CHAPTER - II
REVIEW OF RELATED LITERATURE

The review of related literature involves locating, reacting to and evaluating the researches, carried out earlier, and also the casual observations and opinions that are related to any research problem, to be explored. This intends to help the researcher to have a thorough understanding and insight into the work already undertaken and key areas to be explored further. No research endeavour is unique in descriptive research and variables, under investigations are studied in different combination to understand the dynamics cause and effect relationships, underlying the phenomenon. Still, the core issue in each research endeavour is to move a step forward, to add dimension and contextuality in the existing knowledge. Hence review of literature helps to provide a rationale for conduct of a research study to add to existing knowledge with the new database in a different socio-cultural context, either to generalize globally or to be local specific. The review of related literature in the present study deals with pertinent researches carried out in reference to achievement and its antecedents in the domain person, home and school.

The trend of research endeavours looking into correlates of achievement (Anand & Dave, 1979; Anand & Padma, 1987; Padma, 1991; Dave, 1997) shows that learning achievement of students has been studied mainly looking at personal characteristics of learners, both intellectual and personality related, and also focusing on family background i.e. socio- economic status, and home
environment along with school related factors. Learning achievement among students at different stages of school education has been studied by researchers to identify its correlates to enhance levels of achievement.

2.1 Personal Factors and Learning Achievement

Mehdi (1977) found positively relationship significant of correlation between creativity and academic achievement, for both rural and urban high school students, suggesting that there exits a significant relationship between creativity and school achievement.

Sandhu (1978), in a correlational study, reported creativity and academic achievement in science subjects to be significantly and positively related. However when the effect of intelligence was partialled out the two measures were not found to be significantly related, thereby meaning that intelligence in comparison to creativity is more important in students achievement. Bhartiya (1979), too, found that creativity was significantly related to mathematical achievement.

Sarswat (1982) conducted a study of self-concept in the relation to adjustment, values, academic achievement, socio-economic status and sex of high school students of Delhi and found that only intellectual self-concept was positively and significantly related to academic achievement.

Goyal (1984) reported that there was a definitely positive relationship between intelligence and achievement of at middle range, though it is slightly weakened at the higher level, and almost completely broken down at the lower level of intelligence. However, Rajput (1984) concluded that intelligence
affected the achievement of the students in mathematics, significantly at all the three levels i.e. high, average and low. There was superiority of the high intelligent group of students over the average and low intelligent group of students in their achievement in mathematics.

Dixit (1985) conducted a comparative study of intelligence and academic achievement of adolescent boys and girls studying in classes IX and XI and found that: there was no difference in the academic achievement of intellectually superior and intellectually very superior boys and girls; at all the other intellectual levels the academic achievement of girls was superior to that of boys; in general the intelligence test scores for the boys were higher than those for the girls; in case of the boys there was very high correlation between intelligence test scores and academic achievement; and in the case of girls there was an average correlation between intelligence test score and academic achievement.

Gakhar (1986) and Grewal (1985), too, found positive and significant relationship between academic achievement and intelligence.

Krishan Lal (1986) observed that there was significant and positive relationship between creative thinking and academic achievement.

Sharma (1985) studied self-concept, level of aspiration and mental health which affects academic achievement among school going children. The main findings of the study were:

(i) self-concept affects academic achievement, (ii) level of aspiration has not been found to have significant bearing an academic achievement, (iii)
mental health is not related to academic achievement, (iv) high achiever have superior self-concept on behaviour, intellectual and school status and happiness and satisfaction than low achievers, (v) high and low achievers differ significantly in their level of aspiration, (vi) high and low achievers do not differ significantly on mental health as indicated by adjustment scores.

Mehrotra (1986) conducted a study of the relationship between intelligence, socio-economic status anxiety, personality adjustment and academic achievement of high school students and found that: (i) both for the boys and girls there was an inverse relationship between level of anxiety and academic achievement (ii) both for the boys and the girls there was a positive relationship between socio-economic status of the family of the students and the academic achievement (iii) there was a positive relationship between level of adjustment and academic achievement, (iv) there was positive relationship between intelligence and academic achievement (v) in general, the girls had a comparatively higher level of anxiety than the boys.

Bhusari (1988) conducted a correlation study for investigating the relationship between intelligence and scholastic achievement of scheduled caste (SC) and scheduled tribe (ST) students and found a positive correlation between intelligence and scholastic achievement of ST students in almost all the subjects. The coefficients of correlation between intelligence and mathematics achievement and intelligence and science achievement were at a higher level than the coefficient of correlation of intelligence with achievement in language and social sciences.
Ramasamy (1988) revealed that academic achievement is positively related to, personality, achievement-motivation, self-concept, study-habits and socio-economic status among high and low achieving boys and girls. As significant difference were found between high and low achievers in personality, achievement-motivation, self-concept, study habits and socio-economic status.

Bhogayata (1989) revealed in his study that locus of control measures were relatively weak correlates of learning. This weak relationship appeared constant across grade level, sex, socio-economic status as well as across the measures of locus of control and academic achievement.

Dixit (1989) studied the effect of personality factors and self-concept on educational achievement as well as the interaction among then variables. It was revealed that personality factors influenced the educational achievement. He further stated that intelligence was related to educational achievement, but self-concept was not related to educational achievement.

Irudayaraj (1989) found no significant relationship between science achievement and creativity of high school students.

Chadha and Chandna (1990) studied the correlation between creativity, intelligence and scholastic achievement. They reported a positive and significant correlation between creativity and intelligence, creativity and scholastic achievement and intelligence and scholastic achievement. Intelligence quotient correlated with creativity and scholastic achievement. There was a positive and significant correlation between intelligence and
scholastic achievement, even when the effect of creativity was partialled out, but and negative a significant correlation was found between creativity and scholastic achievement, when the effect of intelligence was partialled out.

Dev and Grewal (1990) attempted to determine the relationship between study habits and academic achievement of the final year B.Sc. (Home Science) students of the Punjab Agricultural University, Ludhiana and found that the 'home environment of the students' and 'planning of schedule' were significantly related to their academic achievement. He also found significant relationship between study habits and academic achievement along with the fact that students' study habits and interests also influenced their academic achievement.

Devi (1990) investigated the effect of intelligence, neuroticism, and locus of control on academic achievement and concluded that academic achievement is positively and significantly correlated with intelligence whereas, academic achievement is negatively correlated with neuroticism.

Awasthi (1992) find out the effect of prolonged deprivation, parental education and intellectual ability on self-concept, self-ideal discrepancy and scholastic achievement. She find a significant correlation between degree of deprivation and self-ideal discrepancy and between intellectual ability and scholastic achievement. Multiple regression analysis revealed that scholastic achievement could be predicted fairly well when the measures of prolonged deprivation, intellectual ability and self-concept were available.
Singh (1993) examined the relationship between achievement, intelligence, anxiety and adjustment variables and found that low academic achievers and high academic achievers differed significantly in their intelligence and test anxiety.

