampling at Hardwar district on 100 students. Among them 50 (25 boys, 25 girls) were using internet and 50 (25 boys, 25 girls) with no interest in internet surfing. Results indicated that those who were not using internet regularly were more emotionally mature than internet users. It was also found that boys students were better than girls with regard their emotional maturity.

Kumawat, Sahab Ram (2012) made a study of emotional maturity in post graduate students of vocational education. In his study he found that there was no significant difference in emotional maturity between master of technology students, master of business administration students and master of computer application students.

Preethi and Rosa (2012) made a study on the academic stress and emotional maturity among higher secondary school students of working and non-
working mothers. In his study he conducted on a sample of 240 higher secondary students from Palakkad and Trissur districts. The findings of the study revealed that Emotional maturity of children of non-working mothers was lesser than that of children of working mothers. The study revealed that negligible relationship existed between Academic stress and Emotional maturity of higher secondary school students. Children of working mothers were more emotionally matured than children of non-working mothers. Children of non-working mothers were lower stressed than children of working mothers. Children of working mothers possessed high Emotional maturity and at the same time, they were more indisposed to stress and strain.

Mahmoudi, Armin (2012) made a study on the emotional maturity and adjustment level of college students. In his study he prepared a sample of 160 female students of age range 18-22 years studying in post graduate classes who were selected from different colleges of Yasouj city. In this study he found that high positive correlation was obtained between emotional maturity and overall adjustment.

Rajakumar (2012) conducted “A study on Higher Secondary Students’ Emotional Maturity and Achievement in economics in Tirunelveli District”. The study used a sample of 1060 higher secondary students. The tool used to find out the Emotional Maturity was constructed and standardized by Emotional Maturity Scale Constructed and Validated by K.M.Roma Pal (1984). The Academic achievement in Economics was found out using the tool constructed by the investigator. The mean value of Emotional Maturity scores (136.53) indicates that the higher secondary students are having extremely unstable Emotional Maturity. The mean value of Achievement in Economics scores (M=75.47) indicated that the higher secondary students were having high Achievement in Economics. There was significant difference between male and female, Day scholar and Hostel staying Higher Secondary students with respect to their Emotional Maturity. There was no significant difference between rural and urban, Government and Aided Higher Secondary school students with respect to their Emotional Maturity. There was significant difference between male and female Higher Secondary students with respect to their Achievement in Economics. There was no significant difference between rural and urban, Day scholar and
Hostel staying, Government and Aided Higher Secondary school students with respect to their Achievement in Economics.

Kumari, Reena (2012) studied the role of emotional maturity and emotional intelligence in learning and achievement in school context. This study was conducted on 300 male Intermediate students of Meerut city. Findings revealed that emotional maturity had insignificant effect on learning but significant effect on academic achievement. Emotional intelligence had insignificant effect on learning but significant effect on academic achievement. The findings of the present study were as follows: 1. Learning scores did not differentiate significantly between the high emotional maturity subjects and low emotional maturity subjects. 2. Academic achievement scores differentiated significantly between the high emotional maturity subjects and the low emotional maturity subjects. High emotional maturity subjects scored significantly higher on academic achievement than low emotional maturity subjects. 3. Learning scores did not differentiate significantly between the high emotional intelligence subjects and low emotional intelligence subjects. 4. Academic achievement scores differentiated significantly between the high emotional intelligence subjects and low emotional intelligence subjects. The following general conclusions could be drawn from the study: 1. Emotional maturity did not influence the level of learning of the subjects. 2. Emotional maturity was substantial to the level of academic achievement of the subjects. 3. Emotional intelligence did not influence the level of learning of the subjects. 4. Emotional Intelligence was substantial significantly in affecting the level of academic achievement of the subjects.

Panimalar, Sasikumar and Parimala (2013) conducted “A Study on Emotional Maturity and Self-Concept at Higher Secondary Level”. The study attempted to analyze the various aspects of emotional maturity and self-concept among higher secondary students. In this study they found that there was a significant difference between male and female students of higher secondary course in respect to their Emotional Maturity and Self-Concept. It also found that there was no significant difference between rural and urban area residence students of higher secondary course in respect to their Emotional Maturity and Self-Concept. It was found that there was a significant difference between government and government aided school students of higher secondary course in respect to their Emotional Maturity and Self-Concept. It was found that there was
no significant difference between parent’s educational qualifications of higher secondary course students in respect to their Emotional Maturity and Self-Concept. It was found that there was no significant difference between parent’s occupations of higher secondary course students in respect to their Emotional Maturity and Self-Concept. At last the findings in this study indicated a positive relationship between emotional maturity and self-concept.

Gurmit and Sanam (2013) made a study on “Emotional Maturity and Parent Child Relationship as Predictors of Mental Health of Adolescents”. The study used a sample of 200 9th class adolescents (100 boys and 100 girls) from Government Secondary Schools of Ludhiana City. The data were obtained by using Emotional Maturity Scale (2011) by Singh and Bhargava, Parent Child Relationship Scale (2011) by Rao and Mental Health Battery (2012) by Singh and Gupta. In this study they found that the prediction of Mental Health of Adolescents on the basis of Emotional Maturity and Parent Child Relationship was significantly higher as compared to their separate predictions.

Ritu, Kusha and Laitonjam (2013) made a study on “Gender on Social and Emotional Maturity of Senior School Adolescents: A Case Study of Pantnagar”. The study used a sample of 277 class XI students of Pantnagar, Uttarakhand across gender. In this study they found that girls scored significantly higher on the social adequacy component of social maturity whereas boys were observed scoring higher on the social adjustment component of emotional maturity. However, no gender differences were observed on the composite social maturity and emotional maturity scores. Social and emotional maturity was found to be significantly positively correlated under both genders.

Sarvesh and Indira (2013) made a study on “Effect of Emotional & Spiritual Intelligence on Mental Stress of Higher Secondary Students”. The study was conducted over a sample of 200 students in class XI from CBSE, Agra. In this study they found: i) Female students had high Emotional Intelligence in comparison to male students. ii) Male students had higher Spiritual Intelligence in comparison to female students. iii) Female students appeared to be more stressed than the male students. iv) Emotional Intelligence affected mental stress of higher secondary students to a great extent. v) Spiritual Intelligence had no effect on mental stress of higher secondary students.
Lohita and Satsangi (2013) conducted a study on “Career Maturity in relation to Family Environment of Senior Secondary Students”. The study used a sample of 120 (60 boys and 60 girls) senior secondary students studying in XII class UP Board. In this study they found that there was significant independent effect of gender and family environment on career maturity. They also found that there were significant difference of scores between high and moderate, low and high and high moderate and low family environment on career maturity was found to be significant at .01 level of significance.

