Chapter III

REVIEW OF RELATED LITERATURE

3.1 STUDIES RELATED TO ACHIEVEMENT MOTIVATION

3.2 STUDIES RELATED TO EXAMINATION ANXIETY

3.3 STUDIES RELATED TO STUDY HABITS

3.4 STUDIES RELATED TO SELF CONCEPT

3.5 STUDIES RELATED TO HOME LEARNING ENVIRONMENT
The review of related literature and studies is an essential aspect of any investigation. According to Good (1959) “Survey of related literature helps to show whether the evidence already available solves the problem adequately without further investigation and thus to avoid the risk of duplication.” Review of related literature allows the researcher to acquaint him with current knowledge in the field or area in which he is going to conduct his research. For any worthwhile research the researcher needs an adequate familiarity with the literature available in the field of study.

Therefore in this chapter an earnest attempt is made to bring out some of the important research studies directly or indirectly related to the topic were collected, classified, organized and presented under the following sections.

3.1 STUDIES RELATED TO ACHIEVEMENT MOTIVATION

3.2 STUDIES RELATED TO EXAMINATION ANXIETY

3.3 STUDIES RELATED TO STUDY HABITS

3.4 STUDIES RELATED TO SELF CONCEPT

3.5 STUDIES RELATED TO HOME LEARNING ENVIRONMENT

3.1. STUDIES RELATED TO ACHIEVEMENT MOTIVATION

Sedaghal et al. (2011) the purpose of the study was to test predictions of a model explaining the impact of motivational factors include perceived ability, perceived instrumentality, achievement goals on cognitive engagement and academic achievement. The results strongly supported that perceived ability, perceived instrumentality and achievement goals predict cognitive engagement and academic achievement.

Stelzer et al. (2010) a study on Achievement motivation among urban adolescents; work hope, autonomy support and achievement related beliefs. The
sample consists of 2011 urban high school students who were enrolled in a work based learning program. Results from the full canonical correlation model revealed that work hope, career planning and autonomy support shared 37.5% of the variance with achievement related beliefs.

Ayub et al. (2010) studied that relationship between University student’s achievement motivation, attitude and academic performance. The results indicated a positive significant correlation between student’s attitude towards learning and achievement motivation and between student’s attitude and academic achievement. However a negative and low correlation was observed between student’s achievement motivation and their academic achievement

Bartels and Jackson (2009) the study entitled Approach – Avoidance motivation and meta cognitive self regulation; the role of need for achievement and fear of failure. The results indicated that need for achievement was significantly related to meta cognitive self regulation and mastery approach goals partially mediated this relationship. Fear of failure was negatively associated with Meta cognitive self regulation; however performance avoidance goals did not mediate this relationship.

Kamble and Adsul (2009) they explores the relative contribution of academic stress, achievement motivation and academic achievement among adjustment of high school students. 160 students of Sangli and Kolhapur district were selected by random sampling method. Multiple regressions were done to analyze the data. The findings of the study revealed that academic stress and adjustment is negatively related with each other, while achievement motivation and academic achievement is positively related with adjustment. Most important
finding of this study is that academic achievement and stress is found to be the most successful predictor of achievement among high school students.

Jain and Yadav (2009) the investigation was carried out on 200 college students to study their achievement motivation with reference to caste belongingness, socio economic status and reservation policy. The data analysis led to the conclusion that there is a significant difference in the level of achievement motivation of privileged and unprivileged caste groups. No significant difference is found between the students who availed the benefit of reservation as compared to those who did not avail this benefit. No significant difference in the achievement motivation on the basis of socio economic status.

Young, Chen and Moris (2009) revealed through their study that belief in stable rather than fleeting luck positively relates to achievement motivation, further more belief in stable luck affects achievement motivation via personal agency beliefs.

Schuler, Sheldon and Fronhlich (2009) substantiated that felt competence more strongly influences subsequent academic goal motivation for those high in the need for achievement.

Steinmayr and Spinath (2008) the study examined to which extent motivational concepts contribute to the prediction of school achievement among adolescent students independently from intelligence. Domain specific ability self perceptions and values showed the highest increments whereas achievements motives and goal orientations explained less additional variance. Even when prior achievement was controlled some motivational concepts still proved to contribute to the prediction of subsequent performance.
Fan and Zhang (2008) the study largely supported the hypothesis that the more creativity generating and complex thinking styles were positively correlated with achievement motivation to approach success and negatively correlated with achievement to avoid failure. The study also found that the situation or task-depending thinking styles were positively correlated with achievement to approach success and negatively correlated with achievement motivation to avoid failure.

Joseph (2007) in the study of the effect and the relationship between selected correlates of achievement motivation and achievement in social science found that correlates of achievement motivation have significant effect on achievement. The correlates of achievement motivation also have significant correlation with achievement.

Bipp, Steinmayr and Spinath (2007) conducted a study with a sample of 160 university students; relations were examined on the facet level of the Big five. It was found that intelligence and goal orientations shared no common variance.

Bidyadhar (2006) investigate the level of achievement motivation among secondary school tribal and non-tribal students. The data were collected on the 600 sample subjects selected through stratified random sampling. The outcome of the research was in favor of Secondary school non tribal students; which means that the secondary school tribal students lag behind in their level of achievement motivation than their non tribal counterparts.

Schmidt and Ballard (2006) through their study revealed significant but low correlations between personal development competition and class levels. Motivation and self concept variables were not correlated with academic achievement variables and generally did not differ by sex or class levels.
Differences in motivation and musical self concept by immediate and long term career goal categories were non significant.

Yeung and McInerney (2005) studied achievement related orientations of students using a sample of 199 students from a school in Hong Kong and found that motivation factors are the major driving factor for excellence.

Ramakrishnan (2005) conducted a study scholastic motivation of secondary school pupils in relation to intelligence, self concept, classroom climate and parental involvement. The study showed positive relationship between the variables.

Hannula et al. (2005) in the study titled cognitive linguistic skills and motivation as longitudinal predictors of reading and arithmetic achievement, found that motivational orientations started to make unique contributions to subsequent decoding accuracy, reading comprehension and arithmetic from preschool onwards, over and above the effects of prior linguistic and math skills. High task orientation was beneficial for beginning reading whereas high social dependence orientation was detrimental for reading comprehension and arithmetic.

Deepa (2005) in her study on certain psychological variables as predictors of pending comprehension in English of Secondary School pupils of Kerala found that achievement motivation is positively correlated with comprehension in English.

Bong (2004) the study revealed that students form motivational beliefs that are subject matter specific and that some beliefs generalize more than others across, multiple academic domains. On average, attributional beliefs appeared least “generalizable” followed by task value and mastery achievement goal orientations. Academic self-efficacy beliefs were correlated moderately whereas performance
approach and performance avoidance achievement-goal orientations demonstrated strong correlation across different contexts. Motivational beliefs in each of the specific school subjects were more strongly correlated with motivational beliefs in general school learning than with beliefs in other areas of subject matter.

Buftrand and Couture (2003) studied the motivational profile and academic achievement of high school students. Using a sample of 226 students and found that motivational variables are related to academic achievement in Mathematics.

Smith (2003) studied on Mathematics achievement of Secondary school students and found that motivation contribute to achievement.

Krishnamoorthy (2003) studied on the relationship between achievement motivation, interest and achievement and found that relationship between achievement motivation and academic achievement are significant and positive.

Zsolnai (2002) studied a sample of 218 6th and 220 10th grade Hungarian student and found that there exists a positive relationship between learning motivation and achievement.

