Chapter 2

Literature Review
Chapter 3

Methodology
Purpose of this chapter is to review the available research studies conducted in the past which were related to the theme and objective of the present research work. Review of literature is an essential aspect of any research which is a taxing task but it provides a deep insight and clear perspective of overall field and delivers a greater understanding of the problem and its aspects that ensures the avoidance of unnecessary duplication. Literature review is a fruitful source in quest of formulating the problem, objectives and hypotheses. For these purpose literature review is needed.

Since, the objective of the present research endeavor was to study the predictive influence of self-concept and perceived school environment on anxiety and academic performance, so the variables involved in the study need to be reviewed in the context in which these variables have been studied. The survey of literature is the only means to highlight the importance and relevance of the study. Hence, it is imperative to mention that review of relevant studies that are presented in the same order as have already been undertaken in the preceding Chapter-1. The descriptions of available literature follow:

Studies related to Anxiety

Anxiety is one of the criterion variables which was taken in pursuit of the present study. Anxiety is an important behavior related phenomenon that plays a vital role in determining most of the individuals' behavior. It is generally agreed that Freud (1936) was the first person who actually presented a comprehensive view of the nature of anxiety. But studies on anxiety were started a bit late, although Goldstein (1939), Sullivan (1953) and Rogers (1951) had given their point of views and explanations with regard to the phenomenon of anxiety.
During 1960s, a few studies were witnessed but since 1970s a good number of research studies started pouring in to highlight the relationship of anxiety to other behavioural aspects and/or outcomes. Thereafter, gradually anxiety related studies continued attracting the attention of behavioural scientists, especially of psychologists which till date seems to be very relevant, hence, in the proceeding description pertaining to anxiety related available studies only studies conducted since 1980s will be taken into consideration.

It is important to mention at this juncture that all possible efforts have been made to present anxiety related studies but some studies have been highlighted related to depression which in view of the present investigation seems to be highly related to anxiety, though, anxiety and depression are functionally different. In spite of this it is a fact that depression and anxiety are usually interchangeably used for denoting the same phenomenon. This is the reason why, in the present context in emphasizing the literature pertaining the anxiety, the advantage has been taken in the reporting both types of studies.

Culler and Holahan (1980) investigated the relationship of test anxiety to academic performance in college students, differences in study-related behaviors between high and low test-anxious students, and differential effectiveness of study-related behaviors for both groups. Results demonstrated a significant decrement in grade-point-average (GPA) associated with test anxiety. High test-anxious students were also found to have poorer study skills. For high test-anxious students, quality of study habits and amount of study time were positively related to academic performance, whereas missing classes and delaying exams were inversely related to performance. Although, this study was on graduate students but may be generalized for school children too.
Cotterell (1984) made an effort to find out the effect of school architectural design on students and teachers anxiety. This observation used student diaries of events at the point of entry into junior high school to identify three categories of anxiety, which were analyzed in terms of the differences in student personality (conceptual level) and in school design (open-plan or conventional). In addition, follow-up observations were made of students and teachers behavior in class. The study found that students in open-plan schools had lower levels of normlessness, and higher levels of schoolwork anxiety, than their counterparts in conventional design schools. For the anxiety category, threat from others, low conceptual level (CL) students experienced greater anxiety than high CL students. Results of the observations of teachers suggested that those in open plan schools experienced more tension and anxiety than those in conventional schools. In the open plan classrooms, transitions to new activities were more frequently needed and were more prolonged, and student off-task behavior was greater.

Having given a few studies conducted in 1980s, it seems important to mention recent relevant studies. Hence, in the recent past Weisz et al. (1993) conducted a study to find out link between depressive symptoms and control-related belief: low levels of perceived personal competence and perceived non-contingency among children. They found that both perceived incompetence and perceived non-contingency were strongly related to children's depression. It was also found that depressive symptoms were correlated with uncertainty about outcomes, especially successes.

Williams (1996) examined the test anxiety among academically talented high school students. In this study two components of test anxiety were assessed: a cognitive (worry) and physiological (emotionally) components. The result indicated that
academically talented students suffered from test anxiety and that higher anxiety was related to lower science performance. Furthermore, female reported more test anxiety than male students.

Garnefski and Diekstra (1996) tried to examine the extent to which negative perceptions of support from family, school, and peers differ with regard to their impact on emotional and behavioral problems and the extent to which negative perceptions of multiple social support systems are related to the presence of multiple emotional and behavioral problems in adolescence. The sample comprised N= 476 high school students. They found that a negative perception of school was specifically related to behavioral problems and a negative perception of peers specifically to emotional problems, while a negative perception of the family appeared to be strongly related both to emotional and behavioral dysfunction. A strong accumulating effect was found for multiple negatively perceived social environments. The results also reported a dominant role of negatively perceived family support. Therefore, to prevent emotional and behavioral problems in adolescence it is important to identify families at risk at the earliest possible stage and to provide training and support to the parents.

A longitudinal study carried out by Alfeld-Liro and Sigelman in 1998, to investigate sex differences in adaptation to college, real and ideal self-concept and symptoms of depression in a sample of N= 287 students. The result advocated, no sex differences in self-concept were found before college, but males' real self-concept became more positive over the transition. Females were more depressed than males at both times, although depressive symptom scores increased in both sexes. Real self-concept scores were negatively correlated with depressive symptoms in both sexes at both times.
Hayward and Arthur (1998) conducted a study that utilized a multidimensional approach to examine perfectionist standards for academic achievement and their relation with depression and anxiety on N= 178 students of technical college. Results revealed that both self-oriented and socially prescribed perfectionism were associated with depression and anxiety, with socially prescribed perfectionism most closely related to symptoms of distress.

A study carried out by Legrand, Mc Gue and Facono (1999) on sample of 547 female twin pairs to study state and trait anxiety in childhood and adolescence. Findings revealed that measure of adolescents self-reported trait anxiety were best explained by environmental factors while approximately 45 percent variance was attributable to heritability. Moreover, measures of state anxiety confirmed, environmental factors accounting for the variance. In same year, Rouxel (1999) measured self-efficacy, anxiety and academic performance on N= 505, 4th and 5th grade students. Students' academic performance was assessed with a French scholastic acquisition test. Path analysis models replicated the functional relation between self-efficacy and anxiety as proposed by Bandura’s social cognitive theory. The result of Rouxel’s study was not supported the Bandura’s general hypothesis of an effect of self efficacy on performance directly and indirectly via anxiety, when individual differences in the level of knowledge were taken into account.

Zettle and Raines (2000) computed correlational and comorbidity analysis to find out relationship of math anxiety to trait and text anxiety among 192 college students. The observe findings reported a significant correlation among all 3 measures, with women reporting higher levels of math and test anxiety. A majority of students considered themselves math anxious. Comorbidity analysis revealed heightened trait anxiety and/or test anxiety for both math anxious men (71.4%) and
women (67.2%). Additionally, women were more likely to exhibit comorbid test anxiety and men trait anxiety. So, it was shown that elevated levels of only one other types of anxiety varied as a function of gender.

Masi et al. (2000) analyzed the relationship between academic self-image and self-reported depressive symptoms that were assessed by the Children's Depressive Inventory (CDI) on a school sample of N=150 male and female (aged 14-18 years) students. Data indicated that emotional beliefs about schooling and learning were significantly related to depressive symptomology. Females scored higher in CDI and school anxiety. A real school failure did not affect the academic self-image. These data seemed to suggest that different components of the academic self-image may have differential influence on depressive feelings.

Sitberg et al. (2001) tested the hypothesis that genetic factor's moderate susceptibility to the environmentally mediated risks associated with negative life events. The Virginia twin study of adolescent Behavioral Development was used to study the effect of independent life events on depression/anxiety in 184 same-genders female twin pairs, of age ranging from 14-17 years were measured on two occasions. It was found that there was no genetic effect on the independent negative life events. A significant genetic-environment interaction was found using structural equation modeling. Effect of independent life events were not observed on adolescents' depression in the absence of parental emotional disorder, but a significant effect in its presence. On the basis of the observation, it was concluded that there was an environmentally mediated effect of life events on depression/anxiety. Genetic factors play a significant role in individual differences in susceptibility to these environmentally mediated risks.
Weems et al. (2001) attempted to observe the linkages between negative cognitive errors (i.e., catastrophizing, overgeneralization, personalization and selective abstraction) and anxiety on a sample of 251 children and adolescents, age ranging from 6-17 years referred for anxiety problems. Stepwise regression analysis indicated that overgeneralization was the strongest predictor of trait anxiety, catastrophizing and personalizing were the strongest predictors of anxiety sensitivity and manifest anxiety, and overgeneralization and selective abstraction were the strongest predictors of depression.

Pomerantz (2001) tested a hypothesis that when parents used intrusive support frequently, children engaging in negative self-evaluative processes would be more vulnerable to depressive symptoms than children engaging in positive self-evaluative processes. Children in the 5th through 7th grades took part in a 2-wave longitudinal study over 6 months. The results suggested that both parents and children contribute to the development of depressive symptoms. When parental intrusive support was high, children engaged in negative self-evaluative processes experienced more depressive symptoms over time than children engaging in positive self-evaluative processes.

Kizilbash, Venderploeg and Curtiss, (2002) determined the effects of depression and anxiety on memory performance. Subjects were 3,999 Vietnam veterans who had completed the California Verbal Learning Test (CVLT), MMPI and PF scales. Results of the study showed that depressive symptoms (without anxiety) had an adverse effect on immediate recall of new information and total amount of acquisitions; however, retrieval and relation were unaffected. High levels of anxiety did not have significant detrimental effects on any aspects memory functioning assessed inducing immediate recall, total amount acquired, retention, and retrieval of
novel information. However, when depression was compounded by anxiety, there was not only an adverse effect on immediate recall and amount of acquisition, but also on the retrieval of newly learned information. On the basis of their findings they concluded that presence comorbid anxiety may, in part, account for the variability in previous research findings regarding the effect of depression on memory functioning.

McGrath and Repetti (2002) conducted a longitudinal study to examine the relation between depressive symptoms and children's self-perceptions. The findings advocated that self reported depressive symptoms predicted a change in children's negative view of the self. Furthermore, the self perceptions of children who exhibited more symptoms of depression appeared to reflect an underestimation of their actual competence. Children's negative perceptions and underestimations about self were not related with a subsequent change in depressive symptoms. The study basically highlighted the detrimental influence of depression on ones perception of his/her actual competence.

Peley-Popko and Klingman (2002) investigated the relationships between family environment and children's test and trait anxiety. Three dimensions of family environment were studied: communication, encouragement of personal growth, and system maintenance. The finding advocated that children's level of anxiety were negatively correlated with these three dimensions of family environment.

Vogel and Collins (2002) in their study investigated the effect of test anxiety on academic performance. It is believed that students with high test anxiety as well as those with low test anxiety will have lower academic performance. Hence, those students with moderate levels of test anxiety are likely to perform better than higher and lower anxious groups. Two Psychology classes were given identical quizzes. No
difference was found on whether pop quizzes produce more anxiety than planned quizzes. There was also no difference in quiz grades between the two groups. Therefore, it was concluded that academic performance was not related to test anxiety.

A study conducted by Haugen and Lund (2002) on self-concept and attributional style as related to depression, undertaking a group of students. The findings revealed that self-esteem variable emerged as an important predictor of depression, while the contributions of the attributional variables were of minor importance. Furthermore, pessimistic attribution to both positive and negative events resulted in higher depression than optimistic attributions to either kind of events.