Kaur, Manjeet (2013) conducted a study on a comparative study on emotional maturity of senior secondary school students. In his study he investigated the emotional maturity of adolescents of Chandigarh. He collected data from on a group of 200 students, 100 boys and 100 girls belonging to govt. and private senior secondary schools of Chandigarh. The findings of the study revealed that there was not any significant difference in various areas of emotional maturity of govt. and private school students; no significant difference was found in the emotional maturity level of boys and girls of senior secondary schools of Chandigarh.

Pranab, Soni and Jadab (2014), conducted a study on “A Comparative Study of Delinquency Prone and Non- Delinquency Prone Adolescents with regards to Self-Concept, Emotional Maturity and Academic Achievement in Assam”. This study is conducted on a sample of 500 adolescents comprised of 200 delinquencies prone and 300 non-delinquencies prone adolescents selected randomly from 12 secondary and higher secondary schools. The descriptive survey method is used for data collection using Liddho’s Delinquency Proneness Scale (1989), Self-concept Questionnaire (R.K. Saraswat (1981), Emotional Maturity Scale (M. Bhargava and Y. Singh (1990), and the Students Performance Record from the School. The study reported that delinquency prone adolescents have low self-concept, low emotional maturity and poor academic achievement than that of non-delinquency prone adolescents. Further, the study showed the positive co-relation among self-concept, emotional maturity and academic achievement. In another study conducted by Pranab, Jadab and Soni (2015) found that on (i) There exists a highly statistically significant relationship about self-concept among adolescents with respect to their delinquency proneness. The level of self-concept is high among adolescents with non-delinquency proneness than
that of those who has proneness to delinquency. Therefore, the null hypothesis formulated here is rejected. (ii) The self-concept of female adolescents who have proneness to delinquency is comparatively higher than male. Therefore, the null hypothesis is rejected. (iii) The level of self-concept is found better among male non-delinquency prone adolescents in comparison to female. So the null hypothesis is rejected. (iv) The non-delinquency prone male adolescents possess better self-concept than delinquency prone one. So, here also the null hypothesis is rejected. (v) The non-delinquency prone female adolescents possess better level of self-concept than delinquency proneness counterpart. Therefore, the null hypothesis is rejected. (vi) The delinquency prone adolescents possess a lower level of emotional maturity than non-delinquency prone counterpart. So, here also the null hypothesis is rejected. (vii) The emotional maturity of delinquency prone female adolescents is comparatively lower than male counterpart. Therefore, the null hypothesis is rejected. (viii) The level of emotional maturity is found better among female non-delinquency prone adolescents in comparison to male. So, the null hypothesis is rejected. (ix) The male delinquency prone adolescents have a lower level of emotional maturity than the male adolescents with non-delinquency proneness. So, the null hypothesis is rejected. (x) The female adolescents with non-delinquency proneness possess a better level of emotional maturity than delinquency proneness counterpart. Therefore, the null hypothesis is rejected.

**Summary of Review of Related Literature in Emotional Maturity**


2.30 Literature Studies Related to Intelligence

Intelligence is the general capacity of an individual or a mental energy of an individual, which enables him to adjust effectively in the environment and deal with novel situations of life. It is an organization comprising of the abilities of readiness, correctness and of understanding complicated and abstract things. It is an inborn natural power that makes a man capable of overcoming difficulties and problems of life. The existence of relationship between intelligence as a variable contributing towards achievement, another variable, is supported by a large body of research.

Benjamin (1953) studied the relationship between intelligence test performance and school achievement and found: 1. Intelligence test performance is highly correlated with success at the school certificate examination and with success in school of grammar school type. 2. Of the more commonly used predicative measures (teacher’s estimates, performance in English and arithmetic, intelligence tests) intelligence test is most effective single predicator.
3. A battery consisting of tests of intelligence, arithmetic, and English (weighted equally) is more effective than the intelligence test taken alone.

Joshi, Mohan C. and Srivastava, R. P. (1965) made a study on Intelligence and teaching attitude. An intelligence test and the Minnesota Teacher Aptitude tests were administered to 95 student teachers. Intelligence had a high degree of positive correlation with teaching attitude. Intelligence was also highly correlated with the teaching of "theory of education or principles of education or modern education." Teaching attitude and courses in the theory of teaching were found to have a high correlation (.617±.065).

George (1966) made a study on the students of class X, XI and XII on their adjustment and achievement. It was found that the pupils with high intelligence were identified as better adjusted and higher achievers in all the groups studied. Dave (1971) in his study revealed that there existed significant difference in the intelligence of students coming from homes having different parental incomes and occupation.

Sinha (1967) concluded a study of intelligence and some personality factors in relation to Academic Achievement of school students and found: 1. The two groups were significantly discriminated on variables, namely, intelligence, achievement motivation, manifest anxiety, extraversion-introversion and neuroticism or emotionality. 2. Science students scored significantly higher on the intelligence test than the students of arts. 3. Intelligence and academic achievement were significantly related. 4. Academic achievement was found to be positively and significantly related to achievement motivation and manifest anxiety at 0.01 levels, and with extraversion-introversion and neuroticism at 0.05 levels. 5. By partially out the effect of intelligence, the relationship between achievement motivation, manifest anxiety, extraversion and neuroticism remained the same except the relationship between extraversion and academic achievement and also that between neuroticism and academic achievement lost their statistical significance.

Aggarwal (1973) too had concluded that intelligence was highly correlated with examination marks of medical students.
Makhija (1973) conducted a study on interaction among values, interests and intelligence and its impact on scholastic achievements. The major findings of study were: 1. Intelligence had a significantly positive influence on scholastic achievement. 2. Students, who were not oriented to political value, exploited their mental ability to much less extent than those who were highly oriented to it. 3. Students who valued beauty, form, symmetry and grade in their life developed vocational interests in literary pursuit and avoided, as far as possible, sports and outdoor activities. 4. Students who were oriented to practical and utilitarian view of life tended to exert their intellectual capacities more in the mechanical fields of vocations. 5. Students who valued power, competition, and renown, etc. in their life utilized their mental abilities to excel in crafts and scientific studies. 6. Intelligent students interested in science and medicine found religious value helpful in their performance but obstructive if they were interested in recreational activities.