Gupta and Mukarjee (1994) reported that intelligence was positively and significantly related with academic achievement and the magnitude of correlation varied from 0.61 (urban girls) to 0.35 (rural boys).

Katyal and Dhar (1995) concluded that high academic achievers differed significantly in terms of their intelligence and test anxiety.

In another socio-psychological study of intelligence and academic achievement of backward classes and scheduled caste students Singh (1995) found that SC students were generally lower on intelligence and academic achievement in comparison to backward class students.

Kapoor (1996), in a study on creative thinking ability of high school pupils, found that high and low achievers do not differ in creativity.

Bass (1999) revealed in their study that involvement in extra-curricular activities has a positive effect on academic and behavioural performance of African American males at the ninth grade level. In addition, participation in extra-curricular activities can give students a sense of belonging at the school which would have direct impact on school attendance and school behaviour.

Bandyopadhyay and Ghosh (2000) explored the relationship among motivation, mental health and achievement of the school going students, and found that correlation between motivation and academic achievement for both
the sexes were positive and significant; and mental health and academic achievement (both in case of boys and girls) were also positively correlated.

Hines (2001) revealed that attitudes towards physical activity and mathematics achievement were the best predictors of physical fitness. His findings suggested that those who were physically more fit tended to be better readers, do better at mathematics competition, and do have better language skills.

Leondari and Gialamas (2002) explored the relationship between implicit theories of intelligence, goal orientation, perceived competence and school achievement. The results of Pearson product correlation revealed that implicit theories of intelligence were not related to academic achievement. Goal orientation had an indirect effect on achievement, which was mediated through perceived competence.

2.2 School Factors and Learning Achievement

Das (1974), in a study on impact of school conditions on primary education in order to ascertain whether there was any impact of the physical conditions (facilities) of the primary school on the retentively and regular educational progress of its children, found that there was significant relationship between efficiency in education and physical facilities in schools. The school conditions definitely seemed to have a favourable impact on school education. Better physical facilities increased the attractive and retentive power of the school as well as provided situations conductive for effective education.
and, hence, contributed towards better educational attainment of the children of that school.

Lulla (1974) in a study on the effects of teacher's classroom behaviour on pupil's achievement attempted to find out the effects of teacher's classroom influence upon the pupil's achievement. It was a field experiment wherein teachers were trained to acquire indirect influence patterns of classroom behaviour. The study revealed that the pupils who were taught by the teachers trained in using indirect behaviour scored higher, as compared to their counterparts studying under the teachers who were not provided any training. It was also argued that the indirect teacher behaviour may raise the interaction potential of the classroom climate resulting in free communication and on interaction between teacher and the group of pupils. It was found that such an atmosphere not only stimulated the learner in learning but also provided a informal climate to the teacher for conducting his teaching activities.

Patel (1974) in a study on the relationship between pupils' attitudes and teacher influence in the classroom to study the effectiveness of the influence of teacher's classroom behaviour on pupils' personal anxiety, motivation and classroom organization, pupils' attitudes towards reward and punishment, teacher, the classroom climate and school. The study revealed that indirect teacher influence had favourable effect on motivation and classroom organization and also on the attitude of pupils towards teacher. When teacher influence without content emphasis was taken into consideration indirect teacher had favourable influence on personal anxiety of their pupils, on the
development of independent behaviour among pupils and on the classroom climate. However, teacher classroom behaviour did not influence pupils' attitude towards reward and punishment and teacher classroom behaviour did not influence pupil's attitude towards school.

A study on organizational climate, teacher morale and school quality was conducted by Pillai (1974) to determine the extent to which the organizational climate of schools and faculty morale in the school were related to the quality of schools. The major findings of the study were: (i) performance of pupils was significantly better in open and autonomous climate schools than in schools of other climate types; (ii) performance of pupils in high morale schools was better than in low morale schools; (iii) higher the faculty morale, quicker and better was the school introducing newer practices; (iv) both climate and morale were positively and highly related to both criteria namely, pupil performance and innovative ability of the students; (v) curricular issues, school facilities and services, community support of education, rapport among teachers, community pressures, teacher status and teacher load were found to contribute to pupils' performance in schools.

Bhagirath (1978), in a study on correlates of academic achievement as perceived by the teachers and students of high schools, found that: (i) the teachers and the students perceived intelligence, character, emotional adjustment, school and social adjustment, creativity, punctuality, activeness, alertness, efficiency, social/emotional adjustment and intelligence/social adjustment as the correlates of academic achievement; (ii) all the students and
the teachers agreed on intelligence, emotional adjustment and social and school adjustment, but differed in respect of creativity and punctuality dimensions; (iii) perceptions of the urban and rural teaches were almost the same; (iv) the male and female teachers agreed on the dimensions of intelligence, character and social and school adjustment as significant correlates of academic achievement.

Singh (1978) investigated the relationship of teacher's personality success in teaching and impact on students' behaviour found that: (i) the highly successful teachers were assertive, venturesome, controlled, emotionally stable and twisting, (ii) the highly successful teachers were better adjusted than the average and low teachers while the average successful teachers were better adjusted than the low successful teachers (iii) positive attitude towards family, a sense of identification with the people, place and profession and growing concern for the school, students and studies were helpful in making a teacher successful (iv) the highly successful teachers were able to induce learning, develop interests and foster desirable attitudes in their students.

Debas (1979) in a study on children's perception of teachers' attitude towards them and its relationship with self-perception, home environment and school achievement found that: children's perception of teachers' attitude towards them was significantly related with self perception, teachers' perception of pupil's characteristics and school achievement; whereas, it was not significantly related with the cultural status of students; attitude towards children coming from advantaged homes was more favourable than towards
children coming from disadvantaged homes; and school achievement was not significantly related with the cultural status of students, whereas teachers' attitude towards students was likely to affect their school achievement.

A study on interrelationship between organizational climate of secondary schools, socio-economic status of students, students' perception of rewarding behaviour and their academic achievement was carried out by Reddy (1981). The major findings of the investigation were: (i) The organizational climate profile of the government school in Telangana area was just average in quality i.e. neither closed nor open and (ii) the organizational climate of the schools under aided management was controlled-cum-autonomous. The organizational climate profile of the schools under unaided management was controlled-cum-open. The academic achievement level of the students varied from 54.29% to 60.75% in case of government schools to private aided school thereby suggesting that controlled-cum-open climate is a facilitator in academic achievement of students. (iii) There was positive correlation between the socio-economic status of the students and their academic achievement (iv) The student's perception of rewarding behaviour was consistently neutral, over three types of school and was not related to their achievement.

Varshneya (1981) in a study on a relationship between organizational environment and teacher effectiveness found that: open school environment produced very favourable attitude towards the teacher, whereas the familiar environment produced the least favourable attitude towards the teacher; different organizational environment conditions did not produce significant
difference in the pupils' scholastic achievement; though organizational environment was found to be significantly and positively related to the pupils' attitude towards the teachers.