Chan (2003) attempted to explore the relationship between students' academic achievement, self-concept, and test anxiety. Both within and between schools comparisons were made to evaluate the effect of the long and short term academic achievement on self-concept and test anxiety. In addition, the effect of gender on self-concept and test anxiety was also examined. 323 students had participated in the study out of which n= 214 from a higher band school and n= 109 from a lower band school. The findings supported the Big Fish Little Pond (BFLP) effect on the ability within, but not between schools. The BFLP effect was not only found on students' academic self-concept sub-scales, but also on some of their non-academic self-concept sub-scales. Moreover, high band students had more emotional disturbances during examinations, whereas low achievers had greater worries about academic failure. Gender effect was found on self-concept and test anxiety. A weak negative correlation was found between self-concept and test anxiety. The results also demonstrated the importance of within school comparisons on students' self-concept. Categorizing students into different band schools may generate a labelling effect on students' self-
concept, which may in turn affect their academic achievement. Hence, schools' reputation and status has its psychological impact on students that ultimately become instrumental for varying level of academic performance.

Wolfrodt, Hempel and Miles (2003) examined the extent to which relationship exist among perceived parenting style, depersonalization, anxiety and coping behavior in a normal high school student sample. It was observed that perceived parental psychological pressure correlated positively with depersonalization and trait anxiety among the adolescent. A cluster analysis revealed 4 types of parenting styles: authoritarian, authoritative, permissive and indifferent. The group with the authoritarian parenting style showed higher scores on the depersonalization and anxiety. The groups with the authoritative and permissive style of both parents showed the highest scores on active problem coping. On the basis of findings, study concluded that parenting styles play a vital role in dysfunctional personality trait, anxiety and coping behavior of adolescents.

El. Anzi (2005) examined academic achievement in relation to anxiety, self-esteem, and optimism- pessimism on Kuwaiti male and female students. The salient findings of the investigation were that there was significant positive correlation between academic achievement and both optimism and self-esteem whereas, the correlations were negative between academic achievement and both anxiety and pessimism. This study is partially similar to the objective of the present investigation.

Hesketh and Ding (2005) carried out a cross-sectional survey to assess rate of anxiety and depression in adolescents. Self-report questionnaire developed for this study was administered on 1576 middle school students in an urban and rural setting. Results suggested that symptoms of anxiety sufficient to interference with enjoyment
of life, relaxation, and sleep were common (48%, 40%, and 27% respectively). School related problem were the predominant sources of worry. One third reported a history of depression, 16% had at times felt life, been not worth living, and 9% reported that they had attempted suicide. Girls generally reported symptoms of depression. Patterns of help-seeking were reliance on friends and parents; only 1% had sought professional help.

Alansari (2005) conducted a study to gain more understanding of the relationship between anxiety and depression among undergraduate students in eighteen Arab countries. For this purpose, the Kuwait University Anxiety Scale and the Beck Depression Inventory II were administered to 9168 participants (4230 males and 4938 females) in 18 Arab countries. Findings indicated that depression was positively and significantly correlated with anxiety. This finding may be because anxiety and depression are often found correlated positively with each other even in non clinical samples.

Muris et al. (2005) examined the relations among neuroticism, rumination, and worry, on the one hand and between anxiety and depression, on the other hand, on a sample of 73 undergraduate students. The outcome indicated that there were significant correlations among neuroticism, rumination, and worry. Moreover, neuroticism, rumination, and worry were all positively linked to both anxiety and depression. Finally, neuroticism was associated with the cognitive factors of worry and rumination, which in turn were related to anxiety and depression.

Zhang (2005) investigated the anxiety state in high school students and related factors in order to get reasonable suggestions for prevention. They used mental health test (MHT) for high school students, and the living environmental and parental style
in this study. MHT served as an assessment scale of anxiety. Results revealed that the percentage of moderate to high of total anxiety was 16.7%, the percentage of moderate to high of each anxiety aspects were 8.8% to 21.8%. The mostly high aspects were self-blame, schooling anxiety, social anxiety and over sensitiveness. In general, the girls' anxiety level was higher than boys', but the boys' lonely feeling was higher than the girls'. The total score of anxiety was decreased with age. In addition, the related disadvantage factors of students' anxiety were: the low education level, the parents' anxiety and depression characters, the authoritarian or neglecting parental style, the often contradiction parental styles between mother and father, parents often quarrel, the experience of physical punishment, lacking of care in difficulties. So, it was suggested that the schooling pressure should be decreased to an appropriate level and students' self-confidence and social ability should be emphasized. Good family environments and the support outside the family should be quite important for adolescents' better mental health and these factors might decrease the adolescents' anxiety.

Anshel and Brinthaupt (2006) examined relationships among components of attributional style and trait anxiety on N= 428 English-speaking boys and girls, grades 4-6, from primary public schools in New South Wales, Australia. They found a small but significant relationship between negative attributional style and trait anxiety. In addition, girls reported higher trait anxiety than boys, and attributional style and trait anxiety were strongly correlated for girls, but not for boys.

Yazdkhasti and Harizuka (2006) conducted a study in order to explore the effect of children's temperament and its interaction with children's perceptions of their mother's acceptance and rejection in relation to self-reported anxiety and teacher-reported school behavior problems. In this study 160 children, age ranging
from 8 to 11 years were evaluated by teachers, mothers and themselves. The findings suggested that children's perceptions of rejection were found significant predictor of anxiety and were also found related to more emotional/behavioral control problems among high than low activity arousal children regardless of rejection.

A study conducted by Watts and Weems (2006) with the purpose to examine the linkages among selective attention, memory bias, cognitive errors, and anxiety as well as tried to test a model of the interrelations among these cognitive variables and childhood anxiety disorder symptoms. Results indicated that selective attention, memory bias, and cognitive errors were each correlated with childhood anxiety problems and provided support for a cognitive model of anxiety which posits that these three biases are associated with childhood anxiety problems. Only limited support for significant interrelations among selective attention, memory bias, and cognitive errors were found.

Anna et al. (2006) made an attempt to examine the reciprocal connections among temperament, attachment, and rearing style, and their unique and interactive relations to anxiety symptoms. Six hundred forty-four non-clinical children aged 11–15 years completed questionnaires measuring behavioral inhibition, attachment, parental rearing behavior, and anxiety symptoms. Results indicated small to moderate positive correlations among various risk factors. Furthermore, modest but significant positive correlations were found between behavioral inhibition, attachment quality, and anxious and controlling rearing behaviors on the one hand, and anxiety scores on the other hand. That is, higher levels of behavioral inhibition, insecure attachment, and parental control and anxious rearing were associated with higher levels of anxiety symptoms. Finally, behavioral inhibition, attachment quality, parental control and anxious rearing, each accounted for a small but unique proportion of the variance of
anxiety disorders symptomatology. Little support was found for interactive effects of these vulnerability factors on childhood anxiety.

Erath, Flanagan and Bierman (2007) tried to investigate factors associated with social anxiety during early adolescence using multiple informants, including self and peer perspectives, teacher ratings, and direct observations. Negative social performance expectations, maladaptive coping strategies, and social skill deficits were examined as correlates of social anxiety and mediators linking social anxiety with poor peer relations. Analyses revealed that social anxiety correlated with decreased peer acceptance and increased peer victimization. Path analysis indicated that negative social performance expectations and social withdrawal-disengagement accounted for the association between social anxiety and decreased peer acceptance. Social anxiety, self-directed coping strategies, and social withdrawal-disengagement were each directly linked with increased peer victimization for boys. The results replicated findings based on clinical samples, extend understanding of cognitive, social, and behavioral factors associated with social anxiety in middle school.

Anxiety symptoms are relatively common among children and adolescents and interfere their different functioning. Mazzone et al. (2007) examined the prevalence of anxiety and the relationship between anxiety and school performance among elementary, middle and high school students. They found, out of the 478 children, 35 (7.3%) had a multidimensional anxiety scores which fall in the anxious range. The rate of children in the anxious range was 2.3% in elementary, 7.9% in middle, and 15.9% in high school and was 14.1% among students with insufficient grades, 9.4% among those with sufficient grades, and 3.9% among those with good or very good grades. It is further observed that the prevalence of abnormally high self-reported
levels of anxiety increased in frequency with age and was negatively associated with school performance.

Rapee (2009) examined adolescents' perceptions of maternal anxious parenting (a combination of overprotection and expression of anxiety), mothers' levels of anxiousness, and adolescents' anxiety symptoms in 421 girls of grade 7 and their mothers. Measures were repeated 12 months later. When the adolescent's self report of anxiety was used as the outcome, the adolescent's perception of maternal anxious parenting significantly predicted adolescent's anxiety 12 months later. When the mother's report of adolescent's anxiety was used as the outcome, adolescent's anxiety significantly predicted adolescents' perceptions of maternal anxious parenting 12 months later. Maternal anxiousness predicted the adolescent's perception of anxious parenting, but mediational relationships were not significant in either model. Finally, researcher concluded that the data are partly consistent with reciprocal influence models of parent/child relationships.

Ghaderi, Kumar and Kumar (2009) tried to compare and understand the experiences of stress, anxiety, and depression among the Indian and the Iranian students. The sample comprised of 80 Indian and 80 Iranian, male and female students. The Depression Anxiety Stress Scale (DASS) was used to assess depression, anxiety and stress. It was hypothesized that the Depression, Anxiety and Stress level of Iranian students is higher than Indian students. Interestingly, the findings revealed that the Depression, Anxiety and Stress level of Indian students are significantly higher than those of Iranian students. Furthermore gender differences were not found significant on depression, anxiety and stress among the Indian and Iranian students.
Numerous researches demonstrates that childhood and adolescent depression often results in poor schoolwork, reduced academic achievement, impairments on cognitive tasks, and acting out behavior patterns. Ward et al. (2010) carried out a longitudinal study to determine the extent to which affective, social, and academic variables collected in 3rd, 4th, and 5th grades could predict depressive symptoms in 6th grade. A primary objective was to define conceptual sets of school-based predictor variables that would reliably predict depressive symptoms in early adolescence. Results from cross-validated discriminate function analyses indicated the best group of predictors of depression in early adolescence included teacher rated academic competence, social skills, critical events, self-reported loneliness, self-image, and self-concept. The results suggest that early school-based identifiers of depressive symptoms are found prior to early adolescence.

Moon and Rao (2010) wanted to examine the association between adolescents’ relationship with family and school and depressive symptoms across ethnic/racial groups (White, Black, Hispanic, and Asian), and to test potentially unique explanatory power in youth–family relationship versus youth–school relationship, in a sample of 4,783 adolescents. The results indicated that youth–family relationship and youth–school relationship were significant predictors of adolescents’ depression. However, the findings of the study indicated that unique contributions by youth–family relationship and youth–school relationship were different by racial/ethnic groups. These findings elucidate protective factors for adolescents’ depression and highlight the importance of cultural context of each racial/ethnic group.

Mellanby and Zimdars (2010) carried out a study to measure the influence of trait anxiety on final degree performance. The classification (first, upper and lower second, third class) and marks in the final examinations were obtained and the
relationship between the personality measures and academic performance were calculated. Results revealed that women showed higher anxiety scores than men. Women who obtained the best (first class) degrees scored significantly higher on anxiety than those who performed less well. In contrast, there was no such difference in men. It was concluded that anxiety having a facilitatory effect on academic performance among women. Hence, it is believed that moderate anxiety is prerequisite for good performance.