Dhami (1974) conducted a study on intelligence, emotional maturity and socio-economic status as factors indicative of success in scholastic achievement and found: 1. Intelligence and emotional maturity contributed to success in scholastic achievement. The contribution of intelligence was more than that of socioeconomic status. 2. A close and significantly high relationship existed between intelligence and emotional maturity. 3. The relationship between scholastic achievement and socioeconomic status, though statistically significant, was not very high. 4. The relationship between scholastic achievement and intelligence, between scholastic achievement and emotional maturity and between socio-economic status and scholastic achievement differed significantly from each other. 5. The socio-economic status had positive effect on emotional maturity especially the factors of parent’s education, family income, cultural level of the family, the type of house the family lived in and the vocational aspirations of learners. 6. The effect of socio–economic status on the scholastic achievement of girls was more striking. 7. The relationship between scholastic achievement and intelligence was higher in case of students of private schools than for those of government schools. 8. There was higher relationship between scholastic achievement and emotional stability in the case of class IX boys than in the case of class X boys who were more anxiety ridden due to the coming public examinations.
Bhasin (1974) in his study attempted to find out the relationship of total perception to academic achievement of students at high school level. It was sensed that those high on academic achievement, intelligence, self-concepts and SES had high school perception and those low on these variables had low school perception. As compared to the boys in Basin’s study, girl exhibited higher school perception than boys which shows that they are more intelligent, high on academic achievement, self-concept and high status than boys.

Lalithamma (1975) conducted on 732 pupils of class IX standards revealed that there was significant difference in the performance of boys and girls in mathematics, the difference in favors of boys. The achievement in mathematics was positively related to intelligence, interest in mathematics, study habit and SES.

The studies taken up by Das (1975) and Mishra (1978) showed that students who passed with high score in general science possessed higher IQ than those who failed and scored low in the subject. There was positive correlation existed between intelligence and achievement in general science.

Kohli (1976) conducted a study on characteristic behavioural and environmental correlates of academic achievement of over and under achievers at different levels of intelligence. Major findings of study were: 1. Although the spectrum of some of the non-intellectual behaviour environmental factors was differently related to academic achievement of over and underachievers, yet single factor combination of factors and factor constellations were not capable in themselves of clearly separating overachievers and underachievers. 2. Certain factors or factor combinations or configuration were common to these groups which differed widely in achievement. These could be named as correlates of academic achievement which operated for both.

Zacharia (1977) pointed out that pupil’s intelligence was a major factor in influencing their achievement in social studies. The pupil’s intelligence and attitude scores were more or less quality correlated with their achievement in social studies.

The investigation of Contractor (1977) revealed that educational attainment was functionally related positively to intelligence, n-achievement and socio-economic status in which intelligence accounted for 25 percent of the
variance in educational achievement and other variable accounted for only 5 percent variance in the educational attainment.

Acharyulu (1978) also in his study found out that there was no sex difference in intelligence, figural creativity and achievement in Telegu, general science and social studies. Though verbal creativity and achievement in English and mathematic were found in favor of girls.

In the study of Jain (1979) it was concluded that the factor that played a vital role for learning English and Mathematics was intelligence. Besides intelligence, vocabulary, knowledge of grammar, spelling, speed and legibility of handwriting, etc. were also necessary for English. And for mathematics besides intelligence abstract reasoning, numerical ability, mathematic background, rules and principles, concepts, degree of motivation etc. were needed. Another study by Siddiqui (1979) supported that family background factor had positive relationship with the academic achievement of the student when the intelligence factor was held constant.

Srivastava (1980) studied the relationship between intelligence, interest, adjustment and family status as predicators of educational attainment of high school students. The results were 1. There was substantial correlation between achievement and intelligence and moderate correlation between achievement and socio-economic status. 2. Scientific, clerical interest and educational adjustment were substantially correlated with achievement. 3. Mechanical interest and emotional and social adjustment also had significant positive correlation with achievement.

Menon (1980) studying to see the creative expression in relation to intelligence, achievement and language ability of children for their creativity in English language of students of higher secondary level, found that among other relation i.e., creativity and achievement, intelligence correlated highest with English language.

Sharma (1982) conducted a study of intellectual factors and academic achievement in arts, science and commerce at higher secondary stage. The main findings of study were: 1. The students of the scientific stream possessed a higher level of verbal intelligence than those of the literary and commercial streams. 2. The students of scientific and commercial streams possessed a higher level of non-verbal intelligence and creativity than
those of literary stream. There was no significant difference between students of scientific and commercial streams on these variables. 3. The high achievers of only the scientific stream were significantly better than the low achievers on both verbal and non-verbal intelligence. 4. The high achievers of only the commercial streams were significantly better than the low achievers of this stream on creativity. 5. The high achievers of only the scientific stream were superior to those of the literary and commercial streams, but the low achievers of both the scientific and commercial streams were better than those of the literary stream on verbal intelligence. 6. The high as well as the low achievers of both the scientific and commercial streams were superior to those of the literary stream on creativity, but the low achievers of the literary and scientific streams were superior to those of the commercial stream.

Zacharia (1982) found that the fantasy in the students were negative for the educational achievement of all subjects. Intelligence and personality decreased the negative relationship between the family life and educational achievement.

Study by Shanmugasundaram (1983) supported that women had higher intelligence, greater achievement motivation and better study habits and they also performed academically better than men students.

Pathak (1983) in his study showed that besides influencing in academic achievement, intelligence also worked for creative writing. The creative writers showed higher intelligence as compared to an average population. The high creative writers were better able to handle anxiety producing situations, tension and were more sensitive and quicker in their reaction to environmental stimuli.

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

Deshpande (1984) found that the students from the high achieving schools were higher in intelligence and other variables explained much of the variance between the high and low achieving schools.

Another study by Singh (1984) which was a survey of study habits of high middle and low achievers adolescent in relation to their sex, intelligence and socio-economic status from total number of 1600 adolescent students (800 boys
and 800 girls) reported that academic achievement and intelligence did not interact significantly in relation to study habit of either adolescent boys or girls. Also the triple interaction among academic achievement, intelligence and socioeconomic status was not significant in relation to the study habit of either adolescent boys or girls.

Rajput (1984) conducted a study on academic achievement of students of mathematics in relation to their intelligence, achievement motivation and socioeconomic status and found: 1. Intelligence affected the achievement of students in mathematics significantly at all the three levels i.e. high, low and average. 2. In neutral classroom conditions, the achievement of students in mathematics was not affected by achievement motivation. 3. The socioeconomic condition of the children affected the achievement of the student.

