CHAPTER-II

REVIEW OF RELATED LITERATURE

Educational achievement of students demands urgent attention to attain their goals. A numerous researches have been conducted to contribute to determine the predictors of educational success of college students. A research work always takes the advantages of the information and the knowledge that had been accumulated in the past as a result of constant research endeavour by mankind. According to Koul (2009) research can never be undertaken in the isolation of the work that has already been done on the problems related to the study propose by any researcher. Every researcher reviewed the related literature from the different resources that includes research journal, articles, books, magazines, encyclopedias, dissertations, abstracts, international year books, theses and most important in the present era the internet access. The detailed account of review of related literature pertaining to variables under study, namely academic achievement, parental encouragement, achievement motivation and intelligence is presented here under.

2.1 STUDIES RELATED TO ACADEMIC ACHIEVEMENT

Krishnan (1977) conducted a study on non-intellectual factors and their influence on academic achievement. The sample comprised of 180 students of sixth to ninth class studying in central school Tirupati and was divided into three groups depending on their parents’ education as high, middle and low. The results indicated that parents’ educational status had significant influence on the academic achievement of their children.

Saini (1977) undertook a study on academic achievement as a function of economic status and educational standard of parents. The sample consisted of 196 students from four colleges of Chandigarh. The findings revealed that educational standard of parents had significant effect on the academic achievement of arts and science students at the college level.

Aggarwal (1983) conducted a study on reading ability in relation to some cognitive and non-cognitive factors. The sample constituted 200 male and female students selected randomly from the high schools of Bihar in India. Data were collected
by administering reading ability test to the sample. The results of the study indicated that female students had better reading ability and higher academic achievement than male students.

Singh and Srivastava (1983) investigated the impact of parents’ literacy on the academic achievement on a sample of 85 first grade and 80 fifth grade students of Punjab in India. Students’ scores on an achievement test were taken as measures of academic achievement of the students. The findings indicated that parents’ literacy had a positive relationship with younger students’ academic achievement.

Sharma (1984) conducted a study on academic achievement of school students vis-à-vis their parents’ education. The sample comprised of 230 ninth class students of Punjab from whom the data for the educational level of their parents were collected and analysed. The findings revealed that parental education was positively and significantly associated with academic achievement of their children.

Baker and David (1986) recognized mothers’ strategies for children’s school achievement. The investigator collected data from heterogeneous sample of mothers of eighth graders through interview schedule. The results also indicated that parents actively manage their children’s school career in a way that could have direct consequences for their children’s academic achievement. Mother’s education levels were found to influence academic achievement of the students through parental involvement and parental encouragement.

Chakrabarti (1986) investigated academic achievement of primary school children. Data were collected from a sample of 100 boys from two English medium schools of Pune. Results indicated that the children whose parents were highly educated had better performance in both school examinations and achievement tests than those children whose parents were less educated.

Ryckman et al. (1988) conducted a study on gender relationships among intellectual achievement, responsibility, questionnaire and measured achievement and grades. Data were collected from 145 girls and 142 boys of fourth to sixth grade students of California using California achievement test. The results revealed no significant gender differences in academic achievement of the students.

Bhatnagar and Sharma (1992) carried out a research to investigate the relationship between education of parents and academic achievement of students on a
sample of 85 school students of semi-rural settings in Rajasthan. The results revealed that the children whose parents were educated performed higher in academics than the children whose parents were illiterate. Further the results indicated that parental education was significantly related to the academic achievement of the students.

Cherian (1992) investigated the relationship between parental education and academic achievement of 369 boys and 652 girls whose ages ranged from 13 to 17 years of Transkei in South Africa. The marks obtained by the pupils in the class were aggregated as the criterion measure of academic achievement of the students. Findings revealed significant effect of parental education on academic achievement of their children.

Vijayalakshmi and Natesen (1992) studied factors influencing academic achievement on a sample of 100 students consisting of 50 boys and 50 girls studying in ninth standard of Coimbatore. The total marks obtained by the students in quarterly and half yearly examination were taken as academic achievement. Findings indicated significant gender difference in academic achievement and girls were found to have higher academic achievement as compared to boys.

Shah (1993) investigated the relationship between some social-psychological variables and the academic achievement of students in Azad Kashmir. The sample comprised of 640 boys and 360 girls. Annual examination scores for three consecutive years were aggregated as measure of academic achievement of the students. The findings indicated a positive relationship between parents’ education and academic achievement of their children. Girls were also found to have better academic achievement than boys.

Felner and Minsuk (1995) conducted a study to compare the adjustment of the students having graduate and undergraduate parents on a sample consisted of 398 adolescents of South Eastern United States. The results revealed that youth from families in which neither parent was graduated showed significantly worse socio emotional and academic adjustment as compared to those youth who had graduate parents.

Khare and Garewal (1996) conducted a study on home environment and academic achievement of elementary school children. The sample comprised of 212 students of middle schools of Bhopal. The results revealed a significant difference in
academic achievement of boys and girls. Boys were found to have better academic achievement than girls.

Pal et al. (1996) studied socio-psychological factors, which promote students’ mathematics competence among urban and tribal students. The sample was comprised of 194 urban and 132 tribal students selected randomly for the study. Data was collected by administering mathematics achievement test developed by national council of educational research and training from the sample. The findings revealed that mathematics competence of urban students had positive and significant relationship with fathers’ education. Urban students whose fathers had higher educational status performed better in mathematics.

Muller (1998) investigated gender differences in parental involvement and adolescents’ mathematics achievement through a longitudinal study. The sample was taken from national longitudinal study of 13,881 students of class eighth to twelfth from the city Austin in Texas. The scores attained by the students in mathematics test were considered as academic achievement of the students. The findings indicated gender differences in academic achievement.

Joshi (2000) conducted a study on neuroticism, extraversion and academic achievement as related to gender and culture. The sample selected for the study was 400 students of eighth class belonging to urban and rural area of Punjab. School records and Eysenck’s personality inventory was used for data collection. Results revealed a significant difference between boys and girls of rural areas on academic achievement.

Kohl et al. (2000) conducted a study on family factors which potentially put parental involvement at risk. The participants in the study were parents, teachers and 350 children of America. Family and social data were collected through interviews conducted with parents. Parental involvement was rated by teachers and parents separately using a purpose designed instrument. Highly educated parents encouraged their children more to achieve. Findings also indicated positive relationship between academic achievement and parental education.

Devi and Kiran (2002) studied factors associated with scholastic backwardness of secondary school children. 100 low achievers from secondary schools of Hyderabad city were selected as sample for the study. Interview schedule was used to elicit factors
related to scholastic backwardness. The results reported that low educational status of parents found to be detrimental to academic achievement of their children.

Devi and Mayuri (2003) carried out a study of family and school factors that affect the academic achievement of residential school children studying ninth and tenth classes on a sample of 120 students of Hyderabad city. Data were collected through an interview schedule developed by the investigator to study the family factors. The result indicated significant gender difference in academic achievement and girls were found to be superior to boys in academic achievement.

De Smedt et al. (2003) investigated pre-academic and early academic achievement in children with velocardiofacial syndrome of borderline or normal intelligence. In the sample 13 children from the primary schools in Flanders in Belgium was selected and tested on reading, spelling and mathematics. The results indicated no significant different in academic achievement of boys and girls.

Tavani and Losh (2003) studied motivation, self-confidence and expectations as predictors of academic performance. On a sample of 4012 high school students of Florida the freshman survey instrument developed by cooperative institutional research program was employed to collect the data. The findings indicated that parental education was found to be significant predictors of educational achievement. Parental education had also positive relationship with achievement motivation of the students.

Deary et al. (2004) conducted a longitudinal study to examine the association between psychometric intelligence and educational achievement. The sample comprising of 70,000 school students of England participated in the study. Academic achievement was taken as the scores obtained by students in national public examination. The results showed gender difference in academic achievement. The findings indicated that the girls performed better than the boys.

Sunitha (2005) studied academic learning environment of students from aided and unaided co-educational high schools. The sample of 240 students was selected from the schools of Dharwad city in India. Data were collected from administering home learning environment scale developed by the researcher and academic achievement was taken as average percentage marks of the previous year and two semesters of the current year of the students. The results revealed no significant different in academic achievement of boys and girls. Parental education was also found
to have significant and positive relationship with academic achievements of the students.

Bruni et al. (2006) explored the relationships among academic achievement, demographic and psychological factors. On the sample of 380 school students of Italy, school achievement index was used as an instrument to measure their academic achievement. The findings of the study indicated significant difference in academic achievement of male and female students. Female students were found to have higher academic achievement than males.

Halawah (2006) examined the effect of motivation, family environment, and student characteristics on academic achievement. On the sample comprised of 388 high school students including 193 male and 195 female students of Abu Dhabi district in United Arab Emirates. Grade point average was taken as measure of academic achievement of the students. The results revealed no significant gender difference in academic achievement of the students.

Preiss and Franova (2006) analysed the relationship between depressive symptoms, academic achievement and intelligence. The data were collected from the sample of 635 school children consisting 304 boys and 331 girls by using Wechsler’s intelligence scale for children and grade point average. The findings indicated that there was no gender difference in academic achievement of boys and girls.

Waters et al. (2006) determined whether the academic performance of 575 medical students learning in rural settings differs from those learning in urban settings of Australia. Academic achievement included the results of the consecutive three years and five specialists eight week rotations conducted in either the rural clinical division for rural students or in Brisbane for urban students, all following the same curriculum and taking the same examinations. From the results no statistically significant differences were found between academic performance of rural and urban students.