Hernandez and Carrillo (2010) studied optimism as a protective factor in child and adolescent depression. They found negative relationship between optimistic general explanatory style and depressive symptomatology, indicating that an optimistic explanatory style consisting on explaining positive situations through permanent and global attributions and negative situations through temporary and specific attributions is significantly related to lower depressive symptoms. The relationship between the explanatory styles of favourable situations and depressive symptomatology was negative, while, positive relationship was found between explanatory styles adverse situations and depressive symptomatology, indicating that the greater the optimism, the lower the depression, and vice versa. Hopelessness was also positively related to depressive symptomatology. As regards age, it was found that depressive symptomatology increases with age.

Sharma, Sharma and Yadava (2011) also examined the relationship between parental style and depression among adolescents. The sample of the study involved 100 adolescents, age ranging from 14 to 16 years and one of their parents thus the making of total sample of 200. The result shown that authoritarian parenting style has significant positive correlation with depression whereas, permissive parenting style has significant negative correlation with depression. This result indicated that high
authoritarian and low permissive parenting style is having higher degree of depression in adolescents. Furthermore, depression levels were found significantly higher in females as compared to males. Thus, it can be said that in today's time children do not want any interference from their parents. They want to take their own decision and demand full freedom in life.

It was evident from above studies that environmental factor (especially, family environment, parenting style, peers relation, school, etc.) and several personality related factors (such as neuroticism, perfectionism, and rumination) were significantly associated with anxiety. Gender differences were observed with regard to anxiety in most of the studies, as females reported higher level of anxiety than males. Even ethical/racial groups also differ in terms of level of anxiety. It was ascertained from above studies that a lot of studies were conducted in relation to anxiety and academic performance or anxiety as an independent variable but not much information were observed about anxiety as dependent variable especially in relation to self-concept and perceived school environment. Therefore, it is imperative to study what extent different dimensions of self-concept and school environment predict students' level of anxiety.

Having given the comprehensive details of the available research studies, now onward it is necessary to switch-over to another dependent variable viz., academic performance. The research studies pertaining to this variable are being presented in the preceding writings.

**Studies related to Academic Performance**

Modern age has given high emphasis to academic or to educational empowerment where academic performance determines or predicts academic
proficiency. Hence, present contemporary world emphasizing much more on academic performance, hence, related studies are being presented to identify the factors that facilitate or hinder academic performance that will help to develop for managing be-fitting strategies to maximize human performance and potentialities. Hence, researches on academic achievement have covered a wide range of variables determining their influence on scholastic performance.

One of the most important research conducted by Kline (1977) tried to investigate the influence of communal life on a student academic performance. It was observed that communal life make an individual more susceptible to academic failure.

Khodayarifard (1996) tried to examine the relationships between attributional style, trait anxiety and academic performance with some key demographic and family factors. The results showed that the academic performance of students with low trait anxiety was significantly higher than the academic performance of students with high trait anxiety. Academic performance was significantly correlated with pessimistic attributional style, suggesting that low performance is associated with more stable negative attributional styles and with more global negative attributional styles. In addition, the academic performance of English-speaking students was significantly higher than the academic performance of the non-English-speaking students. Concerning gender differences, remarkable differences were also found between boys and girls regarding their academic performance, trait anxiety and attributional style. Academic performance and trait anxiety were significantly higher for the girls than for the boys. No significant correlation were found between academic performance and grade, academic performance and birth order, academic performance and family size, or between anxiety and grade, anxiety and birth order and between anxiety and family size. Furthermore, students' academic performance significantly increased
with higher socio-economic status of their parents. Specifically, academic performance increased with improving fathers' occupation and education. Finally, multiple regression analyses indicated that the best predictor of children's academic performance was sex ($R^2 = .10$) followed by fathers' occupation ($R^2 = .25$) and education ($R^2 = .09$), children's global negative attributional style ($R^2 = .29$), children's anxiety ($R^2 = .21$), mothers' global positive ($R^2 = .24$) and fathers' stable negative attributional style ($R^2 = .16$). Thus, the results of this study infer that children's academic performance may be a function of selected personal characteristics of themselves, their parents, and cultural factors.

Silliker and Quirk (1997) undertook a study to examine the effect of extracurricular activity participation on academic performance of male and female high school students. The sample comprised of N=123 high school students who participated in inter-scholastic soccer. Result showed participants had significantly higher grade point average (GPA) in the season in compare to out of season.

Peterson and Paulson (1997) studied the influence of students' perceptions of parenting, teaching, and school factors on academic achievement of students having employed mother and non-employed mother. Researchers used path models to assess the influences of these factors on academic achievement. As hypothesized, the contextual influences of parenting, teaching and school factors on academic achievement were similar for both the employed mother group (EMMG) and non-employed mother group (NEMMG). However, result showed significant differences between both groups. Moreover, parental values significantly predicted school competence in the NEMMG, whereas parental involvement in school functions significantly predicted school competence in the EMMG and school climate was predictive of academic achievement in the EMMG, but not in the NEMMG. Thus, it
is not the employment structure in the home that influences performance in school, but differences in the home, classroom, and school environment which are important for positive academic outcomes.

Bankston and Caldas (1998) made an effort to examine that to what extent family structure, schoolmates, racial inequalities and socioeconomic status influence academic achievement of individual African-American and white students. The data were drawn from the 1990 test results of 18,000 tenth graders. The results of the study indicated that being surrounded by schoolmates from female-headed families was the second largest negative association with the academic achievement of African-Americans, greater in effect than the association of academic achievement with individual family structure. It was also appeared that the negative effect of concentrations of African-Americans in school may be largely attributed to the association of minority concentration schools with high percentages of female-headed family.

Caldas and Bankston (1999) attempted to explore the relationship between individual family structures, school-family structure, and school effectiveness — defined as school academic achievement. The relationships were examined while controlling for important school and district level input and process factors. The sample consisted of 42,041 students with 10th grades. Findings evidenced that the school-family structure had a much stronger relationship with school achievement than either school socio-economic status or school racial composition. Neither district-level process nor input factors mitigated the strong relationship between school family structure and school academic achievement. Additionally, school-level family structure had a more important association with individual-level achievement.
than even an individual’s own family structure. The relationship could not be accounted for by an array of district-level factors.

Boiteau, Bouffard and Vezeau (2000) explored the relations among perceptions of competence, self-efficacy and types of goals, and their influence on school achievement among sample of 224 girls and 193 boys of grade six. Available study showed that perceptions of competence and self-efficacy were better predicted academic achievement. Contrary to what was hypothesized, no negative influence was observed for the combination of low self-efficacy and performance goals on school achievement. Finally, the pattern of relations between motivational variables and school achievement differ in respect to girls and boys.

Cassidy and Eachus (2000) investigated the relationship between students’ assessment of their own academic proficiency, learning style, academic locus of control, academic self-efficacy and academic achievement. Results showed that perceived proficiency increased after completing the taught modules and perceived proficiency was positively correlated with academic performance. Academic proficiency was positively correlated with a strategic learning approach and negatively correlated with a surface learning approach and external locus of control beliefs. Academic achievement was also positively correlated with an apathetic learning approach. Findings suggested that there is an emphasis in later education on performance rather than learning and perceived proficiency is a useful evaluation measure.

Lau and Chan (2001) undertook a study on motivational characteristics of underachievers, to explore the problem of underachievement in Hong Kong. They compared underachievers with high achievers and low achievers on their
motivational characteristics. The findings provided clear evidence that motivational variables were important factors in discriminating under-achievers and high achievers. Under-achievers had poor academic self-concept, low attainment value in learning, and deficiencies in using effective learning strategies.

Catsambis (2001) examined connections between parental involvement practices and the educational outcomes of high school seniors. Researcher analyzed data from the parents and student components of the National Educational Longitudinal Study of 1988 to investigate family educational involvement in secondary education. Utilizing multiple involvement indicators for the 8th and 12th grades, the result revealed that the nature of relationships between parental involvement and 12th grade educational outcomes depends on the type of parental practices and educational outcomes considered. Parental involvement indicators were not associated with achievement escalation between the 8th and 12th grades. However, a number of parental involvement indicators were associated with seniors' enrolment in an academic high school program and with their coursework in core academic subjects. High levels of educational expectations, consistent support, and actions that enhance the learning opportunities of children are the family practices that are positively associated with the above educational experiences of high school seniors. The relationship between parental involvement and educational outcomes exist regardless of students' socioeconomic or race/ethnic background.

Homg (2001) examined the preferred and actual homework styles of 272 seventh graders (134 males and 138 females) who were characterized by three-levels of self-perceived homework achievement, three-levels of academic achievement and three-levels of homework achievement. Consistencies and differences in the distinguishing components were found within and between the different types of
achievement. Although different patterns of distinguishing components emerged between preferred and actual homework styles, there were remarkable consistencies between them that distinguished the achievement levels. In general, high achievers were more self-, parent-, and teacher-motivated and persistent, organized their homework in some order, preferred homework in a bright home environment and by themselves, and did better with specific instructions, when compared with low achievers. In both preferred and actual situations, students in the high homework achievement group were more parent-motivated than those in the low homework achievement group, and demonstrated the importance of parental involvement in the home learning environment.

Marchant, Paulson and Rolhlisbery (2001) tried to observe the relations of both family and school contexts on students' academic achievement. Results suggested that students' perceptions of parenting style, parental environment, teaching style, and school atmosphere significantly predicted their school environment, however, students' motivations and self-competence mediated the relationship between students' contexts and their academic achievement. In addition, parental values, teachers' responsiveness, school responsiveness, and supportive social environment predicted students' motivation and academic competence above and beyond parenting style, parental involvement, and teacher control.

Valentine et al. (2002) conducted an investigation entitled "Out-of-school activities and academic achievement: The mediating role of self-beliefs". Authors examined the ways students spend their out-of-school hours can affect their achievement. This article presented a theoretical analysis of this process. The authors described out-of-school activities along with two primary dimensions: first, the extent to which they are related to academic material, and second the extent to which they
promote identification with school. The authors discussed both theoretical and empirical evidence suggesting that academic relatedness had both direct and indirect influence on achievement, whereas identification with school had an indirect influence on achievement. Moreover, the indirect influence of academic relatedness and identification operated in part through students’ self-beliefs.

Chow (2003) attempted to explore the determinants of the educational experiences and academic performance among university students in Regina. Educational experience and academic performance are two inextricably related educational outcomes. In this study, sample comprised of 115 male and 202 female students with a mean age of 20.6 years. The analysis of the study provided evidence for the positive association between these two variables and self-assessed academic ability, educational aspirations, attitudes toward school, and class attendance have been identified as significant predictors of students’ academic performance. As well, socioeconomic status and employment status have also been consistently found in earlier studies as important determinants of various educational outcomes.

The association between bulling behavior and academic achievement were investigated by Woods and Wolke (2004) on 1016 children taken from primary schools. Children were individually interviewed about their bulling experiences using a standard interview; key stage 1 National Curriculum results were collected from class teachers, and parents completed a behavior and health questionnaire. Results revealed no relationship between direct bulling behavior and decrements in academic achievement. Conversely, higher academic achievement at year 2 predicted bulling others relationally. Relational victimization, Special Educational Needs (SEN), being a pupil from a rural school or small classes and low socio-economic status (SES) predicted low academic achievement for year 2 children.
Valentine, DuBoin and Cooper (2004) attempted to find the influence of self-beliefs on academic achievement. To address this connection, findings of longitudinal studies investigating the relation between self-beliefs and achievement were synthesized applying meta-analysis. Estimated effects were consistent with a small, favourable influence of positive self-beliefs on academic achievement, with an average standardized path regression coefficient of .08 for self-beliefs as a predictor of later achievement, controlling for initial level of achievement. Stronger effects of self-beliefs were evident when assessing self-beliefs specific to the academic domain (e.g., same subject area).