Hancock, Bray and Nason (2002) investigated the interactive and differential effects of professor’s instructional method and university student’s conceptual levels on students’ achievement and motivation in a course designed to teach computer technologies. This study’s findings suggest that achievement in the classroom is a function of both personality variables and characteristics of the learning environment. Specifically, matching high conceptual level persons with student centered instruction and low-conceptual level learners with teacher-centered instruction enhance student achievement. In other words, neither conceptual levels nor instructional methods alone account for differences in student’s performance.
Lauchlan et al. (2001) the sample of the study consists of 3000 children, aged 9-10 from districts in England, Russia and the USA, together with teacher reports. The data obtained suggest that the Russian sample experienced classroom with far less disruption and stronger prosocial peer influences than did the English and American children. The western samples over estimated their teacher’s views of their ability while the Russian children provided under estimates. Russian children were less likely to express satisfaction with their abilities, were more positive towards school, more likely to see education as intrinsically valuable and tended to spend significantly more time on home work tasks.

Mumthas (2001) studied on psychological variables as predictor of Mathematics achievement and found that achievement motivation in Mathematics has significant relation with achievement in Mathematics.

Portez and Zady (2001) in a study examined the effect of demographic and psychological factors on immigrant adolescents reading achievement. The study shows that Asian origin students’ achievement motivation was most significant.

Antony (2000) studied on factors influencing pupil success in mathematics and found self motivation is the most related item which influences success in mathematics.

Accordino et al. (2000) examines the relationship of perfection with measure of achievement and achievement motivation and mental health aspects of depressive and self esteem in high school students. Result indicates that student’s personal standards were systematic predictors of academic achievement and achievement motivation.
Kuyper et al. (2000) in a longitudinal study in Dutch secondary school found that achievement motivation and fear of failure are prominent predictors of mean achievement.

Sarode (1999) studied the impact of Socio-economic status, study habits, achievement motivation and academic achievement of higher secondary students using a sample of 563 standard XI pupils and obtained that achievement motivation has influence on academic achievement in the case of arts and science students. Achievement motivation has no influence on academic achievement in the case of commerce students.

Urdan, Tim and Davis (1999) while studying the differences by race and grade level in motivation for taking standardized achievement found that differences by race and grade level suggest that there may be more to how students do on the tests than what they learn in school.

Mclean (1997) conducted a study involving 69 high achieving and 55 low achieving high school students in North Western Aborta and found that high achievers had significantly more positive score than low achievers on motivation for schooling, academic self concept, interest, locus of control and instructional mastery.

Promod (1996) using a sample of 300 students who were selected from Class XI belong to matriculation school of Tamil Nadu through random sampling procedure found that achievement motivation is the most dominating influence factor on academic performance, canonical value indicated linear relationship between scholastic performance and achievement motivation.

Huang and Wasman (1996) claim that focusing on predictors of academic success may help in the design of effective educational interventions. Multivariate
analysis and post hock test of student responds showed that high achieving students had significantly higher perception of involvement affiliation, satisfaction, academic self concept and achievement motivation than low achievement students within each ethnic group.

Singh and Varma (1995) studied the effect of academic aspiration on scholastic success of Class XI students and found that academic aspiration correlated positively with scholastic success of both rural and urban students and that the positive nature of correlation is satisfactorily significant.

Gandara (1995) examined the factors influencing the academic success of 50 Mexican American from low income families who received Ph.D, J.D or M.D degree from prestigious universities. The study found that in spite of severe economic disadvantages most of the subject parents were doing precisely the right thing in regard to academic success in their children’s achievement motivation a strong work ethic and belief in education as the key to advancement.

Salimkumar (1994) on a sample of 200 students of the class IX boys of KeralaState revealed that a weak but positive correlation was found between achievement motivation and academic achievement.

Salim (1994) while studying the impact of approaches to studying of achievement on achievement in Biology in relation with intelligence and achievement; found that a significant mean effect of achievement motivation in knowledge category existed in achievement in Biology.

Neibur (1994) found that there is significant relationship between school student academic orientation, intrinsic motivation and grade point average.
Manijeh (1994) study showed that there was significant relationship between children’s academic intrinsic motivation inventory scores and children’s school grades.

Prameela (1993) carried out a study using a sample of 502 students of standard IX and found significant relationship between the criterion variable achievement in Physics and achievement motivation.

Wolf (1993) examined the effect of anxiety and motivation on test performance. The study showed that motivation to perform on a test is directly influenced by the consequence of the level performance.

Gardner (1993) studied the relationship between self esteem and academic motivation for higher education and he analyzed the perception and expectations of students relating to others in their roles as motivators of students academic achievement. The results showed significant relationship between motivation and academic achievement.

Reynolds and Herbert (1992) conducted a study to formulate a structured model of high mathematics outcomes and reported that motivation had significant effect on mathematics outcomes.

Ethyre (1992) while studying the influence of achievement motivation, self esteem and job satisfaction on the relation of female medical technologies on a sample of female graduates found no significant difference between retention and achievement motivation.

Carridy and Hynn (1991) conducted a study on achievement motivation and educational attainment and found that educational attainment was influenced by achievement motivation.
Chen (1991) while investigating achievement motivation of 449 eleventh grade Chinese high school students; found that students have stronger belief in internal responsibility for academic success and failure tend to be high achievement motivation and students who do not consider their abilities to be low achievement motivation.

Lewis (1991) in a study of 400 Caribbean immigrant students studied the relationship between achievement motivation and academic performance and found that motivation influence academic achievement.

The studies on achievement motivation substantiate its relationship with number of variables like academic performance, academic stress, and creativity among students. The studies were also establishes the relationship achievement motivation and students demographic characteristics like caste, sex, socio economic status etc. There were studies to find out the importance of achievement motivation among tribal and non tribal students. So these studies provide an understanding about the significance of achievement motivation.

3.2. STUDIES RELATED TO EXAMINATION ANXIETY

Yildirim et al. (2008) conducted a study on Academic achievement, perfectionism and Social support as predictors of Test anxiety. Significant relationship was found between test anxiety and perfectionism, social support and academic achievement. Step wise regression analysis showed that perfectionism, gender, academic achievement, perceived support from friends and support from teachers significantly contributed to the variance in test anxiety.

Passing and Moshe (2008) conducted a study entitled as “Enhancing Pre-service Teachers Awareness to Pupils Test anxiety with 3D Immersive simulation”. The research result demonstrates that virtual reality technology is
effective in raising the level of awareness of test anxiety. Even though it is difficult to express abstract ideas in concrete terms, it appears that this technology was more successful in making clear, understandable and tangible the

Putwain (2008) conducted a study titled, “Do Examinations stakes moderate the Test Anxiety Examination Performance relationship”? Findings suggested that students reported the lowest levels of anxiety and attained the highest grades in the mild stakes examination. Regression analysis suggested that examination stakes do moderate the inverse anxiety grade relationship, but the effect for high stakes examinations was not in the expected direction.

Chamorro, Premuzic et al. (2008) in the study Little more than personality: Dispositional Determinants of Tex Anxiety (the big five, core self-evaluations and self assessed intelligence) showed that Test anxiety was largely a function of neuroticism and core self evaluation and self assessed intelligence do not contribute to the prediction of test anxiety over established personality traits. Furthermore the relationship between CSE and TA was fully accounted for by personality traits, whereas SAI was not a significant predictor to test anxiety.

Suneethi (2008) in the study Emotional adjustment, Examination anxiety and Locus of control among student teachers found that:

- Emotional adjustment of student teachers does not vary significantly with respect to qualification, university and optional subjects.
- Examination anxiety of student teachers does not vary significantly with respect to qualification, locale of the institution, university, optional subjects and type of institution.
- The relationship between emotional adjustment and examination anxiety is not significant.
The relationship between examination anxiety and locus of control is also not significant.