Navarrete et al. (2007) carried out a study on culture and achievement motivation in Latino and Anglo American high school students of USA on a sample of 149 students from the high school districts in California. Data were collected by administering culture value orientation and attribution-emotion scale to the sample and grade point average was taken as academic achievement measures of the students.
Socio-economic status and education of the parents had been found to influence academic achievement of the students of both the cultures.

Nuthana (2007) carried out a gender analysis of academic achievement of school students of Karnataka. The sample comprised of 600 students including 325 boys and 275 girls. Academic achievement was taken as the average grades of two previous years. The results of study showed that there was no significant difference in academic achievement of boys and girls. But the results indicated a significant difference in academic achievement of urban and rural students with urban students had higher academic achievement than rural counterparts.

Tella (2007) investigated the impact of motivation on academic achievement in mathematics. The participants of the study were 450 secondary school students of both sexes drawn from ten schools of Ibadan. Data were collected by employing achievement test in mathematics as a measure of academic achievement. The results revealed significant differences in the academic achievement of male and female students in mathematics. Male students were found to have better achievement in mathematics.

Leeson et al. (2008) examined cognitive ability, personality and academic performance on a sample of 639 high school students of New South Wales, Australia. The results showed significant gender difference in academic achievement. The findings also indicated that girls performed better than boys. The results revealed that gender play unique role in predicting academic achievement.

Naderi et al. (2008) carried out a study to infer whether intelligence and gender as predictors of academic achievement on a sample of 153 undergraduate students of Malaysian University. Cumulative grade point average scores were taken as measures of academic achievement. The results indicated that there was no significant difference between the academic achievement of male and female students.

Chaturvedi (2009) investigated the effect of school environment and certain demographic variables on achievement motivation and academic achievement of young adolescents. The respondents of the study were 300 students in the age range of 12-15 years of Bhopal. Percentages of marks obtained by the students in last three years were used as measures of academic achievement. The results indicated significant gender difference in academic achievement, the girls scored higher than boys significantly.
Elizabeth (2009) analysed the family structure and the academic achievement of 549 African American students attending rural and urban high schools in North Carolina. The results demonstrated that the female students attending both the rural and urban high schools had significant higher academic achievement levels than the male students. Results also indicated that rural students performed better than urban students.

Naderi et al. (2009) investigated the relationship among intelligence, creativity, self-esteem and academic achievement of a sample of 153 Iranian undergraduate students in Malaysian universities. Cumulative grade point average scores were taken as measures of academic achievement. The findings showed no significant gender difference in academic achievement of the students.

Umunadi (2009) explored the relationship between the male and female students’ academic achievement in the subject of television on a sample 731 students from urban and rural technical colleges in Delta State of Nigeria. The results of board examinations revealed that males performed better than their female counterparts. It was also revealed that urban students performed better than their rural counterparts.

Garikai (2010) empirically predicted the causes of poor academic performance of the school students on a sample of 200 high school students of Zimbabwe. Data were gathered through interview conducted with the students. The findings indicated that there was a difference in academic performance of male and female students with male students performing better and education of parents had significant effect on academic achievement of the students.

Muola (2010) investigated the relationship between academic achievement motivation and home environment among standard eight pupils. The sample comprised of 235 standard eight Kenyan pupils from six urban and rural primary schools from Machakos district. The results indicated a low but positive relationship (0.15) of parental education with academic achievement of the students that revealed a positive relationship between parental education and academic achievement of their children.

Sarsani and Ravi (2010) investigated achievement in mathematics of secondary school students in relation to selected variables. The sample of the study consisted of 480 boys and girls, drawn from the various private and government high school of Warangal city in Andhra Pradesh. Data was collected by administering scholastic achievement test of mathematics to the sample. The findings indicated significant
difference between the mathematics scholastic achievement of the boys and girls. The result also showed that girls were higher achievers than boys.

Singh and Praveen (2010) studied the relationship of social maturity with academic achievement of high school students. The study was conducted on a sample of 400 high school students consisting 200 boys and 200 girls studying in tenth class of New Delhi. The aggregate scores of the selected students in the board examinations were taken as the measures of academic achievement. The results indicated that there were no significant differences between the academic achievement of boys and girls. The findings also revealed no significant difference in academic achievement of rural and urban students.

Asthana (2011) conducted a study on a sample of 300 students consisting 150 male and 150 female students of secondary education from Varanasi, with a view to assess to gender difference in scholastic achievement. Scholastic achievement was measured on the basis of an average of marks obtained in three previous annual examinations. The findings revealed that there was a significant difference in academic achievement of male and female students. Girls were found to be better performers than boys.

Bahago (2011) investigated the influence of achievement motivation and demographic characteristics on academic performance of nomadic Fulani girls in Adamawa state. The data were collected from a sample of 300 girls selected from nomadic primary schools by administering achievement motivation rating scale and nomadic girls’ achievement test. The results indicated that academic achievement of the girls was influenced by parental education levels. The findings revealed the relevance of parental education in academic achievement of the girls.

Sharma and Tahira (2011) investigated the influence of parental education, parental occupation and family size on science achievement of the secondary school students in western Uttar Pradesh in India. 1500 students were selected as a sample for the study and data was collected through a questionnaire that assessed personal information and science achievement test developed by the researchers themselves. The results indicated that family variables including parental education had significant relationship with the achievement of their children.
Hence, it could be concluded that the gender and geographical area in which the student live and are exposed may influence academic success of the students at all levels of education. Gender, locale and Parental education have direct influence on the academic achievement of the students.

2.2 STUDIES RELATED TO PARENTAL ENCOURAGEMENT

Raj and Krishnan (1980) carried out a study to determine the relationship between academic achievements with family size. The sample comprised of 300 pupils consisted 149 boys and 151 girls studying in standard ninth class of secondary schools in Trivandrum city. The results revealed that the relationship between academic achievement and family size was significant and negative.

Shah and Sharma (1984) conducted a study to investigate the effect of family climate on students’ academic achievement. Data was collected by administering family climate scale to the sample of 200 children consisting 118 boys and 82 girls of ninth class from the schools of Pury and Jehri districts of Kashmir. The results revealed that family environment was significantly and positively related with academic achievement of the students.

Baker and David (1986) recognized mothers’ strategies for children’s school achievement. The investigator collected data from heterogeneous sample of mothers of eighth graders through interview schedule. The findings of study showed that mothers’ encouragement had positive impact on the academic achievement of the students. The results also indicated that parents actively managed their children’s school career in a way that could have direct consequences for their children’s academic achievement. The number and types of parental encouragement strategies suggested by the mothers were found to be same hence there might be some standard parental encouragement strategies. Mother’s encouragement was also found to have positive influence on the academic performance of the students.

Singh (1986) studied the relationship between socio-economic status and perception of parental behaviour by students. The sample was comprised of 246 boys and girls of class tenth of Bihar. Data were collected through parent child relation questionnaire and self-administering test of mental ability to check parental behaviour and intellectual ability of the students respectively. The findings indicated that the
dimensions of parental behaviour such as love, rejection, protection and discipline were significantly related with intellectual ability of the boys only.

Nommay (1988) investigated the effect of family structure on intelligence and academic achievement. He analysed 45 studies for the last 15 years and summarised the results that parents’ encouragement directly and indirectly played a significant role in predicting academic achievement through cognitive development of their children. Parental education and encouragement were found to contribute to the cognitive development of the students. Family constellation was appeared to have greater impact on verbal than non-verbal intelligence.

Bank et al. (1990) studied the effect of peer, family and parental influence on students’ persistence. Data was collected through a longitudinal study from 1240 first year undergraduates of Midwestern state university of America. The results demonstrated that parents had strong influence upon the persistence and educational success of the students.

Astone and Sara (1991) examined the relationship among family structure, parental practices and children’s achievement by collecting data from 10,000 high school students of Baltimore in America. The result revealed that children who live with single parents or stepparents during adolescents receive less encouragement and less help with school work than children who live with both natural parents. The findings also indicated that parental practices including parental encouragement had positive effect on children’s school achievement.

Lamborn et al. (1991) studied the patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, neglectful homes. The sample consisted of approximately 4100 respondents from Wisconsin state in America. It was confirmed through the results that adolescents who describe their parents as either neglectful or indulgent had lowest adjustment. The findings also indicated that authoritative parenting had significant influence on student’s competence and adjustment.

Steinberg et al. (1992) studied the impact of parenting on adolescent achievement on a heterogeneous sample of approximately 6400 American 14-18 year old students. He concluded that authoritative parenting lead to better school performance and stronger cognitive engagement among the adolescents. Parental
encouragement is much more likely to promote adolescents school success when it occurred in the context of an authoritative home environment. Authoritative home environment related positively to the achievement of students.

Ginsburg and Bronstein (1993) studied family factors related to children’s intrinsic and extrinsic motivational orientation and academic performance. Data were collected from 93 fifth grade students and their parents. Achievement scores were obtained from school records. Parental negative control, non-involvement, extrinsic rewards and over-and under controlling family styles were found to related significantly with extrinsic motivation and lower academic achievement of the students. On the other hand parental encouragement was associated with intrinsic motivation of the students. Autonomy-supporting family styles were found to have positive association with academic performance of the students.

Shah (1993) conducted a study to investigate the relationship among some social, psychological variables and the academic achievement of the students in Azad Kashmir. Data was collected from a sample of 1000 students comprising 640 male and 360 female students. Annual examination results for three consecutive years were taken as measures of academic achievement. The findings indicated that there was a significant relationship between parental interest for the children’s education and academic achievement of their children. In addition it was also found that authoritative families had significantly relationship with academic achievements of the students.

