Chapter 2
Review of Related Literature
One of the basic characteristics of scientific research is that it considers potential researches in the related area which have been conducted earlier. This paves way for the new researcher to find from vicarious experiences avoiding loopholes, refining the objectives, critically analysing previously used methods and designing appropriate, new designs and choosing analytical techniques. Overall it is a system of collective wisdom that contributes coming out in the new research endeavour. Therefore, in the following paragraphs, the researcher has attempted to review relevant empirical work in the research area.

**Studies on Intelligence and Academic Achievement**

Academic achievement is determined by a number of factors which are cognitive, non-cognitive and environmental factors. However intelligence has been generally accepted as the most important predictor of academic achievement. Various studies have been conducted to find out the relationship between intelligence and academic achievement and found that intelligence is the single most important factor operating on academic achievement and may be used as a basis for predicting academic achievement. Studies such as Carter (1948, 1950, 1952, 1961), Scott (1963), Sinha (1965), Bhushan (1965), Puranic & Kundley (1969), Dhaliwal (1971), Mc Candless et al., (1972), Chandra (1975), Jahan (1985), Kaur & Lekhi (1995) show the positive and significant relationship between the two variables.

Research on IQ also suggest that IQ has a statistically significant but not very large effect on life outcomes once other variables are controlled for, and it is not surprising for those who have lived long enough to meet a lot of smart underachievers (Stanley, 2005). If we consider the following “Einstein failed in language, Schubert in mathematics, George Bernard Shaw could not spell properly and Tolstoy displayed a severe learning disability during his school years. Delius, Gandhi and Nehru showed no promise in school. Edgar Allan Poe and Einstein were actually expelled for serious misbehavior, while Edison was taken out of school after three months, on the grounds that he was “unstable” (McLeod & Cropley, 1989). This shows that many gifted individuals have
difficulties succeeding in their school work. Above examples suggest that underachievement which persists in the schools might be an indication of underachievers’ hidden potential which can be realized with sympathetic, continuously positive and patient approach from the teachers and parents.

Due to positive and significant effect of intelligence on academic achievement, there was a faith among some research workers that they ascribed variations in achievement to intelligence alone. Since correlations do not involve necessarily a causal relationship, one cannot conclude that high intelligence causes high achievement or vice versa. Nonetheless the correlation coefficients between intelligence and achievement scores in various studies have been found to be between 0.32 (Kaur & Lekhi, 1995) to 0.91 (Yule, Landsdown & Urban Owicz, 1982). There are still other studies, which have obtained insignificant and negative correlation between intelligence and academic achievement. Prominent among these studies are those of Rao (1915), Wedemeyer (1953), Srivastava (1955), Kulshreshtha (1956), Sharma (1958), Porter (1961), Mehdi (1966), Vanarase (1970), Pelchano (1972) and Pandaya (1973).

The studies mentioned above stand testimony to the fact that the factor of intelligence is very closely associated with academic achievement and as such a very reliable predictor of school performance. But at the same time it becomes quite evident from the results that the relationship between the two is not perfect. Intelligence as a predictor leaves out certain amount of “residual” a part of the data on achievement lying beyond the prediction through intelligence.

Other studies have suggested the contribution of factors other than intelligence: Super (1949) was of the view that indices like previous performance, family education as an indicator of educational expectation, personality adjustment and motivation have to be considered; McClelland and others (1962) have suggested that the people with high need-achievement (n-Ach) scores show evidence of better performance and improved learning, there is definite and statistically significant evidence for superior learning in high n-Ach group as compared with low n-Ach group; Dweck (1986) found that students who
persist in academics shared certain personality traits. She described successful students as those who believed that intelligence is a fluid quality that can be changed and developed through hard work and effort, whereas less successful students view intelligence as a fixed trait (Dweck, 1986; Dweck, Chiu & Hong, 1995).

Studies mentioned above are in favour of other factors such as personality as a whole, together with socio-emotional factors, affective dispositions, frustration tolerance etc, are as necessary as are intellectual faculties, which are known to exert a significant effect on the academic achievement of students. This also shows that it is not necessary to cater to intellectual faculties of students only but an equal opportunity should be provided in the schools to the students in order to develop emotional, spiritual and physical aspects of their personality.

Studies on Personality and other Non-Cognitive Factors in Relation to Over and Under Achievement

A number of studies have been carried out in the area of over- under achievement separately. These few studies have explored into the non- intellectual personal domain of over and under achievement. These studies have been conducted on personality factors in relation to over- and under achievement based on composite achievement scores (Bhaduri, 1971; Dhaliwal, 1971; Agarwal, 1976; Stockhard & Wood, 1984; Jahan, 1985; Puri, 1987; Postlethwaite and Haggarty, 2002; Mulholland et al., 2004 etc). Following paragraphs provide a brief account of studies that will help to develop better insight into the phenomenon of underachievement and overachievement.

Bhaduri (1971) carried out a comparative correlation study on certain psychological factors of the over and under-achievers. She found significant difference between overachievers and underachievers on different personality dimensions. Results indicate that overachieving students tend to be less neurotic and less anxious than underachievers. The group difference was in favour of the overachievers on social service and outdoor interests whereas the musical interest and achievement motivation of this group were found to be lower than those of
their underachieving peers. The overachievers showed higher scores on study habits, attitude to school and religious cultural background. The underachievers on the other hand, tend to have comparatively high level of socio-economic status (SES), a more congenial home background and more of leisure time activities. Considering the findings related to the three non-cognitive areas viz; personality-temperamental, interest – motivational and environmental –biographical, the author concludes that the similarities were more pronounced in the personality – temperamental area and least marked in the environmental-biographical area.