Birenbaum (2007) in the study Assessment and Instruction Preferences and their relationship with Test anxiety and hearing strategies indicated a perceived alignment between instruction and assessment with respect to preferences and lent support to the integrated model of test anxiety. The discussion highlighted the need for a dialogue between instructors and students in order to structure expectations to fit the goals of higher education in the knowledge age.

Whitaker Sena et al. (2007) conducted a study “Significant predictors of Test anxiety among students with and without learning disabilities”. The results revealed that learning disabilities predicted higher cognitive obstruction/inattention and worry scores and lower performance enhancement/facilitation anxiety and lie scores. Implications of the findings for school personnel who work with students with learning disabilities are discussed.

Spada et al. (2006) conducted a study entitled as “Meta cognition as a mediator of the effects of test anxiety on a surface approach to studying. The results of this study suggested that the effect of test anxiety on a surface approach to studying is entirely mediated by metacognition.

Innami (2006) conducted a study on the “Effect of Test anxiety on listening Test performance”. Results based on structural equation modeling show that test anxiety does not affect listening test performance. The results also suggest that in foreign language test anxiety seems to work differently compared with communication apprehension and fear of negative evaluation.

Di Battsta and Gosse (2006) in the study” Test anxiety and the immediate feedback assessment technique “found that preference of undergraduates for the
IFAT was not related to test anxiety nor did evidence indicate that the IFAT put students with higher levels of test anxiety at a disadvantage with respect to test programme. Using the IFAT did not generally increase test related anxiety and for a majority of students immediate feedback actually reduced it.

Chapell et al. (2005) in their study of Test anxiety and Academic performance in undergraduates and Graduate students found that low test anxious female graduate students had significantly higher grade point average than high test anxious female graduate students, but there were no significant GPA differences between low and high test anxious male graduate students. Female undergraduates had significantly higher test anxiety and higher GPA than male undergraduates and female graduate students had significantly higher test anxiety and higher GPA’s than male graduate students.

Egbochuku and Obodo (2005) conducted a study on Effects of Systematic Decensitation Therapy on the reduction of test anxiety among adolescents in Nigerian schools. Entry test anxiety level of subjects was found to be significant on the level of reduction of test anxiety of students. Sex had no significant effect on the reduction of test anxiety of students. There was no significant interaction effect of therapy and secondary independent variables. However there was a significant interaction effect of entry test anxiety levels and therapy at the end of treatment. Since systematic Desensitization has been found to be effective in the reduction of test anxiety among adolescents in Nigerian schools.

Gregor (2005) conducted a research study; “Examination Anxiety: Live without, control it or make it – work for you”. Data suggest that interventions using cognitive behavioral approaches combined with relaxation helped pupils to improve their examination performance in Mathematics. The results encourages
the view that school-based programmes using mixed interventions may be effective in the prevention of excessive examination anxiety and in the improvement of examination performance if compared to single interventions but show variations depending on the subject.

Mulvenon et al. (2005) conducted a study Test anxiety: a Multifaceted study on the perceptions of teachers, Principles, Counselors, students and parents. The result from these studies suggest that most of the “dangers” of standardized testing are overstated and misrepresented and that most students, parents, principals and counselor value these tests and do not report increased levels of stress or anxiety. However, teachers as a group do present strong misgivings about standardized testing.

Nicemol (2005) conducted a study on some psychological variables discriminating between under and over achievers in Mathematics of secondary school pupils of Kerala. The result showed that examination anxiety and achievement in Mathematics are significantly correlated.

Sawyer and Hollis Sawyer (2005) in a study titled “Predicting stereotype threat, Test anxiety, Cognitive ability test performance, an examination of three models”. Regarding testing condition factors only the manipulation of stereotype threat level produced some significant accounting of variance. Higher perceived stereotype threat levels were generally associated with heightened stereotype threat belief perceptions, lower cognitive ability test scores and interestingly, reduced feelings of cognitive obstruction in test anxiety.

Peleg-Popko (2004) conducted a study on the Differentiation and Test Anxiety in Adolescents. Results suggest that differentiation is a meaningful
construct for Israeli adolescents and that less differentiated adolescents may be at risk for high levels of test anxiety and low levels of cognitive performance.

Murberg (2004) conducted a study on the topic “school related and psychosomatic symptoms among Norwegian adolescence”. The study examines the relationship between school related stress, gender and psychosomatic symptoms in a sample of 531 adolescence pupils aged (13-16) from two compulsory schools in Norway. Results show that 8.1 percent reported being very much affected by at least one of the assessed psychosomatic symptoms.

Lufi et al. (2004) in the study Test anxiety and its effect on the personality of students with learning disabilities showed significant differences between the two groups on 35 out of 68 measures of MMPI-2. A discriminant function analysis of the content scales, the supplementary scales and the Harris-Lingoes scales of the MMPI-2 showed that one measure; college maladjustment explained most of the variance. Further analysis assessed the various test anxiety profiles of the two types of test anxiety; “emotionality’ and ‘worry’.

Koezh et al. (2004) found that high anxiety scores were associated with less performance. Correlation of anxiety with combined grade and with written examination is negative.

Cassady (2004) conducted a study on the influence of cognitive test anxiety across the Learning-Testing cycle. Preparation phase data revealed that students with high cognitive test anxiety reported lower study skills, rated tests as more threatening and prepared less effective test notes. Performance phase effects revealed that the high anxiety group performed worse on test and reported higher levels of emotionality. Test reflection phase reports demonstrated a relationship between cognitive test anxiety and helplessness attributions.
Abu-Rabia (2004) studying a sample of 27 male and 40 female students of Israel and found that Anxiety is negatively and significantly correlated to foreign language achievement.

Sud and Probha (2003) studied on a sample of 200 high school boys and girls using step wise multiple regression analysis and found that test procrastination and test anxiety are the most relevant variables in predicting academic performance. Cognitive aspect of test-anxiety than were the methods tested in the two control groups.

Asthana (2003) found that high anxious, high intelligence students perform better than low anxious high intelligent students. The high anxiety facilitated the performance at high intelligence level; problem solving performance is influenced by both anxiety and intelligence.

Ikegulu (2002) studied the performance of 244 (11 males and 133 females) developmental college students in relation to their perceived levels of mathematics anxiety. Results showed that low mathematics anxiety was consistently related to higher academic performance and the likelihood of persisting.

Shermis et al. (2001) in a study entitled as On test and Computer anxiety; Test performance under CAT and SAT conditions. Results of the Test anxiety inventory, computer anxiety rating scale and a student – attitude questionnaire showed measurement efficiency is differently affected by test condition and also showed significant gender effects.

Mumthas (2001) studied on psychological variables on predictor of Mathematics achievement and found that mathematics anxiety has a significant or negative relation with achievement in Mathematics.
Rajathi et al. (2000) carried out a study on a sample of 81 students revealed that anxiety has influence on achievement among History and Mathematics students.

Berry and Plecha (2000) examined the relationship between academic performance, students ability and motivation among community college students. First study results indicate that the relationship between level of motivation and academic performance fluctuate throughout the semester. Second study suggests that students who attribute academic performance to internal factors such as self ability and hard work earn higher grade than those do not. Third study addressed the notion that the affective state is an indirect measure of motivation. The result illustrates that the students who report feeling confident and enthusiastic before a test perform better on examination than students who express feelings of anxiety or worry.