Dubois et al. (1994) studied the family support and the quality of parent child relationships. A sample of 159 young American adolescents ranged in age 10–12 years were selected. Measures on family support, academic achievement and adjustment were assessed. The results indicated that parental encouragement clearly and consistently had significant effect on academic achievement and adjustment.

Keith and Lichtman (1994) focussed on within-group differences in a sample of 1200 Mexican-American students drawn from the national educational longitudinal study-88 of America. The types of parental involvement and encouragement were assessed as involvement in home-based activities, home structure, rules about viewing TV, and involvement at school and talking with teachers. The findings indicated that parental encouragement had a moderate and positive effect on students’ academic achievement.
Singh et al. (1995) investigated the effect of different components of parental involvement on the achievement on a sample of 16,378 eighth class students drawn from a national educational longitudinal study-88 of America. The results revealed that parental involvement in school activities had positive effect on achievement whilst family structure had a slight negative association. Parental involvement in the form of parent child discussions had a moderate impact. Parental aspiration found to have powerful positive influence on academic achievement.

Sputa and Paulson (1995) conducted a study on birth order and family size influences on adolescents and the behavior of their parents. The respondents were 195 ninth grade boys and girls and their parents from urban, suburban and rural communities in south east and Midwest Asia. Questionnaire measures of adolescent and parent’s perception of parenting style and parental involvement were used. The results indicated that family size significantly influenced adolescent academic achievement significantly.

Khare and Garewal (1996) conducted a study on home environment and academic achievement of elementary school children. The sample comprised of 212 students of middle schools of Bhopal. The results indicated that home environment had significant relationship with academic achievement of students.

Aggarwal (1997) conducted a comparative study on the effect of parental encouragement upon the educational development of students on the basis of gender. The sample consisted of 100 male and female students of Pauri district. Data were collected by administering intelligence test and personal data form. The findings indicated that the parents showed more encouragement to their daughters in comparison to their sons. Parental encouragement was also found to be positively related with educational development of the students.

Mau (1997) studied the parental influence on the high school students’ academic achievement. The researcher compared the process of involvement and their impact on achievement of students from Asian Americans, Asian Immigrants and White Americans. The samples were drawn from the national education longitudinal study-88. Data was collected by using a battery of attainment tests in maths and parental involvement using reports of the students. The results indicated that
achievement among Asian students was negatively associated with parental encouragement.

Muller (1998) conducted a study on gender differences in parental involvement and adolescents’ mathematics achievement of 13,881 students of 8th to 12th class of Texas, United States. The relationship between parental involvement and achievement was similar for girls and boys but diminished over the time of senior classes. The results also revealed that the parental involvement was significantly related to achievement in the initial years of the student.

Petrickand Kim (1998) studied parenting style, motivation orientation and self-perceived academic competence of high school students. The sample comprised of 404 students of class 8th and 9th of Hong Kong. The results of meditational model demonstrated that family plays a significant role in educational outcomes. Authoritative parenting had positive significant relationship with educational success of students.

Roychoudhary and Basu (1998) carried out a study on parent-child relationship, school achievement and adjustment of adolescent boys. The sample comprised of 105 boys of age 14 to 15 years. Data were collected by administering parent child relationship scale to the sample and achievement scores were taken from school records. The results indicated that both mothering and fathering styles were associated with academic success whereas rejection and neglect from the parents were found to be highly detrimental to academic achievement.

Siana et al. (1998) conducted a study on motivation and attribution on a sample of 985 secondary schools students of London. The results indicated that the male and female students rated their parents as more important in contributing to their academic success.

Izzo et al. (1999) conducted a longitudinal assessment of teacher perceptions of parental involvement in children’s education and educational performance. Information on parental involvement and school performance was collected from the teachers of 1205 urban students of Chicago. Results indicated that parental involvement moderate relationship with school performances. The results also revealed that enhancing parental involvement in children’s schooling related to school performance.

McNeal (1999) carried out the study on the parental involvement as social capital: differential effectiveness on science achievements, truancy and dropping out on
a sample of 17049 parents of tenth grade students of Carolina. The researcher used theoretical framework and found that parental involvement was generally a salient factor in explaining behavior but not cognitive outcome. Findings also indicated that the positive effect of parental encouragement operated only for white and middle class students.

Hickman et al. (2000) evaluated the influence of parenting style on the adjustment and academic achievement of traditional college freshman. The data were collected from a sample of 101 college freshmen enrolled in introductory psychology courses at a large Midwestern university. It was confirmed through the results that authoritative parenting style was positively related to students’ academic achievement.

Kohl et al. (2000) conducted a study on family factors which potentially put parental involvement at risk. Data was collected from parents, teachers and 300 children through interviews and parental encouragement was rated by teachers and parents separately using a purpose designed instrument. The result indicated that parental education was positively related with parent-teacher contacts. It was also concluded that the more educated were the parents, the greater was their encouragement in their child’s education, better was the educational achievement of their children.

Sanders (2000) carried out a study to predict the effects of teacher, family, and church support on the school-related attitude, behaviour, and academic achievement of African American urban adolescents. A sample of 827 students in an urban school district in the South-eastern United States was surveyed. Data was gathered by administering self-report questionnaire and parent authority questionnaire. The results showed that parental academic support indirectly influenced achievement through its positive and significant influenced on students’ academic self-concept and school behaviour.

Yan (2000) conducted a between-group study of parental involvement comparing three samples that included 6459 students drawn from the national educational longitudinal study-88 of University of Pennsylvania. The groups comprised of successful Afro-American students, successful Euro-American students and unsuccessful Afro-American students. Once the background variable of social class was factored out, parental involvement became a significant discriminating factor
between groups. Results demonstrated that parental involvement influenced the academic success positively.

Zellman and Waterman (2000) observed the interactions between 193 mothers and their children who were in second to fifth grade in the schools of Los Angeles. Children’s achievements were measured using school grades for maths. Parenting style was rated following the analysis of a video recording of a parent-child discussion of on the issue which they both agreed was problematic. The results indicated that parental encouragement was not significantly related to academic outcome.

Catsambis (2001) analysed data from the national educational longitudinal study-88 study and its second follow-up national educational longitudinal study-92 in England. Data were collected by questionnaire from 134,580 parents, students, teachers, principals and administrators on achievement and parental involvement. The results of the study indicated that high levels of parental expectations, consistent encouragement and actions to enhance learning opportunities in the home were all positively associated with students’ high aspirations and college academic achievement.

Marchant et al. (2001) studied the impact of parental involvement on school achievement. The sample comprised of 230 Canadian students. Data was collected through the information by the students on family encouragement and their academic performance. The information was validated by the school teachers. Through the results parental encouragement was found to be major factor influencing students’ academic achievement.

Okpala et al. (2001) explored the relationship between parental involvement in terms of hours of volunteering in-school help, school spends in terms of dollars per child, spends on instructional supplies, parental social economic status and school achievement. The sample comprised of fourth grade students of schools of California. Mathematics test scores were taken as the measure of attainment. The results revealed that parental involvement in the school was not related to pupil achievement.

Deslandes and Cloutier (2002) reported the views of a sample of 872 Canadian students aged 14-15 years, of parental involvement in schooling. The students attended high schools in French-speaking Quebec were selected as a sample of longitudinal study of parent-adolescent interactions in relation to school achievement and
psychosocial maturity. Parental involvement in classrooms, trips, school governance and the like seemed to confer little advantaged in terms of pupil achievement.

Devi and Kiran (2002) studied factors associated with scholastic backwardness of secondary school children. 100 low achievers from secondary schools of Hyderabad city were included in the study. Interview schedule was used to elicit factors related to scholastic backwardness. The results reported that low parental involvement and parental encouragement were found to be detrimental academic achievement.

Sacker et al. (2002) examined the role of parental encouragement in educational achievement and psychological adjustment throughout the childhood. Data were collected from 1704 students of United Kingdom. The results indicated that parental involvement had a small but significantly positive relationship with academic achievement. The results also revealed that social and physical environment in which the children were raised effect their educational achievement.

Williams et al. (2002) surveyed 2019 parents of children aged 15–16 years attending schools in England to establish their degree of involvement in their children’s education. A telephone survey was used to conduct interviews with parents’ to collect information regarding help in schools, their relationship with their child’s teacher(s) and parents’ involvement with homework. The findings indicated that parental involvement was the most strongly related to achievement of their children.

Devi and Mayuri (2003) carried out a study of family and school factors that affect the academic achievement of residential school children studying ninth and tenth classes. Data from the sample of 120 students of Hyderabad city were collected through an interview schedule developed by the investigator to study the family factors. The outcomes of the study revealed that family factors like parental aspirations and socio economic status significantly contributed to academic achievement.

Voorhis (2003) examined the effect of involving parents in interactive homework program. A spin-off the teachers involving parents in school program was developed at Johns Hopkins University in which 253 sixth and eighth grade students and parents participated. The researcher found that in comparison to students’ engaged in traditional homework assignments the students who participated in teachers involving parents in program scored better on homework and on report cards. The
results reported a significant positive relationship of parental involvement with achievement of their children.

Hill et al. (2004) studied a longitudinal model of parents’ academic involvement, achievement and aspirations on 463 adolescents, followed from seventh through eleventh grades. The findings of the study revealed that parental involvement in academics of the students was positively related to achievement for African Americans but not European Americans students.

Tsang (2004) investigated academic motivation and achievement among students from immigrants and America born families. Data were collected through survey method and university records from over 998 college students. The results indicated that immigrants placed more importance on family interdependence than American born families. Family interdependence attitude and behaviour found to influence academic adjustment.