In a study aiming to find out the nature and dynamics of relationship between personality traits and academic achievement amongst high school students, Dhaliwal (1971) found overachieving students to be significantly higher in reservedness, verbal ability, emotional stability, obedience, sobriety and personal and social adjustment in comparison to their underachieving counterparts. On the other hand, outgoingness, low verbal ability, emotional instability, assertiveness, happy go lucky treatment, poor personal and social adjustment and insecurity was found higher amongst underachieving students. The researcher further found that the anxiety and need for achievement were related to the level of achievement in the sense that both under achievement and overachievement were possibly associated to high n-Ach and high level of anxiety. Such an association was not found significant amongst students with normal level of achievement.

Saxena (1972) conducted a comparative study to discover differences between over and under achievers with respect to their interests, need patterns, adjustment problems, study habits and some other personal and background factors. Results showed that overachievers were those who aspired for high achievement, had sufficient endurance and possessed a capacity for fighting out their case while underachievers were meek, submissive, timid, brooding, impulsive and dependent type of immature individuals. Underachievers were usually more burdened by a greater number of problems. Overachievers had better study habits. Longer study hours distinguished the overachievers and shorter ones were typical of underachievers. Underachievers were found to be unaware of their actual difficulties and their need for individual help.
Ghuman (1976) carried out a study on aptitudes, personality traits and achievement motivation of overachievers. The study consisted of 1,948 students of both sexes of grade ninth, tenth and eleventh. The tools used in the study were Scientific Aptitude test Battery (Agarwal), Verbal Aptitude Test, the 14 PF test, H. S. P. Q. (Sharma) and Achievement Motivation Inventory (Mehta). The study observed that the over and underachievers do not differ significantly on any of the independent variables, namely aptitudes, achievement and personality traits. The male overachievers scored significantly higher than the male underachievers on factors G (Expedient versus Persistent), H (Restrained versus Adventurous), I (Tough-minded versus Tender minded) and Q3 (Uncontrolled versus Controlled) of the HSPQ whereas female overachievers and underachievers differed significantly on factor C (Emotionally unstable versus Mature, Calm and Emotionally stable) of the personality on which the underachievers scored higher than the overachievers.

Sharma (1981) studied underachievement of secondary schools’ girls studying in Haryana to find out the specific contribution of certain variables towards high achievement and underachievement. Results of the study showed poor academic motivation, poor linguistic ability and poor planning of study work, poor adjustment and emotional insecurity contributed to underachievement.

Maitra (1985) studied the status of gifted underachieving and overachieving students on a few variables in the affective domain. The objective of the study was to find the relation between achievement and the variables in the affective domain of the gifted underachieving and overachieving students and to prepare selected case studies of gifted underachievers and overachievers. Sample of the study were 1020 students of class eighth. Tools used for the study were Ravens Progressive Matrices Test, Lipsitt’s (1958) Self-concept Scale, the Self Perception Inventory by William Martin (1972), the Self-Esteem Inventory (SEI) by Coopersmith (1967), the Academic Self-Image Scale by Joan Barker-Lunn (1970), and the n-Ach Test by McClelland (1953). Apart from this seven case studies for each category of overachievers and underachievers were done to know
the physical set up of home, emotional climate, education, health, physical, emotional, social and intellectual aspect of development of overachievers and underachievers. Results of the study showed that parents were seldom aware that their children were performing below their expected level of performance. The gifted underachievers' home environment was the most important affective variable influencing underachievement as compared to other variables considered in the study. The overachievers were found to be much more conformist, relied less on luck or fate and showed an increased interest in studies and in extra reading than the underachievers. Case studies revealed that they were interested more in mechanical work. The underachievers seemed to be independent of the physical set up of home or the socio-economic status of the parents, but dependent more on parents' educational status in the form of their involvement in the child's activities and educational guidance. The underachiever girls were found to be more shy and less talkative than underachiever boys, although they did not show any statistical difference on any of the affective variables. The stories of underachievers written in TAT cards expressed their negative view of life in general. They seemed to be less optimistic and more dependent on luck or fate. The overachievers were found to be in good health, had manifold interests and good reading habits. They were very popular among their friends and were rated as highly intelligent. In general underachievers were assessed as less intelligent. Overachiever boys showed a higher score on achievement motivation than overachiever girls.

Jahan (1985) conducted a study of personality profiles of students of Science, Arts and Commerce streams at the higher secondary level of education in relation to their academic achievement. A total of 758 male and female students studying in Pre University Course in science, arts and commerce stream, served as the sample of the study. Mehrotra's group test of intelligence and the fourteen factors of H.S.P.Q., prepared by Cattell served as a measure of personality and examination marks were taken as a measure of academic achievement. The significance of difference between means of scores on fourteen dimensions of H.S.P.Q. secured by under and overachievers of the three streams were ascertained by t-test. The study revealed that the personality profiles of
overachievers and underachievers of science, arts and commerce streams significantly differed on certain dimensions of personality. The findings revealed; (1) Over-achievers in general were inclined towards the warm heartedness (2) Over-achievers in science stream were more intelligent, emotionally stable, excitable, obedient, sober, conscientious and shy as compared to under-achievers (3) Over-achievers of arts stream were more warm hearted, intelligent, affected by feelings, undemonstrative, assertive, enthusiastic, conscientious, zestful, apprehensive and tender-minded as compared to under-achievers (4) The over-achievers of commerce stream were more reserved, intelligent, affected by feelings, sober, conscientious and self-assured as compared to under-achievers.