Lane, Lane and Kyprianou (2004) investigated the influence of self-efficacy, self-esteem on academic performance. The core aim of the study was to investigate relationship between self-efficacy, self-esteem previous performance accomplishment and academic performance among a sample of N= 205 postgraduate students. Each student's average grade from modules studied was used as the performance measure. Correlation results indicated significant relationship between self-efficacy and self-esteem. Multiple regression results indicated that self-efficacy mediated the relationship between performance accomplishments and academic performance.

Some researchers have been suggested that school completion and performance is associated with how students feel about themselves. Saunders et al. (2004) carried out a study to explore gender differences in the relationship between self-perceptions and two academic outcomes among a sample of N= 243 African-American high school sophomores. The results revealed that overall females were more favourably oriented toward high school completion. Both male and female students with more positive self-perceptions had stronger intentions to complete the
current year of high school and higher grade point averages were more strongly associated with greater self-efficacy for females than for males.

Daley et al. (2005) examined the background data viz., sex, age, and socio-economic status and classroom factors as predictors of scholastic achievement and child cognitive and behavioral outcomes in a group of rural Kenyan school children during their first year of formal schooling. This study used observational techniques to assess the classroom environment and examined cognitive, academic, and behavioral measures. The results reported that while background factors such as child age and socio-economic status are important predictors of child outcomes, inclusion of classroom factors significantly enhanced prediction for all types of child outcomes, and the addition of behavior as a predictor showed an even greater effect. The largest effect was seen for the outcome variables most closely tied to classroom activities.

Chapell et al. (2005) examined the relationship between test anxiety and academic performance in 4,000 undergraduate and 1,414 graduate students. The findings revealed a significant but little inverse relationship between test anxiety and grade point average (GPA) in both groups. Low-test-anxious undergraduates averaged a B+, whereas high-test-anxious students averaged a B. Low-test-anxious female graduate students had significantly higher GPAs than high-test-anxious female graduate students but there were no significant GPA differences between low- and high-test-anxious male graduate students. Moreover, female undergraduates had significantly higher test anxiety and higher GPAs than male undergraduates, and female graduate students had significantly higher test anxiety and higher GPAs than male graduate students.
Mahimuang (2005) undertook a study to demonstrate an approach to measure the value-added contribution to academic achievement made by education, and to identify the direct and indirect effects of a school's practices and its contexts. Multi-level modeling using hierarchical linear model was employed to regulate the effect of pupil background characteristics and prior achievement (grade 4 achievement) on the same cohort's achievement at grade 6. Subsequent analysis utilized a causal model to investigate the effect of a school's practices and its contexts. The results confirmed that the school's practices had a significant positive effect on the value-added achievement, while negatively affecting value-added progress. Moreover, schools situated away from the district educational office negatively affected value-added progress.

Halawah (2006) studied the effect of motivation, family environment and student characteristics on academic achievement. The study was conducted on N= 388 high school students (193 males and 195 females) from Abu Dhabi, United Arab Emirates. A Likert-type instrument that consisted of three parts (scales) was used to measure students' level of motivation, parental influences, and students' characteristics, while academic achievement was measured using student's GPA. On the basis of analysis, it was observed that students' mean level of motivation was less than the means of parental influence and student's characteristics. No gender differences were observed on the variables measured by the instrument. Correlations between each of motivation, family environment, student characteristics and academic achievement were small and practically not significant. Remarkably, high correlation value was found between motivation and students characteristic. The highest correlation value was observed between family environment and students' characteristics.
Chow (2007) conducted a study to find out first rate predictors of students' scholastic achievement and psychological well-being in Canadian. Multiple ordinary least-squares regression analyses revealed that sex, educational aspirations, hours spent on studying, father's education, physical health, financial stress, and stress due to balancing work, school, and social life were found to be significantly associated with academic performance. More specifically, female students and those who reported higher educational aspirations, indicated better physical health, experienced less stress due to finance or to balancing work, school, and social life, spent more time on studying, and those whose father had a higher level of education were found to perform better academically. On the other hand, income, physical health, relationship with significant other, relationship with family, relationships with friends, self image, and academic stress were found significantly related to psychological well-being, whereas, respondents who had a higher family income, reported better physical health, expressed a higher degree of satisfaction with their relationships with family, friends, and significant other, indicated a more positive self-image, and experienced less academic stress and exhibited a significantly higher level of psychological well-being.

Good performance in mathematics at all levels of schooling keeps so much significance in the present era of scientific and technological advancement. Hence, Telia (2007) conducted a study to investigate the impact of motivation on students' school academic achievement in mathematics in secondary schools using motivation for academic preference. Results showed that gender difference were significant when impact of motivation on academic achievement was compared in male and female students. In addition, result also indicated significant difference when extent of
motivation (degree of students’ motivation) was taken as variable of interest to see its effect on academic achievement in mathematics.

Naderi et al. (2008) provided a study to demonstrate intelligence and gender as predictors of academic achievement among undergraduate students. Participants, comprising male =105 and female =48, completed intelligence test and the cumulative grade point average (CGPA). The outcomes of study showed a low correlation between independent variables (score of intelligence and gender) and CGPA. Further, multiple regression analyses indicated that intelligence and gender explained 0.019 of the variance in academic achievement.

Yousefi et al. (2009) conducted a study on memory as mediator between test-anxiety and academic achievement in high school students. The sample comprised on N= 400 students (200 male and 200 female) in the age range of 15-19 years. Results showed that for the respondents, test-anxiety had a significant impact on grade point average (GPA) through memory. The results of the study also confirmed that memory as mediator of test-anxiety and academic achievement relationship among high school students.

Kitsantas and Zimmerman (2009) studied the influence of homework experiences on students’ academic grades on N= 223 college students. They took self-efficacy for learning and perceived responsibility beliefs as mediating variables. Results indicated that students’ homework influenced their achievement indirectly via these two self-regulatory beliefs. Self-efficacy for learning, although moderately correlated with perceptions of responsibility, predicted course grades more strongly than the latter variable. Hence, the findings of the study indicated that there are important psychological benefits of homework on college students’ development as
independent learners with better study skills have greater self-efficacy beliefs and responsibility toward learning. Homework assignments not only have a significant impact on students' achievement, but also on their self-regulatory development. Hence, assigning and encouraging college students to complete their homework can improve their self-efficacy beliefs about learning, which in turn leads students to take more responsibility for their academic outcomes.

Chohan and Khan (2010) tried to examine the impact of educational support given by the parents on the academic achievement and on the self-concept of grade 4 public school students. The aims of this study were to examine the linkage between academic achievement and educational support provided to the child at home and to determine whether this support directly or indirectly effects child's self-concept. The data collected on a sample (N = 305) of grade 4 students in the urban primary and elementary public schools. The sample students who have or have not parental support were compared on two measures, (a) the annual school result report and, (b) the self concept scale. The findings of the study revealed that parents' contribution to their children's education has a consistent and positive effect on academic achievement and self-concept.

Kordi and Baharudin (2010) investigated parenting attitude and style in relation to children's school achievement. The finding revealed that parents have a significant influence on the school achievement of their children. Especially, when they are involved in their children's education and monitor their children's after school works. Hence, a strong relationship between children's school achievement and parenting attitude and style were reported. Findings from the review revealed that authoritative parenting styles were associated with higher levels of children's school achievement, though findings remain inconsistent across cultures and societies.
Youseli et al. (2010) investigated the relationship between age, depression and academic achievement among adolescents. The study was carried out on 400 students consisting of n=200 boys and n=200 girls whose age range were between 15-19 years. The instrument used for data collection was the Beck’s Depression Inventory, 21 items. The obtained data were analyzed by correlation coefficient and t-test. The results showed that 27.5% of the boys and 31.5% of the girls were depressed and that depression and academic achievement were significantly negatively correlated (r = -0.22, p≤0.000). Moreover, age and academic achievement were significantly positively correlated (r = 0.23, p≤0.000). In addition, a significant difference was found between male and female on their academic achievement.

Zhu and Leung (2010) investigated the relationship between pleasure-oriented (intrinsic-related) and productivity-oriented (extrinsic-related) motivation and their collectively affect on students’ academic performance in East Asian education systems compared with those prevailing in Australia, England, Netherlands, and USA. The study found that both types of motivation contributed to East Asian students’ mathematics achievement in an additive fashion, whereas, extrinsic-related motivation appeared to have a detrimental effect on their Western counterparts’ learning.

Garikai (2010) examined the causes of good/poor academic performance of the students in the native area in relation to sex of child, education status of parent/guardian, nutrition levels, late entrance and repetition at school and language spoken at home. Results shown that male students academically perform better than female students as well as older students perform better than those who go to school at an early age. Further, educational status of parents/guardians has been found significantly positively related with academic performance, as educated parents/guardians motivate their children to study harder and have better results.
Result also shown, students who speak English at their homes perform academically better, about 12.5 percent more than their counterparts. A student who gets a balanced diet performs better than the one who feeds on poor diet. In addition, the study failed to prove that late entrance and repetition at school indicate poor academic performance because those students who have an opportunity to repeat some grades perform better at secondary level.

Benner (2010) in a longitudinal study examined adolescents’ feelings of loneliness and the influence of loneliness for later educational success. Participants were N= 640 Latino students who reported on loneliness across the first 2 years of high school. Loneliness was categorized in three distinct trajectory classes—consistently low, chronically high, and low but increasing. Result revealed that increasingly and chronically lonely youth experienced academic difficulty, both in terms of academic progress and exit exam success, but support from friends served as a buffer of the negative relationship between loneliness and academic success. This study highlighted the detrimental effects of loneliness and suggested promoting pro-social friendship support as a means of facilitating more positive academic outcomes for youths.

Kazmi, Sajjid and Pervez (2011) conducted a study to explore and evaluate the impact of father’s style (i.e., authoritative father style, authoritarian father style and permissive father style) of dealing with their children at home and their academic achievements at school. The result revealed that authoritarian attitude of father is strongly associated with the higher grades in academics than the children of authoritative fathers and the permissive fathers. The children of the permissive fathers were lowest in achievement. This may be the authoritarian and authoritative type fathers inquire their children’s academic activities more systematically and they take
keen interest in their children’s school matters. Whereas, analysis revealed that majority of the permissive father were not careful about the school results of their children. Hence, the role of parents, especially father has been considered very important for children’s grooming, development and learning. Thus, study recommends that fathers should take interest in the education of their children and there should be a good and friendly relation between parents and children.

Humlum (2011) investigated the effect of the timing of family income on child achievement production. The results revealed that the correlation between children’s test scores and family income was higher for later measures of family income. It was found that a one standard deviation increase in permanent income was associated with an increase in the reading score of 0.14 standard deviation. On the other hand a one standard deviation increase in early income (and a corresponding decrease in late income) was associated with a decrease in the reading score of 0.06 standard deviation. Hence, later family income (age 12–15 yrs) is a more important determinant of child achievement than earlier income.

It is evident from the studies presented above that there are a wide range of variables determining their influence on scholastic performance and are found important for academic success and failure as well as such factors are parental involvement on students’ academic aptitudes, self-concept, causal attributions, self-assessed academic ability, educational aspirations, attitudes toward school, students’ motivation, and family environment. Students’ characteristics, school and teacher characteristics and class attendance have also been identified as significant predictors of students’ academic performance. On the basis of review of literature, significant gender difference was observed in terms of academic achievement. Hence, it was
found important to study the influence of self-concept, school environment and their various dimensions on academic performance.

Up-to-now, in the preceding writings of the chapter, the studies pertaining to the criterion variables namely, anxiety and academic performance were described and discussed respectively. Now, the on-going description will be pertaining to the studies related to self-concept and thereafter, studies related to school environment.

