CHAPTER-II

REVIEW OF RELATED LITERATURE

INTRODUCTION

Research in any field implies a step ahead in the exploration of the unknown concepts. One such preparation is the collection of appropriate knowledge of what has already been done in a particular field. A step towards unknown can only be taken after a thorough review of the related literature and researches conducted in that area. Any research without such a review of related literature is likely to be a building without any foundation. The review of related literature provides a clear picture of the study to be taken as a pre-requisite to the proper planning of the problem and conducting the research. The review of the past investigations in a particular field serves as a guide to the investigator as it helps her to avoid duplication of the work already done in that area. The knowledge that what has already been done in the area of researches regarding the methods used for data gathering and the results of their analysis, keeps the investigator systematic in his/her own endeavour.

According to Borg (2007), “The literature in any field forms the foundation upon which all future work will be built. If we fail to build the foundation of knowledge provided by the review of literature our work is likely to be shallow and naive and will often duplicate work that has already been done better by someone else.” “The survey of related literature may provide guiding hypotheses suggestive methods of investigation and comprehensive data for interpretive purpose (Good, 1973).”

The finding of earlier experiments encourages the new workers to embark upon the useful projects in education, on the basis of earlier experiments avoiding the past mistake of defects. It will be useful to see as to what has already been done concerning the problem in hand.

Survey of related studied provide ideas, theories, explanations, on hypotheses valuable in formulating the problem. This also locates competitive idea
data useful in the interpretation of the results. The investigator scanned the literature related to present problem which is useful in bringing about improvement in the design of present study and also in order to get in right about the real nature of the problem. Thus, it is quite desirable to have a glance over the work done in related fields.

In a research problem, the term literature stands for collective body of related works done in the past by earlier researchers. It is in fact a beginning point of any scientific investigation. A careful review of earlier studies makes the researcher aware of significant and relevant studies in the concerned area of research. It also helps him in selecting, defining and operationalising variables lying with in the scope of study. He can select such variables are conceptually and practically important for this study.

Review also helps to avoid any duplication of the work done earlier. It aims at interpreting prior studies and indicating their usefulness for the study to the undertaken. Thus prior studies serve as foundation for the present one.

A careful review of the literature also enables the researcher to collect and synthesize prior studies related to the present investigation. This, in turn, helps him a building a better perspective for future research.

A synthesized collection of prior studies helps to identify significant overlaps and gaps among prior work. Review of the related literature is very useful in establishing relationship between variables. This relationship can be incorporated into different hypothesis. Thus for conducting a scientific study, the relationship between different variables must be employed by reviewing literature so that a good content may be build up for subsequent investigation. Some of the important reports of research studied related to the problem under investigation are as:

2.1 STUDIES RELATED TO ACADEMIC ACHIEVEMENT

Samal (1990) conducted a study entitled “Relationship between planning and academic achievement of male and female students: Effect of home-environment variables”. Some major findings of the study were: “The academic performances of high planners were better than that of low planners. There was no
significant difference between male and female students with regard to academic achievement. The children belonging to high planning ability enjoyed a more cognitively stimulating home environment than the children from low planning ability”.

Mishra (1997) analyzed the correlates of academic achievement of secondary school students and found that “intelligence was significantly correlated with academic achievement for both boys and girls; the correlation between intelligence and academic achievement was higher in case of girls; socio-economic status of the students was not significantly related with academic achievement of boy and girl students; academic achievement of urban students was higher than the achievement of rural students; academic performance of girls was superior to the performance of boys”.

Haseen (1999) investigated academic achievement as dependency behaviour, function of social class, school management and parent child interaction. She found that “type of school and school management effects the academic achievement of students; all the four independent variables namely social class, parent child interaction, dependency behaviour and school management had significant effect on academic achievement of adolescents; sex difference did not yield any significant effect on academic achievement”.

Suneetha et al. (2001) studied gender differences as factors affecting academic achievement and revealed that “gender was the more important variable than intelligence quotient in deciding high academic performance, girls were among top ranking students; girls were better in interaction and concentration while boys were better than girls in language, reasoning and drilling dimension”.

Jagannadhan (2003) analyzed the impact of certain socio psychological variables on students’ academic achievement studying in classes 8th to 10th and found that a significant effect of home environment on academic achievement. The relationship between home environment and academic achievement was also significant.
Babu et al. (2008) examined whether there was any significant difference in locality, gender and family type with respect to higher secondary student’s achievement in accountancy and found that there was significant low relationship achievement in accountancy and parental encouragement of higher secondary students; no significant relationship was found in respect to achievement in accountancy and parental encouragement for female students.

Mittal (2008) analyzed academic achievement of 10th class students in relation to their locality and mental health. A sample of 640 secondary level students was taken. The findings of the study revealed that “there was a significant difference in academic achievement of secondary school students of different localities; students of urban areas was found better in academic achievement as compared to their counterpart rural students. He further stated that students of urban areas had better teaching-learning environment at home as well as at school than rural locality students. A significant and positive relationship was found between mental health and academic achievement of students of urban locality, while was no significant difference was found between mental health and academic achievement of secondary level students belonged to different localities”.

Abubakar and Adegboyega (2012) examined gender and age as determinants of academic achievement of students of Mathematics. A low positive correlation was found for ages and gender, which was not significant.

Kumari and Garita (2012) investigated the relationship between academic achievement and stress among XII class school students. A total of one hundred twenty XIIth class school students randomly selected from six senior secondary schools of North-western Delhi participated in the study. Three null hypotheses were tested using data generated from research instruments. The instrument included Stress Inventory designed and standardized by Nangia (1990). Academic achievement was taken from the students’ previous examinations. Results showed a positive correlation between stress and academic achievement. A Significant difference was found in academic achievement of students having low, moderate and high stress. Students having
high and moderate stress performed better than the students having less stress. Further, it was also found that stress and academic achievement are not mediated by gender.

Anees (2013) conducted a study of academic achievement in relation to intelligence of class VII students. The present study, deals with the identification of magnitude of the relationship between intelligence and academic achievement of class VIII students. The sample consisted of 180 students from high school and AMU Girls high school. The culture faire intelligent test constructed by R.B Cattell was employed. The analysis of data was done by finding out the correlation coefficient between intelligence and academic achievement and the “t” values were calculated to the significant difference. The main finding of the study is that there is positive correlation between intelligence and academic achievement and no significant difference between boys and girls was found on the measure of academic achievement.

Alkhutaba (2013) examined effect of social and economic factors on academic achievement of secondary school students and revealed that there is significant effect of socio economic factors on student’s academic achievements in their branch of education. He further found that “there is a significant effect of socio economic factors on student’s academic achievements in their gender to female.”

Habibullah and Ashraf (2013) find out the association of the variables. A total of 600 students filled the questionnaire of whom 300 were from private and 300 from public sector schools. It was found that “younger age, female gender, better socio-economic condition, habit of taking breakfast, better condition of school, and regular attendance were significantly associated with better academic performance”.

Roy, Sinha and Suman (2013) revealed “ a significant positive relationship between emotional intelligence and academic achievement motivation. The study also reveals that students with low, average and high academic achievement motivation differ from one another on emotional intelligence.
Azmi et al. (2014) evaluated the impact of internal factors on pharmacy students’ academic performance and to determine whether these factors have significant impact on their cumulative grade point average and year of study. The result of the study showed that “students’ academic performance was significantly associated with academic competency, time management skills, test competency, neuroticism and test anxiety. There was a significant difference in conscientiousness level among 2nd, 3rd and 4th years’ pharmacy students. Post-hoc analysis revealed that significant difference was noted in the conscientiousness level between the 2nd year students compared to 4th year students.

