3.1. Introduction

When a researcher decides to embark on a new investigation, it will be very useful for him to go through the existing mass of research findings to get new ideas and suggestions. Information about the findings of various research studies are available in the form of books, abstracts, and other records. Review of related literature is a crucial phase in the planning of a new study. It helps the researcher to eliminate the duplication of what has already been done and provides useful suggestions and helpful ideas for a goal-oriented investigation. Although the research for related studies may be time-consuming yet it is worthwhile, for it is a useful phase in the process of research. It is just like a beacon helping the investigator to discover what has already been known, what are the shortcomings of the previous studies and also broadens the outlook, insight, and vision of the researcher with regard to the subject under study. Even it can help the researcher in adopting an appropriate method for the research.

Keeping in view the objectives of the present research, few studies pertaining directly or indirectly to the academic achievement in relation to personality needs, university environment, and mental maturity have been presented in this chapter.

3.2. Academic Achievement and Personality Needs

The study of academic achievement and its factors had claimed the attention of researchers even before 1930, by which year a number of studies had been reported. They were reviewed by Harris (1931). In the years between 1930 and 1937 greater research enthusiasm was shown in this area and Harris (1940) published another 328 studies made during this period. Garrett (1949) reported about 63 studies in which personality factors were studied as predictors of Academic Achievement. Most of the studies on the correlation between academic achievement and personality focus on different aspects of
personality. Some of the studies reviewed show that there are significant relationships between personality traits and academic achievement of the university students. Some studies confirm that there are marked divisions in the personality structure of intellectually top, middle and bottom class students. Some of the attempts to assess the relationship of personality to academic achievement are described below.

Some of the early studies that found significant correlations between academic achievement and two personality traits of introversion and extroversion are: Furneaux (1956); Broadbent (1958); Child (1964, 1966); Sinha (1967); Whittaker (1969); Deo (1969); Entwistle and Welsh (1969); Honess Kline (1974); Gover (1976).

Dhaliwal (1971) investigated the personality correlates of academic over- and under-achievers and found that both over- and under-achievement go with higher need for achievement and greater anxiety in comparison to normal achievement.

Menon (1973) in an experimental study, probed into the personality characteristics of high ability over- and under-achievers. His investigation revealed that overachieving groups of boys and girls of superior ability showed greater academic interest, endurance and persistence.

found that introversion was more important for success whereas Gover (1976) could not find any relationship between the two variables.

In the study of Iyer (1977), the personality variables discriminated effectively between over-achievers and normal achievers, normal achievers and under-achievers in relation to achievement in mathematics. Goh David, Moorie and Charles (1978) and Upmanyu, Upmanyu and Vasudeva (1980) stated that academic success and introversion were significantly and positively related.

Singh and Vohra (1982) investigated the functional relationship of academic success with neuroticism and extroversion. The study concluded that neither of these predictors could be recommended as the sole predictor considering the merged contribution of these two to academic achievement.

The study of Jindal and Mishra (1984) outlined that intelligence, extroversion-introversion, neuroticism and stability were the common predictors of academic achievement for high and low creative boys and girls.

Suri (1984) compared personality characteristics of musically gifted and non-gifted girls and found gifted girls to be marked by introverted tendencies,
anxiety, neurotic feelings and social consciousness. The personality of musically non-gifted girls was marked by extroverted and non-neurotic tendencies.

Jahan, Q. (1985) studied the personality profiles of students in relation to their academic achievement. The major findings of his study were: (i) The overachievers of science stream were more reserved, intelligent, emotionally stable, excitable, obedient, sober, conscientious, shy, self-assured, self-sufficient, controlled and relaxed as compared to the underachievers. (ii) The overachievers of the arts stream were more warm-hearted, intelligent, affected by feelings, undemonstrative, assertive, enthusiastic, conscientious, zestful, apprehensive and tense as compared to underachievers.

Dhar, N. (1986) studied “Personality Profiles of the Socially Rejected and Their Academic Performance.” His findings show that academic performance of rejectees was poor, and that their academic performance did not vary with the degree of rejection.