Puri (1987) studied personality traits and self-concept of the underachievers along with the SES of their families. The sample of the study consisted of 425 students (244 boys and 181 girls) and had secured less than 48% of marks in the High School examination. The sample was selected from 2147 class ninth students of twelve intermediate colleges of Lucknow city. Tools used on above sample were Kuppuswami’s SES Scale (Revised ed, 1981), Raven’s Progressive Matrices Test, Cattell’s H.S.P.Q. (Form A and Form B) Sherry, Verma and Goswami’s Test of self-concept. Besides these tools, the criterion of academic achievement was the marks secured in High School examination. Results of the study showed that (1) About 19.8% of the intellectually gifted students did not come up to the expected level of academic performance (2) The majority of underachievers belonged to lower socio-economic group and had proper self-concept (3) The underachievers generally tended to be warm-hearted and easy going, had comparatively lower scholastic capacity, and were inactive. They tended to be assertive, aggressive, stubborn and dominant, were impulsive, lively, happy-go-lucky and gay persons, and tended to be socially bold. They were generally over protected, sensitive, individualistic and reflective, and were found to be apprehensive, worrying and troubled.

Haq (1987) conducted a valuable study on personality in relation to scholastic success. The study showed that the male over-achievers were more prone to be obedient, submissive and of accommodating temperament while the
under achievers in the same subject were more inclined to be assertive, competitive and aggressive. Over-achiever boys in Hindi were found to be more intelligent, emotionally stable, adventurous and individualistic. Female over-achievers in maths were found to be more self-sufficient than the under-achievers. The study revealed that the personality factors going with overachievement and underachievement in Hindi, English, Maths and Science among the male and female are significantly different from each other. He has also found that over and under achievement is a specific phenomenon with reference to different school subjects.

Studies mentioned above suggest that the differences among overachievers and underachievers are attributed to their personality (Bhaduri, 1971). Personality of over and underachievers was studied in different streams (Jahan, 1985) and along different subjects (Haq, 1987). Over and underachievement is a specific phenomenon with reference to different school subjects (Haq, 1987) which becomes stable in different subject matters that were relatively more difficult (McCall, Beach & Lau, 2000).

Over achievers have been found to be significantly higher in reservedness, verbal ability, emotional stability, obedience, sobriety and personal and social adjustment (Dhaliwal, 1971), better study habits (Saxena, 1972) whereas underachievers are more outgoing, emotionally unstable (Saxena, 1972), more assertive (Puri, 1987), more conformist (Maitra, 1985), insecure but having happy go lucky temperament (Puri, 1987; Dhaliwal, 1971), burdened by a greater number of problems, impulsive (Saxena, 1972; Puri, 1987) sensitive, individualistic and reflective, and were found to be apprehensive, worrying and troubled (Puri, 1987) having poor personal and social adjustment (Dhaliwal, 1971).

Gender

Lupart & Pyryt (1996) did a study which provided an estimate of the prevalence of one type of gifted underachievers and identified the key academic and personal characteristics that define this group. Participants were selected from
19 elementary, junior and senior High Schools in a large western Canadian urban school district. A formula was used to identify grades fourth, seventh and tenth students whose measured intellectual potential was 120 or higher and who demonstrated a significant achievement potential discrepancy. Out of a total of 80 prospective students, a final sample of 58 students was administered the Woodcock-Johnson Psycho educational Battery-Revised (WJPB-R), the Piers-Harris Self-concept Scale and Thinking About My School. Results indicated that there was a significant interaction between gender and school level and a significant grade level effect. Major findings were achievement scores on the WJPB-R were higher than their course grades. There was a significant decline in attitudes towards school for this group of students at the junior High School level, particularly for females and overall achievement declined as students’ progress from grade fourth to grade seventh and tenth.

McCall, Beach and Lau (2000) investigated several characteristics of underachievers in a large sample of Hong Kong elementary school children. More males were identified as underachievers than females. Stability and persistence of underachievement increased during the elementary school system, and the stability of underachievement tended to be higher in subject matters that were relatively more difficult, which varied with gender. Underachievement became more specific to particular academic subjects rather than more general across the elementary grades. Parents and teachers perceived that underachievers were more capable than same grade non-underachievers, although this awareness is more likely directed towards male than female underachievers.

Mulholland, Hansen and Kaminski (2004) did a research project developed in partnership with the Principal and Leadership Team of an Australian Secondary School. It monitored a school-based initiative designed to address the underachievement of male students. Students in year nine were selected single-gender or coeducational classes in Mathematics and English during the second half of a school year. Student scores in standardized tests and school-based assessment in these subjects were obtained before and after the establishment of the initiative. Results indicated no significant difference in Mathematics
achievement that can be attributed to gender or class composition. However, scores in school-based English improved for students in single-gender classes. Improvement for girls was greater than that for boys in single-gender class.