Chopra (1982) studied the organization climate of schools in relation to job satisfaction of teachers and students' achievement had studied to find out (i) the job satisfaction of teachers working in schools having different organization climate; and (ii) student's achievement adjusted for intelligence and socio-economic status in schools having different organizational climate and (iii) the relationship between teachers' job satisfaction and students' achievement after partialling out the effects of intelligence and socio-economic status. The major findings of the investigation were: (i) the open climate schools showed the highest overall teacher job satisfaction, followed by the autonomous, familiar, controlled, closed and paternal climate schools, respectively; (ii) job satisfaction of the teachers in the open climate schools significantly differed from that their counterparts in the closed and paternal climate schools; (iii) the schools having other five types of climates did not show significant difference among themselves in respect of overall job satisfaction of the teachers; and (iv) student's achievement was not significantly different in different climate type schools.

Kakkar (1982) found that students in a praise dominant school environment showed higher levels of academic achievement and intelligence than their counterparts having ordinary school environment.
Sharma (1982) studied the impact of the leadership behaviour of headmaster on the school climate and know the effect of school climate on the achievement of the pupils, and found a significant difference among open, controlled, familiar and parental type of school climates on the leadership behaviour. A better achievement was found in the case of familiar climate schools, though they did not show a positive relationship with leadership behaviour.

Doctor (1984) conducted a study of classroom climate and the psyche of pupils and their achievement. The major findings of the study were; (i) a classroom with better classroom climate had high pupils psyche, (ii) better classroom climate had consistency with high level of academic achievement, (iii) academic achievement was highly dependent on 'independency of pupils', (iv) academic achievement was dependent on teachers' and pupils' behaviour, pupils' psyche and better classroom climate.

Mistry (1985), in a study on the quality of school life as a function of organizational climate and pupil control ideology, revealed that (i) area, sex and socio-economic status did not influence the quality of school life; (ii) urban and girls schools were comparatively more humanistic than rural and boys schools; (iii) quality of school life was found directly proportional to their climate; (iv) the dimensions of climate played their role in building the pupil control ideology; and (v) there was positive and significant correlation between quality of school life and pupil control ideology thereby indicating that with less custodial control ideology, there was more of the good quality school life;
the findings of the study provided a rationale that there was room for improvement in the three key aspects of school life i.e. the classroom, the organizational climate of the school and school-community relations. All the three facets must be taken into account for enduring education improvement.

Srivastva (1985) conducted a study on school effectiveness in relation to organizational climate. The main findings of the study were: (i) the feeling of spirit among teachers is a contributing factor to school effectiveness and is significantly related to school innovativeness; (ii) feeling of spirit among teachers does not influence school results; (iii) feeling of intimacy among teachers and school effectiveness are significantly related but does not significantly relate to school results; (iv) no significant relationship is found between humanized thrust on the part of the principal and school results.

Mukhopadhya (1988) identified the determinants of school climate and examined its effect on scholastic achievement of students. He depicted in his study that out of nine determinants of school climate ‘headmaster staff relationship’, ‘administrative capacity of the headmaster’, ‘teachers’ job ratification’, and ‘physical facility of the school’ contribute significantly to scholastic achievement. The other determinants, viz. close supervision by the headmaster, teacher-student relationship, teacher relationship, dutifulness and punctuality were not found to be statistically significant contributors to scholastic achievement of students.

Dhar (1989) examined the relationship of school environment and approval motive on achievement and reported that the main effects of school
environment and approval motive were significant on academic achievement of arts as well as for science students, indicating that favourable school climate and approval motive contribute significantly to higher levels of academic performance.

Veeraraghavan and Bhattacharya (1989), in a study on school achievement, student motivation and teacher effectiveness in different types of schools, ascertained whether school achievement varies in terms of types of schools (public school, missionary school, government run urban school, and government run rural school) and whether school achievement is influenced by students' achievement motivation and teacher effectiveness. The results showed that school achievement varies significantly in terms of the four types of schools with public and missionary schools having the highest achievement and government schools showing the lowest achievement. Further analysis showed that while student's motivation has no relationship with school achievement, teacher effectiveness is positively correlated with the same.

Sood (1990), in a study on impact of certain curricular packages achievement in social studies of rural underachievers at primary stage and found that: the underachiever class V students who are taught the subject of social studies making the effective use of the teaching skills achieve higher in comparison to those who are taught without the effective use of the teaching skills. Further, the two groups of underachievers who are taught without making the effective use of the teaching skills exhibit equal academic performance.
Badhri (1991) investigated the causes of low educational achievement in government high schools of Tamil Nadu and identified low motivation, policy of liberal promotion to the next higher class, poor study habits, lack of parental involvement in education and poor teaching as the causes of poor achievement of students in different school subjects.

Deshpande and Saraswati (1991) found that the amount of homework and delay in evaluation of homework were not significantly related to achievement of students. However, the trend of the relationship between homework and achievement indicated that students given homework perform better. In nutshell, the study revealed that homework when given frequently and corrected immediately has a positive effect on student achievement.

Govinda and Varghese (1991) derived the conclusion that the level of infrastructure facilities provided in the primary schools played an important role in improving the teaching-learning environment and consequently, the learners' achievement level as well as overall school quality.

Padhan (1991) undertook an input-output analysis of primary education in Sambalpur District of Orissa during 1975-88. The finding indicated that the school cost, teachers' qualification and experience and socio-economic status of students had no impact on scholastic attainment, when the effect of the remaining variables was kept constant.

Pradhan (1991) investigated the effect of the school organizational climate on creativity adjustment and academic achievement of secondary school student of Orissa. It was revealed that the school organizational climate
significantly affects the creativity scores and academic achievement of the students, though it did not relate significantly with adjustment of students.

A significant positive relationship has been reported by Singhal (1991) of academic achievement with motivation, affiliation, teacher support, task orientation and competition dimensions of classroom climate.

Balasubramaniam (1994) found that sex, locality of school and medium of instruction has certain effect on pupil's academic achievement in English.

Karawalla and Pandya (1994) in their study found that schools are effective in facilitating the academic achievement of students through their ethos.

Khan (1995) investigated organizational climate of schools in relation to pupils' academic achievement and revealed a positive relationship between the openness of climate and pupils' achievement, and it was reported that for the schools with an open climate, the SSC result is encouraging being above 75 percent while those with a closed climate have a result as low as 5-10 percent.

Panda et al. (1995) made a study on students' academic achievement in relation to school organizational climate and concluded that the students studying in open school climate had highest mean score (M=60.85) followed by controlled (M=59.53), paternal (M=56.66), familiar (M=56.30) and closed (M=49.47) Open and controlled climate seem to be more conducive and favorable on the part of the students to secure highest percentage marks than their counterparts. It was also noticed in the study that high percentage of
marks were secured by the students of open climate, the least was found out in closed climate.

Gordern (1996) analysed relationships between how secondary school Principals spend their work time, student achievement and Principal effectiveness. The study revealed that: (i) high achieving school principals spent a greater amount of time on instruction/curriculum than the Principal from low achieving schools; (ii) a strong positive relationship was found between Principal time spent on student personal activities and teachers perceptions of Principal effectiveness.