Korir and Kipkemboi (2014) examined the effect of peer influence and school environment on students’ academic performance. The study established that peer influence and school environment made significant contribution to the students’ academic performance.

Ghosh (2014) revealed the relationship between academic achievement and emotional intelligence. The findings of the study revealed a positive and significant relationship between academic achievement and emotional intelligence. The study also reveals that students with low and high socio economic status differ from one another on emotional intelligence and academic achievement.

Raychaudhuri, Debnath, Sen, and Majumder (2010) analyzed performance of students in yearly examination is associated with attendance of students’ in the class, father’s and mother’s education, teacher-student ratio, family income, sex of the student, distance of schools and presence of trained teacher in school. By applying regression analysis it was found that factors like students’ attendance, mother’s education and presence of trained teacher in the school have a positive impact of students’ academic performance.

Shekhar & Devi (2012) investigated the sex related differences and differences across academic measures on achievement motivation among college students. The finding of the study revealed a significant difference between achievement motivation of arts and science streams students and achievement motivation among male and female college students. The differences
indicate significant role of sex and academic majors in achievement motivation of college students”.

Dzever (2015) examined the impact of home environment factors on the academic performance of public secondary school students in Garki Area District, Abuja, Nigeria. The stratified sampling technique was used to select 300 students from six public schools, while the simple random sampling technique was used to administer the questionnaire. The study utilized a descriptive survey research design for the study. Also, data on student’s academic performance was obtained from student’s scores in four selected school subjects. Data obtained was analyzed using descriptive and inferential statistical techniques; Pearson Product Moment Correlation and Multiple regression analysis (ANOVA). The results result revealed “a positive and significant relationship between permissive patenting style with academic performance (p<0.05). Also, the result from the study identified income, educational background and occupational level as well as permissive parenting style as the main predictive variables influencing students’ academic performance”.

Kakkar (2016) found that there is a significant difference in academic achievement of male and female senior secondary school students. Female students have good academic achievement in comparison to male students.

Sherafat and Venkateshamurthy (2016) attempted to understand whether study habits affect academic achievement among secondary and senior secondary school students of Mysore. It is also attempted to know whether students at secondary level differ from senior secondary level on their study habits. The study was conducted on the sample of 625 students of Mysore City in India using stratified random sampling technique. Results indicated that the study habits facilitate higher academic achievement. Further, it was also found that secondary school students are significantly better than senior secondary students on study habits.

Singh, Malik and Singh (2016) investigated the factors influencing students’ academic performance. This study uses ex post facto research design. An
instrument measuring students’ academic performance has been used to collect data from the management students. The study revealed that there is a positive and statistically significant impact of learning facilities, communication skills and proper guidance from parents on student academic performance.

2.3 STUDIES RELATED TO ACADEMIC ACHIEVEMENT AND PERSONALITY

**Lievens, Coetsier, Fruyt and Maeseneer (2002)** showed that “medical studies falls into the group of majors where students score highest on extraversion and agreeableness. Conscientiousness (i.e. self-achievement and self-discipline) significantly predicts final scores in each pre-clinical year. Medical students who score low on conscientiousness and high on gregariousness and excitement-seeking are significantly less likely to sit examinations successfully”.

**Laidra, Pulluman and Allik (2007)** studied personality traits from the Five-Factor model and general intelligence as predictors of academic achievement. “Intelligence, as measured by the Raven’s Standard Progressive Matrices, was found to be the best predictor of students’ grade point average (GPA) in all grades. Among personality traits (measured by self-reports on the Estonian Big Five Questionnaire for Children in Grades 2 to 4 and by the NEO Five Factor Inventory in Grades 6 to 12), Openness, Agreeableness, and Conscientiousness correlated positively and Neuroticism correlated negatively with GPA in almost every grade. When all measured variables were entered together into a regression model, intelligence was still the strongest predictor of GPA, being followed by Agreeableness in Grades 2 to 4 and Conscientiousness in Grades 6 to 12. Interactions between predictor variables and age accounted for only a small percentage of variance in GPA, suggesting that academic achievement relies basically on the same mechanisms through the school years.”

**Ahadi and Narimani (2010)** explored the relationship between educational performance of college students, personality traits, educational stress. The results showed that “there was a significant positive correlation between conscientiousness, extroversion, and openness to experience, agreeableness and educational performance
and there was a significant negative correlation between neuroticism factor and educational performance. A significant negative correlation was found between educational stress and educational performance. Also, the significant negative correlation was found between extroversion and conscientiousness and educational stress and a significant positive correlation was found between neuroticism and educational stress. Hierarchical regression indicated that personality traits accounted for variance in educational stress: 5% by extroversion and 3% by neuroticism. Also, hierarchical regression analysis predicting educational performance indicated that personality traits and educational stress accounted for variance in educational performance: 12% by conscientiousness, 10% neuroticism and 6% educational stress”.

**Hakimi, Hejazi, and Lavasani (2011)** analyzed relationships between academic achievement and personality traits among students. Results revealed that academic achievement were significant related to personality traits. Stepwise regression analysis indicated that personality characteristics accounted for forty eight percent of variance in academic achievement. Further results showed that conscientious, which explained thirty nine percent of variance in academic achievement was the most important predictor variable. Finally, it was found that there is a no significant sex difference in the personality traits and academic achievement of students.

**Hazrati-Viari, Rad, and Torabi (2012)** examined the impact of personality traits on academic performance and academic motivation. Results showed that “conscientiousness predicted both of intrinsic and extrinsic motivation, but openness to experience predicted only intrinsic motivation. Moreover, as expected, academic motivation mediated the relationship between openness to experience and conscientiousness with academic performance”.
Lim and Melissa (2012) analyzed the relationships between the different personality traits and students’ academic performances. The sample of the study consisted of 360 students (Male = 180; Female = 180) from five randomly chosen secondary schools in a state in the northern part of Peninsular Malaysia. Inferential statistics revealed that “there were no gender differences in the different personality domains, except for neuroticism, where females had recorded a higher mean score. The Pearson’s correlation coefficient analysis revealed that openness and conscientiousness were positively related to Malaysian students’ academic achievements, finally, regression analysis has confirmed that the two variables accounted for the changes in students’ academic performances”.

Ghazi, Shahzada and Ullah (2013) revealed that “‘conscientiousness’ and ‘agreeableness’ personality traits were found high while ‘extroversion’, ‘neuroticism’ and ‘openness to experience’ personality traits were found low in secondary school students. Overall there was no significant relationship found between the students’ personality traits and their academic achievement. So the students having contentiousness personality trait should take Maths and Islamic Education as optional subjects to produce better result. Students having agreeableness personality trait can produce better result in English, Islamiyat Compulsory, Chemistry and Islamic Education subjects”.

Ciorbea and Pasarica (2013) showed that “there are also non-cognitive factors responsible for high academic performance. Personality is now a relevant factor studied in relationship with academic performance. The study aims to identify the relationship between personality and academic performance using 80 participants aged between 22 and 28 who graduated university. We used EPQ to measure Neuroticism, Extraversion, Psychoticism; MBTI for the level of organization during activities and Rosenberg’s Self-Esteem Scale. Academic performance was evaluated by the final project grade and by the overall grade of the last academic year”.

Kaur (2013) focused at investigating how big five factors of personality i.e. (Neuroticism, Extraversion, Openness to Experience, Agreeableness and Conscientiousness) differentiated between students having low and high achievement motivation. t-test was applied to find out the significant difference among the sample. The results of the study revealed that “Conscientiousness and Extraversion differentiated both boys and girls having high achievement motivation from their counter parts having low achievement motivation. Thus, the results revealed that personality factors play a significant role in differentiating engineering students having high and low achievement motivation.”