**Studies related to Self-Concept**

As have already been highlighted in the preceding Chapter-1 that self-concept is the key to success and is one of the most important personality variables that determine behavior of an individual, therefore, an effort has been made to provide survey of literature on self-concept in relation to different behavioral phenomena particularly that were done during the last three or four decades. Here, it is imperative to mention that the phenomenon of self-concept emerged in early 1940s and afterward studies on it started coming in. Thereafter, gradually it attracted the attention of psychologists to give special emphasis to this phenomenon of self-concept and at this moment, it is still in focus. Moreover, it is also important to mention the self-concept was differently viewed as realistic vs. unrealistic, positive vs. negative, low vs. high but all these almost carry the same meaning, therefore connotations can be taken synonyms of each other.

Hay et al. (1998) examined educational characteristics of students as a function of high and low self-concept. From an initial screening of 515 students from 18 co-educational schools it was found that students with high self-concept were more popular, cooperative, persistent in class, and lower in anxiety compared to students with low self-concept. Furthermore, teachers reported their observation that students
with high self-concept were talkative and more dominating with peers, while students
with low self-concept were found quiet and withdrawn with peers and poor than their
peers in reading, spelling, and mathematical abilities. Findings supported the notion
that there is an interactive relationship between self-concept and achievement.

O'Tuel and Terry (1979) investigated the relationships among anxiety, self-
concept, achievement, sex and I.Q. in two educational settings: a structured formal
setting and an open informal setting. Results revealed that subjects differed
significantly on achievement, students with the formal setting doing better. With IQ as
the covariant, however, setting differences were not significantly found influencing
achievement, anxiety, or self-concept. Sex differences were significant for all
variables but not for self-concept. The achievement of low anxious students was
better than that of high anxious students in both settings. Additionally, aptitude
treatment interaction effects indicated that high IQ students performed better in the
formal setting while low IQ students performed better in the informal setting.

The relationship between self-concept and achievement has often been
studied, but the causal relation between these two constructs is still unclear.
Pottebaum et al. (1986) tried to define better the causal relation between self-concept
and academic achievement. Longitudinal data from a large representative sample of
high school students were analyzed using a cross-lagged panel correlation (CLPC)
design. CLPC attempted to rule out plausible alternative explanations of a causal
effect. However, the on basis the CLPC analysis the results suggested that there may
not be a causal relation between self-concept and achievement, but that one or more
uncontrolled and unknown third variable may be causally predominant over both self-
concept and achievement.
In a study, Maqbud and Rouhani (1991) made an effort to explore the link between socioeconomic status, locus of control, self-concept, and academic achievement in secondary school pupils. After analyzing data, results obtained were: (a) socioeconomic status was found significantly and positively associated with internality, self-concept, and academic achievement in English; (b) externality was significantly but negatively related to self-concept and achievement in English; (c) self-concept significantly positively correlated to measures achievement in English and Mathematics; and (d) Mathematics achievement of male students was higher than female ones.

Witherspoon et al. (1997) examined the relationship among racial identity attitudes, school achievement, and academic self-efficacy among African-American high school students. The results revealed that the majority of students received support from both peers and parents for their academic work. Multiple regression analysis indicated that grade point average (GPA) was best predicted by immersion racial identity attitudes and academic self-concept. Findings also suggested that a variety of racial identity attitudes actually exist within the high school student population. But nothing is mentioned with regard to higher class students with regard to the existence of social identity attitude.

Dhanda and Chhikara (1998) studied the self-concept in relation to their academic achievement and academic standard among Home-science students. They found that level of self-concept among final and pre-final students were higher than those for previous and second year students. Level of self-concept was also higher in students with high academic achievers than low academic achievers. Findings also reported non-significant interaction effects of academic standard and academic
achievement which indicated that there was no differential response of students with regard to different academic standard or academic achievement.

Mboya (1999) made an effort to study age and gender variation in the multiple areas of self-concept, and relation between these dimensions of self-concept and scholastic measures. The findings revealed a few statistically significant effects of age and gender on global and domain specific self-concepts but the difference appeared to be of minute qualitative significance. The size and pattern of relations with scholastic measure was weak. Therefore, further investigation in African context provided additional support for the claim that self-concept are minimally influenced by human conditions such as age and gender and weak relationships were found between various facets of self-concept and measures of academic achievement.

Penland et al. (2000) attempted to explore the relationship among possible selves, depression and coping style in N=287 university students. They observed significant relationship between possible selves and depression. In addition, depressed students had more negative possible selves and also reported more avoidance coping strategies than the non-depressed students. This study provided further information that the presence of positive possible selves in the cognitive self schema may be a mediator of depression and coping skills.

McGrath and Repetti (2001) carried out a longitudinal study to examine the relationship of depressive symptoms to children's self-perceptions and further to estimate children's cognitive distortions about the self in a non-clinical sample of children who were followed from fourth-grade (n=248) through sixth grade (n=227). Report card grades in reading and math were obtained to measure children's academic competence, and teachers' ratings of children's level of peer acceptance at school.
served as the indicator of social acceptance. The longitudinal data suggested that depressive symptomatology may have a negative impact on child's ability to develop a healthy self-concept. Self-reported depressive symptoms predicted a change in children's negative views of the self. Moreover, the self-perceptions of children who exhibited more symptoms of depression appeared to reflect an underestimation of their actual competence, as represented by the more objective indicators of performance. Children's negative self-perceptions and underestimations about the self were not associated with a subsequent change in depressive symptoms.

A research conducted by Michie, Glachan and Bray (2001) in order to evaluate the factors influencing academic self-concept, self-esteem and academic stress among direct and re-entry students in higher education. A questionnaire consisting on six parts was used to investigate the influence of age, gender, past experiences of school and motivation for participating in higher education on current global self-esteem, academic self-concept and academic stress. The result showed that re-entry students reported the most negative experiences of school overall and female students experienced more negative academic self-concept than male students. Furthermore, if the reason behind participation in higher education was career goals, academic stress levels were the highest. While the reason to participate was for cognitive stress, academic self-concept was positive and these individuals reported the most satisfaction with higher education. Multiple regression analysis also revealed a complex interrelationship of variables relating to academic self-concept, self-esteem and academic stress. These findings suggested that the different experiences of student in higher education cannot be simply explained by age stratification.

Haugen and Lund (2002) in their effort to identify on study the relationship of self-concept and attributional style to depression. They found that general and
academic self-esteem variables were important predictors of depression, while the contributions of the attributional variables were of little importance. Furthermore, pessimistic attributions to both positive and negative events resulted in higher depression than optimistic attributions to either kind of events.

Caplan (2002) examined the influence of self-concept and perceived family environment on psycho-social adjustment of early-entrance college students (aged 14-17 yrs) at the Texas Academy of Mathematics and Science. The results revealed that a combination of self-concept and family environment variables predicted psycho-social adjustment. Moreover, cohesion, conflict, expressiveness and overall self-concept predicted higher students' adjustment in college, family cohesion, organization, control, conflict, additionally overall was found self-concept also predicting academic achievement.

Gonzalez-Pienda et al. (2002) conducted a study to test the influence of parental involvement on students' academic aptitudes, self-concept, and causal attributions, as well as the influence of these three variables on academic achievement. The results revealed that parental involvement had a positive and significant influence on the participant's measured characteristics. It was also observed that causal attribution was not causally related to self-concept or academic achievement when the task involved finding causes for success, but, self-concept and causal attributions were found significantly and reciprocally related when the task involved finding causes accounting for failure. Furthermore, self-concept was statistically and predominantly causally related to academic achievement, but not vice-versa, finally, aptitude and self-concept accounted for academic achievement, although the effect of self concept was predominant. These results suggested that in...
adolescence, cognitive-affective variables become crucial in accounting for academic behavior.

Guay, Marsh and Boivin (2003) conducted a study for empirical testing of the theoretical and developmental model of the causal ordering between academic self-concept and academic achievement in a multicohort-multioccasion design (i.e., 3 age cohorts, each with measurement waves). Participants were students in grades 1, 3 and 4 from 10 elementary schools. The structural equation model for the total sample supported a reciprocal-effects model indicating that achievement has an effect on self-concept (skill-dependent model) and that academic self-concept has an effect on achievement (self-enhancement model). This pattern was replicated in tests of invariance across the 3 age cohorts and did not support the developmental hypothesis that skill-dependent and self-enhancement model would vary with age.

D'Amico and Cardaci (2003) in their empirical study tried to explore factorial dimension of self-efficacy and self-esteem and associations among self-esteem, self-efficacy and scholastic achievements in 151 subjects. Five factors emerged from factorial analysis, two factors reflected the self-esteem feelings (i.e., self-referential self-esteem and comparative self-esteem). The remaining three factors reflected the self-efficacy beliefs in the three different scholastic domains considered, linguistic literacy, logical-mathematics, and technical-practical. Results showed that all self-efficacy scores were significantly correlated with scholastic achievement, while no association between self-esteem scores and scholastic performance were found.

Pietsch, Walker and Chapman (2003) made an effort to bring out the type of relationship among self-concept, self-efficacy, and performance in mathematics. They examined N= 416 high school students and their performances were assessed using
end-of-term exam results in mathematics. Confirmatory factor analysis provided evidence the existence of two self-concept components— a competency component and an affective component. Self-efficacy items were found related to competency component of self—concept but not to affective ones, and that self-efficacy was identified as most highly related with performance in mathematics and percentages.

Clark and Seevers (2003) carried on a study to investigate the relationship between student self-concept, both in a global sense and more specific areas, with achievement scores in reading and mathematics. Student self-concept was assessed with the Piers-Harris Children’s Self-Concept Scale and academic achievement was measured by the Texas Assessment of Academic Skills annual test battery. Results showed a significant positive correlation between global self-concept and reading achievement and a weaker positive correlation for mathematics achievement.

Spinath and Stiensmeier-Pelster (2003) tested the hypothesis that performance goal only entail poor achievement outcomes in individuals with low self-concept of ability. They carried out 3 experimental studies that showed impaired performance only when their self-perceived ability was low. In study 2, this was true, although participants were not confronted with failure feedback. Finally, study 3 indicated that individuals with low self perceived ability considered their performance more often as failures when directed toward performance goals.

In the recent modern age the role of self-esteem in academic achievement has and is being perceived as one of the most controversial issues in educational psychology. Baumester et al. (2003) suggested that there is a little evidence that self-esteem influence achievement in any meaningful way. However, there is substantial evidence to suggest that positive self-esteem should be pursued by educators which
seems as an important outcome in itself. Humphrey (2004) in an article tried to examine the key issues and research findings pertaining to the important debate on the role of self-esteem and provide some insight to the wider role of self-esteem in the facilitation of inclusive educational practices. It was also suggested that whilst self-esteem plays an important role in the education system, practitioners need to be cautious in their approach for making children feel valued and worthy.

Guay, Larose and Boivin (2004) carried out a ten years long longitudinal study to test children’s academic self-concept, family socio-economic status, family structure (single parent vs. two parent family), and academic achievement in elementary school as predictors of children’s educational attainment level in young adulthood. Findings from structural equation modeling reported that academic self-concept predicted educational attainment level ten years later over and above prior achievement. In addition, regression analysis based on a restricted sample (n=243) indicated that the academic self-concept and educational attainment level relation was still significant while controlling for family socio-economic status, family structure and academic achievement.