Sunitha (2005) examined academic learning environment of students from aided and unaided co-educational high schools on a sample constituting 240 students from the schools of Dharwad city. Data were collected by administering home learning environment scale developed by the researcher and academic achievement was taken as average percentage marks of the previous year and two semesters of the current year of the students. Family size was found to have negative influence on the academic learning environment whereas home learning environment had significant and positive relationship with academic achievement of the students.

Aremu et al. (2006) investigated the relationship among emotional intelligence, parental encouragement and academic achievement of the students. A sample of 500 adolescents consisting 250 males and 250 females was drawn through randomized process from 10 senior secondary schools of Ibadan in Nigeria. Data were gathered through parental involvement rating scale developed by the researchers themselves and from the school records. The results indicated there was a positive and significant relationship between parental encouragement and academic achievement of the adolescents.

Bansal et al. (2006) explored the relationship between quality of home environment, locus of control and achievement motivation among high achiever urban female adolescents. The data were collected from 100, eleventh class high achievers
from 10 senior secondary schools of Ludhiana city, by using Rotter’s locus of control, Bhargava achievement motivation scale and Mishra’s home environment inventory scale. The results showed that good quality of home environment had significant positive relationship with high level of achievement motivation and high level academic achievement.

Halawah (2006) examined the effect of motivation, family environment, and student characteristics on academic achievement. The study was conducted on a sample of 388 high school students consisting 193 males and 195 females from Abu Dhabi district, United Arab Emirates. A likert-type instrument was used to measure students’ level of motivation. While academic achievement was measured using students’ grade point average. The results indicated that the relationship between achievement & family environment (0.15) and motivation and family environment (0.19) were statistically significant still partially small.

Lakshmi and Minakshi (2006) studied perceived parental behavior as related to students’ academic school success and competence on a sample comprised of 500 high school students consisting 250 male and 250 female students of Varanasi city. Data were collected by administering adolescents’ perception of parental behavior questionnaire and academic competence scale developed by the researcher and associates. School success was assessed by marks obtained in high school board examination. Results of the study revealed that parental acceptance and encouragement scores were positively related with academic success. The results indicated that parents who were perceived as being more acceptant and using less restrictive and hostile psychological control tended to have adolescents with higher academic success and competence.

Akanle (2007) predicted socio-economic factors influencing students’ academic performance in Nigeria. The data was collected from 120 students by using self-developed instrument tagged social-economic and academic performance rating scale. The results indicated that authoritative family had positive relationship with academic achievement of the students.

Codjoe (2007) studied the importance of home environment and parental encouragement in the academic achievement of African-Canadian youth. The data was gathered by conducting individual and focus group interviews from a sample of 12
students drawn from a population of black students in Edmonton in Canada. The researcher confirmed that parental encouragement and supportive home environment laid positive influence on educational achievement of the black students.

Jeynes (2007) undertook a meta-analysis including 52 studies, to determine the influence of parental involvement and encouragement on the educational outcomes of urban secondary school children of California. The results indicated that the influence of parental involvement overall was significant for secondary school children for both White and minority children.

Murphy (2009) carried out the study to examined relationship of parental encouragement, independent learning and achievement. A national sample of tenth grade 15,362 students from the national educational longitudinal study 2002 was used. The findings indicated that parental encouragement had positive and significant relationship with academic achievement. Results also revealed that parental control was negatively associated with achievement measures. It was also found that parental actions associated with authoritative parenting style were positively related with academic achievement.

Ghazi et al. (2010) examined parental involvement in their children’s academic motivation in rural areas at primary level. The study was conducted on a sample of 250 students from Bannu in Pakistan. Data were collected through structured interview from students and their parents. The results showed that parents’ encouragement, discussion of importance of education and educational affairs had direct positive influence on achievement motivation. The findings also revealed that most of the parents were not well aware of their role for their children’s education.

Muola (2010) investigated the relationship between academic achievement motivation and home environment among standard eight pupils. The sample comprised of 235 Kenyan pupils between the age range 13 to 17 years from six urban and rural primary schools of Machakos district. Two questionnaires, the simple profile and home environment questionnaire, were used to gather data. Results showed that among all the variables parental encouragement was the only factor that was not significantly (r = 0.03) related to academic achievement motivation.

Newswire (2010) took the study parental involvement equal to better students. The sample comprised of 1300 children from Ten American Cities. He found that
when parents boosted their involvement in child’s school activities the child’s behaviour problems found to be decreased.

Adetayo and Kiadese (2011) investigated emotional intelligence and parental involvement as predictors of students’ achievement in financial accounting. Data were collected from 200 senior secondary school students from Nigeria by using survey method. The results of the study revealed significant relationship between parental involvement and academic achievement of the students. The findings also indicated that parental involvement predicted students’ achievement in financial accounting.

Kazmi (2011) conducted the study to evaluate the impact of fathers’ style of dealing with their children at home and their academic achievements at school. The sample of the study consisted of 300 students, 300 fathers and 20 teachers which were drawn randomly from urban and rural areas of district Mansehra of Pakistan. The indigenously designed questionnaire was used to collect the data and academic achievement was taken from classroom records. The results of this study revealed fathers’ involvement had positive significant relationship with academic achievement for the academic achievements.

Therefore it can be summed up that home environment including parental encouragement, involvement, parental interest, behaviour, parental aspirations, parenting skills and parenting styles have direct influence on the academic achievement of the students. Parenting styles are found to be more important that influence significantly the educational achievement of the students. Educated parents provide conducive home environment that entails parent encouragement that proves to be catalyst in boosting and maintaining achievement motivation among the students that in turn influence their academic achievement.

2.3 STUDIES RELATED TO ACHIEVEMENT MOTIVATION

Reddy (1990) conducted a comparative study of some educational variables of students of private and government schools. The sample comprised of 1340 students, the number from government schools being 709 and from private schools being 631 from three districts of Karnataka. The results of the study reported that achievement motivation had no significant relationship with academic achievement.
Wong and Mihaly (1990) explored the effect of personality and the quality of experience on motivation and academic achievement. A sample of 170 high school students consisting 68 male and 102 female students completed the personality research forum and their experiences were recorded through experience sampling method. The results indicated that intrinsic motivation had positive relationship with academic achievement.

Ginsburg and Bronstein (1993) studied family factors related to children’s intrinsic and extrinsic motivational orientation and academic performance. Data were collected from 93 fifth grade students and their parents from Florida. Achievement scores were obtained from school records. Extrinsic rewards and over-and under controlling family styles were found to be related with extrinsic motivation and lower academic achievement of the students. On the other hand parental encouragement was associated with intrinsic motivation of the students.

Ahmed (1998) conducted a study on achievement motivation differences among adolescent boys and girls of various ordinal positions. The sample was comprised of 120 students of the age group of 13-18 years of Mumbai city. Data was collected by Shafi’s achievement motivation scale. The results revealed that there was no significant difference in achievement motivation of the boys and girls.

Eppler and Harju (1997) investigated achievement goals in relation to academic performance in traditional and non-traditional college students. The sample comprise of 262 undergraduate students of Carolina. Both the groups rated themselves higher on learning goals than on performance goals. The results of the study indicated learning goal orientation was significantly and positively related with academic performance of both the groups. Relationship between performance goal and academic success was comparatively less significant. Goal orientations were found to be the better predictor of academic success than students’ status.

Petrick and Kim (1998) studied parenting style, motivation orientation and self-perceived academic competence. The respondents of the study were 404 eighth and ninth grade students of both sexes in Hong Kong. The results revealed that authoritarian parenting leads to extrinsic motivation, authoritative parenting to intrinsic motivation and neglectful parenting leads to a motivation. Further each motivation found to be related with self-perceived academic competence.
Archer et al. (1999) studied the interrelationship among characteristics that predicted achievement among undergraduate students. The sample included 71 older and 61 younger students from Australia. The data was gathered through a questionnaire containing measures of motivation. The results in the college records were taken as the academic achievement of the students. The findings revealed that motivation had positive relationship with academic achievement of the groups.

Busato et al. (2000) investigated intellectual ability, learning style, personality and achievement motivation as a predictor of academic success in higher education. In the sample 409 first- year psychology students of Netherlands were included for the purpose. The analyses of the study confirmed that achievement motivation was associated positively with academic success of the students.

Panda and Jena (2000) studied the effect of some parental characteristics on students’ achievement motivation. The sample comprised of 200 students of ninth class selected from six secondary schools of Jaipur and Kalakhandi districts. The results indicated that the students belonging to Jaipur whose father had high educational qualification had better achievement motivation as compared to the students of Kalakhandi districts whose father had low educational qualification. The findings also revealed that parental education was positively related with achievement motivation.

Broussard (2002) explored the relationship between classroom motivation and academic achievement in first and third graders. The respondents of the study included 122 first grader and 129 third grader students from mid-sized southern city of Lousiana. Data were collected by using Harter’s scale of intrinsic verses extrinsic motivation orientation in class from the students. The findings indicated that higher levels of mastery motivation and judgment motivation related to the higher academic performance of the students of third grader, however only higher levels of mastery motivation was found to be related with higher academic performance of the students of first grade.

Tavaniand Losh (2003) examined motivation, self-confidence and expectations as predictors of academic performance among high school students. The sample consisted of 4012 students of Florida State. From the findings a significant positive relationship was found between motivation and academic achievement. Parental education had also positive relationship with achievement motivation of the students.
The results indicated that motivation was significant predictors of educational achievement.

Kaur (2004) compared achievement motivation of students. The sample was comprised of 200 boys and girls of eleventh class of the residents of urban and rural areas of Ludhiana District. Results showed that there was a significant difference between achievement motivation of boys and girls and there was also a significant difference between achievement motivation of rural and urban students.