Soleimani, Jafarigohar, and Ramezani (2013) examined whether being an extrovert or introvert makes any significant difference in their performance on true/false reading comprehension tests and multiple-choice or not. The result of ‘t’ test revealed “no statistically significant difference between the personality types of the participants in the study and their performance on the multiple-choice and true/false tests. The results could have implications for educators concerned with the validity of tests interpretations, testing researchers, and practitioners as well.”

Abolmaali, Rashedi and Ajilchi (2014) explained academic achievement based on the personality characteristics, the psycho social climate of the classroom in terms of academic engagement in mathematics. The results showed that “the direct effects of personality characteristics and psycho-social climate of the classroom on academic achievement were not significant. The direct effects of openness, conscientiousness and psycho-social climate of classroom on academic engagement were significant. The indirect effects (with mediation of academic engagement) and overall effects of openness, conscientiousness and psycho-social climate of classroom on academic achievement were significant, also the effect of academic engagement on academic achievement was significant”.

Bjurbert (2014) explored how academic achievement connected with personality traits. First, a theoretical discussion on the neurobiological basis of different personality traits is presented, where variance in brain-activity, volume and chemistry describes possible differences in personality. Traits previously linked to academic achievement is also described in terms of neurobiology. This
is followed by an empirical investigation of the connection between personality traits and academic achievement. Previous researches suggested the the Big Five (Costa & McCrae, 1992a) Personality Traits of Conscientiousness, order and self-discipline to be positively associated with academic achievement. Also, similar suggestions have been put forward concerning the Values in Action (VIA-IS; Peterson and Seligman, 2004) character strengths of love of learning, self-regulation and persistence and academic achievement. Ninety students in a medium sized Swedish senior high school completed the two personality inventories and their grades were collected. Positive correlations were found for the personality traits - conscientiousness, order, and self discipline and for the character strengths persistence, love of learning, perspective and open-mindedness.

**Ibrahim, Yusof, Razak, and Norshahidi (2014)** explored the relationship between the big five higher order personality traits that are conscientiousness, extraversion, agreeableness and neuroticism, openness to experience, called the ‘Big Five' personality traits (Costa et al., 2006) and students' academic achievement measured by GPA. This reveals that conscientiousness is the best dimension of the Big-Five personalities that are highly correlates to GPA compared to others dimensions of personality.

**Kumari (2014)** pointed out that the early researches on the relationship between personality and academic performance have aroused ambiguous conclusions, mainly because of the different theoretical bases and due to the use of variable research methodologies by the researchers. The acceptance of Factorial Models of personality and the new techniques in research has made the exploration of the correlation of personality traits and academic achievement easy. The Five Factor Model brought order to the previous “chaotic plethora” of personality measures. The present paper reviews the studies conducted using Five Factor Model of personality and explains the correlation between dimensions of personality and academic performance which in turn would help in selection of suitable candidates for higher studies and decrease “Drop Out” rate in colleges and universities.
Nehra (2014) analyzed the effect of personality on academic achievement at secondary level. A descriptive survey method was adopted for the present research. In the present study the sample of 200 students were chosen from the students of ninth standard from various schools of Delhi. These schools were chosen randomly through lottery method. Eysenck Personality inventory by H.J.Eysenck and Sybil B.G Eysenck (JM) and Marks obtained in the annual examination of the previous class were taken as academic achievement. The study revealed that (i) There is significant relationship between personality and academic achievement (ii) there is no significant difference between the Achievement score of Introvert and Extrovert (iii) there is no significant difference between the achievement score of emotionally stable and tendency towards Neuroticism. (iv) there is significant difference between the Achievement scores of Emotionally stable and Neurotics. (v) there is significant difference between the Achievement scores of tendency towards Neuroticism and neurotics.

Sangeetha, Pachaiyappan, and Raj (2014) conducted a study is to find out the relationship between personality and achievement in botany of higher secondary students. The study also aims to find out the difference in personality and achievement in botany of higher secondary students with respect to Gender, type of management, residential area, type of family, types of management. The marks in botany obtained during the half yearly examination were taken for the investigation. The major findings of this study are: (i) there is a positive co-relation between the personality and achievement in botany among higher secondary students; and (ii) there is a significant difference in the mean score of achievement in botany among higher secondary students with respect to their type of management.

Ikpi, Enya and Johnny (2014) investigated the influence of personality traits on academic achievements of secondary school students. The instrument adapted for the study was the 44 items standardized questionnaire known as the big five personality model by Robert McCrae & Paul Costa (1999). This was validated by expert in the field of measurement and evaluation; the reliability was established using the test re-test method and the reliability coefficient was
calculated using Pearson moment correlation coefficient ($r$) and the reliability indices obtained were, 0.68, and 0.62 respectively for conscientiousness and agreeableness. The data collected were analyzed using the mean ($x$) and standard deviation (SD) to answer the research question. The independent sample t-test was used to test the hypothesis in order to determine whether there is a significance difference between the means two independent groups being compared for each trait. A significant difference was found between the achievements of students with high level of conscientiousness and agreeableness, and those with low levels of the traits. Based on the findings, the following recommendations were made. Parents and teacher should encourage their children/wards or students to set clear goals, and ensure that they are disciplined and careful to consistently achieve them. Incentives should be arranged to accompany success to encourage continuous positive performance. This will serve as positive reinforcement. Teacher should endeavor to be close to their students through interaction outside the classroom. Government too can encourage more sponsorship programs to encourage the indigent but conscientious students further their education. Also Neurotic tendencies such as anger, depression, anxiety, and a low self esteem should be discouraged in students at all levels both at home and in the school. Parent should inculcate self confidence in their children by affirming them whenever they do the right thing and correct in love whenever they do wrong. Teachers and counseling psychologists should help them have a positive self esteem through affirmation. This is why guidance and counseling units must be encouraged in all school where this is not the case, especially in the rural areas.

**Nawabi (2014)** tested Holland’s theory of career choice to identify relationship between measured career interest and academic achievement in BDS students at Rawal Institute of Health Sciences from Jan., 2014 to June, 2014. All BDS students of first, second and third year were included in the study. Students were directed and supervised to undergo online Holland’s personality test “RIASEC”. Personality of every student was noted and was compared with result of 1st and 2nd term examination. The findings of the study revealed
significant positive relationship between type of personality and exam scores according to Holland theory of career choice.

**Rabae (2014)** determined the influence of personality on academic achievement and performance TVET teaching graduate students. Results indicate that “the types of personality extroversion respondents are in high mean. The results also will show that there is a significant correlation between personality type and achievement academic or not. The study will showed is there have a significant relationship between personality and performance TVET teaching graduate students”.

**Singh (2014)** analyzed the significant difference between low and high achievers on sixteen personality traits factors among a sample of two hundred adolescents (100 low achievers and 100 high achievers) studying in B.A Part first were selected by stratified random technique from different colleges located in Ranchi. Sixteen personality factor questionnaires were administered to measure the dimensions of personality traits of both the groups. Data was analyzed by using means, standard deviations and t test. Result revealed that high achievers had unique personality profile than low achievers.