Minimol (2000) in a study found that Examination anxiety and achievement are positively correlated.

Xin (1999) studied on the relationship between Anxiety towards Mathematics and Achievement in Mathematics and found that the relationship is consistent across gender groups, grade level groups and ethnic groups.

Collins (1999) made a report on effective strategies of dealing with test anxiety. It says that anxiety is exceedingly common among learners in adult basic education. Any one or more of the following can cause individuals to experience test anxiety; learned behavior resulting from the expectations of parents, teachers or significant others; fears of disappointing friends, family or parents because of poor performance.
Jayasree (1997) studied on Test anxiety and Academic achievement among students of standard IX and found that test anxiety is significantly and inversely related to academic achievement.

Jeeva (1997) conducted a study on the relationship between examination anxiety and academic achievement among secondary school students in Muvattupuzha educational district. The Kerala state examination anxiety scale was the tool used for the study. Data was collected from 400 students of secondary schools. The findings of the study were:

1. There exists a high negative correlation between examination anxiety and academic achievement of the total sample.

2. Female students are more anxious than male students.

3. The examination anxiety of urban group is higher than rural groups.

4. The government school students are having less anxiety and high achievement than the aided school students.

Patel (1996) examined the effect of general anxiety on the Academic achievement in Mathematics of Secondary school students from Khire district in Gujarat and found that the effect of general anxiety on achievement in Mathematics is significant.

Schonwetter (1996) made an investigation of the effects of gender and test anxiety on students achievement, cognition and affects with an interest in exploring why some students are less likely to benefit from classroom instructions than others. Results indicated that gender and test anxiety differently influenced students learning and learning related outcomes.

Rothenberg, Harrington (1995) conducted a study on “the relationship between anxiety and achievement in adult learners”. A model of research design anxiety reactions, that was adapted from the work of P.B.Cemen (1987) on mathematics anxiety reactions, was tested. Results showed that how one views
one’s own intelligence is inversely related to mathematics anxiety and is inversely related to anxiety about research design.

Shanmugha Ganeshan(1995) conducted a study “the effect of anxiety on academic achievement “and found that there is negative relationship between anxiety and academic achievement of students. Low anxiety students are high achievers and high anxiety students are low achievers.

Suja (1995) studied the influence of Examination anxiety and intelligence on problem solving ability of 570 secondary school students in Mathematics and found that there is significant correlation among the three variables.

Trivedi (1995) studied that anxiety level and academic achievement of under graduate students with a sample of 270 students selected randomly from 5 colleges of Kutch district and found that 1) a relationship between the anxiety levels of academic achievement among girl students of commerce and arts streams. (2) Among boys there exists a very low positive correlation between anxiety levels of academic achievement

Singh (1994) conducted a study on 316 Scheduled tribe students and found that an inverse relation between anxiety and academic achievement.

Sobha(1994) conducted a study on test anxiety and achievement in mathematics. The study was conducted in higher secondary school students. Findings of the study concluded that there was an inverse relationship between levels of anxiety and academic achievement both for boys and girls.

Mackenzie(1994) conducted an investigation about examination preparation ,anxiety and examination performance in a group of 72 adult students .The study showed that extreme levels of trait anxiety associated with lower final year examination performances
Jameela (1993) conducted a study to find out the relationship between achievement in Mathematics and selected effective variables and found that correlation between achievement in Mathematics and anxiety is significant and inverse.

Coleman (1992) investigated the relevance and intensity of Mathematics anxiety and found that Mathematical anxiety appears to be negatively related to Mathematics achievement.

Hadfield et al. (1992) conducted a study on a sample of 358 middle school students and found that Mathematics anxiety and Mathematics achievement are related.

Sreelathamma (1992) conducted a study on the correlation between certain variables and academic achievement in biology at secondary school level. The study revealed that there was no significant association between achievement in biology and examination anxiety for the total sample.

Kaur (1991) conducted a study titled, a study of the Effect of Test anxiety, Belief in control of reinforcement and intelligence on intellectual achievement of two school populations. The result shows that Test anxiety; intelligence and beliefs in control of reinforcement showed a significant relationship with achievement and together accounted for 7-32% of the true variance in achievement for the public school sample and 9-30% for the government school sample.

Lalithambika (1991) conducted a study on examination anxiety among college students. The study revealed the following facts:

- Male college students have higher levels of examination anxiety than females.
• Arts students are having high examination anxiety than science students.

• Rural female college students have high levels of examination anxiety than urban male college students.

Shekhar and Chaddhas (1991) study revealed that average achievers are least anxious followed by high achievers and low achievers respectively.

The study on examination anxiety provides a clear picture about the importance and significance of this variable in the teaching learning situations. Many of the studies related to the cause and effect relationship of exam anxiety. While certain studies concerned with the effect of feedback on anxiety. Some studies analyses the impact of expectations of goals and on anxiety. There are studies discusses the importance of living in an anxiety filled environment. It is seen that a moderate level of anxiety helps the students to ensure an average level of performance.

3.3. STUDIES RELATED TO STUDY HABITS

Lavasani, Weisani and Ejei (2011) conducted a study entitled the role of achievement goals, academic motivation and learning strategies in statistics anxiety; testing a casual model; the findings from the study indicates that achievement goals affect statistics anxiety more often through academic motivation and learning strategies.

Singh and Johan (2010) made an investigation about the study habits of visually impaired students in relation to their study related variables. The findings of the study reveal that students possessed good and satisfactory level of study habits. The association between study habits of student and their age, sex, grades, socioeconomic status and parental education were found statistically significant.
Study related variables like attitude towards teachers, attitude towards education, self confidence, concentration, coping with mental conflicts school and home environment, home assignment and attitude towards examination were found significantly related to study habits of students.

Chanmin (2007) examined the effects of motivation, volition and belief change strategies on attitudes, study habits and achievement in Mathematics education. The result indicated that a combination of motivation and volition change strategies and belief change strategies seemed to have had less impact on attitudes and study habits.

George (2006) examined the influence of certain psycho-social correlates on pupils in the acquisition of Biological concepts. The psycho-socio correlates; intelligence, home environment and study habits changes with sex, location, and type of management of school. But the correlate Attitude towards science does not change with changes in these background variables. The relationship between study habits and acquisition of Biological concepts is significant and positive.

Sirohi (2004) conducted a study of under achievement in relation to study habits and attitudes using a sample of 1000 elementary grade students of South district Delhi. The study indicated the need for guidance programme especially in the area of study habits as this area was found to deficient in most under achievers.

Nancy (2002) obtained significant correlation between process outcomes and most of the dimensions of study habits. Findings suggested that out of seven independent variables studied, few variables viz. preparation for examination, reading and note taking, school environment, habit concentration together are capable of predicting the process outcomes in Biology.
Ambili (2001) found that there is significant relationship between study habits and academic achievement for the total sample and relevant sub sample at 0.01 levels. The sample for the study was 420 secondary level students participating in sports and games from Kottayam districts of Kerala.

Carter (1999) investigate the relationship of study habits, attitude and motivation to academic achievement in a selected course of study at a historically black university. The learning and study strategies inventory and the student demographic and information questionnaire were administered to 191 students enrolled in the principles of accounting course. Academic achievement was measured by the student’s final grade in the course. Analysis of data revealed that there is a statistically significant relationship between study habits and academic achievement. No statistically significant relationship was found between attitude and motivation and academic achievement. Socio economic status, course load or gender cannot be used to predict academic achievement.

Mathai (1998) of the association between study habits and home learning environment in Mathematics of secondary school students revealed that study habits and home learning environment were significantly correlated with achievement in Mathematics.