Studies mentioned above indicate that incidence of underachievement was higher among girls than boys (Beedawat, 1976) while contradicting results have been obtained by various researches (Stockhard & Wood, 1984; McCall, Beach & Lau, 2000) who report that underachievement is more prevalent among boys than among girls. Though parents and teachers perceived better capability of male underachievers than females (McCall, Beach, & Lau, 2000) but girls better responded to improvements in their academic achievement than that for boys (Mulholland, Hansen and Kaminski, 2004). Overachiever girls are less affected by feelings and more emotionally stable, less shy and more vigorous and zestful and had less undisciplined self-conflict than underachieving girls (Gupta, 1983). Underachieving girls are more emotionally insecure and immature (Sharma, 1981; Ghuman, 1976) than overachieving girls. The male overachievers were more persistent, more restrained, more tough-minded, more controlled than male underachievers (Ghuman, 1976).

A declining change has been noticed in girls’ attitude towards school as they progressed from lower to higher grades (Lupart et al, 1996). Regarding smaller incidence of female underachievement than male underachievement, Lueptow (1996) reported that females value achievement more highly and are more motivated to achieve than males. Condry & Dyer (1971) show that females do not show a motive to avoid success in areas those are acceptable for them to enter.

**Studies on n-Ach in Relation to Under and Over Achievement**

The n-Ach is a disposition of personality when the individual experiences a desire to be successful. The child strives for accomplishing something difficult and tries to do it as rapidly and as independently as possible. He/she desires to overcome obstacles and attain a high standard to excel oneself or surpass others. He/she wants to increase its self-regard by successful exercise of his talents.
(Atkinson, 1966). Sinha (1967) has reported that for wholesome development of personality it is essential to ensure success of the individual by feeling of accomplishment and growth. Review of studies indicates a potential relationship between level of academic achievement and need for achievement. Such a relationship has been reported and discussed in the paragraphs that follow.

A significant relationship between n-Ach and academic level has been found by Littig &Yeracaris (1963), Cox (1962), the significant correlation between the two was found to be 0.22 by Bendig (1958), 0.73 by Morgan (1953), 0.51 by McClelland, (1953), and 0.40 by Robinson (1961).

Terman (1959) studied gifted persons and did a follow-up studies of 30 years on his initial population. A detailed analysis was made of the 150 most successful and 150 least successful men among the gifted subjects in an attempt to identify some of the non-intellectual factors that affect life success. The results [of the follow-up] indicated that personality factors are extremely important determiners of achievement. The four traits on which, the most and least successful groups, differed most widely were persistence in the accomplishment of ends, integration toward goals, self-confidence, and freedom from inferiority feelings. In the total picture the greatest contrast between the two groups was in all-round emotional and social adjustment, and in drive to achieve.

Singh (1983) studied the organization of integrated components of various motivational factors of over and underachievers, to know the organizational difference between under and overachievers with respect to “I” or “(U+I)” organization and to ascertain the extent of harmony between the motivational organizations of the two groups. The findings of the study were; (1) Two factors were derived from correlation matrix of underachievers at “I” level. One factor was named the “Motivational Factor”. The second factor operative in this group was labelled as the “Self Debasing Factor”. (2) Only one factor was extracted for overachievers at “I” level. This was called the self promoting Motivation Factor. (3) One factor was obtained for underachievers at U+I level. This factor was recognised as the “Aggressive Assertion Factor.” (4) Two factors were found for
overachievers at “U+I” level. One factor was called “Value Aspiration Factor”. The second factor was named the “Benevolent-Assertion Factor.”(5) The motivational organisations of the two contrasting groups were found to be opposites in nature. (6) Motivational organisation of underachievers was found to be significantly less harmonious than that of overachievers.

Gupta (1983) studied the personality factors of ninth grade boys and girls in which there was a significant interaction between over and underachievement and n-Ach. Main objectives of the study were to identify the personality factors of boys and girls in which n-Ach showed significant differences and to identify the personality factors of over and underachievers, of high motivated, average motivated and low motivated groups. A sample of 310 ninth class boys and 312 girls were chosen randomly and were administered following tools; the Tandon Group Test of intelligence, the adapted version of Cattell H.S.P.Q. (FormB), the achievement motivation inventory. Marks obtained by these students in the eighth class public examination were taken as criterion scores. The data were analyzed with the help of unweighted means analysis. The results of the study gave the following results; the group of low motivated over-achieving boys was found to be more vigorous and zestful than the group of low motivated underachieving boys. The high motivated underachieving girls were more submissive and less tense than high motivated overachieving girls. Overachieving boys were less expedient, less shy and had less undisciplined self-conflict than the underachieving boys. Overachieving girls were less affected by feelings and more emotionally stable, less shy and more vigorous and zestful and had less undisciplined self-conflict than the underachieving girls. Overachieving boys differed from underachieving boys in personality factors G (Expedient vs. Persistent), Q3 (Uncontrolled vs. Controlled) and overachieving girls differed from under-achieving girls in personality factors C (Emotionally unstable vs. Mature), J (Zestful vs. Reflective) and Q3 (Uncontrolled vs. controlled). There was significant interaction in academic achievement, n-Ach and personality factor J (Zestful vs. Reflective), both in case of boys as well as girls.
Lau & Chan (2001) explored the problem of under-achievement in Hong Kong. Underachievers were compared with high achievers and low achievers on their motivational characteristics. The findings generally supported that motivational variables were important factors in discriminating under-achievers and high achievers. While under-achievers had poor academic self-concept, low attainment value in learning, and deficiencies in using effective learning strategies, they did not demonstrate maladaptive attributional pattern as described in Western studies.