**Troncone, Drammis and Labella (2014)** attempted to identify the effective predictors of scholastic achievement and several personality variables were described as significantly correlated with grade performance. A sample of 439 subjects (225 boys) with an average age of 12.36 years (SD= .99) from three first level secondary school classes of Southern Italy, personality traits, as defined by the Five Factor Model, self-esteem and socio-economic status were evaluated. The academic results correlated significantly both with personality traits and with some dimensions of self-esteem. Moreover, hierarchical regression analyses brought to light, in particular, the predictive value of openness to experience on academic marks. The results, stressing the multidimensional nature of academic performance, indicate a need to adopt complex approaches for undertaking action addressing students’ difficulties in attaining good academic achievement.
Dunne (2015) analysed the effect of personality traits on academic achievement in a flipped versus a traditional learning environment. The study was based on a class of 170 first year students studying the module “Computing for Mathematics” at Cardiff University. This was taught in the style of a flipped classroom. Academic achievement was measured by class test and coursework marks in the Computing module, representing achievement in a flipped learning environment, and the mean mark obtained in all other modules, representing achievement in a traditional learning environment. A 44-item personality questionnaire, created by John, Donahue and Kentle in was distributed amongst the students to understand the personality traits, according to the Big Five Personality Model, present in the class. “Conscientiousness was found to be the greatest predictor of high achievement in the traditional learning environment, whereas openness to deep learning was found to be the greatest predictor for success in a flipped learning environment. 3 additional questionnaires and 2 focus groups were conducted at different time points throughout the semester to understand student perceptions towards different aspects of the flipped classroom approach. The results concluded that student perceptions regarding how they believe they learn best do not have a significant effect on achievement in the flipped learning environment, as long as students want to learn, they will succeed”.

Chen and Lai (2015) analyzed the relationships between personality traits, emotional intelligence and academic achievements among 160 university students in Malaysia. Big Five Inventory (BFI) was used to measure the five dimensions of personality traits - extraversion, conscientiousness, agreeableness, neuroticism, openness; Schutte Emotional Intelligence Scale (SEIS) was used to measure emotional intelligence and students’ academic achievement was measured by Cumulative Grade Point Average (CGPA). Bivariate analysis using Pearson Correlation method indicated that extraversion (r=.311,p<.05), conscientiousness (r=.315,p<.05), agreeableness (r=.378,p<.05), and openness (r=.497,p<.05) were positively and significantly correlated with emotional intelligence. Neuroticism (r=.303,p<.05), was found negatively and significantly associated with emotional
intelligence. However, emotional intelligence \((r=.002, p>.05)\), was insignificantly associated with academic achievement.

**Dawson and Shih (2015)** investigated to what extent does personality traits of the Big Five Personality Traits and Motivation predict academic performance for international students in Taiwan in Universities in a quantitative study. Academic performance was assessed at via Test of Chinese as a Foreign Language (TOCFL) in the reading and listening section. The dimensions of the Big Five Personality Traits using its ten aspects traits were examined as an indicator of academic performance followed by the indicators of motivation using the academic motivation scale to also test academic performance. Secondly, an assessment will be done to determine which of the facets traits of the Big Five Personality Traits and motivation have a significant correlation in predicting in academic performance among students. The instrumentation is derived from the Big Five Aspects of Personality and that categorize each of the Big Five into two aspects. To test motivation, a 28-item questionnaire adapted from the Academic Motivation Scale.

**Abalaka and Theresa (2015)** conducted a study to find out possible differences in the subject preferences and academic performance of secondary school students who manifest different types of personality traits and to examine the possible differences in the subject preferences and academic performance of the two personalities along gender lines. Two research questions and six null hypotheses were formulated. The study sampled secondary school students in Nigeria using the descriptive survey design. The total population for this study is 14,189 students and the sample for this study was 375. Three different instruments were used for this study to assess personality, subject preference and academic performance of students. Psychometric properties of the instruments were determined and reliability coefficients of 0.74 and 0.78 were obtained for the SPQ and SSPI respectively. Mean scores, frequency counts, percentages and t-test statistics were used in the analysis of data that were collected. This study found significance of difference between subject preferences between students showing extroverted and introverted traits as well as significant difference between the academic performances of students due to personality type.
Shokrpour and Moslehi (2015) investigated the relationship between two personality traits – ‘extroversion vs. introversion’, and two types of correction (self-correction and teacher-correction) in EFL writing context. Review of literature revealed that few studies have been conducted on the efficacy of error correction techniques with regard to different personality traits of the language learners in an EFL context. For this purpose, fourth year medical students studying in Shiraz University of Medical Sciences, Shiraz, Iran, taking the academic writing course, participated in the study. In the beginning, the questionnaire devised by Marie G. McIntyre (2010) was used to determine their personality traits, i.e. extroversion and introversion. Then, the students were assigned into two classes. In one class, self-correction of the assignments was used and teacher correction was used in the other. Then, data were subjected to independent t-test as an indication of inferential statistics. The results showed that “there was no statistically significant difference between the two personality types and the two types of correction”.

Nayak (2016) investigated academic performance of medical school students is predisposed by personality dimension extroversion. The main objective of the study was to determine the extroversion score among the medical students and find out the correlation between extroversion and their academic performance. Eysanck Personality Inventory was administered to find out the extroversion scores among the students and these scores were compared with academic grades. For this process, Carl Pearson’s Correlation coefficient method was carried out. The results reveal that “there is no significant correlation between academic performance and extroversion (‘t’ Value 0.23 which is not Significant at 0.05 level of significance). Even though the personality factor extroversion has relation with the academic performance which many previous scientific researches show but the present study results of negative correlation nullifies the significance. The implication of this study was to develop an understanding and thoughtfulness among the medical students that the personality factors have an influence on their academic performance”.

2.4 STUDIES RELATED TO ACADEMIC ACHIEVEMENT AND INTELLIGENCE

Dixit (1985) compared academic achievement and intelligence of boy and girl adolescent students studying in classes 9th and 11th. The results indicated that “there was no significant difference in the academic achievement of intellectually superior and very superior boy and girl adolescents. The other finding of the study revealed that academic achievement of the girl students as superior to that of boy students. In general, the intelligence scores of the boy students were higher than those of the girl students”.

Shah (1990) examined relationship among academic achievement, intelligence and self-concept of tenth standard students of semi-urban and rural areas. He concluded that “there was positive and linear correlation among self-concept deviation I.Q. and academic achievement in both rural and urban areas”. The study further revealed that “there was no significant difference due to gender in self-concept in both semi-urban and rural areas. Positive and significant relationship was found between intelligence & academic achievement”.

Thilanlgvathic (1990) studied the “academic achievement in relation to intelligence, creativity and anxiety”. The sample comprised of 400 first year higher secondary boys and girls who were selected from a population of 2,871 students from 20 higher secondary schools of Kanya Kumari revenue district, by random sampling technique. The findings of the study were that of the total 400 students of the sample, the 19.25 % were high achievers, 60.75 % were average achievers and 20 % were low achievers. The high, average and low achievers differed significantly among themselves in their intelligence. The high achievers secured comparatively high mean score than the average and low achievers in creativity. The high achievers group belonged to low level anxiety group and the low achievers group belonged to high level anxiety group. The influence of anxiety was found to be negative on the academic achievement.

Garg and Chaturvedi (1992) attempted to measure the contribution of intelligence and socio economic status in determining students’ academic
achievement. The analysis was based upon a field study of 535 students whose I.Q. score and SES score were regressed with their tenth class examination results of M.P Board. Sample comprised of both rural and urban students. The major findings were: (i) There was linear relationship between I.Q. and academic performance. The mean of the I.Q. scores were higher with the higher socio-economic status and tapered off as SES mean declined for both rural and urban students; (ii) Academic performance in relation to SES also has a linear correspondence for both rural and urban students; (iii) A higher mean of I.Q. scores of rural students for all SES categories as compared to urban students; and (iv) It was also observed that in spite higher mean scores by all SES categories amongst rural students, the academic achievement scores were lower than urban students. The reasons for such a situation were given by researchers as: (a) Weak educational inputs in terms of physical facilities or unutilized physical facilities due to weak leadership and management. (b) Poor curriculum transactions in the classroom due to weak organizational climate of the school. (c) Indifferent or passive attitude of the students towards study for lack of motivation resulting in poor class interaction. (d) These weaknesses may be existing at a point of time or may be accumulating over a period of time. This study established strong association between I.Q. and SES for academic performance and researchers suggested that academic performance could be improved by social support measures besides good schooling.