Goodwin (1987) examined the combined predictive value of learning style characteristics and personality factors for academic achievement and found that difficulty is a predictor of academic achievement. Mohan and Gulati (1988) observed a positive correlation between academic achievement and extroversion for arts students.

Filbert, Deyer (1988) studied the effect of personality on achievement. His findings show that the extroversion-introversion personality dimension accounted for a significant amount of achievement.

Nisha (1990) found significant and positive correlations between extroversion and academic achievement. Dauber and Benbow (1990) compared exceptionally gifted and modestly gifted students and found exceptionally gifted as more introverted, less socially adapting, more inhibited and less popular with peers.

Ross (1994) investigated the dimensions of personality as predictors of academic success for African-American students. Subjects were 96 percent African-American students (49 males and 47 females). A Euro-American sample (59 volunteers) was included to separate schools from ethnic factors. The finding of the study indicates that in the realm of personality, extroversion predicted academic achievement of the students. Some gender differences were
found, i.e., achievement and classification as more thinking were associated with female gender.

Farmahini (1995) investigated the relationship between personality dimensions and academic achievement on a sample of 227 male and female undergraduates from different disciplines and years in the Tehran, Tarbiat Mo'alem University in Iran. There was an Extroversion-Neuroticism interaction in terms of academic achievement for females but not for males. The data suggest that female unstable extroverts and female stable introverts are more academically successful than female stable extroverts and female unstable introverts.

Kumar (1995) concluded that field-dependent/independent students did not differ significantly on the achievement of economic concept.

Gupta (1995) found that cognitive style of the students had significant effect on their achievement, and field independent students had higher achievement than field dependent students.

Drew and Watkins (1998) studied on affective variables, learning approaches and academic achievement. A causal modeling investigation with Hong Kong tertiary students found that personality variables influence students' learning process and subsequently their academic achievement.

Kiany (1998) conducted a small-scale pilot study, which studied both academic achievement and language learning success as functions of extroversion. A total of 237 Iranian students who were doing their Ph.D. in different English-speaking countries were involved in this study. The results revealed that both pedagogical setting and test methods are significant factors in the way in which extroversion may link with English proficiency. Traces of interaction effects were also found.

Monk (1998) tried to identify variables associated with academic achievement of African-American males in four-year undergraduate course institutions of the United States. He found that academic achievement positively and significantly associated with a combination of personal variables, demographic variables and institutional variables. The majority of these were personal and non-cognitive variables.

Hill (1999) conducted a study to identify the personality characteristics of high achieving developmental students, and to discover low personality characteristics related to academic achievement performance among high
achieving developmental and non-developmental college students to determine if a correlation existed between personality and performance. A sample of 113 students (38 developmental and 75 non-developmental students) was taken for this study. Findings indicate that personality characteristics contribute and enhance the academic performance of developmental students. Statistically significant differences were found for 18 of the 44 chi-square calculations.

Sood, S. (1999) conducted a study on creativity, problem solving ability and personality characteristics as correlates of mathematical achievement of students and found that girls had higher academic achievement than boys.

Lang (2000) designed a study to explore the relationship and impact of pre-college psycho-social factors on academic achievement. The design of this study incorporates a longitudinal panel survey. A sample of 250 first time, degree seeking fresh male students made the population description. The results of the data analysis indicated that the personality factors (introversion-extroversion) predict academic achievement of the students.

McIlroy, Bunting and Adamson (2000) in their study with a sample of 117 male and female psychology students from University of Ulster (mean age was 23 years) found the personality factors (introversion-extroversion) to be related to academic achievement.

Rayhill (2001) investigated the factors contributing to the academic achievement success among urban minority students of African-American, Hispanic and Asian students in an enrichment program in New York City. He found that personality factors had a profound impact on academic achievement.

Belanger (2001) investigated the differences among Myers-Briggs Type Indicators (MBTI – a personality profile) and academic achievement levels within a group of students. He found no statistically significant correlations among these measures.