Martin and Marsh (2001) proposed self-handicapping and defensive pessimism (comprising defensive expectations and reflectivity), integrated into a quadripolar model reflecting the motives to avoid failure and approach success. Results indicated that defensive expectations and self-handicapping reflected failure avoidance (with self-handicapping bordering failure acceptance); reflectivity was marked by the dual motives to avoid failure and approach success; and, self-concept essentially reflected success orientation. Interpretation of these constructs along failure avoidance and success orientation lines was validated through structural equation modelling in which self-handicapping, defensive pessimism, and self-concept differentially predicted a variety of academic outcomes. Self-handicapping had the most negative impact on academic outcomes, negatively predicting all four academic outcomes. The negative effects of defensive expectations were not so marked, predicting only self-regulation and persistence. Reflectivity and positive self-concept were both positively associated with persistence, whilst self-concept strongly predicted future academic plans and reflectivity strongly predicted self-regulation. Over strivers displayed good study skills and spent much time studying and this parallels the reflective students who were higher in self-regulation and persistence. Similarly, students high in defensive expectations were poor self-regulators. Self-handicappers were poor self-regulators and persisters.

Franzis, Holing and Miriam (2006) investigated the role of need for cognition, achievement motivation, and conscientiousness on academic underachievement. Forty-seven male and forty six female students in grades seven...
to ten participated in the study. Student attributes were assessed by self-report measures, school performance by academic grades, and intellectual abilities by a standardized structure of intelligence test. All relationships between underachievement scores and need for cognition, achievement motivation scales, and conscientiousness showed linearity. Results revealed that need for cognition as well as facilitating anxiety contributed the most to the explanation of underachievement.

Studies discussed above suggest that under and overachievers can be differentiated on the basis of their motivational characteristics (Lau & Chan, 2001). Underachievers were found to be less optimistic and more dependent on luck whereas overachievers were found to be of good health, had manifold interests and good reading habits (Maitra, 1985). Bhaduri (1971) reported higher n-Ach of underachievers than overachievers whereas poor motivation has been found to be the cause of underachievement of girls (Sharma, 1981). Ahluwalia (1985) reported central schools were most achievement oriented; next in order were public and then government schools. In girls, motivational factors played a larger role than cognitive factors (Krietler et al., 1995). Teacher support was more closely related to motivation for girls than for boys (Carol, 1993). It has been found to contribute to achievement only 19% in case of boys and 14% in case of girls (Gupta, 1989) and n-Ach was associated with parental encouragement and autonomy supporting family styles (Ginsburg and Bronstein, 1993).

**Studies on Family Climate**

School is an important agency to facilitate the development of personality but family is more important as it gives the initial push and impetus serving as the primary setting for the child’s personality development (Lucky, 1974). Johnson (1992) reports, that the family produces the climate that affects personality and cognitive development.

Parents and families have always been involved in the education of their children, to the point that parents are regarded as being the oldest and the most essential part of any educational system (Berger, 1987). Factors in home,
particularly those associated with maternal care and maternal needs are much more powerful determinant of educational achievement than are factors within the wall of the school itself. (Butcher, Lomax and Wiseman, 1966).

The primary factor for children educational success or failure is parent interest and support (Berger, 1995). Coleman (1966) report, that it was family background, rather than the characteristics of the school, appeared to be the major influence on school achievement. It was apparent that, over the years, the school experience did little to narrow the initial achievement gap and the socio-economic composition of student body was more strongly related to each other than any school factor. Schools may not have a strong effect (Suichu & Willms, 1996) and in fact school level involvement has less effect on achievement than parent child involvement (Muller, 1993; Schneider & Coleman, 1993). When parents become involved, children do better in school, and they go to better schools (Henderson, 1994). Parental involvement even reduces the scheduled tribes and scheduled caste achievement gap (Rath & Saxena, 1995).

Researches have been conducted relating academic achievement to parental practices (Williams, et al., 1996; Taylor, et al., 1995), parenting style (Steinberg et al, 1992; Shek, Daniel, 1995; McClun, Lisa et al 1998; Fagan, Jay, 2000), parental involvement (Baumrind, 1974; Clark, 1983; Dornbusch et al., 1987; Fletcher, 1984; Steinberg et al., 1989; Lee, 1993; Steinberg et al., 1992), disciplinary practices (Broody & Flor, 1998; Rowe, Vazsonyi & Flannery, 1995; Mc Bride-Chang, Catherine; & Lei, 1998; Smith et al., 1997; Shumo et al., 1998, Kilgore, Snyder. et al., 2000), parental aspirations ( Kahl's, 1953; Saha, 1985; Marjoribanks, 1987, 1992; Astone & Mc Lanahan, 1991; Milne et al., 1986), parental support (Berger, 1995; Sahay, 1991; Lord, Sara et al., 1994; Baharuddin et al., 1998), acceptance (Dornbusch et al., 1987; Ojha & Singh, 1988), positive attitude of parents (Chen, Chaunsheng et al., 1995; Ogbu, 2002; Fuligni, Andrew, 1997) and socio economic status (Nair, 1987; Trivedi, 1988; Singh, 1989; Ganguly, 1989; Devanesan, 1990; Reddy, 1991; Indira, 1991; Garg, 1992; Harikrishnan, 1992; Muthumanickam, 1992; Rani, 1992; Duffield, 1998; Demack et al., 1998).
Studies on Family climate focusing on under and overachievement