Marsh and Hau (2004) tried to explain a seeming paradoxical pattern of relation between math and verbal self-concepts and corresponding measure of achievement, through internal/external frame of reference (IE) model. In a cross-cultural study on N=55,577, which was a nationally representative sample of 15-years-old students taken from 26 countries. Results indicated that (a) math and verbal achievements were highly correlated, but math and verbal self-concepts nearly uncorrelated; (b) math achievement positively affected math self-concept, but negatively verbal self-concept; and (c) verbal achievement had positive effects on verbal self-concept, but negative effects of math self-concept.
Kim (2005) made an extensive effort to explore the effects of a constructivist approach on academic achievement, self-concept and learning strategies, and student preference. 76 students of six graders were divided into two groups. The experimental group was taught using the constructivist approach while the control group was taught using the traditional approach. The results asserted that constructivist teaching was more effective than traditional teaching in terms of academic achievement, however, constructivist teaching was not found effective in relation to self-concept and learning strategy, but had some effect upon motivation, anxiety towards learning and self-monitoring. Moreover, a constructivist environment was preferred to a traditional classroom.

Gerardi (2005) investigated the extent to which academic self-concept predict the academic success among urban technical college students. On the basis of his research findings he reported that academic self-concept rather than the traditional cognitive skills significantly predicted academic performance among minority and low-income students in an urban technical college. Similarly, Marsh et al. (2005) on the basis of their findings reported that academic self-concept had positive effect on a variety of academic outcomes and integrate self-concept with the developmental motivation literature.

Burwell and Shirk (2006) carried out a longitudinal study to examine the distinctive role of self-worth contingencies- the extent to which adolescents link self-worth to external feedback and success in four domains (social, academic, activity, and appearance). Results explored, contingencies predicted change in depressive symptoms over time, but depressive symptoms did not predicted change in contingencies over time. This pattern did not hold for the association between self-worth and depression. Findings provided support for contingencies as a predictor
rather than a symptom of depressive symptoms among adolescents. The findings also suggested that self-worth contingency was as an important cognitive vulnerability to depressive symptoms during adolescence.

Benton (2006) undertook a study on “Self-concept and achievement: Student’s academic beliefs and self-concept as related to academic performance using the Repeat third International mathematics and science study.” The purpose of this study was to reveal empirical validity of the use of Repeat third International mathematics and science study (TIMSS-R) variables “Self-concept” and “Positive Attitude”, to explore the underlying structure of self-concept in relation to existing measures and models, and examine the relationship between personal beliefs of students toward mathematics and science regard to achievement. The obtained findings indicated that use of the TIMSS-R self-concept variables for math and science was supported; hence, a two factor model of self-concept emerged. The data also supported the hypothesis that self-concept is positively related with academic achievement.

Marsh et al. (2006) attempted to set the stage for such research in that they explored the relations among multiple dimensions of self-concept, core personality factors (Big Five factors), well-being (positive effect, negative effect, life satisfaction), and academic outcomes (standardized achievement tests, coursework selection school grades). This study provided evidence that self-concept and self-esteem factors explain the variance in Big Five and well-being factors.

Jing (2007) in her study on the ‘analysis of the relationship among test anxiety, self-concept and academic competency’ found that self-concept negatively affected students’ self-perceived academic competency. She hypothesized that test anxiety will result in negative self-concept and college students with low self-concept
may perceive themselves as having lower academic competency. She also confirmed that self-perceived academic competency was positively correlated to academic performance (i.e., high self-perceived academic competency was positively correlated with GPA (grade point average, a measure of performance).

Fathi-Ashtiani et al. (2007) examined the relationship between self-concept, self-esteem, anxiety, depression and academic achievement in adolescents. Their study surveyed some personality characteristics of adolescents and their association with academic achievement. The obtained results indicated that self-concept is correlated with self-esteem and these two have positive impacts on argument of academic achievement. In addition, the increase of self-concept and self-esteem are related to the decrease in anxiety and negative significant relationship witnessed between self-concept, self-esteem and depression.

Baumeister, Campbell, Krueger, and Vohs (2003) on the basis of their review concluded that self-esteem— the global component of self-concept—has no effect on subsequent academic performance. In contrast, Marsh and Craven’s (2006) reviewed reciprocal effects models from an explicitly multidimensional perspective demonstrated that academic self-concept and achievement are both a cause and an effect of each other. Ironically, both reviews cited classic Youth in Transition studies in support of their respective claims. O’Mara (2008) definitive tested of these counter claims, and reanalyze these data—including self-esteem (emphasized by Baumeister et al.), academic self-concept (emphasized by Marsh and Craven), and postsecondary educational attainment—using stronger statistical methods based on five waves of data (grade 10 through 5 years after graduation; N = 2,213). The author integrated apparently discrepant findings under a common theoretical framework based on a multidimensional perspective; academic self-concept had consistent reciprocal effects.
with both achievement and educational attainment, whereas self-esteem had almost none.

In a study which was conducted by Demaray et al. (2009) to investigate the relationship between perceived frequency and perceived importance of social support with youth's self-concept. Data from a large representative sample of N=921 children and adolescents in grades 3 through 12 were analyzed. The outcomes of the study indicated that the relationships between the frequency of social support from parents, teachers, classmates, and close friends with self-concept were significant. However, only the perceived importance of social support from teachers was significantly related to self-concept. Finally, a relation was found between the frequency of social support and the importance of social support from classmates and close friends on self-concept.

Yahaya (2009) conducted an empirical study to explore relationship of self-concept and interpersonal communication skills to academic achievement. The students' levels of dimension of self-concept (physical, personal, moral and ethic, behavior, social satisfaction, and identity) and interpersonal communication skills were identified. The results indicated that the majority of the students possessed the moderate level of self-concept and interpersonal communication skills. Self-concept was found to correlate quite significantly with interpersonal communication skills but it was found that self-concept does not correlate significantly with academic achievement.

Mucherah et al. (2010) examined the relationship between self-concept and students' academic performance in Mathematics and English for high school students in Kenya. Participants included N= 1990 students from two same sex boarding
schools—one for boys and the other for girls. Results showed that there were sex and grade differences in academic performance and most aspects of self-concept. Specifically, girls did better in Mathematics while performances in English not differ significantly. Grade level differences showed a downward trend relative to norms in both Mathematics and English performance with the lower grade levels performing better. This trend possibly related to the changing standards by the teachers. On the self-concept measures, boys rated themselves significantly higher than girls except for physical appearance. It was also observed that as the students progressed through each grade level, their perceptions of self increased.

Recently, a study conducted by Lee-Flynn et al. (2011) to investigate how self-esteem and self-concept clarity are implicated in the stress process both in the short and long term. Initial and 2-year follow-up interviews were completed by 178 participants from stepfamily unions. In twice-daily structured diaries over 7 days, participants reported their main family stressor, cognitive appraisals (perceived stressor threat and stressor controllability), and negative affect. Results of multi-level modeling indicated that high self-esteem ameliorated the effect of daily negative cognitive appraisals on daily negative affect. Self-concept clarity also buffered the effect of low self-esteem on depressive symptoms 2 years later. Findings indicated to the vulnerability of those having low self-esteem or low self-concept clarity in terms of both short- and long-term adaptation to stress. They indicated the need for the consideration of such individual differences in designing stress management interventions.

It was ascertained from self-concept related studies that numerous studies were conducted regarding self-concept, self esteem, self-efficacy in relation to academic achievement but a little amount of studies have been carried out in relation to anxiety.
Those studies conducted in relation to self concept and scholastic outcomes have many contradictory findings such as some researcher observed a clear influence of self-concept on academic achievement (Caplan, 2002; Spinath and Stiensmeier-Pelster, 2003; Marsh et al., 2005; Benton, 2006; Fathi-Ashtiani et al., 2007) but some were found to have reported no significant relationship between self concept and academic outcomes (Mboya, 1999; Baumister et al., 2003; Yahya 2009). Some researcher found a reciprocal influence on self-concept and academic achievement and some studies shown that there are some specific domains of self concept which were related with its corresponding academic outcomes such as verbal self concept related with verbal achievement and math self concept related with math achievement. There was also observed, contradiction on gender differences on self-concept. Overall, it was observed that the role of self-concept in academic achievement has been one of the most controversial but very important issues in educational psychology so it become essential here to examine the influence of self-concept on academic performance with comprehensive manner as well as their relation with level of anxiety among school going children.

The studies presented above have highlighted the relevance of self-concept in the light of empirical evidences, hence, it constitute an important part of the whole research problem. Now onward, studies related to school environment are being presented here-after.

Studies related to School Environment

School environment is now, well recognized as one of the aspects which influencing teacher-taught effective performance at school or in any institutions. Hence, so far as the importance of school environment is concerned, Arthur Perry was
the first educational leader who explicitly written on how school climate affects students' and their process of learning in his book entitled 'The Management of a City School' (Perry, 1908). In fact, systematic study of school climate grew out of organizational research and studies in school effectiveness (McDill, and Rigsby, 1973; Anderson, 1982; Creemers & Reezigt, 1999; Krefl, 1993; Miller & Fredericks, 1990; Purkey & Smith, 1983) although, there are a variety of conceptualizations about climate. However, it is general agreement that the school climate essentially, reflects subjective experience in school (Cohen, 2006). Climate is defined as members' perception and it influences members' attitudes and behavior. A better school climate facilitates pupils' learning and adjustment (Haertel et al., 1981; Fraser and Fisher, 1982; Bryant et al., 1994; Cheng, 1994; Baker et al., 1998), while a poor school climate is associated with psychological problems (Kellam et al., 1994; Klicpera et al., 1995; Russel and Russel, 1996; Mooij, 1999). As Buddeberg-Fischer et al. (2000) opined that a poor school climate to be related with school stress, which was, in turn, associated with students' internalizing problems. Numerous important studies related with school environment were gradually carried out by researchers.

Pillai in 1969 carried out a study to investigate the organizational and administrative factors which affect the achievement of pupils in secondary schools. He observed that three types of factors affecting the achievement of pupils that include: (1) teacher factors or instructional factors or environmental factors; (2) social and educational factors and (3) organizational and administrative factors or non-administrative factors. It was also found that among all these three factors, environmental factors exerted maximum influence on achievement. Environmental factors constitute of time taken to reach the school, educational status of parents, attitude towards school, attendance at school and average monthly income of parents.
After few years again, Pillai (1974) conducted a study entitled 'organizational climate, teacher morale and school quality' and found that performance of pupils was significantly better in open and autonomous climate schools than in schools of other climate types. Performance of pupils in high morale school was superior than the average morale schools and far better than lower morale schools, and at last he observed that curricular issues, school facilities and services, community pressure, teacher’s status and teacher load were considerably contributed to pupils' performance in schools.

Brookover et al. (1978) had made an effort to study of the relationship between school climate and students' achievement. Looking at schools' climate as a shared social system of both norms and expectations, the viewpoints of students, teachers, and administrators were considered as reflecting to school climate/environment. Brookover and his colleagues used a multiple regression analysis to examine the proportion of variance in Grade 4 students' achievement tests that was explained by school climate, socio-economic status and ethnicity. The finding of the study indicated that school climate was good or better at predicting students' achievement than were socio-economic level and ethnicity. The proportion of variance explained, though, varied a great deal, from only 4% for a state-wise sample of schools to 12% in primarily White American schools and 36% in primarily African-American schools.

Wright and Cowen (1982) examined relationships among students' perception of classroom environment and mood, achievement, popularity, and adjustment, for both general students and students suffering from "problem" (i.e., acting-out, anxious, and unpopular) children. Subjects included N=511 fifth- and sixth-grade students which were taken from 23 classes in four sub-urban schools. Reading and arithmetic
report card grades and achievement test scores were recorded to measure academic achievement and teachers submitted adjustment ratings for all students. The findings of the study suggested that relationships between perceptions of class environment and the dependent measures were stronger for problem students. For that group, high perceived order and organization, affiliation, and innovation related to positive mood, greater peer popularity, and more positive adjustment.