Gakhar (1985) conducted a study on intelligence, creativity and achievement in mathematics. The findings were: 1. There was a significant correlation between measures of intelligence and creatively taken singularly on one side and achievement in mathematics on the other side. 2. Intelligence and achievement in mathematics free from creativity and also creatively and achievement in mathematics free from intelligence remained insignificantly correlated. 3. Intelligence and creativity were equally good predictors of achievement in mathematics. 4. Conjoint effect of intelligence and creativity was higher as compared to their respective predictions in respect of mathematical achievement.

Dixit (1985) conducted a comparative study of intelligence and academic achievement of adolescent boys and girls in classes IX and X1. The main findings of study were: 1. Among class X1 students there was no difference in the academic achievement of intellectually superior and intellectually very superior boys and girls. 2. At all other intellectual levels, the academic achievement of the girls was superior to that of the boys. 3. Among class IX students there was no difference in the academic achievement of intellectually very superior and intellectually superior boys and girls. 4. At all the other intellectual levels the academic achievement of the girls was superior to that of boys. 5. In general the intelligence test scores of the boys were higher than those for the girls. 6. In case of the boys there was very
high correlation between intelligence tests scores and academic achievement. 7. In the case of girls, there was an average correlation between intelligence tests scores and academic achievement.

Jagannadhan (1985) in his study of the effects of certain socio-psychological factor on the academic achievement, intelligence occupied the first place followed by academic motivation and home environment. The proportion of variance explained by all the variance explained by all the variables in academic achievement was 27.5 percent, in which intelligence accounted for maximum variance (12.7%) followed by academic motivation (7.97%), role expectations (5.25%), SES (0.8%) and school environment (0.8%).

Deshpande (1986) conducted a study on the interactive effects of intelligence and socio-economic status of students and homework on the achievement of students and found: 1. Students, parents, teachers, girl students and students of middle and upper socio-economic status had a more favourable attitude towards homework. 2. No significant difference in their attitudes towards homework was found when teachers were classified under the four variables of material status, sex, age and teaching experience. 3. Parents with only child had significantly less favourable attitude towards homework than parents with two or more children. 4. The amount of homework and delay in evaluation of homework were not significantly related to achievement of students. 5. Intelligence was significantly related to achievement at the 10 percent level. 6. Intelligence was significantly related to achievement at one percent level. 7. The trend of the relationship between homework and achievement indicated that students who were given homework performed better.

Mehrotra (1986) studied the relationship between intelligence, socio-economic status, anxiety, personality adjustment and academic achievement of high school students. The main findings of the study were: 1. Both for boys and the girls there was an inverse relationship between level of anxiety and academic achievement. 2. Both for boys and girls there was a positive relationship between socio-economic status of family of students and academic achievement. 3. There was a positive relationship between intelligence and academic achievement. 4. There was a positive relationship between level of adjustment and academic achievement. 5. In general, the girls had a comparatively higher level of anxiety than the boys.
Misra (1986) too found out that there was a positive relationship between the intelligence test score and academic performance of the students. Intelligence positively affected academic performance of the students. He also supported that intelligence positively affected academic performance of the girls who far superior to the performance of the boys. The study taken up by Singh (1986) also pointed out that achievement in mathematics was positively significantly related to SES and intelligence along with study attitude.

Das (1986) in his study pointed out that the high intelligent groups had high education aspiration than student of low intelligent group. Intelligence was the most powerful predictor of academic achievement, contributing highest percent of total variance (40.26) followed by educational aspiration as the second most powerful predictors bearing 8.58% of variance.

Tripathi (1987) in his study with three correlated, i.e., intelligence, socio-economic status and educational facilities (EF) questionnaires also has shown superiority of intelligence in academic achievement.

Gupta, B. D. (1988) has conducted a research study entitled, “Intelligence, adjustment and personality needs of effective teachers in Science and Arts”. The objectives of the study were: 1) To correlate teacher effectiveness with intelligence, adjustments and personality needs. 2) To test the independence of teaching effectiveness from teaching experience, salary, age and sex. Methodology adopted was prescribed as the study of 46 science teachers and 298 Arts teachers were taken from the 39 intermediate colleges of Aligarh district. Tools used included teacher effectiveness scale of Pramod Kumar and D. N. Mutha, Samohik, Manasik Yogyata, Pariksha of R.K. Tandon, adjustment inventory of S.K. Mangal. The major findings of the studied shows: 1) All the distributions were almost normal. 2) Science teachers were found significantly more intelligent than Arts teachers. (3) Effective arts teachers were significantly better adjusted socially, psychologically, physically than effective science teachers; (4) Effective science and arts teachers did not differ with respect to professional adjustment; (5) Effective arts teachers were found significantly better adjusted in personal life than effective science teachers ; (6) Effective arts teachers were significantly highly effective than science teachers on financial adjustment and job satisfaction;
(7) So far as total adjustments were concerned effective arts teachers were significantly superior to effective science teachers.

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

Garg, V.P. and Chaturvedi, Seema (1992) studied the relationship between intelligence, socio economic status and academic achievement. This study was attempted to measure the contribution of intelligence and socio economic status in determining academic achievement. The analysis was based upon a field study of 535 students whose I.Q. score and SES score were regressed with their tenth class examination results of M.P Board. Sample comprised of both rural and urban students. His major findings were: 1. There was linear relationship between I.Q. and academic performance. The mean of the I.Q. scores were higher with the higher socio economic status and tapered off as SES mean declined for both rural and urban students. 2. Academic performance in relation to SES also had a linear correspondence for both rural and urban students. 3. A higher mean of I.Q. scores of rural students for all SES categories as compared to urban students. 4. It was also observed that in spite of higher mean scores by all SES categories amongst rural students, the academic achievement scores were lower than urban students.

The reasons for such a situation were given by researchers as: (a) Weak educational inputs in terms of physical facilities or unutilized physical facilities due to weak leadership and management. (b) Poor curriculum transactions in the classroom due to weak organizational climate of the school. (c) Indifferent or passive attitude of the students towards study for lack of motivation resulting in poor class interaction. (d) These weaknesses may be existing at a point of time or
may be accumulating over a period of time. This study established strong association between I.Q. and SES for academic performance and researchers suggested that academic performance could be improved by social support measures besides good schooling.