Zaidi (1986) studied effect of parental deprivation in relation to SES, personality traits and self-concept. Three groups of children were studied viz., maternally deprived, paternally deprived and non-parentally deprived. The sample comprised 300 boys of class fifth in which 200 boys were parentally deprived and 100 were non-parentally deprived. The sample was drawn from Hindi medium primary schools of Allahabad city. The tools used were Ravens’ coloured Progressive Matrices, The SES questionnaire-Urban by Kapoor et al. (1879), Cattell’s C.P.Q. adopted in Hindi by Kapoor and Rao, and the Indian adaptation of Pier’s Harris Children Self-concept Scale by Ahluwalia. Apart from these four achievement tests developed by researcher were also used. Results of the study revealed that parentally deprived children were found to be underachievers while the non-parentally deprived children were average in their achievement. Both the deprived groups had low or negative self-concept and were emotionally less stable as compared to non-parentally deprived children. Maternally and paternally deprived groups differed significantly on some of the personality traits. The former children were more affected by feelings; they were excitable, obedient and tender-minded while paternally deprived children were more phlegmatic, dominant, expedient and forthright. The most powerful predictor of aggregate achievement in both the deprived groups was self-concept and SES.

Chauhan (1993) studied the relative contribution of socio-cultural and familial variables of over and underachievement. The sample of the study were 489, eighth class students, randomly selected from eleven different intermediate colleges of Aligarh city. Self constructed tools for measuring scholastic achievement named as “The achievement test in science for class eighth students”, culture Fair Test of General Mental Ability, constructed by Cattell & Cattell (Test of “g” Culture fair Scale 2, form A) of intelligence, self developed familial background assessment scale were employed as measuring tools. Results of the study indicated that family income, family occupation and socio-cultural background had significant correlation with academic achievement.
Onatsu, et al (1997) carried out three studies to examine the extent to which family composition, size and atmosphere, parental control, the level of parental education and school and SES as associated with young people’s problems at school and later on in society. In study one, 13 to 14 year old underachievers, matched pair controls, overachievers and their matched pair controls, were compared according to their family background. In study two, low achieving pupils, vocational school pupils and senior High School pupils, aged between 14 and 19 were examined. In study three, unemployed young adults, students with health problems and vocational school students were again compared, according to their family background variables. The results showed that underachievers, low achievers and society dropouts typically came from a family in which their biological father was not present. They also reported a lower level of parental control and a more negative family atmosphere than the students in the control groups. Overachievers came from families with a positive atmosphere. Problems at or after school were not associated with the level of parental education.

Baker, Bridger & Evans (1998) explored individual, family and school-related factors contributing to under-achievement among gifted preadolescents. They explored three simple models of factors contributing to underachievement as well as a model incorporating all three factors. The complex model provided the best fit for the data, yet each of the three simple models was significant, suggesting the importance of an ecological approach to problems of underachievement among gifted students. As underachieving children were at-risk of academic failure or removal from gifted programs because of poor academic performance, therefore students were referred by their parents to a research/clinical program pertaining to gifted preadolescents at a university-based psycho educational clinic in a southeastern state. The children ranged in age from 9 to 14, with an average age of 12. There were 34 boys and 20 girls. Students were primarily first-borns (65%) and second-borns (25%). Only two children (both in the underachieving group) had existing psychiatric diagnoses (both Attention-Deficit/Hyperactivity Disorder). Although parents of three students in the underachieving group and four in the achieving group reported that their children
had some "emotional" problems (primarily related to post-divorce adjustment). All students were Caucasian, 82% of families were married, 82% of mothers and 80% of fathers reported at least some college education (26% of mothers and 43% of fathers held a graduate degree). Nine children (five in the underachieving group and four in the achieving group) had experienced a parental divorce. There was an age difference between the groups with the underachieving group being slightly older. Under individual factors, behavior/emotional problems, personal competencies, and study/organizational skills were the three variables considered for the individual model. The three family variables used were family emotional climate, family organization and parenting skills. Data analysis was done with logistic regression, using the SAS data analysis package and a traditional alpha level of 0.05, was used to evaluate the adequacy of each of the proposed models to predict group membership (underachieving or achieving status). Logistic regression is a multivariate technique that analyses nominal-level variables in a regression format and has less restrictive conditions than does predictive discriminant analysis (Morgan & Teachman, 1988). Understanding the factors contributing to underachievement can help educators and psychologists plan more effective interventions for gifted students. In this study, models derived from the theoretical and empirical literature describing individual, family, and school approaches to underachievement were tested. Each of the models was significant, suggesting that individual, family, and school factors contribute to underachievement. Results of the study showed that; under individual model, after controlling for age, which was a non-significant predictor, only the study/organizational skills variable contributed significantly to the model. Neither behavior problems nor personal competencies made significant contributions. Under family etiology model, only parenting skills approached significance; neither family organization nor family emotional climate made statistically significant contributions. The quality of teacher-student relationships approached significance, as did academic quality. Peer relationships at school did not contribute significantly to the model. Under combined model, after controlling for age, all of the predictors contributed significantly to this model. Organizational/study skills, parenting skills, and academic quality were found to be related significantly to underachievement status.
The results from each of the individual models considered in this study expand the understanding of problems of underachievement. Of the single models, the individual etiology model was the most robust. The results suggest that underachieving children have deficits both in behavioral control and in organizational skills that could be the focus of direct intervention. Deficits in both strategic problem-solving and in coping skills have been noted among underachievers.