Tsang (2004) investigated academic motivation and achievement among students from immigrants and America born families. Data were collected through survey method and university records from over 998 college students. The results indicated that immigrants placed more importance on family interdependence than American born families. Family attitude contributed to greater academic motivation among youth from immigrants as compared to American born families.

Frances et al. (2004) conducted a study on a discussion and contrary issue based approach for promoting academic achievement and motivation on 18 eight grade students of Maryland. The data was collected through achievement motivation rating scale and students’ achievement was taken from the school reports. The results of the study revealed significant relationship of academic achievement with academic motivation

Sidhu and Parminder (2005) carried out a comparative study of concept attainment model, advance organiser model and conventional method in teaching of physics in relation to intelligence and achievement motivation of ninth class students. Data were collected by using achievement motivation test by Pratibha Deo and Asha Mohan from 240 students of Sangrur district in Punjab. The results indicated that there was no statistically significant effect of achievement motivation on scholastic achievement of the students. The results also revealed that there was no relationship between intelligence and achievement motivation.

Bansal et al. (2006) explored the relationship between quality of home environment, locus of control and achievement motivation among high achiever urban female adolescents. The data were collected from 100, eleventh grade high achievers from 10 senior secondary schools of Ludhiana city, by using Bhargava achievement motivation scale and Mishra’s home environment inventory scale. The results indicated
that good quality of home environment had significant positive relationship with high level of achievement motivation and high level of academic achievement.

Halawah (2006) examined the effect of motivation, family environment, and student characteristics on academic achievement. The sample comprised of 388 high school students entailing 193 males and 195 females from Abu Dhabi district, United Arab Emirates. Data was collected through a Likert-type instrument to measure students’ level of motivation, while academic achievement was measured by using students’ grade point average. Results demonstrated that relationship between academic achievement and motivation (0.07) was very small and the relationship between achievement and family environment (0.15) and motivation and family environment (0.19) were statistically significant still partially small.

Sharma et al. (2006) investigated the relationship between self-concept, achievement motivation and achievement in mathematics; a gender comparison on a sample comprising 80 sixth class students of Bhopal in India. Data was collected by administering mathematics achievement test developed by the researchers themselves. Result revealed a significant positive relationship between achievement motivation and achievement in mathematics.

Chowdhury et al. (2007) conducted a study on self-efficacy, motivation and their relationship to academic performance of Bangladesh college students. Data were collected through self-administrated questionnaire from the 123 college students. Results revealed that students’ academic achievement was affected by motivation. It was also found that the students who attained the highest level of academic performance were those who were simultaneously highly motivated. The findings further indicated both intrinsic (.327) and extrinsic motivation (.251) were positively related with academic achievement.

Froehlich (2007) explored gender differences in intelligence theory, achievement motivation, attributional style and their effects on choice of science, math and technology careers. The sample was constituted of 174 female and 154 male students from New Paltz Campus in New York. The data were collected through online survey format. The results of the study demonstrated a significant relationship between intelligence and achievement motivation.
Ilogu (2007) investigated the effect of achievement motivation on students’ cognitive performance behaviour. A sample 200 students was selected by stratified random sampling from Lagos. Achievement motivation scale and senior secondary school certificate were used to collect data from the students. Results of the study indicated significant positive relationship between achievement motivation and students’ academic achievement.

Kim et al. (2007) examined the effect of the students’ intrinsic motivation on academic achievement and preference for co-operative learning using the framework of self-determination theory through longitudinal study. The data was collected from 6908 Korean middle school students. The results showed that intrinsic motivation had a direct impact on achievement.

Navarrete et al. (2007) carried out a study on culture and achievement motivation in Latino and Anglo American high school students of USA on a sample of 149 students from the high school districts in California. Data were collected by culture value orientation and attribution-emotion scale by administering to the sample. Grade point average was taken as academic achievement measures of the students. Socio-economic status and education of the parents had been found to influence academic achievement and achievement motivation of the students of both the cultures.

Sumerson et al. (2007) examined the contribution of motivation, personality, learning strategies and scholastic aptitude to academic achievement in college students. Data were collected through grade point average for academic achievement scale and motivation strategies for learning questionnaire from 186 undergraduate students from North Eastern University. The results indicated that motivation was significantly and positively related to academic achievement.

Tan et al. (2007) conducted a study on group investigation effects on achievement motivation and perception of students of the age from 13 to 14 years of 7 eighth grade classes in Singapore. The results showed that highly motivated students had significantly higher academic achievement.

Tella (2007) investigated the impact of motivation on students’ school academic achievement in mathematics in secondary schools on a sample of 450 students of both sexes drawn from ten schools of Ibadan. Data were collected by administering motivation for academic performance scale to the sample. The result revealed that
motivation had significant and positive relationship with academic achievement of secondary school students.

Adepoju (2008) examined the degree of relationship among motivational variables and academic performance of students’ in secondary school students in Oyo state, Nigeria. A sample of 100 senior school students was selected for data collection. The results of the study revealed that there was high relationship of each motivation variable with academic performance. The results also indicated that a significant difference (t=2.74) existed between the level of motivation in urban and rural students.

Wang (2008) examined the motivational beliefs, parents’ educational level and other characteristics related to the class room incorporated and used to build achievement model of the students. Data were collected from 224,503 students, their parents and teachers from four countries namely United States, Russian Federation, Singapore and South Africa. Results indicated that students achievement was positively related to achievement in mathematics in all the four countries. The results also indicated that parental education was significantly related with motivation of the students.

Acharya and Shobhna (2009) studied the influence of parental education level on achievement motivation of adolescents. A total 200 intermediate students belonging to parents having four levels of education: high school, intermediate, graduation and post-graduation from Varanasi were selected as the sample. Data was collected by administering Deo-Mohan achievement motivation scale to the students. The result indicated that parental education level influenced achievement motivation in academic area. Higher was the level of parental education better was the achievement motivation in academic area.

Chaturvedi (2009) investigated the effect of school environment and certain demographic variables on achievement motivation and academic achievement of young adolescents. The sample consisted of 300 students in the age range of 12-15 years, from various schools of Bhopal. Deo-Mohan’s achievement motivation scale was used to measure achievement motivation. Percentages of marks obtained by the students in last three years were used as a measure of academic achievement. The results revealed positive significant relationship between academic motivation and achievement.
Conroy et al. (2009) studied the expression of achievement motivation in interpersonal behaviour. Two studies were conducted on the sample of 219 students from small private university and 172 students from large public university of United States and findings reported that achievement motives were not associated with interpersonal behaviour. However, achievement motives had significant effect on academic success.

Umadevi (2009) conducted a study to find out the relationship among emotional intelligence, achievement motivation and academic achievement of primary school student-teachers. The sample comprised of 200 primary school student-teachers studying in various colleges of Davangere city in Karnataka. Data were collected by administering achievement motivation test developed by Bhargava. Academic achievement was taken as the annual scores of second year board examination. The findings indicated that there was a significant positive relationship between achievement motivation and academic achievement of the students.

Wang and Xing (2009) examined the relationship among intelligence, achievement goals and academic achievement of rural adolescents on a sample of 448 sixth and seventh grade students of China by using cross-logged regression analysis. The results indicated no significant relationship between achievement goals and academic achievement of the students. Intelligence was also found to have no significant relationship with achievement goals.

Wilkins (2009) carried out a longitudinal study to evaluate family processes promoting achievement motivation and perceived competence among Latino youth. The sample consisted of 15,362 Latino adolescents from immigrant families. Data were collected by administering parental involvement in schooling scale by Steinberg and others to assess the degree parents assisted their child and achievement motivation scale created by the researcher himself. It was confirmed that parental involvement related significantly and positively to the processes of achievement motivation.

Al-Shabatat (2010) investigated the contribution of motivational factors to the development of giftedness by conducting test. A total of 180 university high scoring students of Malaysia were selected as sample by employing culture fair test. Structural equation modelling was employed to determine the direct and indirect effects of
achievement motivation factors on intellectual giftedness. The findings showed significant and strong direct and indirect effect of motivation on giftedness.

Ghazi (2010) examined parental involvement in their children’s academic motivation in rural areas at primary level. Study was conducted on a sample of 250 students from Bannu in Pakistan. Data were collected by structured interview from students and their parents. It was found that parental encouragement, discussion of importance of education and educational affairs had direct and positive influence on achievement motivation.

Majzub (2010) investigated the relationship between achievement motivation and self-regulated learning strategies among the university students. A sample of 300 undergraduate students from Malaysia participated in the study. The results indicated that there existed a positive and significant relationship between achievement motivation and the self-learning strategies.

Muola (2010) investigated the relationship between academic achievement motivation and home environment among standard eight pupils. The sample was comprised of 235 Kenyan pupils between the age range from 13 to 17 years from six urban and rural primary schools selected randomly from Machakos district. Data was collected through two questionnaires, the simple profile and home environment questionnaire to get information on the pupils’ levels of academic motivation and home environment. The results indicated a positive relationship between academic achievement motivation and home environment.

Bahago (2011) investigated the influence of achievement motivation and demographic characteristics on academic performance of nomadic Fulani girls in Adamawa state. The data were collected from a sample of 300 girls selected from nomadic primary schools. The results indicated that students with high achievement motivation performed higher in academics that revealed significant relationship between achievement motivation and academic achievement. Achievement motivation was found to be influenced by parents’ level of education.

Bakhtiarvand et al. (2011) investigated the moderating effect of achievement motivation on relationship of learning approaches and academic achievement of 200 college students. The findings of the study revealed that achievement motivation moderated the relationship of learning approaches and academic achievement. The
results also indicated that achievement motivation indirectly effected the relation of learning approaches and academic achievement.