McKenzie (1986) studied identifying the characteristics of school climate as determinants of effective school. The main purpose of this study was to examine the relationship between organizational climate of public schools and their effectiveness. The study suggested that climate was determined to be an intervening variable that lead to increased students' achievement.

Cooper (1989) indicated that a better academic performance may be a function of many factors including teacher, student, classroom environment and home environment as well. These include individual differences in student attitudes toward homework, motivation, and study habits, the process of integrating homework into classroom work, the contribution of the family and home environment and the kind of feedback given on completed assignments.

Kasen, Johnson and Cohen (1990) examined four dimensions of school climate and found that school conflict and social facilitation were shown to be related to increases in childhood psychopathology, whereas student autonomy was not. Effects of academic focus were even stronger than those of conflict, in the sense of being independently related to more syndromes. School climate effects were examined for conditionality on student characteristics and for synergism. It was
concluded that intervention to alter the school climate may promote the emotional and behavioral well-being of children and adolescents.

Hilary and others (1993) explored influences of school environment on the academic achievement scores of adopted and non-adopted children. Data were derived from the Colorado Adoption Project on N= 493 first-grade adopted and non-adopted children that were used to separate parental intelligence quotient (IQ) from the effects of school environment. The findings indicated that number of variables have shown direct environmental associations with reading and mathematics achievement independent of the effects of parental IQ.

Panda, Sahoo and Sahoo (1995) studied the influence of school organizational climate on student’s academic achievement. Sample consisted of 200 secondary school teachers and 400 students of central, public, government aided and unaided schools. The results revealed that organizational climate was different in different types of schools and these differences influenced the academic achievement of students. More specifically, a friendly and happy atmosphere was found to be more conducive for better performance of the students. It was also noticed that high percentage of marks was secured by the students of the open climate schools, whereas lowest percentage was found in the school having closed climate. The results as such exhibited that the school climates have an effect on the academic achievement of the students.

Wentezel and Cald-Well (1997) examined the friendship, peer acceptance, and group membership relation to academic achievement in middle school. Results of their longitudinal study analysis revealed that aspects of peer relationships are related
to classroom achievement indirectly, by way of significant relations with pro-social behavior.

Loulsknet (1997) conducted a study to identify the relationship of school organizational health and teacher commitment with student achievement. The major objectives of this study were to find out relationships between school health and achievement, and the combined variables of school health, teacher commitment and student achievement. The results revealed that school organizational health plays important role in student achievement, while no significant and positive relationship was found between teachers' commitment and achievement. The study concluded that the creation and maintenance of a healthy school climate, especially the presence of principal leadership that emphasizes both consideration and task initiation and an academic climate that creates a pressure for achievement were not significantly related in the study. The study also reported a strong relationship between socio-economic status and achievement.

Weinberg et al. (1997) in their extensive study tried to identify the impact of school on academic achievement. They discussed the complexity of the educational system and calling attention to the fact that all schools do not provide the same levels of support and quality of education. They found that the kind of impact, the school will have on their students' academic achievement depends on adequate facilities, trained teachers, supportive and informed administrators who encourage problem identification and problem solving, adequate trained support personnel, and national policies that recognize and value diversity.

Johnson (1998) carried out a study to investigate the relationships among elementary school teachers' perceptions of school climate, student achievement,
teacher characteristics, and community and school context. Using structural equation model, results revealed a statistically significant, positive correlation between teachers' perceptions of school climate and school student achievement. A second model, adding school teacher characteristics failed to improve the overall model, thought it resulted in a smaller, non significant relationship between school climate and student achievement. Overall, it was concluded from the results of study that higher students' achievement were related with more experienced, non-seniority, female teachers, with fewer low income and limited English proficient student, and in communities with higher family income and higher adult education levels and these factors show a positive school climate.

Gyanani (1998) made an effort to investigate the effect of classroom climate, teachers' leadership behavior, and teachers' expectations on academic achievement of pupil-teachers. Results revealed significant independent effect of all the three independent variables. The interactional effect of teachers' leadership behavior and their expectations was also found significant.

Samdal et al. (1998) conducted a study to inspect the students' perception of school climate relates to their satisfaction with school. They reported on the basis of result that in all countries the older students tended to be significantly less satisfied with school than the younger ones. The most important predictors of student satisfaction with school were students' feeling that they were treated fairly, were safe and believed that teachers were supportive. The findings suggested that in school health promotion interventions, attention should not only be given to classroom teaching materials but also to the quality of students' school experience and the quality of the relationship with the teachers.
Esposito (1999) studied school climate and its effect on the school performance of urban, minority, low-income children. The main purpose of this study was to investigate the relationship between school climate and children's academic achievement and social development in the early elementary school years. The results indicated that overall school climate and the teacher-school relationship were significantly related to school adjustment. This study also found that factors related to school climate significantly predicted social skills in first and second grades, in addition reading and mathematics achievement scores in first grade.

A longitudinal study was carried out by Schmitt et al. (1999) to study the effect of parental employment status and school climate on children's academic and social development. They observed that parental employment was associated with positive changes in social and academic progress even after controlling for prior developmental level, school climate and family income. They further observed that school climate had minimal effect on the outcome variables. Parental income and education were related to various school outcomes.

Patterson (2001) studied students' perceptions of classroom climate in Tennessee public high school. The research study on school effects and school climate revealed that school environment affects academic achievement. An important aspect of the school environment is classroom climate, which has been found to influence students' achievement, attitude, behavior, self-concept, and future aspirations. At the beginning of the 1994-95, the state of Tennessee implemented in its high schools a new policy, a part of which addressed the tracking issue, it required all students to choose one of two paths, university or technical to determine whether relationship existed between students' perception of classroom climate and their selected tracks. The findings revealed that perceptions of classroom climate were not
significantly influenced by curriculum path, either technical or university. Although, it was observed that perceptions of classroom climate were influenced by teachers, schools, race, age and grade.

Russo et al. (2001) made an effort to investigate the interactional effect of cognitive style (CS) and school environment on self-evaluated anxiety and depression. The sample was consisted of N=280 students, out of which two groups were created either for attending a fine arts or a humanities class in high school. The obtained results advocated that fine arts students displayed a prevalent right CS and humanities students displayed a prevalent left CS. Right CS was associated with higher depressive tendencies than was left CS and a similar but not significant pattern was observed for anxiety. A significant interaction between CS and school environment was found, where more CS was in consonance with the environment cognitive demands, the less depressive tendencies were present, and also the reverse. On the basis of their findings, it was concluded that students are more likely to prefer a school environment that emulate their CS.

Abdulaziz (2002) examined the relationship between principle leadership style as perceived by teachers and school climate in high school in Riyadh city, Saudi Arabia. School climate researches indicated that teachers motivation and students achievement are related to interpersonal atmosphere of the schools where they teach, principal leadership style is also one of the important factor that impacts school climate. The aim of this research was to explore which leadership style is most effective for producing highly open school climate with the intent of learning. The results of study revealed that teacher who perceived their principals to be low in both (consideration and initiating structure) also perceived their school climate to be low. No significant correlation was found between teachers' perception of principal style
or school climate with respect to the type of school building structure and school size. This study suggested that it is important for principals to focus on important role of their teachers without neglecting the tasks to be done. Principal who maintained supportive and considerate relationship with their teachers, positively influence healthy and open school climate.

Pepper and Thomas (2002) realized that a more positive school climate was the key to confronting many of the challenges in the school. Therefore, attempted to examine that making a change in leadership role may affect on school climate. Their personal general experiences were described as the principal with authoritarian leadership style had negative effect on school climate and, subsequently, the morale and success of students and teachers within the school setting. Making a change to a transformational leadership, it was observed that this leadership style had a more positive effect on the learning and working environment. Change in leadership style and guidance resulted in the school becoming a more positive caring place to learn and work for everyone involved.

Many researchers have identified a number of factors like social class, parental involvement, students' engagement in learning, instructional methods, expectations for student achievement and school leadership; all are observed to be important correlates. Besides these, some researchers observed school climate as an important predictor of achievement. Thus, Elisa (2003) conducted a study to examine the relationship between school climate and student achievement with the objective to learn more about this relationship especially in schools that serve children from low-income homes. The results supported the conjecture of the study. School climate and students achievement were found significantly positively related to each other. The
open-ended inquiry generally supported the quantitative findings and yielded insights about school effectiveness correlates.

Watt (2003) made an effort to investigate whether adolescents are protected in small and/or private schools, examining their levels of depressions, suicidal thoughts and violent dispositions. For this purpose Watt used the National Longitudinal Survey of Adolescent Health. The results refuted claim that students who attend these types of schools have better emotional adjustment than those who attend large and/or public schools. In addition, the results further suggested that small school and private schools may actually be detrimental to adolescents’ mental health that is, net of selection effects, small schools are associated with higher level of depression and a greater likelihood of attempted suicide for male students. This study provided additional evidence that private schools were associated with increased likelihood of use of the weapons by both male and female students. Hence, School environment has been examined largely for its effect on academic achievement but insufficient attention has been devoted to the school as a sociological context that influence adolescents’ mental health.

Borland and Howsen (2003) conducted a study to examine the effect of school size on student achievement while accounting for students' ability, among other variables. The results reported that school size has a nonlinear or increase relationship with respect to student achievement. Thus, there must be an optimal school size to determine the maximization of students' achievement.

Barth et al. (2004) carried out a study to identify the influence of classroom environment on aggression, peer relations, and academic focus. They examined how variations in social and academic classroom composition as well as the larger school
context affect behavior in a normative sample of children over a 2-year period. Concurrent and longitudinal effects of classroom and school environment on individual behaviors were examined of the students in 65 classrooms taken from 17 schools. The obtained results advocated that poorer level of classroom environments were associated students' aggression, poor peer relations and poor academic outcomes. Changes in students' behavior overtime were associated with the current classroom environment.

David (2004) tried to explore the extent to which climate of a school has an effect on the student academic success. The purpose of the study was to identify those dimensions of school principal's work that contributes to the elementary school climate. The study found that schools where community involvement is high had higher test scores. It was further observed that students' enrollment size was a factor that influences parents' ability to connect effectively with principals and teachers, and the principal's relationship with the staff. Finally, the principal's leadership style is determined by the students' overall socio-economic status and the level of diversity. In summary, these findings suggested that a principal must encourage community involvement, work to build strong relationship between him/her and parents and staff even where the school is large, and be sensitive to the leadership skills needed working in various schools.

Iturre (2005) carried out a study to examine relationship between school composition, some characteristics of schooling (such as institutional culture and climate), and students' achievement in Mathematics in the previous year of high school. For this purpose researcher used data which had been gathered from the 1998 High School National Census from the Ministry of Education and Culture of Argentina. Findings showed a close relationship between achievement in Mathematics...
and the variables of school composition and schooling processes. It was also observed that when both variables act together, the effect of all other variables significantly decreases.

Kaplan, Liu and Kaplan (2005) conducted a study to test the hypothesis that educational expectations of junior high school students in interaction with school-related stress during early adolescence would adversely affect their grades during high school. Data were collected through home interviews on 1,034 students during junior high school and 3 years later during high school. Using multiple regression analysis, findings supported the hypothesis that early adolescent school-related stress both independently and in interaction with high academic expectations negatively affects academic performance 3 years later. These results suggested that high stress school environments and an increase in academic expectations may serve to increase students’ school-related stress and obstruct their academic performance.