Above studies suggest that poor adjustment and problems concerning family and school have also been found to contribute to under-achievement (Sharma, 1981; Srivastava, 1967). Underachievement is related to family variables (Chauhan, 1993; Casanova, 2005), parental deprivation (Zaidi, 1986), parenting skills (Baker, Bridger & Evans, 1998), parental maladjustment (Vanarse, 1970) and negative family atmosphere (Onatsu, et al).

**Studies on School type in Relation to Academic Achievement**

Heyneman and Loxley (1983) have reported that “Predominant influence on student learning is the quality of the schools and teachers to which the children are exposed.”

Schools in India come in three basic forms – Government schools, Private Aided (PA) schools (almost fully government financed by the government but privately managed), and Private Unaided (PUA) schools. A very large increase in the number of and enrollment in PUA schools at the primary school level has been noted in recent years. This is in stark contrast to earlier trends, where PUA schools were important only at the secondary education level. A deterioration of the “public” school system (including a decline in the quality of PA schools, which tend to be very similar in most respects to government schools) has caused PUA schools to emerge even in areas that already had government or PA schools.

A government-sponsored study (the PROBE Report published in 1999) in four Indian states found that in half of the government schools no apparent teaching activity was taking place and in a third that the head teacher was not
present when visited (Tooley and Dixon, 2005). Scanty clothes, depleted school bags, torn and ragged Tat Patti, no cleanliness in and around the schools, bare ground to study seemed to be a kind of derogatory reflection to the self-esteem of the student. Lack of comprehension leads the children to plain boredom and parents have expressed their inability to judge and help (Gupta, 2002). Gupta and Sharma (1980) studied type of schools in relation to self concept, SES, intelligence and reported adolescents studying in privately managed High Schools had significantly higher perceived real self-concepts as compared to the adolescents in the government-managed High Schools. Students from private schools, score better than government schools (Chakrabarti, 1988; Govinda & Verghese, 1991, Panda, Sahoo & Sahoo, 1995). Higher teacher accountability is demanded in private schools rather than in government schools (Majumdar, 1996; Bashir, 1994; Sinha & Sinha, 1995).

Similar studies have been found in other developing countries like Kenya. Gelder (2006) with his researchers tested 3000 children, roughly half from the Nairobi slums and half from the government schools, in Mathematics, English and Kiswahili. Although the government schools served the middle classes as well as slum children, the private schools — serving only slum children — outperformed the government schools in Maths and Kiswahili, although the richer children had a slight natural advantage in English. When they statistically controlled for background variables, the private schools outperformed government school children in all three subjects." But contradictory results have been reported by Singh (1996) who suggested that government schools perform better than the privately managed schools.

There are two viewpoints regarding relative effects of home and school on underachievement of children. According to first viewpoint, thinking on underachievement lays the blame on factors outside the school influence, such as poverty, home life, and students' academic motivation. The implication is that since schools have little control over these factors, then schools have little control over improving achievement.
While the second viewpoint indicates that, poverty, single-parent households, and even homelessness, while they may be tremendous hardships, do not in and of themselves doom children to academic failure (Clark, 1983; Lucas, Henze, & Donato, 1990; Mehan & Villanueva, 1993; Moll, 1992; Taylor & Dorsey-Gaines, 1988). These and similar studies point out that schools that have made up their minds that their students deserve the chance to learn do find the ways to educate them successfully in spite of what may seem to be overwhelming odds (Nieto, 1994). Nieto further points out that school can have an impact on challenged students.

There is no doubt that there are factors beyond educators' control that contribute to the challenges of educating underachievers, but it is important to note that school itself may also contribute to the problem of underachieving and disengaged students. Emerick (1992) reports, for example, that the level of achievement occurring outside the classroom indicated that school was frequently the only place, where academic and creative achievement were not taking place. If this is so, then educators must closely examine the role played by schools and teachers in developing underachievement patterns.

**School-Related Factors and Underachievement**

As far as schools factors of underachievement are concerned, it can be under expectations of teachers, conflicts with teachers, lack of academic readiness, dullness of curriculum etc. It was reported by Emerick (1992); Siegel (2000) that underachievement is symptomatic of a mismatch between the student and his/her school environment. There continues to be evidence that school practices (or the lack of effective school practice) interfere with some students' learning. For example, in a study of gifted African American achievers and underachievers (Ford, 1995), those underachievers reported (a) less positive teacher-student relations, (b) having too little time to understand the material, (c) a less supportive classroom climate, and (d) being unmotivated and disinterested in school. Testimony provided before the Carnegie Corporation Quality Education for Minorities Project National Resource Group indicated that the following
factors contributed to minorities dropping out of school (McKenzie, 1993): differential tracking, lack of identification with counselors and teachers, poor attitudes and low expectations from teachers, feelings of failure, and curriculum that does not include students' perspectives.

Rimm (1986) identifies structure, competition, labeling, negative attention, boredom, and conformity (versus individualization) as school causes of underachievement. Wheelock & Dorman (1988) report that reasons for dropping out may grow from alienating practices in middle schools. Their factors include retention in grade, tracking and ability grouping, discrimination based upon standardized tests, boredom with standardized curriculum and instruction, punitive practices, suspension and expulsion practices, school climate and rules, and fragmented school organization. Davis (1972) reports that Junior High School student's feel that they are "made" to do things that "don't make sense."