Manjuvani and Anuradha (2011) conducted a study to compare the achievement motivation of the children in single parent and two parent families. The sample comprised of 186 students of both the sexes selected purposively for the study. Deo-Mohan achievement motivation scale was used to collect the data. Results revealed that children of single parent families differed significantly in achievement motivation from the children of two parent families. It was also concluded that parental expectations and guidance developed the need for high achievement.

Sakiz (2011) explored the associations among achievement approach goal orientations, academic self-efficacy beliefs and academic help seeking behaviour of Turkish college students. A self-report survey was administered to 98 junior college students of Istanbul Pakistan. The findings indicated that mastery approach goal orientation was significantly and positively associated with college students’ academic achievement whereas, Performance approach goal orientation was significantly and negatively related with academic achievement.

Thijs (2011) took a study to examine ethnic differences in teacher oriented achievement motivation among early adolescent students in Netherland. The sample consisted of 165 girls and 150 boys of Marrocan and Dutch culture. The results of the study revealed that Marrocan students’ teacher oriented achievement motivation was significantly and positively related with intrinsic motivation and perceived academic achievement of the students.

Yusuf (2011) undertook the study with the purpose to investigate the relationship between self-efficacy, achievement motivation and self-regulated learning strategies of the undergraduate students. 300 undergraduate students of Malaysia participated in the study. The results of study indicated that there was a considerable relationship between achievement motivation and self-regulated learning strategies.

It could also summed up after review that achievement motivation is a driving force that lay direct and positive influence upon the academic achievement of the students. Educated parents provide congenial home environment that enhance students’ achievement motivation in educational area.
2.4 STUDIES RELATED TO INTELLIGENCE

Worland et al. (1984) carried out a study on intelligence, classroom behaviour and academic achievement in children at high and low risk for psychopathology through a structural equation analysis. The sample included 158 students and their parents from Washington in America. The results indicated that intelligence mediated the influence of parental psychopathology on academic achievement of the students.

Singh (1986) studied the relationship between socio-economic status and perception of parental behaviour by students. The sample was comprised 246 boys and girls of class tenth of Bihar. Data was collected through parent child relationship questionnaire and self-administering test of mental ability to check parental behaviour and intellectual ability of the students respectively. The findings showed that the dimensions of parental behaviour displaying love, rejection, protection and discipline were found to contribute to the intelligence of male students.

Nommay (1988) recognised the effects of family structure on intelligence and academic achievement. He analysed 45 studies from the last 15 years and summarised the results as that parental education and encouragement found to contribute to the cognitive development of their children. Family constellation was appeared to have greater impact on verbal than non-verbal intelligence. The result also indicated that Intelligence had positive and significant relationship with academic achievement.

Verma and Gupta (1990) studied the effect of home environment on cognitive ability of pre-adolescent children. The sample comprised of 160 children studying in eighth class of India. The results indicated significant effect of home environment on verbal and non-verbal intelligence of only male pre-adolescent children.

Monk (1998) studied association of personal and non-cognitive with academic achievement of African–American males. The researcher concluded through a synthesis of 13 studies that the academic achievement of undergraduate Africa – American males is highly associated with personal adnoun-cognitive variables. The findings indicated that emotional intelligence had a positive relationship with academic achievement of African–American undergraduate males.

Busato et al. (2000) investigated intellectual ability, learning style, personality and achievement motivation as a predictor of academic success in higher education. In
the sample 409 first-year psychology students of Netherlands were included for the purpose. The results confirmed that intellectual ability was associated positively with academic success of the students.

Petrides et al. (2002) studied the role of trait intelligence in academic performance and deviant behaviour at school on a sample of 650 pupils in British secondary education. The results demonstrated that emotional intelligence was related to scholastic achievement.

De Smedt et al. (2003) investigated pre-academic and early academic achievement in children with velocardiofacial syndrome of borderline or average intelligence. In the sample 13 children from the primary schools in Flanders were tested on reading, spelling and mathematics. No difference in intelligence and academic achievement were found between the children with cardiac defects and children with average intelligence.

McManus et al. (2003) conducted a study on intelligence as predictors of medical carrier among the doctors through 20 years prospective study. Data were gathered from 511 doctors who entered Westminster medical school as clinical students. The results indicated intelligence did not independently predict the career outcome or academic achievement.

Murray and Wren (2003) examined cognitive, academic, and attitudinal predictors of college grade point average among college students with learning disabilities. The sample included 84 youth who were attending a large private university in the Midwestern United States. Measures of cognitive and academic functioning were used to predict college achievement. The results indicated that full scale intelligence accounted for a significant amount of variance in students’ college academic achievement. These findings suggest that variables other than traditional cognitive and academic skills were important for determining the performance of youth with learning disabilities during college.

Parker et al. (2003) studied emotional intelligence and academic success after the transition from high school to university on a sample of 372 first year full-time college students of Ontario-University. Data were collected by administering emotional quotient inventory and academic success was taken from academic records of the
university. The results indicated that academic success was positively associated with different dimensions of emotional intelligence.

Deary et al. (2004) in five year prospective longitudinal study examined the association between psychometric intelligence and educational achievement of 70,000 school students of England. The data were collected by using the cognitive ability test and academic achievement scores were taken from national public examination. The value of relationship (0.81) showed significant positive relationship between intelligence and educational achievement.

Furnhamand Tomas (2004) conducted a study on personality and intelligence as predictors of statistic examination grades. A total of 91 students entailing 74 female and 17 male British college students participated in the study. A significant and positive association between statistic examination grade and intelligence was found.

Lounsbury and Ridgitel (2004) conducted a study on predicting academic success in relation to general intelligence; big five personality traits and work drive. The sample comprised of 140 undergraduate college students of south-eastern university of America. Data was gathered by using general intelligence scale. Through the results general intelligence was found to predict both course grade and grade point average. The results also indicated that intelligence had significant relationship with academic achievement.

Wu (2004) conducted a study toward a successfully career through personal intelligence: A Chinese cultural point of view. He concluded through the results that a successful carrier was to be achieved jointly by academic intelligence, practical intelligence, creative intelligence and personal intelligence, while personal intelligence plays the key role in determining successful career.

Dhall and Praveen (2005) revealed the relationship of intelligence with self-confidence and academic achievement of secondary school students. The sample of study consisted of 1000 students of ninth class drawn from government and government aided schools from four districts of Punjab namely Amritsar, Jalandhar, Ludhiana and Bathinda. The results of the study revealed that intelligence was significantly and positively (0.541) related with academic achievement.

Sidhu and Parminder (2005) carried out a comparative study of concept attainment model, advance organiser model and conventional method in teaching of
physics in relation to intelligence and achievement motivation of ninth class students. Data were collected by using Jalota’s verbal group test of general mental ability and achievement motivation test by Pratibha Deo and Asha Mohan from 240 students of Sangrur district in Punjab. The results indicated that there was no significant relationship between intelligence and achievement motivation.

Aremu et al. (2006) investigated the relationship among emotional intelligence, parental involvement and academic achievement. A sample of 500 consisting 250 male and 250 female adolescents was drawn through a randomised process from ten senior secondary schools of Ibadan in Nigeria. Data was gathered through students emotional intelligence test and from the school records of the students. Results revealed that there was a positive and significant relationship between emotional intelligence and academic achievement.

Jackson and Philippe (2006) asserted significant gender difference in average cognitive ability (g) by analysing 145 item responses from 102,516 students consisting 46,509 males and 56,007 females of Ontario in Canada. The results indicated significant gender differences in average cognitive ability and academic performance.

Laidra et al. (2006) examined personality and intelligence as predictor of academic achievement through across sectional study from elementary to secondary school. A total of 3618 students comprising 1746 boys and 1872 girls from all over Estonia attending grades 2nd to 12 participated in this study. Intelligence was measured by raven’s standard progressive matrices. The results indicated that intelligence was the best predictor of students’ academic achievement success in all grades. The findings also confirmed a positive significant relationship between intelligence and academic achievement.

Parkinson and Taggar (2006) explored the relationship among intelligence, personality and performance on case studies. The sample comprised of 305 students of New York. Through the results intelligence was found to be positively associated with students’ performance.

Preiss and Franova (2006) analysed the relationship between depressive symptoms, academic achievement and intelligence. The sample consisted of 635 school children comprising 304 boys and 331 girls. The data was collected by using Wechsler's intelligence scale for children and grade point average was taken as
measure of academic achievement. The findings indicated that the academic achievement was significantly related with intelligence.

Rohde and Lee (2006) carried out the study to explain variation in academic achievement with general cognitive ability and specific cognitive abilities. Grade point average and wide range achievement test III scores represented academic achievement. General cognitive ability was measured with the Raven's advanced progressive matrices and the mill hill vocabulary scales in a sample of 71 adults students of America. The results showed that general cognitive ability continued to add to the prediction of academic achievement.

Spinatha et al. (2006) examined the extent to which motivation contributes to prediction of school achievement among elementary school children beyond general cognitive ability. The sample comprised of 1678 UK elementary school children who took part in the twins’ early development study. Teacher provided achievement assessment and students reported their self-perceived ability and intrinsic values. Through the results general cognitive ability proved to be strongest and the only predictor of school achievement.

Fahim (2007) explored the role of emotional, psychometric and verbal intelligences in academic achievements of university students. The sample of 508 pupil comprising 134 male 374 female students was selected from four universities of Iran. Data was collected by administering emotional quotient inventory and Wechsler’s adult intelligence scale. Emotional quotient demonstrated as the poor predictor of academic achievement where as psychometric and verbal intelligence was strongly associated with academic achievement.