Sen and Hagtvel (1993) studied correlations among creativity, intelligence, personality, and academic achievement. Findings showed significant positive relations of creativity with some personality dimensions (extra-version, theoretical, and aesthetic value pattern) and scholastic achievement. The relation between creativity and intelligence was not significant.

Balasubramanian (1993) studied how far intelligence was related to pupil’s academic achievement in English and found: 1. Intelligence of pupils positively influenced their academic achievement in English. 2. Pupils having higher level intelligence preferred English medium classes and urban schools. 3. Sex of the pupils had no influence on their intelligence as well as academic achievement in English. 4. Pupils preferred schools of different types of management irrespective of their level of intelligence. 5. The medium of instruction and locality in schools had no influence on pupil’s academic achievement in English. 6. The sex of the pupils and the nature of management of the school had no significant influence on their academic achievement.

Kumar (1994) studied the interaction effect of intelligence, cognitive style and approaches to studying on achievement in biology of secondary school pupils and found: 1. Regarding main effect of intelligence, significant main effect was noticed on achievement in biology for the total sample and for the sub samples. 2. There was no significant main effect of cognitive style on achievement in biology for the total sample for boys. For girls, this variable had significant main effect on achievement in biology and in the comprehensive category. 3. Regarding main effect of approaches to studying significant main effect of deep/surface approaches existed on achievement in biology total score, comprehension and in higher objective category for the total sample. In knowledge and application categories no significant main effect of deep/surface approach was found. For boys significant main effect existed on comprehension category only. Among girls significant main effect was found on achievement in biology total score, comprehension and in higher objective
category. There was no significant main effect on knowledge and application categories of achievement in biology. Regarding organized/disorganized method there was significant main effect on comprehension category for the total sample and on comprehension and objective category for girls but not for boys. 4. There was no first order interaction of intelligence X cognitive style: intelligence X deep/surface approach on achievement in biology. 5. There was significant first order interaction of cognitive style X organized/disorganized method on higher objective category and the above variables in combination on achievement in biology total score, knowledge, and comprehension and application categories. 6. Achievement in biology total score, comprehension, application and higher objective categories, no significant first order interaction were found. 7. There was no significant second order interaction of intelligence X cognitive style X deep/surface approach or organized/disorganized method on achievement in biology.

Frances, Ellen (1994) conducted a study on multiple intelligence with a view of learning, to develop an interactive curriculum. Eight grade ten students contributed in a central way to the study, a factor precipitated by the intention to emphasize students’ perspectives concerning their individual abilities and interests and the way in which the high school curriculum did or did not accommodate these. Four grade ten teachers also participated in the track if identifying the degrees to which student’s individual difference can be accommodated in an integrated high school curriculum. The study addressed these questions: (1) what was the nature of curriculum development process that high school students and teacher in their classroom practices? (2) What was the role of the students in the development of the multiple intelligence theory application models? (3) What was the role of the teachers in the development of the multiple intelligence theory application models? The students and teachers perspectives are discussed and examined. The analysis of the findings suggested that change within the curriculum content, consistent with a constructivist and multiple intelligence view of learning, would enable students to develop further their individual differences. Such change was endorsed particularly by the high school student participants.
Furnham (1995) found that intelligence has been traditionally been considered an important predictor of Academic Achievement. Neisser et al. (1996) found that intelligence had been considered to account for 25% of the variance in academic achievement.

Chauhan (1995) examined the academic achievement and intelligence and their effect on adjustment of graduate students of both sexes. The major findings of study were: 1. No significant relationship existed between the academic achievement and intelligence of graduate students of both sexes, with their adjustment. 2. Female high achievers adjusted well with their environment as compared to their male counterparts. 3. No significant relationship existed between academic achievement and intelligence with the adjustment in case of students of science and arts faculty. 4. Individual differences existed in the responses of arts and science graduates of both the sexes. 5. Boys of science faculty, who were intelligent, had good health, social emotional and educational adjustment while their home adjustment was not very satisfactory. 6. Intelligent boys of arts faculty had low correlation with social adjustment and high correlation with educational adjustment. 7. Intelligent female art graduates had low correlation with home adjustment and high correlation with educational adjustment. 8. Intelligent female science graduates had low correlation with home adjustment and high correlation with educational adjustment.

Uniyal (1995) investigated the relationship between intelligence and achievement motivation of student’s activities and found: 1. There existed an insignificant relationship between high and low activities intelligence variables. 2. It was found that student activism had a nearest correlation with general mental ability of students. 3. Student activism seemed to be insignificantly related with achievement motivation of students.

Trivedi (1995) attempted to study the anxiety level and academic achievement of undergraduate students and found: 1. No significant difference existed between the means of boys and girls, science and commerce streams, science and arts stream in respect of their anxiety level. But there had been significant differences between the means of the students of commerce and arts streams. 2. A negative relationship had been found between the anxiety level and academic achievement among girls, students of commerce and arts
streams but among boys and students of science stream, a positive correlation had been found to be very low and not significant.

Singh and Verma (1995) studied the effect of academic aspiration and intelligence on scholastic success of X1 graders. The conclusion drawn indicated that rural students though lower scoring on measures of intelligence were better in scholastic achievement than their urban counterparts. Thus academic aspiration and intelligence were not considered true predictors of scholastic success.

Hee, Sook (1996) conducted a study to investigate the relationships among K-MIDAS, intelligent quotient and scholastic achievement and compared the students from academic high schools and from other types of high schools. The subjects were 560 students in total from academic high school and other types of high schools. Out of 560 students 200 were selected for from academic schools the analysis of the relationships of intelligent quotient and scholastic academic achievement. The results show that Logical Mathematical, interpersonal, spatial, and linguistic Intelligence of multiple intelligence showed significant positive correlations with intelligence and academic achievement. In addition, Logical-Mathematical, Intrapersonal Intelligence showed significant positive correlations with the academic achievement of almost all of the subjects. Intrapersonal Intelligence had shown significant positive correlations with academic achievement when the effects of intelligence quotient were partially ousted. The students from academic high school got relatively high scores in all intelligences. The results showed that academic high school and other types of high school students had different types of intellectual ability in general. Therefore, it was necessary to take into account the various levels of intellectual abilities of students in school and academic achievement. A significant positive correlation with intelligence quotient and scholastic achievement might predict that scholastic achievement to some extent as well as traditional intelligence.