Beena (1997) found that there existed a positive relationship between study habits and academic achievement irrespective of sex and management of school. It was also found that in the case of rural students there was no real relationship between the two variables.

Beena (1995) conducted a study about the relationship between study habits and academic achievement of secondary school students. A sample of 400 students was taken. The major findings were, students from rural schools do not
differ significantly from students in urban schools in terms of their study habits. Study habits have a positive and significant relationship with academic achievement of secondary school students.

Stelland Purushothaman (1993) made an enquiry into the study habits and to find out whether study habits of high and low intelligence quotient pupils differ significantly. Important findings of the study are; the under achievers who needed extra attention with reference to the development of better study habits. If suitable instructional strategies are used to develop better study habits among that specific group of under achievers, it will enable the learners to utilize their potential in full. Yeng (1991) in the study titled the relationship of academic achievement to the variables of achievement motivation, study habits, intellectual development and Junior college joint entrance examination scores among junior college students in the republic of China; revealed that study habits was the most important predictor on academic achievement but good students preferred to study hard rather than have better study methods.

Sunderrajan and Lilly (1991) made an investigation about the study habits of 9th grade pupils. Study habits inventory was administered on 480 students from rural and urban areas. Important findings were, girls are better than boys in respect of their study habits. No significant difference between urban and rural students and also between government and private school students in respect of their study habits.

Suresh (1991) made an attempt to identify the influence of learning approach on process outcomes in secondary school biology. He found that there was positive and significant correlation between science learning approach and process outcomes in Biology.
Prosser and Trigwill (1990) revealed significant relationship between approaches to learning and learning outcomes at the course level.

Margaret (1990) made an investigation on community college students success problems in relation with basic skills, study habits, age and gender to academic achievement. It was concluded that age, gender, study habits and reading are related to academic success.

Anwana (1989) conducted a study to find out the major study habits among secondary school students. Four major problems were postulated as the main focus of the study. The main objective was to find out why some students are academically poor and why some students continue practices are dysfunctional. Some of the findings correspond with some postulates in the manual like:

- That even bright student can perform poorly as a result of defective study habits.
- That both dull and bright student will not automatically learn effective study skills as their own.

Entwistle et al. (1989) conducted a study on achievement motivation and study habits of a school population. He found a positive relationship between achievement motivation and study habits.

Naseema (1989) on the effect of intelligence and Science learning approach on achievement in Physics of Secondary School pupils revealed that the main effect of intelligence and Science learning approach on achievement in Physics was significant.

Blumer (1988) analyzed the study habits and standardized test performance prediction of post-secondary academic achievement. Its purpose was to determine to what extent performance in college and graduate school can be predicted from
academic aptitude and study habits. The sample for the study consists of 285 undergraduates and 44 graduate students from the University of Virginia. The data collected by administering the study habits inventory. Major findings of the study were:

- Undergraduates academic performance can be predicted from verbal and quantitative aptitude.
- Study habits will predict the performance of women than men.
- Study habits will better predict the performance of high aptitude students than low.

Haynes et al. (1988) administered learning and study strategies inventory to high average and low achieving students and observed a significant difference between high achieving and low achieving students in study habits and cognitive skills.

Nolen (1988) conducted a study on global orientation and use of study habits 8th graders. He found that a positive correlation between study habits and achievement motivation. He concluded that test orientation was correlated with both perceived value and the work avoidance was negatively related to use and valuing of study strategies.

Patel (1986) made a psychological study on high achievers. The sample consists of 94 boys and 76 girls studying in medical colleges and found positive relationship between study habits and achievement.

Singh (1986) investigated study habits of adolescents and observed that adolescents whose mothers were employed have significantly better study habits than the adolescents whose mothers were unemployed.
Premalatha (1986) conducted an inquiry into the study habits and academic achievement among rural girls. The sample selected were 1225 rural girls from standard IX and X. Hindi adaptation of Wrenn study habits inventory revised edition was used for measuring study habits. Main conclusion of the study was study habits were highly associated with academic achievement.

Estes and Richards (1985) conducted a study on the study habits of 9th and 10th grade students. He found that the test performance is related to study behavior associated with

Chanchan and Harbans Singh (1985) made a study on study habits of children in relation to sex and economic status. Major objectives of the study were;

- to find out the difference in study habits of boys and girls
- to find out the difference in study habit of students at different levels of economic status
- to study the interactional effect of sex and economic status with regard to the study habits of students at the age level 10 to 12 years were selected.

Major findings of the study were; there was no difference in the study habits of boys and girls, study habits of students differ significantly at different levels of economic status.

Stanly and Nolen (1985) examined academic performance, study habits and socio emotional adjustment of 117 Chinese and Chinese American students. They found that high achievers have better study habits.

Deshpande (1984) conducted a study on determinants of achievement of students at the SSLC examination. It has shown no difference in the study habits of students from high achieving and low achieving schools.
Singh (1984) made an enquiry into the study habits of high, middle and low achieving adolescents in relation to their sex, intelligence and socio-economic status. The main findings of the study were:

- Adolescent boys had significantly better study habits than adolescent girls.

- Study habits were related to the academic achievement significantly. High achieving adolescents had significantly better study habits than low achievers. Middle achievers had significantly better study habits than low achievers.

- Study habits of adolescent boys and adolescent girls differed significantly at different levels of academic achievement i.e., high, middle and low.

Christian (1983) conducted a study on 147 students of standard X to analyze the study habits as a function of need achievement and found that boys and girls do not differ significantly with regard to study habits. Pupils who are highly motivated have better study habits than the pupils who are slightly motivated. Highly motivated boys have better study habits than the low motivated boys and slightly motivated girls have better study habits than their counterparts.

Dento (1983) made an investigation about the scholastic aptitude decline and changes in study habits and attitudes. He compared the student’s scholastic aptitude test scores of college freshmen in 1969 and 1979. Results showed that the class of 1983 (tested in 1979) obtained lower scholastic aptitude scores but higher scores on certain measures of study habits and attitudes. Difference in verbal aptitude towards men and women have narrowed
Capella et al. (1982), made an investigation about the relation to study habits and attitude to academic performance and found that there was significant relationship between study habits and attitude towards study methods.

Shejwal(1980) made an investigation into study habits of college students. The major objectives of the study were; 1) to identify the good and poor study habits of students, and (2) to find out the difference, if any, between the study habits of boys and girls.

The major findings of the investigations were;

- The boys were found to have better study habits than girls.
- There was sex difference in different aspects of study habits.
- The habit of note taking was absent among 50% to 80% of students.
- The students had problems in planning their time of study, developing good reading habits and taking examinations.

It was found that from the literature that study habit has had an influence on almost all aspects of the educational development of the child. This variable has a direct bearing on the academic achievement of the students. It is established that there is a positive association between learning strategy and home learning environment. Besides certain studies analyses the role of mother in formulation of good study habits. The studies also establish the inverse relation of under achievement and study habit.

3.4. STUDIES RELATED TO SELF CONCEPT

Litalien et al. (2010) examined the longitudinal relations among academic self concept, autonomous academic motivation and achievement. The results showed that autonomous academic motivation mediates the relation between academic self concept and academic achievement.
Preckel, Goetz and Klrine (2008) investigates gender differences in 181 gifted and 181 average ability sixth grader in achievement, academic self concept, interest and motivation in Mathematics. In both ability groups boys earned significantly higher test scores but these were no gender differences in grades. Girls scored lower on measures of academic self concept, interest and motivation. Gender differences were larger in gifted than in average ability students. Ability group differences for self concept and interest were only found for boys in favors of the gifted. Result support the assumption that gender differences in self concept, interest and motivation in Mathematics are more prevalent in gifted than in average ability students.