Palaniappan (2007) examined the relationship between creativity and academic achievement to understand the nature of these relationships in the intelligence continuum among 497 Malaysian students. Intelligence was measured using cattle’s culture fair intelligence tests and creativity was measured using Torrance tests of creative thinking. The results indicated the positive relationship between intelligence and academic achievement.

Watkins et al. (2007) conducted a cross lagged panel analysis on psychometric intelligence and achievement. Total 289 students of United States were assessed for special education eligibility with a test–retest interval of 2.8 years. It appeared from the
results that psychometric intelligence had causal influence on future achievement measures whereas achievement measures did not substantially influence future intelligence.

Chamorro and Adrian (2008) conducted the study on personality, intelligence and approaches to learning as predictors of academic performance. A sample of 158 undergraduate students from University College of London, participated in the study. The results indicated significant relationship of intelligence with academic achievement and learning approaches.

Beedjies (2008) conducted a study on self-concept and academic achievement of grade ninth pupils. The sample comprised 44 grade nine male and female students of Barnabas College of England. Data was collected by using Cattel’s culture fair intelligence test and school records. The results indicated no significant relationship between intelligence and academic achievement of students.

Douglas et al. (2008) studied the effect of multiple intelligence teaching strategies on academic achievement of eighth grade math students. Data was collected from the 60 school students of North Carolina. The data were collected by conducting test on mathematic achievement using multiple strategies method on the group and traditional direction instructional method on the other group. The results of the study indicated that students who were taught in an environment utilizing multiple intelligence strategies had higher achievement in math test.

Flynt (2008) examined the influence of behaviours exhibited in the classroom on reading and math achievement on a sample of 339 students in the first, third and eighth grades of North Carolina in America and the influence of teacher perceptions on reading and math achievement. The Wechsler’s intelligence scale for children-revised was used as standardized measures of intelligence. Results revealed that intelligence had a significant and positive relationship with achievements in maths.

Leeson et al. (2008) examined cognitive ability, personality and academic performance in adolescence. A sample of 639 high school students of Australia participated in a three-year longitudinal study. The results indicated that intelligence, gender, and positive thinking each play a unique role in predicting academic performance in youth. Moreover the findings showed that cognitive ability had significant positive relationship with academic achievement.
Naderi et al. (2008) examined intelligence and gender as predictors of academic achievement among undergraduate students of Malaysian university. A sample of 153 participants comprising 105 males and 48 females completed intelligence test and academic achievement was taken as the cumulative grade point average. The results revealed the intelligence was not significantly related to academic achievement. Hence, the study failed to support that intelligence was the predictors of academic achievement of the students.

Razmjoo (2008) examined the strength of the relationship between language proficiency in English and the 9 types of intelligences. As such, the objectives of this study were three-folded. The sample constituted 278 male and female Iranian Ph.D. candidates. The results indicated that there was not a significant relationship between language proficiency and the combination of intelligences in general and the types of intelligences in particular. Moreover, none of the intelligence types was diagnosed as the predictor for language proficiency. The results of this investigation pointed to have no significant relationship between multiple intelligences and English language proficiency in the Iranian context.

Arini et al. (2009) aimed at testing whether intelligence and motivation jointly influence high school students' academic achievement. The subjects of this research were 180 students of grade II, Jakarta. Data analysis was conducted and the result of the analysis showed that intelligence and motivation influence significantly the students’ academic achievement. This was also confirmed through the results that intelligence effected academic achievement positively and significantly.

Karnilova (2009) undertook a study to investigate the relationship of the predictive value of subjective evaluation of intelligence and academic self-concept with academic achievement of college students. Likert type instrument and group estimation of intelligence was employed on 300 undergraduate students of Moscow state university in Russia for the data collection. Academic achievement was taken as the score on grade point average of three semesters of the students. The findings indicated positive and significant relationship of general intelligence (0.27) and verbal intelligence (0.24) with academic achievement of students.

Naderi et al. (2009) investigated the relationship between intelligence, creativity, self-esteem and academic achievement among Iranian undergraduate
students in Malaysian universities. The sample of 153 Iranian undergraduates’ students was randomly selected out of six universities. The results of analysis also showed that intelligence was not the predictors of academic achievement.

Steinmayr et al. (2009) investigated if intelligence sustained attention interact in predicting academic achievement on a sample of 231 eleventh and twelfth grade students of Germany. Grades in mathematics and grade point average were taken as measures of academic achievement of the students. Results of the study indicated that sustained attention incrementally contribute to performance of the students beyond intelligence. Sustained attention and quality of performance mediated the relationship between general intelligence and academic achievement.

Stump et al. (2009) examined the relationship between engineering students’ beliefs about intelligence and their self-efficacy for learning course material and their perceived use of deep learning strategies. The data were collected from 437 engineering students from public university from South-western United States. By using implicit theory of intelligence scale, motivated strategies for learning questionnaire and course grades were received from university office. The results showed that intelligence beliefs were not predictor of course grades.

Umadevi (2009) conducted a study to find out the relationship between emotional intelligence, achievement motivation and academic achievement of primary school teachers. The sample comprised of 200 primary school teachers studying in various college of Davangere city in Karnataka. Data was collected by administering emotional intelligence scale developed by Shailendre Singh and academic achievement was taken as the annual scores of second year university examinations. The findings indicated that there was a significant positive relationship between emotional intelligence and academic achievement of the students.

Wang and Xing (2009) examined the relationship among intelligence, achievement goals and academic achievement of rural adolescents on a sample of 448 sixth and seventh grade students of China by using cross-logged regression analysis. The results indicated no significant relationship intelligence and academic achievement of the students. Intelligence was also found to have no significant relationship with achievement goals.
Al Shabatat (2010) investigated the contribution of motivation, factors to giftedness development. A total 180 high scoring students of the age range from 19-20 years were selected as a sample from a leading university in Malaysia. Structural equation modelling was employed to determine the direct and indirect effects of achievement motivation on giftedness. The findings showed the significant positive relationship between achievement motivation and giftedness of the students.

Day et al. (2010) undertook three year longitudinal study on hope uniquely predict objective academic achievement above intelligence, personality and previous academic achievement. The sample comprised of 129 undergraduate students consisting 52 males and 77 females from the universities of United Kingdom. Raven’s advanced progressive matrices were used to measure intelligence and marks of final class of the degree were taken as academic achievement of the students. The result (r=.46) revealed a significant positive relationship between intelligence and academic achievement of the students.

Naderi et al. (2010) examined if a relationship exists between intelligence and academic achievement and if the relationship differs between males and females. 153 Participants consisting 105 males and 48 females completed creativity test. Cumulative grade point average was used to select the participants. Intelligence was measured using the Catell’s culture fair intelligence test. The findings indicated that intelligence was not related to academic achievement for both males and females.

Ong et al. (2010) carried out the study to determine the factors associated with poor academic achievement among urban primary school children in Malaysia through across-sectional study. Data were obtained through questionnaires and interviews from 1470 students from Kuala Lumpur in Malaysia. Achievement was taken as marks obtained by the students in the core subjects of the primary examination. All students underwent the raven’s standard progressive matrices test as a general measure of cognitive ability. The results showed low cognitive ability was detrimental to academic achievement.

Stewart et al. (2010) undertook the study to explore academic success of 243 first year engineering students in relation to emotional intelligence at Ryerson University of Toronto in Canada. Their academic success was measured by grade point average and emotional intelligence was assessed by self-reporting emotional
intelligence test developed by the researcher. The results suggested that specific emotional intelligence subscales could provide indication of future academic success. The results of the study showed weak relationship of academic achievement with emotional intelligence.

Adetayo and Kiadese (2011) investigated emotional intelligence and parental involvement as predictors of students’ achievement in financial accounting. Data were collected from 200 senior secondary school students from Nigeria by survey method. The results of the study revealed significant relationship between emotional intelligence and academic achievement of the students. The findings indicated that both emotional intelligence and parental involvement both predicted student’s achievement in financial accounting.

Asthana (2011) conducted a study on a sample of 300 students consisting 150 male and 150 female students of secondary education from Varanasi, with a view to find out relation of mental ability with scholastic achievement. Data was collected by using a verbal test of intelligence developed by the researchers to measure mental ability and scholastic achievement was taken on the basis of an average of marks obtained in three previous annual examinations. The results revealed that mental ability was positively and significantly related to scholastic achievement.

Ghazi et al. (2011) investigated the relationship between students’ self-perceived multiple-intelligence and their academic achievement. The sample comprised of 714 male and female students from the 10 government degree colleges of Bannu district in Pakistan. Data was collected through multiple intelligence inventories and academic achievement of the students. The results indicated that there was a significant positive relationship (r=.289) between overall perceived multiple intelligence and overall academic achievement of the students.

Husain (2011) conducted a study on 119 B.Ed. College students of the department of education, Devi Ahilya Vishwa Vidyalaya, Indore in India to evaluate the influence of intelligence on adjustment of teacher-trainees. Data was gathered through raven’s standard progressive matrices test as the measure of intelligence and Mittal’s adjustment inventory as the measure of adjustment of the B.Ed. college students. Through the results positive but low relationship was found between
intelligence and home and college adjustment. It was also inferred from the findings that the teacher-trainees who had better intelligence level are well adjusted.

Sharma et al. (2011) investigated the relationship among different educational streams and intelligence tests viz. verbal and nonverbal tests on a sample of 200 boys and girls of 11th class from different schools of Shimla in India. Standard progressive matrices, and general mental ability test was administered to the students to measure their nonverbal and verbal intelligence respectively. Academic achievement of the students was taken as the marks secured by them in various subjects in class 10 annual examinations. Non-verbal intelligence was found to have strongly related with mathematics and science subjects, whereas verbal intelligence had strong relationship with languages and social sciences.