Kumar (1996) attempted to study curiosity as related to intelligence and scholastic achievement. Major findings of study were: 1. It was observed that the correlation between curiosity and intelligence was low but significant and positive. 2. The coefficient of correlation between curiosity and scholastic
achievement was significant and positive. 3. The mean scores of boys on curiosity were found to be significantly higher than girls. 4. The mean scores of urban pupils on curiosity were not found to be significantly higher than the mean score of rural pupils. 5. The mean score obtained on intelligence by the high and low curiosity pupils was significant, in favor of high curiosity pupils. 6. The difference between the means of scores obtained on scholastic achievement by high and low curiosity pupils was significant.

Allik and Realo (1997) studied intelligence, academic abilities and personality. From the study it was found that low intelligence persons used their intellectual abilities for seeking excitement and elaborating fantasies while high intelligence persons used their intellect for regulating and controlling their affective lives.

Del (1997) conducted a study on sex differences in academic performance and aptitudes for cognition. Sex difference was investigated in the different cognition capacities (imagery creativity and intelligence) and academic performance of 706 secondary school students. Girls scored significantly higher in subjective imagery but not in creative perception or intelligence.

Shukla and Agarwal (1997) conducted a study on socio-economic status, intelligence, occupational aspiration, self-concept and academic achievement of scheduled castes students. The major findings of study were: 1. It was found that scheduled castes students were low for socio-economic status as compared to non-scheduled castes students. 2. No significant difference was found between SC and non-SC students in their level of intelligence. The same pattern was observed for SC and non-SC boys and girls. 3. The boys of both SC and non-SC had low level of self-concept as compared to their girl counterparts; SC boys were of low self-concept as compared to non-SC boys though no significant difference was found in the level of self-concept of SC and non-SC girls. 4. The level of occupational aspiration of SC students was lower as compared to non-SC students. The SC boys had low occupational aspiration as compared to non-SC boys, though no significant difference in the occupational aspiration level of SC and non-SC girls found. 5. The level of academic achievement of SC students was lower as compared to non-SC student. Boys, both SC and non-SC, had now low level of academic achievement in comparison to their girl counterparts.
The study conducted by Bouton (1997) was to operationalize Howard Gardner’s theory of multiple intelligences at a private boy’s high school in an urban setting. A key element of the study was to obtain individual student profile of intellectual tendencies by correlating self-perceptions with those of secondary and tertiary informants. Three different survey instruments were used to collect the data. Group results then were correlated; the results also were compared with intelligence profiles obtained from a similar population at a private girl’s school. Study results suggested that intelligence was multi-dimensional; that people processed information in uniquely different ways; that all people had at least seven different intelligence to varying degrees. The results also indicated that the dominant intelligences of teenage males in the study varied from those intelligences most emphasized throughout secondary education. Further, dominant intelligences varied by gender.

Wiseman (1997) stated that historically educators in the United States have used the Stanford Binet intelligence test to measure a student’s ability in logical mathematical and linguistic–verbal domains. This measurement is being used by a society that has evolved from agrarian and industrial–based economies to what is presently labelled a technological society. Analysis of multiple intelligence profiles collected from this study found significant differences in logical–mathematical, bodily–kinesthetic and intrapersonal intelligences of students in theoretical science courses compared to students in applied science courses. Those differences clearly illustrated why it was imperative for educators to expand the definition of intelligence for entering the new millennium.

Gersetl and Cynthia (1998) conducted a study in the relationship of multiple intelligences to the instructional process. The purpose of this study was to describe a school where teachers are actively providing instruction based on the theory of multiple intelligences and identify the relationship of multiple intelligences to the instructional process. The program did not work against the political centre of educational policymaking but worked within the public sphere to garner support so that individual schools could decide how best to implement the program, and provided a space for teachers to support the continued implementation of
the program, despite traditional teaching methods.

Kim (1999) conducted a study to investigate the relationships in multiple intelligence, intelligence quotient and school achievement. The subjects were 1165 students in elementary, middle, high schools. Among them, 82 students in middle school were selected for analysing the relationship with intelligence quotient and school achievement. The spatial intelligence showed a relationship with intelligence quotient and school achievement. Linguistic intelligence and interpersonal intelligence showed affirmative correlations with school achievement. In relation to ranks of multiple intelligence, roughly, intrapersonal intelligence was the highest in all grades and bodily-kinesthetic intelligence was the lowest. The ranks in spatial intelligence, logical-mathematical intelligence, intrapersonal intelligence have changed according to increase of grade. These trends were different in each sex. The standard deviation of female was larger than that of male. In all sex, intrapersonal intelligence was the highest and bodily-kinesthetic intelligence was the lowest. Musical intelligence was higher in female. In both sexes, largely the standard deviations increased according to the escalating grade. The sex difference in the profiles and ranks of multiple intelligence was larger in elementary and middle school than other school grades.

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

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

Petrill and Wilkerson (2000) conducted a study on intelligence and achievement: a behavioural genetic perspective and examined the relationship between intelligence, standardized tests of intelligence, and academic achievement from a behaviour genetic perspective. Results suggested that genetic, shared environmental, non-shared environmental influences had an impact on intelligence and academic achievement. Behavioural genetic studies also suggest that the importance of genes might vary as a function of age. Other studies suggested that genes derived the correlation and that the no shared environmental derived the discrepancy between measures of intelligence and achievement. Implications for the identification of intellectually and academically relevant environmental influences were discussed.

Nayak, Chittaranjan (2002) studied “Academic Achievement of Secondary School Students in Relation to Their Intelligence and Attitude towards Schooling”. His objectives were: 1. To examine the achievement status of the students in relation to gender, intelligence and attitude towards schooling process. 2. To find out the relation between the different predictor variables and the criterion variable, namely, school achievement. The stratified random sampling technique has been well employed to draw the sample of 500 students (307 boys and 193 girls) spread over all the six zones of the State. The tool selected for measuring Intelligence was Raven's Standard Progressive Matrices (1988), which focused on Measurement of Abstract Reasoning. The Attitude Scales have been constructed by the Investigator following the method of Equal Appearing Intervals to measure the Attitude of students towards school subjects, school and teachers. The data have been analysed by the investigator employing suitable descriptive and inferential statistical techniques, namely, Mean, SD, and F values through ANOVA. Pearson's co-relation has been computed to study the inter-correlation amongst the predictor variables. It was further noticed that at the highest level of intelligence, the achievement variation between boys and girls was marginal. No significant interaction effect of gender and intelligence had been found on the academic achievement of secondary school students.
Ahmad and Hasan (2003) conducted a study on attitude of secondary school students towards science in relation to sex, socio-economic status and intelligence. They found: 1. Both boys and girls showed equally positive attitude towards science; 2. The students who were from high socio-economic background showed better positive ATS than middle as well as lower level SES background students; 3. The students with high intelligence showed more positive ATS than middle as well as lower intelligence groups. The students from middle intelligence level also showed better positive ATS than the lower ones.