Pancholi (2001) made an investigation into anxiety, reading ability, personality and sex of the pupils as predictors of mathematical conceptual understanding. The results indicated that personality has no effect on conceptual understanding of mathematics.

Ehrler (2005) found that Openness to Experience encompasses a set of interpersonal and intrapersonal nuances that are relevant to educational outcomes.
Dimsmore (2005) found that all Big Five traits predicted academic performance at Time One and Time Two. All Big Five traits except for Openness predicted academic performance at Time Three. Additional correlational analyses demonstrated that the narrow traits of Work Drive and Optimism predicted academic performance at Time One and Time Two, while only Work Drive predicted academic performance at Time Three. Analyses revealed that there were significant gender differences in the relationships between the traits of Work Drive, Emotional Stability, and Assertiveness with GPA.

### 3.3. Academic Achievement and Mental Maturity (Intelligence)

The study of academic achievement and intelligence has been the focus of attention of educationists since long time back, some of which are reviewed in the next paragraphs.

Gupta, O.A., (1977) studied intelligence as a function of class achievement and found that (i) intelligence grew up to fifteen years and declined thereafter in high scholastic achievement adolescents and low scholastic achievement girls. Intelligence declined up to fifteen years and grew thereafter in low scholastic achievement boys and high scholastic achievement girls.

Behal (1982) studied the relationship of intelligence with achievement at two Piagetian stages of concrete and formal thinking and found positive and significant correlations between intelligence and achievement in social studies, science and first language at both stages.

Pal, R. (1984) studied intelligence as a socio-psychological variable related to scholastic achievement. The findings show that high scholastic achievers promoted predominantly verbal, non-verbal and total intelligence in comparison to their low achieving counterparts.

Rajput, A.S. (1984) studied academic achievement of students in mathematics in relation to their intelligence. According to this study, intelligence affected the achievement of students in mathematics significantly at all the three levels, i.e., high, average and low. There was also superiority of the high intelligent groups of students over the average and low intelligent groups in their achievement in mathematics. Further, the average intelligence group were better achievers in mathematics than the low intelligence group.
Sween (1984) studied academic achievement in relation to intelligence. This study reveals that high intelligence students scored significantly better than low intelligence students. Further, intelligence interacted significantly with n-achievement to affect the mean gain scores of students on the criterion test.

A study conducted by Deshpande, S. (1986) reveals that intelligence was significantly related to academic achievement at the 10 percent level.

Mehrotra, S. (1986) studied the relationship of intelligence and academic achievement. The findings of the study reveal that there was a positive relationship between intelligence and academic achievement.

Singh, B. (1986) in his study of possible factors to high and low achievement, revealed that achievement in mathematics was significantly related with intelligence. Further, the study revealed that high achievers were more intelligent than the low achievers.

 Patel (1992) in his study found positive and significant relationship between intelligence and academic achievement.

Radha Rani (1992) in her study found intelligence as a significant correlate of academic achievement.

Kaur (1992) studying the relationship among creativity, intelligence and academic achievement found that intelligence was a significant correlate of academic achievement.

Kumar (1994) found positive and significant correlation between intelligence and achievement among the students of biology.

Mishra (1997) in his study found positive and significant correlation between intelligence and achievement.

Barisonek (2005) in his research indicated no overall relationship between emotional intelligence and academic production (grades) when controlling for academic achievement. Avenues for future research are discussed.

DeRuhck (2006) examined relations of academic achievement and intelligence and found that emotional, academic, and cognitive variables jointly predicted test anxiety that impedes performance and emotional stability also uniquely predicted debilitating test anxiety.
Fruh (2006) found no significant relationship between Bar-On EQ-i scores and clinical performance rating, but cumulative grade point average was found to have a moderate relationship to clinical performance rating.

3.4. Academic Achievement and University Environment

Kohli, T.K. (1976) studied characteristic behavioral and environmental correlates of achievement and concluded that the spectrum of some of the non-intellectual behavior-environmental factors was differently related to academic achievement of over- and under-achievers.