In order to find the causes of underachievement in homes, the emphasis in sociology of education shifts to looking at factors inside schools. The new emphasis was expressed in MFD Young's (1971) question - what sort of education is it that working class students fail at? Schools apparently exist to cater for the masses - yet 3/4 of population do not do very well in them. The old approach looked to the culture/language/environment of homes as explanations: the "new sociology of education" looked at what was actually going on in schools". But if we look at research like Plowden: her choice of factors was heavily determined by what teachers saw as the issues. According to her, the problem was to make more parents aware of their part in educating their offspring. The researchers turned to teachers for estimates of ability of students, or of parental interest. Researchers also incorporated a fair few assumptions of their own into their estimates of the "goodness" of homes, and often "found" in working class homes - that these homes were "deficient" in certain ways. This could be put kindly - these homes were "culturally deprived". The same thing can be found in the work on US black children, (where the concept of cultural deprivation came from). A significant break was introduced by this approach. The role of schools in creating inequality had been largely ignored before. In studies
like Plowden, the (best) schools were considered to be alright, because a new approach was needed, using methods borrowed from anthropology. These involve participating in cultures and observing them, trying to understand them through the eyes of the participants not imposing observers' value judgments. This approach drew strength from arguments at a more abstract level found in "symbolic interactionism" (Hammersley & Woods 1976).

Famous anthropological studies like the one of Cherokee Indian children (Dumont & Wax 1971), or of the US black residents of Trackton (Brice Heath, 1986) showed that the social and cultural rules relating to speaking in groups, questioning, child-rearing, or addressing adults and strangers were different in these communities, but that this was often misunderstood as a lack of competence. Much the same point is argued in Keddie about all the famous aspects of "deprived" cultures - are homes disorganized and unstimulating or differently organized and differently stimulating? As different cultures mean that they are not the culture of the researchers who cannot understand different arrangements and tend to see these as simply poor versions of "proper" arrangements (their own preferred styles).

Like sociological researchers, teachers may also be guilty of bringing their own value judgments. They may have low opinions of working class and see their differences as deficits. Various studies indicate that teacher expectations have a powerful impact on student achievement (e.g., Good, 1981). Teachers expect working class/black and low income students to be poor readers, less able, "subnormal" and "troublemakers" (Becker 1971, Goodcare 1971, or Sharp & Green 1975; Hale-Benson, 1986). These expectations may be realistic ones, or they may be unfair or premature, and cloud teachers' judgments of students' real abilities.

To Rosenthal and Jacobson (1968), low expectations led to low achievement. They randomly assigned completely phoney test scores to children, told teachers to expect spurts in attainment from the "high scorers", and then found real gains in those children. All that was necessary to eradicate
underachievement, it followed, was to prevent teachers from having low expectations of these unpopular children (for e.g. by telling them about the strengths of Cherokee culture). Expectations can lead to "negative self-fulfilling prophecies", where labellees are so outraged by low expectations that they set out to prove the labeller wrong - or the reverse for high expectations (Merton, 1956). It is hard to prove that labelling is the major factor in attainment. Rogers argues this well (1986), pointing to problems in isolating the mechanisms whereby labels are transmitted to children. Kolb and Jussim (1994) describe several ways in which teachers unintentionally influence the achievement patterns of their students. Teachers may fail to recognize talent, especially among minority students or those with behavior problems, and hold low performance expectations for children. Alternately, teachers may hold stereotypes about gifted students and have unreasonably high standards of performance, thereby eliciting withdrawal and failure to perform by gifted students who perceive undue pressure (Pendarvis, 1990). The practice of labeling students as "gifted" may reinforce these stereotypical perceptions by teachers (Robinson, 1986, 1989). Because of these expectations, teachers do not always acknowledge good work from gifted students. They generally grade them harder than they grade non-gifted children and expect gifted children to help tutor those in the class who need help (Clinkenbeard, 1991). Therefore it may be concluded that both low and high expectations may lead to underachievement.

Another most important variable that may influence the level of achievement is the type of school. As reflected by the popular opinion different kinds of schools viz. government and private, provide different kinds of learning and developmental environments which are based on different kinds of infrastructural facilities and academic culture. Since such a variation in school system is thought to have an influence on academic achievement, researcher felt it necessary to include this dimension in the present research. A review of literature on this ground revealed that potential research work has not been conducted considering school type as an influencing factor on various parameters of personality, family and need -achievement of overachievers and underachievers. Therefore, the researcher felt constrained to report any research in this area.
It is further noticed that some socio-demographic factors viz. socio-economic status, parental involvement, parent education and culture of academic and vocational growth are associated with the type of schools.

Statement of the Problem

In the light of discussion given above the present investigator has taken up the problem of studying the incidence of over and underachievement in a randomly selected student population with the purpose to see the impact of personality, need-achievement and family climate on over and underachievement and also the incidence of over and underachievement in private and government schools.

As already given in the first chapter the objectives may be recalled here also to make the discussion more goal oriented.

Objective of the Study

1. To identify the personality characteristics of over and underachievers.
2. To study n-Ach of over and underachievers.
3. To investigate the family climate of over and underachievers.
4. To identify the incidence of over and underachievers in private and government schools.
5. To determine school type differences in the incidence of over and underachievement.
6. To study inter-correlations among the above mentioned personal and social variables viz. Personality, n-Ach, family climate that are presumed to determine over and under achievement.

The method and procedure is presented in the third chapter.