Dubey and Mishra (1997) have reported that the school environment was a significant predictor of academic achievement among upper caste, backward caste, the scheduled caste and muslim girls.

Myers (1997) concluded in his study that linkages between school, and provincial policy statements about school demonstrated a positive impact on the enhancement of student achievement as a process outcome. Time constraints and tensions between managerial and pedagogical roles of teachers emerged as major influences on both programme quality and student achievement enhancement.

Narayana (1997) conducted a study on impact of in-service training on teacher empowerment with special reference to professional skills. The main objectives of the study were to identify essential professional skills for teacher empowerment and to find out discrepancies of professional skills between resource persons, trained and untrained teachers in order to understand the
impact of programme. The six principles that were exposed to primary teacher during training programme were: (i) providing learning activities, (ii) promoting learning by doing, (iii) developing individual, group and whole class work, (iv) recognizing individual differences, (v) using the local environment and, (vi) creating an interesting classroom. Twenty professional skills were identified based on these six principles, namely questioning, story telling, showing different cards, comparison, observing, generating ideas through questioning, investigating and experimentation, using real objects, working with different cards, making models, recording, individual work, group work, whole class works, identifying student potential, assigning task based on student potential, involving all students in teaching learning activities, formation of heterogeneous groups, using the local environment and display of teaching-learning material. The results revealed that in service training empowered teachers in seventeen out of twenty professional skills, to enhance school effectiveness.

Padhi et al. (1997), in a study on the effect of school climate indicators on learner's achievement at primary state, have reported that classroom practices such as frequent assignments of homework and its prompt correction, continuous pupil evaluation and feedback, engaging students in class work with close supervision and differential treatment as per need help to create better climate for learning and making the school more effective. In order to empower the teachers, they need to be provided with requisite knowledge and skills for monitoring classroom practices. The study was conducted to assess mainly the
quality and quantity of classroom processes related to pupil-pupil, teacher-pupil interactions and teacher function conducive to academic climate and their effects on performance to learners at the terminal stage call the attention of teacher educators to train teachers so that regularity in home assignment to children is given due significance and their correction the next day to help continuity and regularity in learning. Similarly, continuous evaluation followed by remedial measures and solving mathematics problems in the class with close supervision of the teachers develop confidence and sense of achievement among the students.

Srivastava (1997) in a study of teacher training components and their effectiveness provides guidelines to other states for including similar activities and methodology to make teaching learning more effective and interesting. Educational authorities can tackle the problems faced in the implementation of training component in classroom teaching and school activities by providing infrastructure facilities, adequate management of the school, planning and monitoring of teaching-learning activities and periodic-on-site school based training. The teachers on their part can maintain the academic standards of the school by creating an academic climate, congenial to joyful learning.

Uniyal and Bisht (1997) studied the effects of various school climates on the reactions to frustration of students. The independent variable of school climate, was dichotomized into highly satisfying and highly dissatisfying school climate. It was found that students of satisfying school climate were much more adjusted when compared with that of dissatisfying school climate,
and it can be stated that school climate definitely effects reactions to frustration in a meaningful manner. It was suggested that school should try to improve its environment, so that it really contributes in developing the personalities of students.

Chapman (1998), too, found that the academic achievement of students was significantly higher in the schools, where teacher recorded the highest levels of professional treatment than in schools where teacher recorded the lowest levels of professional treatment in the teaching-learning process.

Harijati (1998) investigated school factors such as school expenditure, specific material inputs, teacher quality characteristics, length of school programme and length of daily instruction, school management and geographical location in academic achievement and found that these school factors contribute to the variability of students' academic achievement in Indonesian Junior High Schools.

Johnson (1998) examined perception of school climate held by teachers and students in elementary school and the relationship of these perceptions to student achievement. He concluded that teacher and student perception about school climate were significantly correlated with student achievement. The conditions of school facilities were also reported to be related to student academic achievement and behaviour.

Kumar (1998) revealed in his study that: (i) learning achievement of class V students in mathematics is quite low; (ii) provision of incentive schemes and schools with more facilities seem to promote students'
performance; (iii) teachers with higher qualifications and willing to improve
their professional qualification and availability of facilities to teachers seem to
have better results in term of students' achievement in mathematics. (iv) the
provisions of class supervision seem to be facilitator to the achievement of
class V students in mathematics. However, multi-grade teaching was found to
hamper the student's performance in mathematics.

Lynch (1998) concluded in his study that there was no significant
difference in the levels of student achievement between those schools where
the majority of teachers thought the school to be more effective. The teachers
did not think that the three demographic variables studied (gender race, and
socio-economic status), in the seven school variables (expenditure per pupil,
education of the faculty, certification and tenure of teachers, salaries for
teachers, class size, facilities and supplies, and attendance) affected teachers'
judgement of the implementation of the effective school model programme in
the schools. However, most teachers thought that socio-economic status and
attendance of students affected student achievement.

Padhi (1998) investigated the effect of the classroom climate variables
on the pupil achievement. The study was conducted to assess mainly the
quality and quantity to classroom processes related to pupil interaction and
teacher function that are conductive to academic climate and their effects on
performance of learners at the terminal stage. It was found that regularity in
home assignment to children is of significance in language and mathematics.
One or more pages homework every day and their correction the next day help
continuity and learning. Similarly, continuous evaluation followed by remedial measure also enhances achievement in mathematics, solving mathematics problems in the class with close supervision of the teacher develops confidence and sense of achievement among the students.

Gyanani and Aggarwal (1998) explored the effect of classroom climate, teachers' leadership behaviour and their expectations from the students regarding their high and low achievement. It was revealed that classroom climate, teachers' leadership behaviour and teachers' expectation do influence the academic achievement of the students. The students taught by the effective teachers and whose teachers have high expectation from them have higher mean academic achievement scores than the students who are taught by ineffective teachers and whose teachers have low expectation from them.

Carvantes (1999) conducted a study to examine the relationship between the school building condition and academic achievement and behaviour of the students of public schools. He concluded that the condition of school facilities represent a wide array of implications for students, as well as a broad spectrum of possible problems of and accountability for communities across the nation providing school facilities that are well maintained and safe promotes quality learning conditions.

Esposito (1999) investigated the relationship between school climate and children's academic and social development in the early elementary school years, controlling for maternal education and family resources, and determined whether factor underlying school climate influence those outcomes. Results
indicated that overall school climate and the teacher student underlying school factor also significantly predict social skill in first and second grades and mathematics and reading achievement score in first grade.

Flores (1999) demonstrated in his study that social support acts as a "moderator" in the effects of certain students related factors such absenteeism, and disciplinary referrals to the office, which tend to have a negative effect on the student’s academic achievement scores.

Lin (1999) revealed in his study that the principal's leadership did not have a significant correlation with school effectiveness as measured by students' academic achievement. A highly significant correlation was found between the socio-economic status of school and students' academic achievement.

Singhal and Mohanty (1999), too, found teacher competency to be positively correlated with learning achievement of children.