Meijer et al (2004) studied the joint contribution of sleep, intelligence and motivation to school performance. The relationship of chronic sleep reduction, eagerness, achievement motivation and intelligence with school performance demonstrated that the less chronic sleep reduction, greater eagerness, higher achievement motivation and intelligence gave rise to a better school performance.

Saxena (2004) conducted a study to investigate the relationship between intelligence and academic achievement in English. This study was an attempt to study how far intelligence was related to students’ academic achievement in English. The objectives of the study were: (1) To find out whether students differ in their I.Q. score w.r.t. sex, medium of instruction, locality and nature of management; (2) To find out the extent of relation to achievement in English; (3) To find out whether sex of the students, medium of instruction, locality and nature of management of the school have any influence on students’ academic achievement. The sample of this study comprised of 320 boys and 260 girls of XII grade from 16 higher secondary schools of Coimbatore district, both from rural and urban areas. After investigation, researcher concluded: (i) Intelligence of students positively influenced their academic achievement in English. (ii) Students having higher level of intelligence preferred English medium classes and urban schools. (iii) Sex of the students had no influence on their intelligence, as well as academic achievement in English. (iv) Students preferred school of different types of management irrespective of their level of intelligence. (v) The medium of instruction and the locality of school had influence on students’ academic achievement in English. (vi) The sex of the students and the nature of management of the school had no significant influence on their academic achievement.
Varte, Zokaitluangi and Lalhunlawma (2006) studied intelligence and academic achievement in relation to parents-child relationship in Mizo adolescents. Parental behaviour as perceived by the child have more importance and emerged to be explanatory than characterization of such behaviour by independent observers. 140 Mizo adolescents from a school were sampled. The low and high scores on parent child relationship respectively designated as restrictive and permissive parenting styles were screened out and their academic achievement scores were analyzed. Results indicated no gender difference on parent-child relationship, intelligence and academic achievement. 2×2 ANOVA 'indicated significant' parenting effect whereas gender x parenting interaction resulted non-significant. F-ratio means comparisons in significant 'parenting effect revealed greater intelligence in 'permissive' than 'restrictive'.

Cukierkorn, Jesse Rachel (2007) made a study on self-concept and intelligence of talented students in the visual and performing arts. This study was conducted to investigate self-concept and intelligence among artistically talented high school students attending an arts conservatory instructional centre for the visual and performing arts. Further, the unique relationships between artistic talent, intelligence, and self-concept were explored. Two hundred and seventy-two students in grades nine through 12 were assessed for intelligence using the Ravens Standard Progressive Matrices (SPM) (Raven, Raven, & Court, 2000), multi-faceted self-concept using the Self- Description Questionnaire II (Marsh (1990), and self-concept in the arts using the Arts Self Perception Inventory (Vispoel, 1993). The young creative writers, dancers, media artists, musicians, theatre artists, and visual artists all scored higher than average on all of the self-concept scales. Approximately 18% scored at the 90th percentile or above on the Raven’s SPM. Both positive and negative relationships were found between self-concept and intelligence. Although results indicated that artistic domain did not make a significant difference in intelligence score, those who scored the highest on self-concept in visual art were the visual artists and the media artists, and self-concept in visual art skill positively predicted high intelligence. Significant differences were found among the self-concept scores in the various artistic domains.
In an article about intelligence in Microsoft Encarta (2008) Detterman stated that many studies have examined whether gender differences exist in intelligence. The question is a very complicated one. One problem is that test makers sometimes eliminate questions that show differences between males and females to eliminate bias from the test, therefore, may not show gender differences even if they exist. Even when gender differences have been explicitly studied, they are hard to detect because they tend to be small. Many studies have been examined whether gender difference exists in mathematical ability, but the results have been inconsistent. In 1990, American researchers statistically combined the results of more than 100 studies on gender differences in mathematics using a technique known as meta-analysis. They found no significant differences in the average scores of males and females on mathematics tests. Researcher also indicates that the average girl’s grades in mathematics courses equal or exceed those of the average boys. Other studies have found that boys and girls perform equally well on math achievement tests during elementary school, but that girls begin to fall behind boys in later years. For example, male high school seniors average about 45 points higher on the math portion of the SAT than do females. If gender influences account for between 40 and 80 percent of the variation in intelligence, then environmental influences account for between 20 and 60 percent of the total variation. Environmental factors comprise all the stimuli a person encounters from conception to death, including food, cultural information, education, and social experiences. Although it is known that environmental factors can be potent forces in shaping intelligence, it is not understood exactly how they contribute to intelligence. In fact, scientists have identified few specific environmental variables that have direct, unambiguous effects on intelligence. Many environmental variables have small effects and differ in their effect on each person, making them difficult to identify.

Pandey and Ahmad Md. Faiz (2008) made a study on “Significance of difference between male and female adolescents on academic performance, achievement motivation, intelligence and socioeconomic status”. This study was conducted on a sample comprising 621 students of class XI, the investigators
using mean, SD and t-test. The objectives of the study were: (i) To determine the significance of difference on the measures of academic performance between male and female adolescents; (ii) To investigate the significance of difference between male and female adolescents in relation to achievement motivation; (iii) To explore the significance of difference on the measures of intelligence between male and female adolescents; and (iv) To know the significance of difference between male and female adolescents in relation to socioeconomic status. The findings of the study were: (i) There was no statistically significant difference on the measures of academic performance; (ii) there was no significant difference between male and female adolescents on the measures of achievement motivation; (iii) There was no significant difference between male and female adolescents on the measures of intelligence; (iv) there is statistically no significant difference between male and female adolescents on the measures of socioeconomic status.