Shaijan (2006) the sample of the study consists of 573 immigrant and non-immigrant adolescents in two public secondary schools in the Greater Toronto Area. Multivariate analysis revealed statistically significant differences between immigrant and non-immigrant adolescents with respect to their academic achievement, academic self concept and academic motivation.

Byrd (2005) collected and analyzed data for a group of Sub urban middle boys, aged 11-14 to ascertain their feelings of aggression, their self concept and the relationships between the two. Application of Pearson product moment correlation analysis to test for relationships between feelings of aggression and self concept yielded a most important negative relationship ie when self concepts of subjects went down feelings of aggression went up.

Elizabeth (2005) in the longitudinal study among 116 elementary school children revealed that early interest may be an important factor in fostering self concepts, intrinsic motivation and higher achievement scores; particularly for girls within Science domains.
Muckleroy (2005) analyze the achievement scores, grades and self concept of gifted students for differences between females and males and to observe relationship between self concept and achievement. The sample included 248 male and female students enrolled in gifted programs in six middle schools. Major findings were (a) there was no significant differences in self concept between the genders (b) There was a significant relationship between student self concept and yearly grade averages. (c) However none were found between student self concept and achievement scores.

Kunjumon (2005) in the study of the relationship between self concept and test anxiety on academic achievement of secondary school students found that the relationship between self concept and test anxiety is negative. The relationship between self concept and academic achievement is positive. The relationship between test anxiety and academic achievement is negative.

Rinn (2004) designed the paper to answer the question of whether participating in a selective program will positively or negatively affect the academic self concepts of gifted college students involved in an honors college. Participants included 171 gifted college students involved in a honors college, 60 gifted college students not involved in an honors college and 173 non gifted college students who were not involved in an honors college. Results suggested that gifted college students enrolled in an Honors College had higher academic self concepts than gifted college students not enrolled in an honors college.

Hunnenman (2004) investigated the self concepts of adolescents with varying learning disabilities profiles as a possible approach to understand why some adolescents with learning disabilities view themselves less positively than others. The self rating of students across specific domains of self concept in
addition to comparisons of intellectual and academic achievement information were also examined. The results indicated that adolescents with learning disabilities who have lower performance ability rated themselves less positively on social self concept than students with learning disabilities who do not have discrepancies and students without learning disabilities.

Donnell (2004) investigated whether or not relationships exist between creative thinking abilities and how gifted students view themselves with regard to friendship, sensitivity and divergent thinking. Gender differences were also assessed. There were significant relationships between creativity test scores and friendship attitudes that gifted students expressed on a self report survey. No overall significant gender differences were found. The high creativity gifted adolescents were more sensitive and perceived themselves as greater divergent thinkers than the low creatively gifted.

Kwame (2001) in the study Authentic assessment in physical education, prevalence of use and perceived impact on students self concept, motivation and skill achievement with the following results. The sample consists of Iowa public school physical education teachers. Results showed that 75.2% teachers use authentic assessment techniques. The authentic assessment use has had a positive impact on students self concept, motivation and skill achievement.

Deshmukch (2000) conducted a study using a sample of 832 students ranging in the age from 16-20 years studying in XIth Standard in Amravathi and found that high and low self concept groups do not differ slightly on academic achievement.

Santhi (2000) found that there exists a positive and a real significant relationship between self concept and achievement in English.
Shaunna (2000) the study entitled us the relationship between reading self concept and achievement motivation among students with learning disabilities. Group differences in reading self concept, perception of general intellectual ability and self worth were examined among three groups of 3rd and 4th graders. Students with Learning disabilities demonstrated low perceptions of general intellectual ability. Study carried out by Dubey and Mishra (1999) using a sample of 400 students of standard VIII to X revealed that self concept variable are less important predictors of academic success.

Skaalvik and Valas (1999) examined the relations among achievement, self concept and motivation in Mathematics and language arts in a sample of 1005 elementary and middle school students. The longitudinal study found that achievement affects subsequent self concept development; motivation was affected by previous achievement. There was no evidence that self concept affects subsequent motivation or achievement.

Sandhya (1999) revealed that there is low positive relationship between self concept and achievement in biology

Ian (1998) study on student evaluation in senior high school instrumental music perceived effects on student achievement, motivation and self concept. The findings show that various participants perceive evaluation as affecting these three factors. The study also points out participants concern over the efficiency of numerical grades for reporting musical progress as well as student’s perceptions of self and peer evaluation.

Dayana (1998) in the study entitled “The effect of reciprocal peer problem solving on the mathematics achievement, academic motivation and self concept of ‘at risk’ urban elementary students; on a sample of 104 academically at risk 3rd and
4th grade children. Results indicated that RPPS students performed significantly higher than students in the control condition on measures of computation and problem solving and reported higher levels of academic motivation and academic competence. Students in the reciprocal peer problem solving and problem solving conditions scored higher on measures of social competence than students in reciprocal peer tutoring and control conditions.

Hazeena (1998) found that there exists a positive relationship between self concept and achievement of orphan students.

Anilkumar (1998) studied the relationship of academic self concept with academic performance of distance learners at first degree level and found that academic performance is slightly related with academic self concept.

Sojourner and Kushner (1997) conducted a study using a sample of 1868 African American students to examine school and non-school factors related to the educational attainment and found that self concept is the strongest predictor of mathematics achievement.

Lousie (1996) The survey conducted in a sample of 117 first year community college students to determine the relationships among and influences between students self concept, motivation and academic achievement. The primary hypotheses which stated that a student with a higher positive self concept would exhibit higher motivation which would in turn promote a higher academic achievement. Conversely, a student with lower or negative self concept would show lower motivation and moderate to low academic achievement. The statistical analysis did not support the overall primary or secondary hypothesis of this study. However several correlations and individual paths hint at potential relationships between primary variables and subscale categories.
Pandi (1995) studied that correlation of achievement indicators on the matching area of academic self concept should be substantial and positive; whereas the correlation of achievement indicators on non-matching areas of academic self concept should be less substantial.

Cornell’s (1995) study reveals that the minority students in gifted programs scored significantly higher on achievement measures than did minority students in regular classrooms but lower than white gifted programme students. There were no minority group differences in academic or social self concept.

Rothman Cosden (1995) arrived at a conclusion that children with less negative perceptions of their learning disabilities showed higher mathematics achievement scores and perceived more positive self concept intellectual and behavioral competence and support from classmates and parents.

Catherine (1995) the study was titled “As an exploration of the effects of ability grouping on a selected population of 9th grade students; the impact on academic achievement, scholastic motivation and self concept”. From this experimental study of 72 students, it was found that the instructional level of students significantly affected academic achievement and self concept. Neither the type of group placement nor an interaction between group type and level was found with respect to academic achievement, motivation or self concept.

Garzarell, Everhart and Lester (1993) indicated that self concept and academic achievement were associated for gifted children but not for academically weak students.

Alexander and Rajendran (1993) explored the relationship between student’s adjustment problems and their self concept. A sample of 671 students form different universities of Tamilnadu was administered Mohsin’s self concept
scale and Mooney’s problem check list. Students with a high self concept were found to be better adjusted than those with a low self concept.

Hagborg (1993) examined gender differences and self concept. Boys rated higher on athletic competence and physical appearance while girls rated higher on close friendship. For both boys and girls scholastic competence and physical appearance made important contributions to global self worth. Boys and girls were similarly confident in the domains of peer relations close emotional bonds with friends and employment.