Loukas and Murphy (2005) examined the roles of students’ perceptions towards the four aspects of school climate (friction, cohesion, competition among students, and satisfaction with classes) as moderators of the relations between effortful control and subsequent conduct problems and depressive symptoms. Hierarchical regression analysis indicated that high levels of perceived friction predicted more subsequent conduct problems and depressive symptoms, even after baseline levels of these problems were partially out. Low levels of effortful control also elevated risk for subsequent conduct problems. However, perceptions of the school as high in cohesion offset the risk associated with low levels of effortful control. Perceived satisfaction with classes also offset this risk, but only for females.
Jonson and Stevens (2006) made an extensive effort to find out relationship between students' achievement and teachers' perceptions of school climate in elementary schools. Using structural equation modeling, a statistically significant positive relationship was found between school teachers' perceptions of school climate and school student achievement. A second model showed that school and community context variables mediated that relationship. The influence of school climate on student achievement was stronger with high socio-economic status (SES) communities than it was for schools with lower SES communities.

LeBlanc et al. (2007) carried out a research, used longitudinal and cross-sectional data, to identify schools' social climate as predictor of teachers' perceptions of classroom behavior problems. The social climate and classroom behavior of 107 public and private French speaking Canadian high schools were evaluated by 1,399 teachers. They found that between-school variation in the proportion of students with histories of disruptive problems predicted high school classroom behavior problems. Moreover, when controlling of these between-school differences, concurrently measured school-level variables (type of school, location of school, and academic emphasis) were found to be significant predictors of classroom behavior problems.

Caldwell, Sturges and Silver (2007) examined and compared the influence of home and school environments to the affective (anxiety and depression) and behavioral (impulsivity and compliance) states of N=626 African-American, Caucasian, and Hispanic adjudicated juvenile offenders. African-Americans showed the strongest relationship between their home environment and compliance. Caucasian and Hispanic males exhibited increased home and school environment problems associated with affective (anxiety and depression) states. Among females, African-American and Caucasian females exhibited the strongest relationships.
between their home environment and behavioral states, whereas Caucasian and Hispanic males revealed increased school environment problems related to affective states with Hispanic males showing the strongest relationships. In addition, the school environment was more predictive of the affective and behavioral states of the adolescents, particularly in females.

Shulruf, Hattie and Tumen (2008) made a concerted effort to identify school factors that affect students' achievement. The results indicate that, although students' demographic characteristics are associated with students' pathways and achievements, schools' demographic composition did not affect students' outcomes. It was further found that schools' organizational factors did have an effect. At the university level, none of the schools' characteristics was related to students' achievements at the higher end of the achievement scale. However, students from private or state-integrated schools were found to be more likely to achieve low than students who came from state schools. In conclusion, it is suggested that interventions targeting at-risk populations based on demographic factors should focus on individuals or groups rather than on institutions, while school-based interventions should identify the schools by their structure and function rather than by their demographic characteristics.

Freeman et al. (2009) examined the extent to which school climate and school pressure could predict other aspects of adolescents' lives, most particularly their emotional health and bullying. Participants completed surveys focusing on health behaviors and lifestyles, using a contextual framework. After cluster analysis, three clusters were created. Results revealed that students in the cluster having the most positive relationships to school outcomes including academic achievement, truancy, teacher and peer support, also had the most positive emotional health and the lowest
incidence of bullying. Similarly, those in the poorest cluster in terms of school also had the poorest outcomes in terms of emotional health and bullying. On the basis of results it was concluded that schools may have a small role in supporting children’s emotional well-being and ameliorate the presence of bullying.

Murberg and Bru (2009) prospectively explored the main and interactive effect of negative life events and perceived support in the school environment from teachers and classroom peers on depressive symptoms in a sample of N=198 (111 females, 87 males) students in a Norwegian senior high school. Longitudinal multivariate analyses revealed that self-reported depressive symptom levels at time-point two (T2) were predicted by initial levels of depressive symptomatology, teacher support, and gender. Support from classroom peers at time-point one (T1) was not associated with symptoms of depression at (T2). Multivariate cross-sectional analysis also detected a significant positive association between negative life events and depressive symptoms. Finally, results suggested that perceived teacher support may buffer against negative life events leading to symptoms of depression.

In an effort to increase both adolescents’ engagement with school and academic achievement, school districts across the United States have created small high schools. However, despite the widespread adoption of size reduction reforms, relatively little is known about the relationship between size, engagement and outcomes in high school. In response to the above efforts of providing opportunities to school students the researchers’ article by Weiss, Carolan, and Baker-Smith (2010) employed a composite measure of engagement that combines organizational, sociological, and psychological theories. They used this composite measure with the most recent nationally-representative data-set of tenth graders, Educational Longitudinal Study: 2002, N = 10,946 to better assess a generalizable relationship.
among school engagement, mathematics achievement and school size with specific focus on cohort size. Findings confirm these measures to be highly related to students’ engagement. Furthermore, results derived from multilevel regression analysis indicate that, as with school size, moderately sized cohorts or grade-level groups provide the greatest engagement advantage for all students and that there were potentially harmful changes when cohorts grow beyond 400 students. However, it is important to note that each group size was found different effect on students, eliminating the ability to prescribe an ideal cohort or school size.

Jimenez-Castellanos (2010) examined the relationship between educational resources (fiscal, personnel and facilities) and school achievement. A sequential mixed methods approach revealed inequitable resource allocation trend and pattern between schools within a school district by producing different student outcomes. The findings revealed that educational resources which positively correlated with higher school achievement are— higher teacher salaries, newer schools, more multi-purpose space per pupil and less portable classrooms.

Khine and Panza (2010) conducted a study to examine the influence of demographic factors, socio-economic factors, parental factors, educational background, school status, behavioral factors (e.g., alcohol drinking, smoking cigarettes, feeling about puberty, forced sex, and physically and emotionally abused etc.) on anxiety and depression among the Myanmar migrant adolescents in Bang Bon district. Two hundred and seventy one adolescents participated in this study in which the prevalence of anxiety in these migrant had 22.1% whereas, in case of depression, 12.9% suffered with mild depression and 1.8% with moderate depression. In bivariate analysis, race, income, good relationship with friends and parental conflicts were associated with both anxiety and depression. All behavioral factors were not
associated with depression but some associated with anxiety. A strategy for the mental health for these groups should be seen as a strategic investment which will create many long term benefits for individuals, societies and health systems. Professions dealing with mental health such as psychologists, psychiatric nurses and social workers should receive special training for appropriate knowledge and skills among migrant adolescents.

Dahar et al. (2011) carried out a study to investigate the impact of the prior school environment on academic achievement of students. It was assumed that the present school environment of a session is the prior school environment for the next session. Therefore, this study used mean of the prior five years results of SSC examination. The longitudinal data of academic achievement in the form of aggregate marks of the annual examinations of the Classes VI, VII, & VIII were taken as prior achievement and that of the Class X as academic achievement of the same students through “Result Sheet”. Pearson correlation was used to find out the relationship of the prior school environment with academic achievement. Furthermore, stepwise regression analysis with linear function was used to find out the differential impact (causal-relationship) of the prior school environment on academic achievement. The results of the study shown that the prior school environment was an important predictor of academic achievement for arts students, however, it had some insignificant positive impact on academic achievement of science students. The insignificant and weak causal-relationship for science students may be improved if the indicators of school environment are properly defined and improved upto the higher standards. Prior school environment is very helpful in producing the present school environment. The policy implications of the study are that the prior school environmental
environment provides the accelerating or the declining trend of academic achievement of students.

In the light of the evidences gathered from the literature related to perceived school environment, it is crystal clear that school environment and many important aspects of school were found to play significant role in influencing anxiety and academic performance of students. Several studies indicated that teachers’ perceptions of school climate significantly related with students’ achievement. On the other hand, some researchers found that school climate had minimal effect on the academic achievement, whereas parental employment status and education were found significantly highly related with academic and social development of students. It was observed that school environment has been examined largely for its effect on academic achievement but insufficient attention has been devoted to the influence of school environment and its different facets on adolescents’ mental health and level of anxiety. It was also observed through survey of literature related to school environment that most studies conducted regarding school environment and academic achievement and much emphasis was done on mathematics achievement but not overall achievement, thus, most of the studies were carried out concerning mathematics achievement. Furthermore, school environment have been measured through the perception of teachers, while the perception of students about their school got hold much importance than the teachers’ or parents’ perception. Therefore, it is the dire need, especially in the present competitive modern age to investigate the role of students’ perception about their school environment in determining the level of anxiety and academic performance.
Having dwelled upon the variables which were undertaken in the study, it was also warranted to frame the hypotheses before the start of the whole endeavour related to the carrying out of the study. The details of which follows:

**Hypotheses**

Formulation of hypotheses is a very essential step in research investigation. A scientific investigation starts with statement of a solvable problem called hypothesis. A hypothesis is a presumption which provides the bases for investigation and ensures the proper direction in which the study should proceed (Michael, 1985). Therefore, hypotheses are highly important in every scientific investigation because they work as instrument of theory, have a prediction values, and also they are powerful tools for the advancement of knowledge and in making interpretation meaningful (Kerlinger, 1983). Hypotheses help in determining comprehensively the objectives of the study and subsequently help in making a proper choice of statistics for analyzing the data in quest of answering objectives of the study.

It is evident from the survey of literature that scores of studies have investigated self-concept and school environment independently in relation to either anxiety or academic performance which have provided the direction of relationship as well as the type of influence. Hence, alternate research hypotheses were formulated for empirical investigation. To avoid repetitions, broadly four hypotheses were comprehensively formulated which are given below:

both the sexes of students studying either in University-run or Private schools irrespective of co-ed and non-co-ed type of schools.

H$_1$ : 'Perceived school environment' and its various dimensions ('Student’s attitude towards teacher', 'Home-work', 'Student’s attitude towards administration', 'Teachers’ caring attitude for students', 'Student’s attitude towards school', 'Extracurricular activities', 'Teacher-taught relationship', and 'Student’s attitude towards classmates') will significantly predict students’ anxiety among both the sexes of students studying either in University-run or Private schools irrespective of co-ed and non-co-ed type of schools.

H$_3$ : 'Self-concept' and its various dimensions ('Behaviour', 'Intellectual and school status', 'Physical appearance and attributes', 'Freedom from anxiety', 'Popularity', and 'Happiness and satisfaction') will significantly predict students’ academic performance among both the sexes of students studying either in University-run or Private schools irrespective of co-ed and non-co-ed type of schools.

H$_4$ : 'Perceived school environment' and its various dimensions ('Student’s attitude towards teacher', 'Home-work', 'Student’s attitude towards administration', 'Teachers’ caring attitude for students', 'Student’s attitude towards school', 'Extracurricular activities', 'Teacher-taught relationship', and 'Student’s attitude towards classmates') will significantly predict students’ academic performance among both the sexes of students studying either in University-run or Private schools irrespective of co-ed and non-co-ed type of schools.

The hypotheses mentioned above were based on the main objectives of the research work but beyond the main purpose of the study, following few hypotheses were also formulated to make comparisons among various sub-sample groups on
criterion variables viz., anxiety and academic performance only. These hypotheses were in null forms which are being given below:

**H₀ₛ:** Boys and Girls student will not differ on anxiety studying either in University run or Private schools irrespective of co-ed and non-co-ed type of schools.

**H₀ₛ:** Boys and Girls student will not differ on academic performance studying either in University run or Private schools irrespective of co-ed and non-co-ed type of schools.

Having formulated the afore-mentioned hypotheses, the whole research work was carried on for their empirical testing. The steps taken in quest of carrying out the study will be mentioned in the forth-coming Chapter-III meant for writing the procedure opted.