Khan, Abu Mojaheer (2009) conducted a study on, “Frustration in relation to Intelligence, Socio-Economic Status and Academic Achievement among Higher Secondary Students”. The major objectives of the study were: (1) To study the frustration among students belonging to different types of schools; (2) To study the frustration among male and female students; (3) To study the frustration among students of different socio-economics status groups. The standardized tool was administered on a sample of 300 students. To determine the intelligence of the students, a standardized tool prepared by G. C. Ahuja (2005) was used. To find out the SES of students a standardized tool prepared by Hasnain and Shrivastava (2002) was used. It provided low, middle and high socio-economic status of students. For academic achievement, the marks secured by the students in last examination of class X were collected from school records. For the samples statistical techniques like mean, standard deviation and t-test were applied. To know the interaction effect of frustration and socio economic status, ANOVA was applied. The findings of the study were: Fixation is equally affected by type of schools. Hence, students belonging different schools did not differ significantly among themselves in this area of frustration. However type of school had a significant impact on total frustration, regression, resignation and aggression. Students of government schools were found different in their total frustration, regression, resignation and aggression.
from the students of public schools. Students of government schools were more frustrated, more regressive, more resigned and more aggressive in their behaviour; 2. Boys and girls differed significantly in different modes of frustration. In regression girls showed higher score than boys. But in resignation boys had a greater mean score than girls. 3. Only in the case of resignation mode of frustration student groups based socio economic status showed a significant difference. Further, high and medium group wise comparison showed that medium SES group was more resigned. While comparing high and low groups, low group exhibited a higher amount of resignation than their counter parts. Average and low SES groups did not differ significantly in resignation mode of frustration.

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.

Habibolla, N. and Abdullah, H. (2010) in their study entitled “Intelligence and academic Achievement: An investigation of gender differences” found that there existed a significant relationship between intelligence and academic achievement for both male and female separately and in total sample.

Dhull, Jitender (2012) in a comparative study of the achievement in science in relation to intelligence, academic anxiety and reading interest of the X class students in government and private schools of Haryana, revealed that there was a significant difference in the mean scores of academic anxiety of government and private school students. It might, therefore be concluded that government school students had less academic anxiety in comparison to private school students.

Chandra, R. & Azimmudin, S. (2013) in his study entitled “influence of intelligence and gender on academic achievement of secondary school students of
Lucknow city” found that there was no influence of gender on academic achievement but intelligence influenced the academic achievement of the students.

Parveen, Danista (2014) in her study entitled “relationship between intelligence and academic achievement of secondary level students” found that (1) There is significant and positive correlation found between intelligence and academic achievement of secondary level students. It was found that students from low intelligence have lower academic achievement as compared to the academic achievement of students from higher intelligence level. (2) There is significant and positive correlation found between intelligence and academic achievement of secondary level students on male and female sample. It was found that male and female students from low intelligence level have lower academic achievement as compared to the academic achievement of both male and female students from higher intelligence level.

Saikia. Pallabi and Choudhary (2014) made a study on “Effect of Intelligence on Academic Achievement of Secondary School Students- A Study in Lakhimpur District of Assam”. The objective of this study was to study the academic achievement of the secondary school students according to gender and place of residence; to determine the level of intelligence to gender and place of residence. This study is conducted on a sample of 100 class X students from government and provincialized schools of Lakhimpur district of Assam. The normative survey method is used for data collection. The findings of the study was: (i) there is difference between boys and girls student on the academic achievement in the test examination, (ii) there is difference between rural and urban students on the average academic achievement in the test examination and (iii) it is also found that the mean score of intelligence for both rural and urban students is quite high.

**Summary of Review of Related Literature in Intelligence**

The review of related literature reveals that more than seventy three (70) studies have been conducted on intelligence related to some other variables. Among them Benjamin (1953), Joshi, Mohan C and Srivastava, R.P (1965), George (1966), Dave (1971), Sinha (1967), Makhija (1973), Dhami (1974), Bhasin (1974), Lalithamma (1975), Das (1975), Mishra (1978), Kohli (1976), Siddiqui (1979), Srivastava (1980), Menon (1980), Shanmugasundaram (1963),


2.40 Summary of Review of Related Literature in all three Variables

(2000), Gakhar et al. (2004), Saxena (2004), Panda (2005), Panigrahi (2005), Chamundeswari et al. (2006), Gafoor et al. (2008), Singh, Palta (2008), Dhall et al. (2009), Gurubasappa (2009), Khan, Abu Mojahaher (2009), Dhull, Jitender (2012), Parveen, Danista (2014) and Saikia, Pallabi and Choudhary (2014) found on their studies that academic achievement and intelligence was positively significant, this means that there are positive correlation between academic achievement and intelligence.


The review of related literature reveals that more than sixteen (16) studies have been conducted on emotional maturity and academic achievement. Among them Sabapathy (1986), Gupta, Poona, (1989), Baron (1997), Gakhar, S.C. (2003), Upadhyay, S.K and Upadhyay, Vikrant (2003), Baron (2004), Ayodhya, P. (2007), Usha, P. (2007), Suman (2009), Usha, P. and Rekha (2009), Thukral, Praveen and Singh Surjit (2010), Shah, Jyotsana, K (2012) and Pranab, Soni and Jadab (2014) found on their studies that emotional maturity and academic achievement was positively significant, this means that there are positive correlation between emotional maturity and academic achievement.

Some of the other studies showed that emotional maturity and academic achievement was not significant; this means that there are negative correlation emotional maturity and academic achievement. Those researcher names are Gakhar (2003), Singh, Surjit and Thukral, Praveen (2011) Paur and Surjit Singh (2012).

The review of related literature reveals that more than six (6) studies have been conducted on emotional maturity and intelligence. Among them Arya, A (1984), Chaudhary and Bajaj (1993), Anju (2000), Kaur (2001), Lakhi, V. (2005)
and Singh (2011) found on their studies that emotional maturity and intelligence was positively significant, this means that there are positive correlation between emotional maturity and intelligence. Another study Darwin, Nelson (2005) found emotional maturity and intelligence are both positive and negatively significant.

The review of related literature reveals that more than six (6) studies have been conducted on academic achievement, emotional maturity and intelligence. Among them Dhami (1997), Verma (1997), Kaur (2001), Kaur, M (2001) and Kumari, Reena (2012) found on their studies that academic achievement, emotional maturity and intelligence was positively significant, this means that there are positive correlation between academic achievement, emotional maturity and intelligence. Another study Aggarwal (2007) found negative correlation academic achievement, emotional maturity and intelligence.

Present study clearly showed that very few studies are conducted on academic achievement, emotional maturity and intelligence. It also indicates that in most of the cases there is positive correlation between academic achievement, emotional maturity and intelligence. It is hoped that the present study will enable the researchers to understand the efficacy of conducting research work relevant to this area.

The following chapter is devoted to the methodology of the study.