Desai, S.D. (1979) studied the relationships between classroom ethos and academic achievement. The findings of his investigation show that, the level of classroom climate was positively related to pupil’s academic achievement.

Hirunval, A. (1980) studied the classroom climate and its relation with academic performance. His findings reveal that the classroom climate was positively related to academic performance.

Joshi, S.P. (1981) studied the achievement of high school students in relation to environmental factors and found that the achievement of the pupils from urban areas was better than that of the pupils from rural areas.

Shashidhar, B. (1981) studied the relationship between few school variables and the achievement of scheduled caste students. He found that the teacher behavior as a group and openness of the school were significantly related to the achievement of scheduled caste students of standards IX and X.

Anderson (1991) examined teacher absenteeism in relation to the environment of schools and degree of self-efficacy realized by teachers. The data indicated that inverse relationships exist between absenteeism and teacher self-efficacy, and between absenteeism and collaborative school environment.

Maureen (1994) investigated the factors influencing academic achievement of women in Malawi – in an environment where such educational attainment for women is extremely rare? The most salient factors influencing the high rate of educational attainment of these women were found to be teachers’ support for these women, women’s own vision coupled with their desire to obtain professional wage-earning careers.
Fujita-Stark (1994) studied the effect of motivational and classroom environment factors on student achievement and satisfaction of noncredit continuing education students. The findings revealed that overall, classroom environment factors were the most potent predictors of student achievement and satisfaction.

Waston (1995) examined the relationships between students' involvement in campus activities and educational gains. He also studied the quality effort expended in various aspects of campus life by black and white students at private black and private white art students. The findings indicate that background factors influenced educational gains less than quality of efforts and college involvement for all students in this study. In addition, students' perceptions of their institution's campus environment tended to be almost as influential as quality of effort for the groups under study.

Cao-Zili (1999) in his study on educational environment and academic achievement of the Chinese-American college students, concluded that different educational environments had their effects on the overall academic achievement of the students.

Salehi M. (1990) studied the educational environment of higher secondary schools of West Azarbaijan of Iran and found that in the perception of the principals the prevailing educational environment did not encourage competitiveness among the students and that friendly relations did not exist between the teachers and students.

Chakroborti (1990) found the importance of an open educational environment and effects of the teacher's personality and his behavior in forming a favorable educational environment.

Farr (1999) conducted a study to explore the relationship between school climate and students' achievement as part of the school improvement process. He revealed a positive correlation between school climate and students' academic achievement.

Sims (2000) studied school climate and found that the appearance of school building, student-teacher inter-personal relations, and general school climate were perceived as positive aspects of school climate with significant influence on achievement of the students.
Vogt (2004) studied socioeconomic status, acculturation, and college environment variables (compositional diversity, racial climate, gendered climate, academic peer support), in relation to academic self-efficacy and achievement and found significant correlations between them.

Fernando (2005) studied Institutional Attachment- Social and Institutional Fit, and Institutional Attachment- Decision to go to and Satisfaction with College, and found that Self-regulation- Connections and Consolidation- was significantly associated with academic standing.

Brown (2005) examined the validity of the congruence assumption of Holland's theory of vocational personalities and work environments and found that contrary to expectations, for two of the personality types (Investigative and Conventional) studied, the association was opposite of that predicted by the theory, i.e., higher academic achievement was associated with lower levels of person/environment congruence.

3.5. Major Research Trends in the Light of Research Studies

In the light of the research studies, the following major trends emerged:

1. Research studies showed that some personality traits had positive and some had negative significant correlations with academic achievement among male and female students.

2. There existed a positive correlation between mental maturity or intelligence and academic achievement of students.

3. Research studies offered contradictory as also consistent conclusions in respect to gender differences in academic achievement. Many studies have demonstrated significant gender differences in academic achievement though others found no differences.

4. There are significant correlations between the university environment as well as the classroom environment and academic achievement of the university students.

In view of the evidence pertaining to the issues under discussion being inconclusive, the present study was undertaken to look into the relationship or otherwise of the dependent variable academic achievement with the factors as already described in the foregoing discussion.