Balasubramanian (1997) studied academic achievement in English in relation to intelligence and found that “among XII grade learners intelligence was positively related to English achievement; medium of instruction and locality of residence influenced the level of achievement.”

Kumari (1998) examined intelligence, academic achievement, adjustment and socio-economic status of different socio-metric adolescents’ groups. A sample of five hundred twenty nine students was drawn from government and private schools of Jalandhar (Punjab). The socio-metric status of these students was worked out on the basis of a socio-metric questionnaire and four extreme groups of populars, neglectees, isolates and rejectees were formed. Jalota’s Group
Intelligence Test, Mittal’s Socio-Economic Scale, and self-prepared socio-metric scale were administered on the students. The main findings of the study were that “the group combinations of populars and neglectees, populars and isolates, populars and rejectees differed significantly on intelligence; populars accounted for significant differences from other sociometric group on achievement; there existed a positive relationship between intelligence and achievement for all the sociometric groups; positive correlation exists between achievement and total adjustment for populars, neglectees, isolates and rejectees”.

Diseth (2003) in his study compared intelligence and academic achievement of male and female adolescent students of 9th and 11th class and found that “among students of class 11th, there was no difference in the academic achievement of intellectually superior and intellectually very superior boys and girls; at other intellectual levels the academic achievement of girls was superior to that of boys. In general the intelligence test scores of boys were higher than those for the girls; in case of boys there was very high correlation between intelligence test scores and academic achievement whereas in case of girls there was average correlation”.

Saxena (2004) investigated the relationship between intelligence and academic achievement in English. This study is an attempt to study that how far intelligence is related to students’ academic achievement in English. The objectives of the study were: (1) To find out whether students differ in their I.Q. score w.r.t. sex, medium of instruction, locality and nature of management (2) To find out the extent of relation to achievement in English. (3) To find out whether sex of the students, medium of instruction, locality and nature of management of the school have any influence on students’ academic achievement. The sample of this study comprises of 320 boys and 260 girls of XII grade from 16 higher secondary schools of Coimbatore district, both from rural and urban areas. After investigation, researcher concluded that (i) Intelligence of students positively influenced their academic achievement in English. (ii) Students having higher level of intelligence preferred English medium classes and urban schools. (iii) Sex of the students had no influence on their intelligence, as well as academic
achievement in English. (iv) Students preferred school of different types of management irrespective of their level of intelligence. (v) The medium of instruction and the locality of school had influence on students academic achievement in English. (vi) The sex of the students and the nature of management of the school had no significant influence on their academic achievement.

**Panda (2005)** studied the relationship between academic achievement and intelligence by taking a sample of 765 secondary school adolescent students studying in government, private and aided schools. He found that “there was low relationship between intelligence and academic achievement in different categories of schools. He further revealed a significant difference in students’ academic achievement studying in different categories of schools”.

**Varte et al. (2005)** examined intelligence and academic achievement of high school students in relation to parent-child relationship by taking a sample of 450 students selected through stratified random-sampling technique and found no gender difference on intelligence, academic achievement and parent-child relationship.

**Varte, Zokaitluangi and Lalhunlawma (2005)** studied intelligence and academic achievement of Mizo adolescent students in relation to parents-child relationship. Parental behaviour as perceived by the child have more importance and emerged to be explanatory than characterization of such behaviour by independent observers. 140 Mizo adolescents from a school were sampled. The high and low scores on parent-child relationship respectively designated as permissive and restrictive parenting styles were screened out and their academic achievement scores were analyzed. Results indicated “no gender difference on parent -child relationship, intelligence and academic achievement. 2×2 ANOVA ‘indicated significant' parenting effect whereas gender x parenting interaction resulted non-significant. F-ratio, mean comparisons in significant ‘parenting effect revealed greater intelligence in ‘permissive’ than ‘restrictive’.”

**Chamundeswari et al. (2006)** examined general mental alertness and intelligence of secondary level students in relation to their academic achievement.
to investigate the differences between academic achievement in Mathematics in different types of school. The sample of 291 students was taken. She found that “there was a significant difference between achievement in Mathematics of students at secondary level in government, aided and matriculation, government and government aided, matriculation and corporation schools; there was no significant difference between achievement in Mathematics of students at the secondary level in corporation and government, corporation and government aided, government and matriculation schools; there was significant correlation between mental alertness, intelligence, achievement in English and Mathematics of secondary level students in different types of school”.

**Ian et al. (2007)** studied intelligence and educational achievement of 70,000+ English students. They found “significant correlation between a latent intelligence trait (Spearman's g from CAT2E) and a latent trait of educational achievement (GCSE scores) was 0.81. General intelligence contributed to success on all 25 subjects. Variance accounted for ranged from 58.6% in Mathematics and 48% in English to 18.1% in Art and Design. Girls showed no advantage in g, but performed significantly better on all subjects except Physics. This was not due to their better verbal ability. At age 16, obtaining five or more GCSEs at grades A–C is an important criterion. 61% of girls and 50% of boys achieved this. For those at the mean level of g at age 11, 58% achieved this; a standard deviation increase or decrease in g altered the values to 91% and 16%, respectively”.

**Subramanyam et al. (2008)** studied emotional intelligence and academic achievement of secondary school students. They found “no significant difference with regard to the impact of gender on emotional intelligence and academic achievement, besides there being no relation between academic achievement and emotional intelligence”.

**Paltasingh (2008)** studied relationship among intelligence, creativity and achievement scores of high school students with the objective to study the correlation between creativity and intelligence; intelligence and science achievement; intelligence and scholastic achievement by taking a sample of 180 subjects of IX class from Oriya medium secondary school and found that
“there was significant positive correlation among creativity and science achievement, creativity and scholastic achievement, intelligence and science achievement as well as intelligence and scholastic achievement”.

Dhall et al. (2009) analyzed intelligence as related to self-confidence and academic achievement of school students by taking a sample of one thousand students. They found that “there was a significant relationship between academic achievement and intelligence of secondary school students; there existed a significant difference between boys and girls of secondary school in terms of intelligence; there existed significant difference between boys and girls of secondary school in terms of academic achievement”.

Naderi et al. (2009) analyzed intelligence, creativity and gender as predictors of academic achievement among undergraduate students. A multiple regression analysis indicated that “intelligence, gender and creativity explained 0.045 of the variance in academic achievement, which is not significant, as indicated by the F-value of 2.334”. Multiple regression analyses also indicated that “intelligence and creativity (gender is controlled) together explained 0.010 of the variance in academic achievement, which is also not significant, as indicated by the F-value of 1.562. Partial correlations between academic achievement and IQ, creativity scores and gender were non significant at .05. Coefficients also showed there is no significance between academic achievement and IQ and gender at .05, except for creativity (t= 2.008, p= 0.046). Finding shows predicting lower independent variables of this study (scores of intelligence, creativity and gender) on academic achievement (CGPA)”.