Uzat (1999) conducted a study to determine if there was a relationship between student achievement, school culture and teacher change readiness. He found that schools with higher levels of student achievement possessed a more positive culture as perceived by teachers than schools with lower level of student achievement. There was no statistically significant difference found in the change readiness of teachers in schools with higher levels of student achievement when compared to teachers in schools with lower levels of student achievement.
Dolle (2000) analysed the difference in achievement test scores of urban first year law school students in a legal research and writing course conducted through traditional instruction and programmed learning sequenced (PLS) instruction and revealed a significant difference between the mean-gain scores of subjects in PLS instruction as compared with tradition instruction. For the second experiment, t-test results revealed a significant difference in favour of PLS instruction.

Goodrum (2000) revealed in his study on perceived influence on school climate and academic achievement for African-American males in sixth grade that the students’ believe in instructional style and personal characterization of the teacher are the most critical factors in the school climate and academic achievement. Results further indicated that the students believe personal responsibility to be a critical factor in their achievement.

Littman (2000) sees the effect of child-centred and school-centred parent involvement on children’s achievement and found that child-and school-centred involvement have a significant positive effect on achievement. Holding family context constant, child-centred involvement, as well as child-and school-centred involvement, have an equal effect on math achievement.

Pal (2000) investigated socio-psychological correlates of mathematics competence and reported that tribal and urban students significantly differed in mathematics competence and there were context specific variations in the correlates of mathematics competence. Self-concept and attitude towards mathematics were found important correlates of mathematics competence of
tribal students. Teacher-pupil interaction was found to be positively correlated with mathematics competence of both tribal and urban students along with the fact that parental status and support play significant role in mathematics competence.

Swift (2000) concluded in his study, on effects of student population density on academic achievement in Georgia elementary schools, that elementary schools having an architectural square footage of less space per student tend to have significantly lower science, social studies and composite ITBS scores that school having more architectural space per student.

Ziegler (2000) in his study revealed that different dimensions of constructive teaching, learning and supervisory practices had different effects on student achievement. The results confirms research supporting the positive effect of constructivist learning practices. Specifically, an emphasis on problem solving was positively related to student achievement in mathematics. The results of study also suggested that school setting, mathematics certification, teaching experience, gender and minority status are all factors related to the use of constructivist teaching learning and supervisory practices.

Acosta (2001) examined relationship among school climate, academic self-concept and academic achievement. Multiple regression analysis indicated that only academic self-concept emerged as a significant predictor of academic achievement. The findings also indicate that school climate and academic self-concept influence students’ perceptions of themselves as learners as well as their academic achievement.
Basantia and Mukhpadhaya (2001) studied effect of school and home environment on achievement of rural secondary school students. It was reported that high and low achievers differed significantly in their perceptions on home and school environment. Further regression analysis results indicated that academic achievement of the secondary school students was significantly related to their home environment, but not with school environment. It was argued that long stay at home, than short stay at school, contributes more to academic achievement, and therefore, school environment needs to be improved to home its significant effect on learners' performance.

Kenyon (2001) found the relationship between selected personnel and school district variables and student achievement in Arizona public schools and reported that maintenance and operating actual expenditures per pupil was found to be related to student reading and language achievement in second through seventh grade. Teacher-pupil ratio was also found to be related to student reading achievement in grades five through eight. The control variable i.e. percent of students on free and reduced lunch was highly related to student achievement in reading, language and mathematics.

2.3 Home Factors and Learning Achievement

Anand (1973) conducted a study on a study of the effect of socio-economic environment (SES) and medium of instruction on the mental abilities and the academic achievement of children in Mysore State. The analysis revealed that three SES groups differed significantly from one another in their nonverbal and verbal intelligence; high SES group achieved higher mean score
than pupil in both low SES group and middle SES group, whereas the mean score difference between SES and academic achievement was found to exist even when the influence of nonverbal as well as verbal was partialled out.

Agarwal (1975) in a psycho-social study of academic underachievement at secondary school level in the State of Rajasthan studied the relationship of personality, the values of students, parent's values and socio-economic status of the family with academic achievement. The major findings of the investigation were: (i) the underachievers were comparatively less emotionally mature, less calm, less placid, less prone to getting into difficulties and less able to face reality and possessed ego strength than overachievers; (ii) the rural overachievers in comparison to urban overachievers were relatively more outgoing, more warm-hearted, easy-going, more participating, more trustful, more adaptive and more social; (iii) the urban over-achievers has stronger educational, social and humanistic values than the urban under-achievers; (iv) parental values were related to student's academic achievement; (v) socio-economic status of the parents of the underachievers and overachievers was significantly related to their achievement.

The relationship between students' socio-economic background and their academic achievement at junior school level was studied by Khanna (1980) to find out the extent to which social structure, social process, social control, social change and community as a whole including the child's family education, assist or hinder the academic achievement of the children; and to find out the degree of relationship between socio-economic status and the
pupils' academic achievement. The findings of the study were: (i) socio-economic status was positively and significantly related with academic achievement; (ii) the students' achievement was related with his socio-economic status irrespective of whether his home town was a village, a town or a city; (iii) the academic achievement of rural and urban students was positively related with their guardians' income; (iv) there was a positive and significant correlation between socio-economic status and academic achievement in the case of boy and girl students of rural and urban areas; (v) The academic achievement of the children of educated parents, illiterate parents and educated mothers was also significantly correlated with the socio-economic status of the family.

Kolwadkar (1980) concluded that the variables such as socio-economic statues (both high and low) father’s education, occupation, mother’s education, size of the family, ordinal position, health status of were significantly related to scholastic achievement of students.

Pandey (1981) conducted a study of socio-economic opportunity and educational achievement and concluded that: (i) an urban atmosphere was more conductive to achievement than the rural environment; (ii) with advance in age academic achievement decreased; (iii) education of the parents had a positive effect on academic achievement of respondents; (iv) respondents belongs to unitary families showed higher academic achievement than respondents from joint families; (v) the effect of caste was neutral over academic achievement; (vi) respondents coming from business class scored poorer grades than
respondents belonging to service class; (vii) negative image of the teacher among respondents had an adverse effect on academic achievement.

Chopra (1982), in a study on some non-intellectual correlates of academic achievement to identify the variable having positive relationship with academic achievement and to find out the relative importance of intelligence and various non-intellectual variables in determining academic achievement, reported that: (i) Socio-economic background was a very important determinant for continuation of education. Significantly a larger number of students from the lower socio-economic classes failed in the high school examination and significantly a large number of first class students belonged to higher socio-economic classes. Parents from higher socio-economic classes gave greater help and encouragement to their children for studies; (ii) study habits were positively related to academic achievement; (iii) students from higher socio-economic classes had higher educational and occupational aspirations; (iv) home adjustment was more significantly related to academic achievement than emotional, health and social adjustment. The coefficient of multiple correlation between academic achievement and intelligence, socio-economic status, study habits, home adjustment, health adjustment, socio-adjustment, emotional adjustment and attitude towards education was 0.874, thereby indicating that home environment factors along with personal characteristics of students determine achievement.