Kurup (1993) conducted a study on the relationship between Self concept and Job satisfaction of primary schools teachers. The study reveled that the self concept of primary school teachers had no significant influence on their job satisfaction and there was no significant difference based in sub samples such as age, sex, local and type of management.

Prameela (1993) carried out a study using a sample of 502 students of standard IX and found no significant relationship between achievement in physics and self concept

Nasser (1992) investigated the relationship of body image and self concept to eating disorders. Two factors were identified as predisposing factors for the development of eating disorder, poor self concept and an active involvement or interest in dieting.

William (1992) assessed the influence of self concept on student test performance across four subject matter areas viz. English, Mathematics, Science and Reading using a sample of 217 public high school students in northern Oklahoma and found that self concept contribute to students academic achievement.
Review of Related Literature

and students performance is uniformly affected by self concept across all four academic areas.

Wong (1992) investigated the relationship of self concept and mathematics achievement using a sample of 1766 Hong Kong students in grade 7-13 and found that achievement is closely related to academic and non academic self concept. Fite (1992) examined relationships among high school students, levels of anxiety, self concept and attitude towards school. The results were (a) high anxiety levels are associated with low self concept (b) a positive self image and low state and trait anxiety are associated with a positive view of how others perceive one’s academic performance.

Leung and Leung (1992) investigated the influence of self concept and relationships with parents and school on life satisfaction of 1156 Chinese junior high school students. Results show that the strongest correlation was found between general self concept and life satisfaction. Relationship with parents was the best predictor of life satisfaction. Relationship with school was not related to life satisfaction in any significant way.

Srivastava (1992) found through his study a positive relationship of intelligence and self concept with academic achievement.

Vijayalakshmi (1991) found that family reared and institution reared children were similar in their self concept. The self concept of these children was related to their personality adjustment.

Onivehu (1991) studied on the relative influence of sex and self concept on career maturity of Nigerian adolescents. Sex had a direct significant influence on career maturity. It also had an indirect significant influence on career maturity via
self concept, suggesting that if students have a better self concept of themselves they are more likely to develop more mature behavior in their choice of career.

Burwani (1991) studied on the nature of self concept in the area of competence. He found that real self concept and ideal self concept were highly correlated. Students with high real self concept scores showed lower discrepancy scores.

Dickens (1991) In the study “The effects of a self-esteemed program on motivation, self concept, self management and achievement of at-risk students, the post test scores on the measures indicated that the experimental groups self concept, achievement and self management skills were significantly higher than those of the control group. There were no significant differences between the two groups on intrinsic motivation.

Gupta (1991) analyzed gender stereotypes and the self concept of college students. Self concepts of male and female students were similar.

Panwar (1986) found that academic achievement had significant effect on self concept. Home background had significant effect on self concept.

Putta(1990) investigated that self concept of college going girls was higher than that of uneducated girls of both Hindu and Muslim groups.

Gupta (1984) through his investigation found that there was some relationship between self concept, anxiety, dependency and adjustment for the experimental group and also found that self concept and adjustment were positively correlated and they had negative correlation with anxiety.

Hirunwal’s (1983) study revealed that academic motivation as measured by Junior India was positively related to self concept. The results of Houses (1992) study revealed that students self perceptions of academic ability and expectations
for academic performance in college were significantly related to persistence for both two and four years

Saraswat (1982) examined the relationship of self concept measurers with adjustment, values, academic achievement and socio-economic status of boys and girls. It was found that the boys self concept was positively and significantly related to home, health, and social

Self concept an important psychological construct discussed in detail in the various contexts of an individual’s life evolvement. Most of the studies analyses the impact of self concept in the academic achievement, as a motivating component. Some studies related to the learning problems and adjustment problems of the children, some related to job satisfaction and anxiety of the employees. From these studies it may be concluded that self concept has a decisive effect in the formulation of the total personality of the student.

3.5. STUDIES RELATED TO HOME LEARNING ENVIRONMENT

Ahamad and Nigam (2009) conducted a study of academic achievement motivation as related to home environment of higher secondary student. The sample consists of 500 students of higher secondary level from Kanpur city. The data was collected on the basis of academic achievement motivation test by Dr. T.R. Sharma and family climate inventory of Dr. Beena Shah. The results suggest that academic achievement motivation is significantly related to favorable and unfavorable home environment of higher secondary students. The shows that favorable and unfavorable home environment affects academic achievement motivation of higher secondary students.

Smitha (2009) in her study on temperament home environment, social anxiety and academic achievement of single adolescent girls found that the
combined effect of temperament, home environment and social anxiety on academic achievement is significant but a negligible effect can be found in the relationship between home environment and academic achievement.

Philip (2007) conducted a study of the relationship between intelligence, scientific creativity, achievement motivation, home environment and achievement in science of higher secondary pupils of Kerala. It was found that:

1. Intelligence, Scientific creativity and Home environment clearly discriminated the high achievement and average achievement group.

2. Positive relationship between achievement in science with Intelligence, Scientific creativity, Achievement motivation and Home environment.

3. Relationship between Achievement motivation and Home environment is also positive.

Divya (2004) examined the influence of home learning environment and socio-economic status on achievement in Biology of secondary school students. The study shows that both home learning environment and Socio economic status have a significant role in the achievement of students.

Netto (2004) in the study of Influence of home environment and achievement motivation on academic achievement of fishermen students at higher secondary level; found a positive relationship between home environment and achievement motivation. Also exists a high correlation between achievement motivation and academic achievement.

Jyothi (2003) conducted a study on the relationship among home learning environment and creativity of higher secondary students. The findings of the study reveal that there is a significant relationship between home learning environment and creativity of higher secondary school students.
Antony and Pearly (2003) conducted a study on the relationship among family climate, classroom adjustment and academic achievement. The study reveals that there is a significant relationship between family climate, classroom adjustment and academic achievement taken in pairs. The family climate and classroom adjustment have come as the predictors of achievement.

Peleg-Popko and Klingman (2002) conducted a study Family environment, Discrepancies between Perceived, Actual and Desirable Environment and Children’s Test and Trait anxiety. The findings reveal that children’s levels of anxiety were negatively correlated with dimensions of family environment and positively correlated with discrepancy between “actual” and desirable environment.

Sindhu (2001) conducted a study in that relationship between the Self derogation and Home environment and it is found that there is a significant relationship between these two variables. There is a significant role for the home to develop a positive self-feeling in children, especially in adolescents.

Joseph (1998) on process outcomes in Physics in relation to some select cognitive affective, social and environmental variable showed that coefficient of correlation between home environment for science learning and process outcomes in physics is positive but not significant statistically.

Devi (1998) found that child rearing attitudes, mother child relationships and parental behavior are important factors involved in the home environment which influences learning.

Mathew (1998) made a study of the association between home learning environment and Socio economic status on achievement in Mathematics of higher secondary school students of Kollam district. It was found that correlation
coefficient between Home learning environment and achievement in Mathematics for the total sample was not significant.

Pereira (1998) in her study on parental involvement and achievement of secondary school pupils of Kerala found that the involvement of parents in the achievement of their children is very high and influenced.

Rani (1998) found that public school children from favorable home environment or favorable parent child relationship are found to be warm hearted and outgoing, more intelligent and insightful, more stable emotionally with a higher degree of ego strength, more assertive and competitive, more enthusiastic and cheerful, more adventurous and socially bold, more reflective and individualistic, self confident and self assured having greater will power and self control than children from unfavorable home environment or unfavorable parent child relationship.