After reviewing the literature on intelligence and academic achievement of the students it is concluded that intelligence is the robust factor which influences the academic achievement of students. All types of intelligence: general, verbal, nonverbal, emotional and personal intelligence are found to have direct influence on the academic achievement of the students.

By reviewing all the researches, which have been discussed in the foregoing pages, the investigation reaches to the point that academic achievement, serve as means to satiate one’s needs and derives with the desired success. Hence it is very important to enhance academic success to enable the college students attain the optimum level of education for their entire satisfaction. Hence, in the perusal of review of related literature clears the image of the impact of parent encouragement, achievement motivation and intelligence on the academic achievement of student at all levels of education. The indicators regarding the variables undertaken for investigation could be summed up as under.

2.5 OVERVIEW

The review of related literature provides a picture reflecting on achievement motivation, parental encouragement, achievement motivation and intelligence. The review of related literature pertaining to the variables under investigation provides certain indications as under:
2.5.1 Academic Achievement

Different researches found significant differences in academic achievement of male and female students, (Aggarwal, 1983; Shah, 1993; Khare and Garewal, 1996; Muller, 1998; Joshi, 2000; Devi and Mayuri, 2003; Deary et al., 2004; Bruni et al., 2006; Tella, 2007; Leeson et al., 2008; Elizabeth, 2009; Chaturvedi, 2009; Umunadi, 2009; Garikai, 2010; Sarsani and Ravi, 2010; Asthana, 2011).

Ryckman et al., 1986; De Smedt et al., 2003; Sunitha, 2005; Priess and Franova, 2006; Halawah, 2006, Nuthana, 2007; Naderi et al., 2009; Singh and Parveen, 2010 found no gender difference in educational achievement of students.

Pal et al., 1996; Nuthana, 2007; Elizabeth, 2009; Umunadi, 2009 confirmed difference in urban and rural students’ educational achievement whereas no difference in educational achievement of urban and rural student was found (Waters et al., 2006; Singh and Praveen, 2010)

Krishnan, 1977; Saini, 1977; Singh and Shrivastva, 1983; Sharma, 1984; Baker and David, 1986 Cherian, 1992; Felner and Minsuk, 1995; Pal et al., 1996; Shah, 1993; Kohl et al., 2000; Devi and Kiran, 2002; Tvani and Losh, 2003; Sunitha, 2005; Navarrete et al., 2007; Acharya and Shobhna, 2009; Garikai, 2010; Muola, 2010; Bahago, 2011; Sharma and Tahira, 2011 confirmed significant influence of parental education on academic achievement of their children.

2.5.2 Parental Encouragement

Different researches focused on parental encouragement and found positive and significant relationship with academic outcomes of their children (Baker and David, 1986; Bank et al., 1990; Astone and Sara, 1991; Shah, 1993; Aggarwal, 1997; Siana, 1998; Sacker et al., 2002; Codjoe, 2007; Murphy, 2009; whereas Singh et al., 1995; Muller, 1998; McNeal, 1999; Izzo et al., 1999; Yan, 1999; Kohl et al., 2000; Catsambis, 2001; Marchant et al., 2001; Okpala et al., 2001; Deslandes and Cloutier, 2002; William, 2002; Voorhis, 2003; Hill et al., 2004; Aremu et al., 2006; Jeynes, 2007; Ghazi, 2010; Adetayo and Kiadese, 2011; focused on parental involvement and found positive and significant relationship with educational outcomes of their children

Zellman and Waterman, 2000; Okpala et al., 2001; and Muola, 2010; demonstrated that parental encouragement had no relationship with academic
achievement whereas Mau, 1997 found parental encouragement had negative effect on academic achievement of the students.

Dubois et al., 1994; Khare, 1996; Sanders, 1998; Kohl et al., 2000; Halawah, 2006; Akanle, 2007; Devi and Mayuri, 2003; studied family structure and family environment as good determiners of academic success.

Shah and Sharma, 1984; Sunitha, 2005; Bansal et al., 2006; and Moula, 2010; explored positive and significant relationship between home environment including parental encouragement with academic achievement.

Lamborn et al., 1991; Steinberg, 1992; Shah, 1993; Petrick and Kim, 1998; Hickman et al., 2000; Akanle, 2007; Kazmi, 2011 emphasised on parental styles and confirmed significant and positive relationship of authoritative parenting style with academic success.

Murphy (2009) studied parental encouragement involving parental actions associated with parenting styles. Astone and Sara (1991) focused on parental practices involving parental involvement and parental encouragement, whereas Lakshmi and Minakshi (2006) focused on parental behaviour and found that parental acceptance and encouragement were positively related with academic achievement.

Kohl et al. (2000) and Garikai (2010) confirmed a positive relationship of parental education with parental encouragement and Singh (1986) and Nommay (1988) revealed that parental encouragement influenced cognitive development of their children whereas Ginsburg and Bronstein (1993) and Kazmi (2011) found that parental encouragement significantly related with achievement motivation of the students.

2.5.3 Achievement Motivation

Different researchers found positive and significant relationship between achievement motivation and academic achievement of the students. Busato et al., 2000; Panda and Jena, 2000; Krishnamurthy, 2001; Broussard, 2002; Fransces et al., 2004; Kaur, 2004; Neumister 2004; Tseng, 2004; Bansal et al., 2006; Sharma et al., 2006; Froehlich 2007; Ilogu, 2007; Navarrete et al., 2007; Tan et al., 2007; Acharya and Shobhna, 2009; Conroy et al., 2009; Chaturvedi, 2009; Umadevi, 2009; Wilkins, 2009; Ghazi, 2010; Majzub, 2010; Bahago, 2011; Bakhtiarvand et al., 2011; Manjuvani and Anuradha, 2011; Thijs, 2011; Yusuf, 2011.
Wong and Mehaly, 1990; Archer, 1999; Tvani and Losh, 2003; Halawah, 2006; Chowdhary et al., 2007; Summerson et al., 2007; Kim et al., 2007; Tella, 2007; Adepoju, 2008; AlShabatat, 2010; Majzub, 2010 found positive relationship between motivation and academic achievement of the students. Whereas Eppler and Harju (1997) and Sakiz (2011) emphasized on achievement motivational goals, but Wang and Xing (2009) revealed no significant relationship of motivation goal with academic achievement of students.

Reddy (1990), Singh and Parminder (2005) studied achievement motivation and found no relationship with academic achievement.

Petrick and Kim, 1998; Bansal et al., 2006; Halawah, 2006; Navarrete et al., 2007; Wilkins, 2009; Acharya and Shobhna, 2009; Ghazi et al., 2010; Moula, 2010; Bahago, 2011 Manjuvani and Anuradha, 2011 studied achievement motivation of students and found that is the product of good home environment and parental encouragement.

2.5.4 Intelligence

Different researchers found positive and significant relationship between intelligence and academic achievement of the students. Worland et al., 1984; Nommay, 1989; Busatoet al., 2000; Furnham and Tomas, 2004; Lounsbury and Ridgitel, 2004; Dall and Praveen, 2005; Sidhu and Parminder, 2005; Laidra, 2006; Priess and Faranova, 2006; Rohde and Lee, 2006; Spinatha et al., 2006; Parkinson and Taggar, 2006; Fahim, 2007; Deary et al., 2007; Palaniappan, 2007; Chamorro and Andrian, 2008; Flynt, 2008; Naderi et al., 2008; Razmijoo, 2008; Arini et al., 2009; Karnilova, 2009; Steinmayr et al., 2009; Stump et al., 2009; Naderi, 2010; Day et al., 2010; Ong et al., 2010; Asthana, 2011; Husain, 2011.

Murray and Wren, 2003; Jackson and Philippe, 2006; Rohde, 2006; Leeson et al., 2008; Onget al., 2010 studied cognitive ability and found positive relationship with academic achievement. Deary (2004) and Watkins (2007) emphasized on the importance of psychometric intelligence. Whereas McManus et al., 2003; Beejies, 2008; Stump et al., 2009; Wang and Xing, 2009 found no significant relationship intelligence and academic achievement of students.
Monk (1998), Petrides et al., 2002; Parker et al., 2003; Aremu et al., 2006; Fahim, 2007; Stewart et al., 2010; Adetayo and Kiadese, 2011 examined emotional intelligence and found its significant relationship with academic success.

Fahim (2007) showed that emotional, psychometric and verbal intelligence influence success, whereas Wu (2004) focused on personal intelligence and found academic intelligence, practical intelligence, creative intelligence and personal intelligence jointly related to success of students.

Douglas et al., 2008; Razmjoo, 2008; Ghazi et al., 2011 tested multiple intelligences and found its influence on academic achievement of students.

Sharma et al. (2011) found that verbal and non-verbal intelligence of students are strong predictors of their academic achievement in different subjects.

Froehlich (2007) explored significant relationship between intelligence and achievement motivation of the students, whereas Jackson and Philippe (2006) found significant gender difference in cognitive ability and academic performance.

Singh, 1986; Nommay, 1988; Verma and Gupta, 1990 found that home environment contribute positively to verbal and non-verbal intelligence of the students.

HYPOTHESES

Synchronizing with the objectives of the present study the following hypotheses were framed.

- There is no significant difference in academic achievement of male and female college students.
- There exists no significant difference between the academic achievement of rural and urban college students.
- There is no significant difference between academic achievement of the students having literate and illiterate parents.
- There prevails no significant difference between academic achievements of students having high and low parental encouragement.
- There lies no significant difference between academic achievements of college students revealing high and low achievement motivation.
- There exists no significant difference between academic achievements of college students possessing high and low intelligence.
- There is no significant relationship among academic achievement, parental encouragement, achievement motivation and intelligence.