Mishra (1982) studied the effect of children’s perception of home and school environment on their development of scientific creativity, to find out the
extent to which home environment was related to scientific creativity, to find out how school environment influenced scientific creativity, to find out how the various aspects of home environment (Permissiveness, nurturance, reward, punishment, conformity, control, rejection and social isolation) and school environment (creative stimulation, cognitive encouragement, acceptance, permissiveness, rejection and control) contributed to the prediction of creative behaviour in science. The main findings of the study showed that: significant relationship existed between perceived school environment and originality among boys, perceived home environment and overall scientific creativity among girls, and perceived home environment and inquisitiveness among boys; relationship between the various aspects of school environment; for boys indicated negative relationship existed between decreasing levels of protectiveness or conformity and inquisitiveness; girl's perceiving high stimulation in home environment and normal stimulation in school environment obtained higher scores on overall scientific creativity and originality aspects of it.

Sarkar (1983) studied relationship between home factor and scholastic achievement and found that: (i) the home variables such as educational environment, social background and parent-child relationship contributed to a significant difference between high achievers and low achievers; (ii) the multiple regression equation revealed that the contribution of parent-child relationship to academic achievement was about 17%, of social background
about 7% and of educational environment 7%, thus explaining nearly 31% variance in achievement.

Sriratna (1983) conducted a study on the problems of educational administration concerned with community and learning environment of primary schools in the educational region II, Thailand. From the results of the study, there appeared to a varying big gap between what the community should do for the school and what they were actually doing. The community should serve the school properly if it expected the school to serve them.

Bhatnagar (1984) conducted a study of some family characteristics as related to secondary school student activism, values, adjustment and school learning. He found that students belonging to small families had less activistic tendencies, better adjustment, higher values and better school learning. Socio-economic status was found to be significantly related with activism, educational and materialistic values and school learning.

Jagannadhan (1985) identified some of the personal and situational variables influencing academic achievement. The main findings of the study were: (i) the students with high level of better perception of school climate achieved significantly higher than those with low level of perception about school; (ii) pupil's role expectations had a profound influence on academic achievement; (iii) students with high score on home environment performed better than their counterparts with middle and low score on home environment; and (iv) home environment yielded a correlation with academic achievement and was found to be highly significant.
Zaidi (1986) conducted a study on the effect of parental deprivation and some socio-psychological factors on the scholastic achievement of primary school children and concluded that: (i) there was a significant difference between the achievement of parentally deprived and non-parentally deprived students; (ii) parentally deprived children were found to be under achievers while the non parentally deprived were found to be average in achievement; (iii) the most powerful prediction of aggregate achievement in both the deprived groups were self-concept and socio-economic status.

Dornbusch et al. (1987) found that authoritative parenting style, which includes open communication, group decision-making and praise for good grades, is strongly associated with school sciences. However at family conflict vs harmony were found to have no association with school achievement (Forehand, Long, Brody & Fauber, 1986; Kurdek & Sinclair, 1988)

Chakrabarti (1988) conducted a critical study of intelligence, socio-economic background of the family, educational environmental in the family and quality of schools in children of standard V. and concluded that: (i) students from urban areas were found to be significantly better than students from rural areas; (ii) There was no significant difference in the achievement of boys and girls.

Zaheer (1988) revealed in his study that (i) adolescents developed emotional instability and neurotic tendency if they perceive their maternal behaviour as detached and persisting and students becomes introvert and imaginative if mother was possessive and persistent or even detached while the
rejecting and non-enforcing attitude of the mother made them extravert; (ii) perceived maternal acceptance, child centeredness, and non-enforcement helped the adolescents in obtaining high academic achievement; (iii) rejection, enforcement, controls and possessiveness hindered the academic achievement. (iv) After partialling out the effect of intelligence, child centredness was still found to help in scholastic achievement.

Ganguly (1989) made an investigation of the determinants of scholastic achievement among The major findings of the study were: parental care about child’s education, emotional climate at home and socio-economic status of family had a positive correlation, and crowded living condition at home had a negative correlation with scholastic achievement of students, of both urban and rural areas; library facilities, teachers’ classroom behaviour, teachers’ training and attitude towards teaching had a positive correlation and student-teacher ratio had a negative correlation with scholastic achievement of students; Peer influence had significant and positive influence of movies and the distance between home and school had significant negative correlation with achievement of students; and attentiveness to study, school attendance, health and interest in study had a positive correlation with students’ achievement.

Sethi (1989) analysed the effect of child-rearing practices of uneducated mother and educated mother on the personality and achievement of their children and revealed that the school achievement of the children of educated mothers were better in comparison to the children of uneducated mothers. Child-rearing practices and achievement were also related.
Agrawal (1990) concluded in her study that (i) the high achieving groups were normally found to be getting a higher amount to parental encouragement in almost all groups based on sex and urban rural location; (ii) the total urban boys were superior to the rural boys in respect of parental encouragement; (iii) the high achieving groups of boys and girls with their parental absence received more encouragement than the other groups.

Cherian (1990) found at the relationship between the frequency of punishment experienced by the pupils and their academic achievement. The results revealed that there was a relationship between the frequency of punishment experienced by the children and their academic achievement, the children with a higher frequency of punishment tends to achieve a lower score in academic achievement.

Lohni and Mohite (1990) report that among the family demographic factors, education of mother, education of father, income of parents and child’s ordinal position showed a high degree of correlation with different aspects of academic performance. Among all these factors income of parents and education of father showed a high degree of correlation with academic performance.

Menon (1990) studied the relationship among the environmental factors, personality characteristics and school performance of standard I students and reported that: (i) the educational environment at home was an anchor variable which had direct influence on the developmental characteristics of the child, viz. social competence and cognitive development; (ii) the educational
environment at home also influenced children's adjustment to school, and (iii) mother's education emerged to be the most important exogenous variable directly influencing the educational environment at home, leading to better performance of class-I students.

Indra (1991) investigated the relationship of social class, religion, family size and birth order to academic achievement of high school students and reported that students belonging to different social classes and different religions differed in their academic achievement. It was also found that family size and birth order of the students had its effect on the academic achievement of the students.

Jain (1991) conducted a study on child-rearing practices and their effect on the cognitive ability and achievement of adolescents and found that parental responsiveness was the only factor which was positively and significantly related with academic achievement. Restrictiveness was found to be negatively and significantly related with scores on the object assembly only. Similarly, dependency was found to be negatively and significantly related with the concept formation test scores.

Ramakrishna (1991) investigated achievement of first and non-first generation pupils in relation to their parental education, nature of subject and socio-economic status. It had been found that: (i) first generation can perform better than non-first generation pupils if conductive environment is provided; (ii) parental education does not have much influence on their and pupils achievement of language; iii) there is no difference between the achievement of
high and low socio-economic status learns in non-first generation in the achievement of low socio-economic status being greater than that of high socio-economic status first generation learners.