Sanyal (1997) no one specific member of the family is responsible for socializing the child. If the total environment of the family is conducive, the chances are that favorable attitude will develop in children. He adds that the social behavior and attitude of the children reflect the treatment they received at home.

Sarith (1996) found out in a study on Science achievement of secondary school student in relation to the creativity and home environment revealed that Science achievement of pupils increase with their home environment.

Shafeena (1995) in her study , Home learning environment and socio-economic status as correlates of Mathematics achievement of secondary school pupils, found that there exists a positive and significant relationship between home learning environment and Mathematics achievement of secondary school pupils.
Manijeh (1994) in the study entitled academic intrinsic motivation and achievement related to the home environment of Hispanic children. Statistical analysis indicate that among the eight home environmental variables considered in this study, parents aspiration for the child, concern for the rise of language, parents reinforcement of aspirations, knowledge of the child’s educational progress, family involvement in educational activities and independence given to children by allowing them to make decisions to be significantly related to children’s academic intrinsic motivation. Statistically significant relations were found between the children’s academic intrinsic motivation inventory scores and children’s school grades.

Rekha (1994) conducted an investigation into the relationship between home environment and achievement in Science of lower primary pupils. The findings are:

a) There is considerable negative relationship between rejection and Science achievement.

b) There is no relationship between family environment and Science achievement for the whole sample.

c) There is considerable negative relationship between authoritarian family climate and Science achievement.

d) There is no considerable relationship between family acceptance of education and Science achievement.

Rao (1993) made a study on the causes of scholastic backwardness in the secondary school students. From the study he found that the separation from family, frequent beating by fathers and mothers emotional disturbance due to parents quarrel etc. are some of the reasons of educational backwardness.
Thakur (1993) reported that in Abhor city, primary teachers reported that wastage in schooling was contributed by school environment and home environment.

Kaur and Kharh (1993) conducted a study on creativity in children, the impact of school and home environment. The conclusions of this study were that home and school environment played a crucial role in developing creative abilities in children.

Irwin and Barbara (1993) from their studies come to the conclusion that anti social and acting out behavior and severe reading problems in children are often correlated with adult disorders. They also found that behavior problems sometimes interfere with a child’s development by delaying the learning of all kinds of academic and social skills.

Ajitha (1992) showed that the relationship between home environment and achievement was negative but for the three sub samples, rural government and private the relation was significant.

Ponnamma (1992) studied the influence of certain family related variables on high and low achievement in Biology at higher secondary level. The study revealed that family climate has an influence on high and low achievers in Biology.

Marope (1992) has studied the determinants of academic achievement and found that home support was an important factor that determines achievement.

Srivastava (1991) conducted a study on the effect of family environment on students achievement using a sample of 45 male students. A questionnaire and a family environment scale were used as tools. The study confirmed the hypothesis that commitment, help and support family members provided to each other was
greater in the high group. There was no significant difference in expressiveness, competitive framework and interest in political, social, intellectual and cultural activities. The students in high group participated more in recreational activities and their moral and religious emphasis was found greater. Families of high achievers were more structured and organized and they exercised more controls and had a set of rules and procedures to be followed by its members.

Sanches (1991) has studied about parental support and academic achievement. The study explored the ways in which parents encouraged education as a goal and facilitated and sustained their child’s academic achievement from elementary level through high school. The study showed that academic achievement was a combination of student ability, parent belief and parent support for education.

Suresh (1991) conducted a study of certain sociological, cognitive and environment variables related to process outcomes in secondary school Biology. The study revealed the fact that there will be significant differences between high, average and low achievers in process outcomes in Biology. And also there will be significant relationship between process outcomes in biology and each of the selected sociological, cognitive and environmental variables of the study.

Desi (1991) analyzed the traditional and changing norms of the institution of family with reference to social ecology, family norms, socialization and protecting individual right, it pointed out that a highly satisfactory home environment is conducive to social adjustment among adolescents even after controlling the factors of socio-economic status and intelligent quotient.

Brar (1990) had reported that child rearing attitudes, fostering dependency and marital conflicts contributed significantly to behavior problems in children.

Topper (1989) examined the relationship between the levels of parental involvement in a pilot programme entitled “parents and children together” and
children’s language development, fine motor co-ordination and academic achievement in Mathematics, and reading. Further, parental reports of actual at-home usage were examined in relation to child performance variables. The study suggests that there is a relationship between parental involvement and children’s receptive language development.

Sreekala (1990) has studied parental involvement in studies and mathematics achievement of secondary school students. The major findings are:-

a) Parental involvement in studies of pupils in urban areas is better than of pupils in rural areas.

b) Parental involvement in studies of pupils studying private schools is better than that of pupils studying in government schools.

c) Performance of pupils who have discussions with their parents about their studies is better than that of pupils who have poor discussion with parents.

Anirudhan (1989) studied the influence of family environment on the academic achievement of siblings of mentally retarded children. The study pointed out that seventy percent of families with a mentally retarded child belongs to the rural area.

George (1989) in his study reported that achievement in Hindi and educational level of father are related in case of total sample and the subsample based on location and sex.

Fehrman, Keith and Reimers (1987) jointly conducted a study on home influence on school learning. The study revealed that environment in home has a meaningful direct influence on school learning.

Kumari(1987) conducted a study of the environmental conditions of high and low achievers in social studies in the secondary pupils. The study helped to
realize that environmental factors play a vital role in influencing the academic achievement of students.

Soto (1986) examined the difference in home environment between higher achieving and lower achieving children. Statistical analysis revealed significant difference in home environment between the higher and lower achieving students. There was also significant difference in motivational orientation of the two groups. Lucose (1985) studied certain factors influencing the difference in science achievement at pre-degree level. He pointed out that scheme of evaluation, facilities at home, socio economic status may be considered as the major factors influencing the difference in science achievement at pre-degree level.

Lindman (1984) in a case study, analyzed the relationship between home academic environment and student academic environment. The variables such as concern for language, aspirations for self, knowledge of education and aspirations for child, etc. correlated positively and significantly with academic achievement.

Kurian (1983) investigated certain factors related to the mathematics achievement of scheduled caste and scheduled tribe students in secondary schools. The study revealed the fact that there is relationship between socio economic status, parental involvement in children’s studies, facilities at home for learning etc. and achievement in mathematics of scheduled caste and scheduled tribe students.

Sarkar (1983) has pointed out that home variables such as educational environment, income, social background, provision of facilities and parent child relationship have significant difference between high achievers and low achievers at 0.01 level.
Fotheringham and Creal (1980) studied the family, socioeconomic and educational emotional characteristics as predictors of school achievement. In this study, home, socio-economic and process characteristics obtained from a single interview with mothers of high, average and low achieving third grade children accounted for a large percentage of the variance of scores for both teaching comprehension and arithmetic computation, ranging from 22% in arithmetic in a high achieving sample to 68% in the low achieving sample. It is concluded that the major influence on the differences in academic achievement among children is the family. This influence appears to operate through initial level of ability on entering school, which is in part inherited, and through attitudes towards education and opportunities provided for learning.

The study on home environment reviews the various aspects of home in the developmental procedures of an individual. Most of the studies discuss about the interrelation between home environment and achievement. Besides this, the studies also discuss about the relation between creativity, self derogation and trait and test anxiety. Certain studies discuss the correlation between child-mother relationship, child rearing attitudes and parental behavior. The literature gave us a glimpse about the importance of home learning environment in the proper development of an adolescent.

The noteworthy observation from the review was that none of the studies had taken the variables, Examination anxiety, Study habits, Self concept and Home learning environment as the correlates of Achievement motivation and Achievement in Biology of Higher secondary students in a single frame for an investigation.