Lal et al. (2010) studied relationship between emotional intelligence and academic achievement of male and female students of arts and science streams by taking a sample of 300 students from Meerut region through cluster random sampling technique and found that “the male scheduled caste students having high emotional intelligence and academically superior to their counterpart; there was significant difference between mean achievement scores of male scheduled caste students of arts and science stream having high and low emotional intelligence; there was no significant difference between mean achievement scores of female scheduled caste students of arts stream having high and low emotional intelligence”.
Gakhar et al. (2010) studied intellectual and non-intellectual correlates of scientific attitude with the objective to find the relationship of intelligence and science achievement (intellectual variable) and socio-economic status, scientific interest and home environment (non-intellectual variables) with scientific attitude by taking a sample of 740 IXth class students selected on the basis of multistage randomization technique from eight districts of Punjab and found that “science achievement was not significantly correlated with scientific attitude. The reasons may be that science achievement depends on memory, recall, knowledge and hardwork whereas scientific attitude involves scientific temper of mind, rational thinking, open mindedness, objectivity etc”.

Singh et al. (2010) examined the impact of spiritual intelligence on academic achievement of adolescent students with the objective to study the influence of spiritual intelligence, gender, type of school and their interaction on academic achievement of adolescents by taking a sample of 934 students with a mean age of 16.64 years through cluster sampling technique and found that “academic achievement of adolescents with low spiritual intelligence were better than adolescents with average spiritual intelligence; male adolescents had higher academic achievement than females; academic achievement of adolescents studying in aided schools were better than adolescents studying in government schools; academic achievement of adolescents studying in unaided schools were better than adolescents studying in government schools; academic achievement of adolescents studying in aided schools were better than adolescents studying in unaided schools”.

Singh (2012) studied academic achievement of 9th class students of District Solan of H.P. in relation to their area of residence and self-concept. The investigator have used the Ahluwalia’s Children Self-Concept Scale to collect the necessary data from the students. The sample consists of 30 students from rural and urban areas of Solan District of H.P. were selected randomly sampling technique. The data were analyzed by using analysis of variance. The finding of the study reveals that urban and rural students do not differ significantly on their academic achievement and different levels of self-concept.
Yahaya, Bachok, Yahaya and Boon (2012) examined the impact of the five emotional intelligence elements identified as self-awareness, self motivation, empathy, emotional management, interpersonal skills towards secondary school students’ academic achievement. The results showed that “the significant relationship between self awareness (r = 0.21), emotional management (r = 0.21) and empathy (r = 0.21) at the level of p<0.05 with academic achievement. Multiple regression analysis (stepwise) result showed that only three elements of emotional intelligence which is self-awareness (β = 0261), self motivation (β = -0182) and empathy (β = 0167) accounted for 8.7% of variation in criterion (academic achievement). Research also presented a model designed to reflect the relationship between the elements of emotional intelligence and academic achievement. These studies imply that the level of emotional intelligence contributes to and enhances the cognitive abilities in student. Thus, to produce a competent generation and successful country”.

Bhadouria (2013) examined the role of emotional intelligence for students’ academic achievement. Findings of this study revealed that “academic achievement without emotional intelligence does not indicate future success and absence of emotional intelligence also indicate the week personality and ability to build relations at working place as well in schools and it is highly important for quality education”.

Chandra and Azimmudin (2013) examined the influence of Intelligence and gender on Academic achievement of secondary school students of Lucknow city. The sample of the study consisted of 614 students (358 boys and 256 girls) from 9th and 10th class of 14 schools of Lucknow city of Uttar Pradesh. Intelligence was measured by Dr. G.C.Ahuja’s Group Test of Intelligence. The board Results of Class X was used for collecting data for academic achievement. The findings of the study reveal that “there is a significant influence of Intelligence on academic achievement whereas gender has not significantly influenced the academic achievement”.

Kolachina (2014) examined relationship between emotional intelligence and academic achievement of expatriate students. Students in higher educational
institutions are viewed as leaders of tomorrow and are expected to perform multi roles with efficiency and effectiveness. It is essential to develop a right attitude and be equipped with emotional intelligence to handle the complexities of life and quality education. The findings of the study reveal “positive relationship between emotional intelligence and academic achievement among expatriate students. The study also reveals that students with high and low academic achievement motivation differ from one another on emotional intelligence”.

**Parveen (2014)** analyzed the relationship between intelligence and academic achievement of secondary school level students. The Sample of the study consisted class tenth of 150 secondary level students (75 boys and 75 girls) from AMU Aligarh schools. Group Test of Mental Ability by R.K.Tondon was used to find out intelligence of students and for measuring academic achievement the annual examination marks of the students were used. From The results of the study had been found that intelligence positively and significantly related with academic achievement of secondary level students.

**Nagaraj and Rajashekhar (2014)** in their study found “no relationship between male and female students on study habits. Male and female differed significantly on two dimensions of reading & note taking habits & preparation for examination. There was significant relationship between study habits and academic achievement of female students. There was no significant difference between study habits and academic achievement of male students”.

**Gohari and Khosropour (2015)** examined the relationship between cognitive intelligence, self-esteem, achievement motivation and academic performance of students of Kerman Medical University, 182 students were analyzed population-based Morgan and 125 were selected by simple random sampling. Data gathered using questionnaires and cognitive intelligence Raven (2000), SelfEsteem (1976) Hrmans development incentives (1970) and was measured to the academic performance of the students' final grade point average was used. The data were analyzed using Pearson correlation coefficient and multiple regression analysis showed between cognitive intelligence, self-esteem
and achievement motivation and academic performance of students there. However, a significant achievement motivation and academic achievement found.

Seng, Hanafi, Taslikhan, and Raman (2016) aimed to identify students’ emotional intelligence level and to what extent emotional intelligence influences students’ academic achievement. A total of 406 people form 5 students from nine schools in Limbang District, Sarawak were involved in this study. Malaysia Intelligence Emotional Inventory – Teens (IKEM-R) was used to assess the level of students’ emotional intelligence. A total of 49 items from this instrument was used to measure emotional intelligence of the respondents. Exploratory factor analysis and KMO value for pilot study is. 607. The result of the study show that all the emotional intelligence dimensions are at high level. Further, the results revealed that there is no significant influence of all the dimensions on academic achievement. Five research hypotheses were supported. All the emotional intelligence dimensions namely emotional awareness, emotional regulation, self-motivation, empathy and social skills do not affect students' academic achievement.

STUDIES RELATED TO ACADEMIC ACHIEVEMENT AND ACHIEVEMENT MOTIVATION

Pajares (2001) conducted a study towards a psychology of academic motivation. The purpose of his study was to integrate constructs from positive psychology with constructs from motivation theories that have received most of the attention in studies of academic motivation achiever goals, expectancy beliefs and value were predictive of the positive psychology variables Task goals were associated positively with optimism and with initiations, where as performance avoid. The present research was conducted on 300 XIth standard boys and girls studying in matriculation school of Tamil Nadu, on the variables of future time perspective, cognitive efficiency, achievement motivation, anxiety and authenticity and invitations. Positive psychology variables were stronger in high achieving students, boys have stronger perceived authenticity than girls did. Findings indicate that constructs drawn from positive psychology can help to explain academic motivation achievement.
Satya Prakash, and Patnaik (2005) analyzed effect of co-operative learning on achievement in biology and achievement motivation. For the study, the sample of two hundred students from three schools of Tumkur town of Karnataka. Out of them, one hundred students were treated as control and 100 students as experimental groups. The students of both the groups were matched by pairing their achievement scores in Biology and intelligence. The major findings of the study were: “(i) There was positive effect of co-operative learning on achievement motivation; (ii) Co-operative learning has a positive effect on achievement in Biology in terms of knowledge, understanding and application objectives as well as total achievement”.