Sahay (1991) evaluated the relationship between parental variables and scholastic achievement of rural school students at three grade i.e. grade I, VI and XI. It was reported that: (i) the level of education, sex and caste had no independent effect on the development of scholastic achievement; (ii) the level of intelligence remaining the same, students with higher level of parental support achieved more than the students with lower level parental support; (iii) Regression analysis indicated that mother's contribution was more effective than father's. Intelligence and income did not contribute much in comparison to the combined contribution of father and mother, thereby meaning that parental support was the most powerful correlate of academic achievement.

Garg (1992) found in his study that passed students were more intelligent accepted better by parents, better adjusted socially and economically, more advanced than the failed students, whereas the failed students were more avoided by their parents than the passed students. The urban failed girls were more accepted by their parents than the passed girls. The rural failed boys were at a higher level in their socio-economic status than the rural passed boys. However, the urban passed and failed students did not differ in their levels of intelligence.
Usha (1992) identified income level of father, educational and occupational level of mother, educational and occupational level of father (in order of importance) as best social correlates of achievement in physical science, whereas home-learning facility, family acceptance of the child, size of the family, parents' sex bias in education, family achievement and order of birth (in order of importance) identified the best familial correlates of achievement in physical sciences.

Vijyalakshmi (1995) found that high achievers were from the occupational groups of business and professionals, thus showing father's occupation to be positively and significantly associated with academic motivation.

Sharma (1996) investigated student related correlates of achievement in mathematics and reported that paternal education and social class are positively and significantly related with achievement of primary school students in mathematics.

Singh and Gautam (1996) concluded in their study on learning achievement of students in Himachal Pradesh that the learning achievement of students, both of class V and class II is low in language and mathematics with some socio-demographic variations in levels of learning across low parental educational and occupational status, low educational aspiration and repetition of grades are pointers towards the low achievement levels primary school students. It has been further found that parental education, occupation, teacher training along with class room supervision by head teacher and multi grade
teaching act as significant predictors of learning achievement of class V students, both in Hindi and mathematics.

Agarwal (1997) reported that the failed students got significantly more magnitude of parental concentration as well as parental avoidance than that of the passed students. The passed students received parental acceptance, proper protection and were hardly avoided by their parents, while the failed students were mostly unwanted, overprotected and neglected by their parents.

Mohan (1998) revealed in her study that: (i) performance difference between boys and girls were marginal and not statistically significant; (ii) Hindu and Christians had a higher proportions of students in high academic achiever group as compared to Muslims. There is significant difference in academic achievement of students belonging to different religions; (iii) more English medium students were in high academic achiever than Malayam medium students; (iv) type of school did affect academic achievement; (v) Socio-economic status has the highest correlation with academic achievement.

Naidu (1998), too, found that home and school environment are most significant variables in academic achievement of formal stream students. In a study on impact of student attendance and other variables, Botkin (1999) found that the socio-economic status of students emerged as the most significant variable in predicting the variance of achievement scores at the fifth grade level, while ethnicity was more highly correlated to achievement at the second
grade level. To a lesser extent, the variable of community environment was also correlated with achievement.

Hall et al. (1999) examined gender and racial differences in mathematical performance among seventy four 5th and 8th grade students in U.S. and reported no significant gender difference. But, in both grades, the white students scored significantly higher than the Black students. Responses to a parent questionnaire showed significant relationships between parents' self-reported math anxiety, parent's most advanced mathematics course, and parents' education level in relation to child's mathematics performance.

In a study of the effect of family influence on motivation and achievement, Lenz (1999) revealed the importance of help and support from parents as a means of improving both reading and mathematics achievement and self-concept. However, a high level of more support for males was related to more incidence of tardiness. Low levels of parental presence were found to increase achievement and decrease the rates of absence and tardiness. Reading achievement predicted student's success in mathematics.

Patricca (1999) found that involvement of parents contributes positively to the educational success of children. A significant correlation found between each schools academic performance and the percent of parents who reported attending a conference, open house and volunteering within a school. The data showed a positive correlation between an aggregate test achievement of students and the percent of parents who reported that their children regularly studied at home.
Sarode (1999) found that socio-economic status, study habits and academic motivation exerted more influence collectively on academic achievement in case of science students than that of arts and commerce students. Higher socio-economic status showed significant difference in academic achievement than middle socio-economic status students.

Stewart (1999) investigated the perceptions of current sixth and seventh grade students and their parents on the transition from elementary to middle school. The study revealed that 78% of students and 82% of the parents were nervous about the elementary to middle school transition. Both groups identified similar concerns that were ranked by the number of responses reported. They were (i) the influence of older children; (ii) locker combination; (iii) home work; (iv) classroom location and where students should report when they arrive at school in the morning and; (v) changing classes.

Taj and Bhargava (1999) in their study on social-psychological correlates of academic performance revealed that the children with high parent-child interaction, dependency behaviour and social class have higher academic performance than their counterparts. Children coming from nuclear families were found to have better academic performance than their counterparts from joint families. The ordinal position has an impact on academic performance of students. Both first and last born children were found to have better performance than the middle borns. No significant difference was found in the academic performance of first and last borns. However, the difference was
found to be more significant between the last and middle borns as compared to first and middle born children.

Begum and Plukan (2000) revealed that nuclear and small family size along with, parental education and family income had significant positive impact on academic achievement of high school students. Whereas ordinal birth position and occupational status of parents had no significant relationship with academic achievement of their children.

Guerrero (2000) has reported that parental socio-economic status is a better predictor of academic performance of college students than parental educational level, and parental support being crucial for the academic success of college freshman. Academic self-concept and school climate were the most important non-cognitive variables affecting academic performance of students along with high school grade point average emerging as a major predictor of academic performance in college than a composite scholastic achievement.

Sundaram (2000) studied the relationship of home and school variables on development of social concepts and concluded that socio-economic status of students significantly related to the concept development and learning environment positively affects the concept development in social studies.

Vaghela (2000) revealed in his study that there is significant relationship of intelligence and socio-economic status on academic achievement of IXth standard students.

Koul et al. (2000) concluded in their study on DPEP districts of Himachal Pradesh that: (i) the achievement of class II students crosses 75%
mark in language and 74% mark in mathematics in all the districts; (ii) the achievement of class V students in word knowledge in all the district crosses 64% mark and in reading comprehension it crosses 52% mark but could hardly touch the mark of 60% in any of DPEP district in mathematics of achievement of students crosses 42 marks in all the district could not touch 52% mark in any district. (iii) there is no significant gender differences in language and mathematics achievement of class II students across rural and urban areas in all the four DPEP districts. Parents' educational and occupational status seems to have direct relationship with the achievement in mathematics and language.

Melton (2000) investigated the relationship between sixth graders perception of parental acceptance-rejection and their performance at school and revealed a moderate correlation between the level of acceptance they perceived by their parents and their achievement scores. There was an even stronger correlation between their behaviour scores and the level of acceptance they perceived from parents. It has been argued that student-emotional quotient can be impaired by their perceptions of their parents' attitudes/behaviour concerning them. Although parents may report they physically care for and emotionally nurture their children, it is the student perception that may impact their school day.

Oputa (2000) investigated the potential predictors of academic achievement for African-American students at Californians State University, Frenso and reported that in terms of students’ academic resilience, the mother’s influence was the most prominent, albeit small, followed by the sibling.
However, the student's personal desire to succeed come second and father placed third in this category as influencing students' academic resilience.

Peecook (2000) indicated that home educational support had a greater influence on academic achievement than did teacher instructional practices in mathematics, science and social studies, whereas teacher instructional practices were found to have more influence on language achievement and on student perceptions of content meaningfulness in mathematics and science than did home educational support.

Shaw (2000) studied the relationship of academic performance to depression and perceived home environment among gifted high school students and found that depression, perceived family cohesion, conflict and expressiveness were all significantly related to academic performances, and family cohesion having the highest correlation with grade point average among the four variables. The study supported the hypothesis that depression, and perceived family environment are related to academic performance and that family environment appears to moderate the effect of depression on academic performance.

Sood (2000) in a study of academic achievement of primary school students of Himachal Pradesh in Hindi in relation to family characteristics concluded that: (i) the learning achievement of class V students in total language achievement in Hindi found to be 54.36 percent, which is just average; (ii) the girls have performed significantly well in language achievement in Hindi as compared to the boys of class V students; (iii) the
students of Class V belonging to OBC and general social class have significantly higher achievement than the SC students in language achievement in Hindi; (iv) the learning achievement of class V students belonging to higher educational status of family is higher as compared to the students belonging to low educational status of family; (v) the students of class V belonging to higher family occupation have significantly higher achievement in Hindi as compared to students belonging to low and average family occupation; (vi) the learning achievement of class V student in Hindi language studying in better equipped schools is higher and significant that of the students studying in poorly equipped schools.

Feng (2001) explored home, school, and individual factors that lead to the talent development of the American Physics Olympians Factor analysis and band on path analysis revealed that abundant intellectual resources, parental encouragement and support were the important components of conductive home environment for the talent development of American Physics Olympians; and family SES was found to influence academic achievement and productivity indirectly through selected family processes. It was also found that personal interests and curiosity, early identification, sibling effects, peer interaction and non-school programs besides these factors.

Chen (2001) examined the effects of home environment, peer influence, educational aspiration, attitude toward mathematics and study habits on mathematics achievement of eighth grade students of South Korea, Singapore and USA, and found that. home environment, attitudes toward mathematics and
educational aspirations are the more important and consistent predictors of mathematics achievement for the three countries, and the multiple squared correlations for the structural model of mathematics achievement were very similar across countries.

Heastie (2001) found that there is no statistically significant relationship between parental involvement and self-regulated learning, between parental involvement and cumulative grade point average, and between parental involvement and home work.

Basantia and Mukhopadhaya (2001), too found that in case of Indian rural school students, home environment emerged as a significant predictor of academic achievement, as high achievers boys and girls enjoyed better home environment.

Derrick-Lewis (2001) examined specific parenting practices to determine their relationship to student achievement and indicated significant relationship between student achievement and parental involvement, typology of volunteering, learning at home, decision-making and collaborating with the community. The relationship student achievement with parental involvement in conjunction with parents’ educational and income levels was found to significant.

Ryoo (2001) in a study on multi-level influences of student background, school resources and education policy on student achievement. It was reported that stratified school system has a positive effect on students' academic achievement in mathematics, and also a composite variable indicates family
background and socio-economic status has a significant positive effect on students achievement.

Eamon (2002) tested a mediation model of the effects of poverty on the mathematics and reading achievement of young adolescents (12-14 years old). The results indicated that poverty was related to lower levels mathematics achievement and reading achievement, indirectly through its association with less cognitively stimulating and emotionally supportive home environment. Poverty was also related to lower levels of mathematics achievement and reading achievement indirectly through a link with school behaviour problems. Poverty was related to lower reading achievement (but not mathematics achievement) through its association with less stimulating cognitive home environment.

Rodriguez (2002), examined generational differences in the perceptions of family environment and achievement of 3681 Mexican American high school students. There were four family environment variables: family involvement, family monitoring, family control, and familism. Analysis of covariance procedure revealed first and second generation students reported significantly higher grades and higher level of family involvement. Regression analysis revealed that family involvement was a significant predictor of students' grades across all three generations of students.

Williams et al. (2002) reported that gender, church attendance by peers, and percentage of relatives completing high school were significant in predicting positive academic outcomes.
In a descriptive study of family environmental factors and academic achievement of African American middle school males, using stepwise regression analysis, Shearin (2001) found that adolescent males perceiving parenting style as authoritative or fair and parent adolescent interaction as positive, were more likely to have above average grade point averages than those males who did not perceive fair parenting practices and positive parent adolescent interaction, thereby suggesting that family process variables are better predictors of students' academic achievements.

To briefly sum up, it may be stated that learning achievement has been found to be determined by a number of factors operating in a complex manner operational in the personality make up of learners and environment surrounding them. The results, however, remain inconclusive to provide theoretical perspective to explain learning achievement of students at various stages of education. But it is noteworthy that school status and home conditions are facilitators though showing varying influence, of achievement which need to be explored further for understanding the phenomenon of learning achievement one of the pertinent product related determinants of school effectiveness. In the light of the research evidence, and purpose of the present study, following hypothesis are formulated.
2.4 Hypotheses

1. The elementary school students will exhibit significant differences in their mean learning achievement on Hindi and Mathematics in terms of following socio-demographic variables:

   i) Gender;
   
   ii) Location;
   
   iii) Caste (SC, ST, OBC and General groups);
   
   iv) Levels of parental education (paternal and maternal);
   
   v) Levels of parental occupation (paternal and maternal); and
   
   vi) Levels of family income.

2. (i) The elementary school students belonging to schools having open, autonomous and familiar climate will perform significantly better in their learning achievement in Hindi than their counterparts belonging to schools having controlled, paternal and closed climate in Hindi.

   (ii) The elementary school students belonging to schools having open, autonomous and familiar climate will perform significantly better in their learning achievement in mathematics than their counterparts belonging to schools having controlled, paternal and closed climate.

3. (i) The elementary school students having better home environment will perform significantly better in their learning achievement in Hindi than their counterparts having poor home environment.

   (ii) The elementary school students having better home environment will perform significantly better in their learning achievement in mathematics than their counterparts having poor home environment.
There will be significant interaction effect of home environment and school climate on learning achievement of elementary school students in Hindi and mathematics.

(i) The elementary school students having better home environment and belonging to schools with open, autonomous and familiar climate will have significantly higher mean achievement in Hindi in comparison to those elementary school students having poor home environment and belonging to schools with controlled, paternal and closed climate.

(ii) The elementary school students having better home environment and belonging to schools with open, autonomous and familiar climate will have significantly higher mean learning achievement in Mathematics in comparison to those elementary school students having poor home environment and belonging to schools with controlled, paternal and closed climate.