Tella (2007) analyzed the impact of motivation on school academic achievement of students in mathematics in secondary schools using motivation for academic preference scale ($\alpha=.82$) as a measuring instrument and achievement test in mathematics. Two hypotheses were tested for significant at 0.05 margin of error using t-test and analysis of variance (ANOVA). Results showed that “gender difference were significant when impact of motivation on academic achievement was compared in male and female students. Also other result indicates significant difference when extent of motivation was taken as variable of interest on academic achievement in mathematics based on the degree of their motivation”.

Garg and Gakhar (2009) explaining academic achievement in secondary teacher training programme through distance mode. The present investigation has been undertaken to locate the background and personal variables which may best predict the academic performance of secondary teacher trainees in distance education. The findings of the study showed that “72.1% of the variance towards the criterion variable of performance in theory papers was explained by fourteen independent variables (one background variable and thirteen measures of personal characteristics), 63.5% variance in performance in skills in teaching of the trainees was explained by eleven independent variables which included ten variables of personal characteristics and one background variable, and a total variance of 62.8% in their overall academic performance was explained by their nine variables (one background and eight variables of personal characteristics)”.
Uwameiye, & Osho (2011) investigated attitude and motivation as predictors of academic achievement of students in clothing and textiles. From each school, forty students were selected from III Year using simple random technique yielding a total of two hundred forty students. The instruments that were used to gather data for this research include clothing and textile attitude scale, clothing and textile motivation scale, and clothing and textile achievement test. Among the findings of this study is that “attitude is capable of predicting academic achievement of students in clothing and textile. One of the recommendations of this study is that since attitude and motivation are predictors of academic achievements, all agents of education especially teachers or/lecturers should encourage students to develop the right/good attitude and create right atmosphere in lectures that will motivate students to learn”.

Ahmad, Iftikhar and Rana, Shabbir (2012) conducted a study, affectivity, achievement motivation, and academic performance in college students. The purpose of this study is to find how emotions and motivation influence academic performance of college students. Undergraduate students (210 boys and 328 girls) were engaged for the research. Negative affectivity was assessed through the neuroticism scale of the NEO Five Factor Inventory (Costa and McCrae, 1992); similarly positive affectivity was characterized through the extraversion scale of the same measure. Results indicated that “neuroticism had significant reverse relationship with emotional intelligence; that is, lower the neuroticism, higher the emotional intelligence. Second, neuroticism was strongly related with avoidance motivation; higher neuroticism was associated with higher avoidance motivation. Extraversion was relatively less related to approach motivation. Moreover, the high and medium neuroticism scorers achieved significantly lower GPA than low neuroticism students. Intermediate examination or grade-12 marks remained the largest predictor of college GPA. Among the psychological factors, lower neuroticism and higher Emotional intelligence contributed significantly in determining GPA.”

Azar (2013) determined the relationship between academic Self-efficacy, achievement motivation and academic procrastination with academic
achievement and investigate predictive validity of them with academic achievement and interaction of them with gender to Academic achievement. The result of multiple regression analysis revealed that “academic self-efficacy and gender were the best predictors and Academic procrastination inversely is a significant predictor of academic achievement. Also, extra result of t- test revealed that there is no significant between the mean score of girls and boys in academic procrastination (t= 0.47, p=0.64). There was significant difference among boys and girls, in terms of the level of achievement motivation (t=2.06, P=.04), academic achievement (t=.54, p=.000) and academic self-efficacy (t=094, P=0/01)”.

Gupta and Rani (2013) studied achievement motivation of senior secondary school students in relation to their self-confidence. The sample comprised of 100 students 50 students from urban area and 50 students from rural area. The researcher had used descriptive method for collecting data and applied various statistical technique i.e. mean, standard deviation, ‘t’-test and correlation for analyzing the data. The result showed that there exist a significant difference between the urban and rural students of their achievement motivation and self-confidence. The study suggested that increase in achievement motivation scores leads to increase in self-confidence scores and vice-versa.

Kumar, Mehta and Maheshwari (2013) analyzed effect of emotional intelligence on the psychological adjustment, achievement motivation and scholastic achievement of secondary school students. For this study, a sample of 450 urban male students of the tenth standard from Jaipur district were studied. Results revealed “a significant effect of EI on the achievement motivation and educational adjustment of students. However, EI did not have a significant effect on the emotional adjustment, social adjustment and scholastic performance of students”.
Kumra (2013) investigated the academic achievement of secondary stage students in relation to their personality type and achievement motivation. A total of 150 students studying in Govt. schools of Chandigarh were taken for the study. Multistage sampling was done for the collection of the data. Students were categorized on the basis of Introvert and Extrovert Personality and High and Low Achievement Motivation. Scales used were Personality Inventory developed by Eysenck and Achievement Motivation scale developed by DeoMohan. Academic Achievement was taken from the marks obtained in the final exams of class XIth. Results revealed that Introverts had higher academic achievement than that of Extroverts and group with high achievement motivation showed higher academic achievement than the group with low achievement motivation.

Veena and Shastri (2013) investigated whether achievement motivation differed on individual variables (disciplines/courses, academic performance and gender). A questionnaire was administered to 656 pure science and applied science under graduate students from Bangalore city. Academic achievement referred to their results in the previous semester. Gender was also considered for the analysis. The tool used for the present study was Deo-Mohan Achievement Motivation scale (n-Ach). For non-normal variable Mann Whitney U and Kruskal Wallis were used to test various hypotheses of the study. Pure science and applied science course students significantly differed on achievement motivation. The findings of the study revealed that there was no significant difference in achievement motivation among high and low academic performance students. Boys and girls differed significantly on achievement motivation.

Velmurugan and Balakrishnan (2013) investigated the achievement motivation of higher secondary students in relation to locality and type of family. The study was conducted on a random sample of 600 students studying in Ariyalur and Perambalur districts in Tamil Nadu. The Achievement Motivation Test constructed and validated by Gopal Roa (1974) was used to collect the data. The result of the study reveals that there is no significant difference between the rural and urban school students in their achievement motivation. Also, it is inferred that there is no significant difference between the general stream higher
secondary students coming from joint family and nuclear family in their achievement motivation.

Sikhwari (2014) assessed the relationship between motivation, self-concept and academic achievement of students at a University in Limpopo Province. The main purpose of the study was to investigate the relationship between motivation, self-concept and academic achievement. In addition, gender differences between self-concept, motivation and academic achievement were investigated. The study utilized a quantitative cross-sectional survey design. A self-constructed questionnaire was used to collect data from a randomly selected sample of second year students representing four schools at the university. The study found that “there were significant correlations between self-concept, motivation and academic achievement of students. It was also found that female students are significantly more motivated than their male counterparts. The study concluded that the findings justify the importance of self-concept and motivation to academic achievement, and some recommendations were made regarding the enhancement of motivation and self-concept”.

Chetri (2014) investigated achievement motivation of adolescents and its relationship with academic achievement. The study was confined to 480 secondary school leavers studying in different schools of Sikkim by using stratified random sampling techniques from various government and non-government managed schools within the age range of 16-17 years, from urban and rural areas. The finding of the study revealed “non-significant difference in achievement motivation with regard to gender and locale variation but significant differences in relation to management variation. Another finding of the study was the significant difference in the academic achievement of the students with regard to locale and management variation. The relationship between achievement motivation and academic achievement also yielded a significant relationship at 0.05 level and 0.01 level”.

Dahiya and Saini (2014) attempted to know the effect of achievement motivation of senior secondary school students in relation to their gender and intelligence. The sample comprised of 200 students of 10+2 class from
government and public schools. The age of students ranged between 16 to 18 years old. The study was conducted through descriptive survey method. Achievement Motivation Test (ACMT) by Dr. V.P. Bhargava and Mental ability group test by S.S. Jalota was used to collect the data. On the basis of statistical results it was concluded that “there exists significant positive correlation between achievement motivation and intelligence of male and female students of Govt. and Public school. There is a significant difference between achievement of male and female students of Govt. and public schools”.

Dhall (2014) revealed the relationship of academic achievement with achievement motivation and home environment of secondary school students. The sample of study comprised of 200 students of ninth standard drawn from government and government-aided schools of Ludhiana city. The results of the study revealed “positive and significant relationship between academic achievement and achievement motivation and home environment. It was further revealed that sex does not exert any influence on achievement motivation and home environment”.

Sandhu (2014) investigated academic achievement of adolescents in relation to achievement motivation and study habits. The present study was conducted to investigate the relation between academic achievement of adolescents and their achievement motivation and study habits. The sample comprised of 20, 10+1 class students from Government Senior Secondary Schools of Ludhiana City. Marks obtained by students in X class were taken as academic achievement, Deo & Mohan Achievement Motivation Scale (20 2) was used for achievement motivation and Study Habit Inventory (2002) Revised version by Mukhopadhyay and Sansanwal for study habit. The finding of the study showed significant positive relation between academic achievement and achievement motivation and also between academic achievement and study habits.

Siddiqui (2014) examined the effect of achievement motivation of Govt. and Private senior secondary school students on their academic achievement with respect to gender and type of schools. Sampling were selected through random
sampling techniques. Data was collected with the help of Achievement Motivation Test (AMT) developed By Dr. V.P. Bhargava’s from 100 senior secondary school students from in and around Rohtak district of Haryana State. By the application of mean, standard deviation, and t-test indicated is no in academic achievement among male and female of government and private schools with achievement motivation.

**Yazdani and Godbole (2014)** examined relationship between achievement motivation and time management to academic performance in high school student in Hyderabad. A sample of 400 students consisting of boys and girls were selected from 7th and 8th grade. The data was collected in small groups. Later the data was analyzed by mean score, standard deviation, Pearson’s correlation and regression. The result indicated that “there was significant positive relationship of achievement motivation and time management to academic performance. The result also showed that extent of contribution of achievement motivation and time management to academic performance. Therefore, it can be concluded that achievement motivation and time management has proved to be effective on academic performance of students and helped them for better performance and academic achievement”.

**Kumar and Yadav (2015)** pointed out that there is great need of motivation for students, because motivation effects the academic achievement of the students. The present study is about the academic achievement motivation of the children. Academic motivation involves measuring items such as work habits and scholastic expectation. Achievement motivation plays an important role to achieve educational goals of the students. Girl students had more academic achievement motivation than boys at senior secondary level. Private school students had more academic achievement motivation than government school students at senior secondary level.

**Jain (2015)** examining the level of Achievement motivation, Self efficacy, Academic Performance, Subjective Well-being and Self Esteem through the intervention among Dalit Girl Students. For the purpose of this study the researcher has considered the SC and ST girl students hailing from rural
households and low SES families. The study adopted a one group pre-test post-test design. A sample of 44 adolescent students residing at government pre-matric hostel was selected. It was hypothesized that intervention would improve their Achievement motivation, Self efficacy, Academic Performance, Subjective Wellbeing and Self Esteem. Intervention consisted of effective time management, communication skill, career opportunities, leadership training, team building, goal setting, interpersonal skills, adolescent psychosocial issues, physiological development during adolescence, importance of nutrition during adolescence, dental hygiene, personal hygiene, public speaking, reading habit, memory skills, study habits, how to face exam, Yoga training, women empowerment, group dynamics, life Skill, self Esteem, English training, civic sense, assertive training, and self defence technique for a period of 10 months. Participants were assessed pre-intervention and post-intervention. Results were analyzed using t for correlated means. Obtained result showed that there was significant improvement in the level of Achievement motivation, Self efficacy, Academic Performance, and Subjective Well-being but there was no significant improvement in the Self Esteem.

Kaur (2015) explored the relationship between achievement motivation and different styles of learning among university students. The sample comprised of 100 students of Punjabi University, Patiala. The tools used were Achievement Motivation Scale (n-ach) (1971) by Pratibha Deo and Asha Mohan and Learning Style Inventory (1971) developed by K.S Mishra. The findings revealed that “there is no significant relationship between the reproducing dimension of learning style and achievement motivation of university students. Whereas, there is significant relationship between the constructive dimension of learning style and achievement motivation among university students”.

Santhakumari and Chamundeswari (2015) investigated the relationship between achievement motivation, study habits and academic achievement at the secondary level. Survey method is used to select a sample of 457 students at the secondary level. Achievement Motivation Scale (Beena, 1986) is used to measure students’ achievement by motivation, Study Habits Inventory (Gopal Rao, 1974) to test the students study habits and academic achievement test to assess
students’ achievements. The results of the statistical analyses show “a significant correlation between achievement motivation, study habits and performance of students. A significant difference is found between students in different categories of schools and gender pertaining to achievement motivation, study habits and academic achievement”.

Wani and Masih (2015) examined the level of achievement motivation, differences in achievement motivation across gender, academic streams and to find out the significant differences in achievement motivation of students studying in government and private higher secondary schools. A sample of 200 (100 boys & 100 girls) higher secondary school students was purposively selected. Descriptive method of research was employed and data was collected through Deo-Mohan achievement motivation scale. Mean, Std. D, t-test and ANOVA was done through SPSS 21. Results reported that 46.5% of the sample subjects are having average level of achievement motivation. Results also revealed that girls perform better on achievement motivation score (Boys M = 121.89 & Girls M = 127.82). Significant differences were also found in achievement motivation across different academic streams. Study also showed that higher secondary school students studying in government schools have high achievement motivation (M = 125.59) as compared to private school students (M = 119.70). Paper concluded that to develop the strong desire for excellence among our children entire home and school must provide a better psycho-social environment to students.

Maheswari and Aruna (2016) conducted a study to know the effect of socio demographic characteristics of the respondents along with their achievement motivation and also to find the gender difference with reference to their achievement motivation. The study was conducted at N.N. Ramanathan Iyyer high school, Nangavaram, Karur district. The universe of the study were the 10th standard students of both gender belonged to the same school. There were totally 128 students who constituted the universe of the study. The researcher used census method to select the respondents. Here in this study all the 10th standard students of both the gender studying in N.N. Ramanathan Iyyer high school, Nangavaram, Karur district were included in the sample to collect the data. There were totally
128 respondents included in the present study. The major findings of this study revealed that a little more than half of the respondents (55.5%) were having low-level of achievement motivation and the remaining respondents (44.5%) having high level of achievement motivation. ‘Z’ Test was applied and it is inferred that there is significant difference between gender of the respondents with regard their to achievement motivation, the calculated Z value= 2.314 (P<0.05) is higher than the table value so the research hypothesis is accepted and the null hypothesis is rejected.

Rather (2016) conducted a study on 544 secondary school students to find out the influence of Achievement Motivation (AM) on Academic Achievement. The investigator hypothesized that there is no significant difference between different categories of achievement motivation in respect of academic achievement. In fact, the investigator found that there is a significant mean difference between different categories of achievement motivation (high motivation, above average motivation, average motivation, below average motivation, low motivation and lowest motivation). It was found that there was much difference in academic achievement and achievement increases with the increase in achievement motivation.

2.9 OVERVIEW

The review of research work done on academic intelligence of senior secondary school students in relation to their personality, intelligence and achievement motivation has brought out the fact that academic achievement is the most important factor in life of students. Research has also shown that academic achievement can be effective in influencing if an individual has positive beliefs about his ability to negotiate and achieve optimal learning. This helps in improving the quality of education. The review indicates that personality, intelligence and achievement motivation do impact upon senior secondary students’ academic achievement.