Chapter 1

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1.1 INTRODUCTION

“Nothing like knowledge; Jnana is not mere information, not mere scholarship, it is not mere criticism, it is education in depth. Whatever subject you take up, you must try to study it, penetrate into it and find out the roots of it. It is not something which is called pallava grahi pandityam! It is something which makes you a deep scholar in the subject which you have. Jnana without viveka is nothing; na vivekam vina jnanam; without discrimination, without a sense of right and wrong, if you do not have that sense, if you are not able to accept certain standards in your life and conduct, you may be educated but your life will degraded and unillumined.” – Dr. Sarvepalli Radhakrishnan, Hon’ble Ex-President of India (Speech at Golden Jubilee Celebration of the Mysore University, 26th July, 1966).

Ever since the dawn of human civilisation, education has been a perennial process. When there was no verbal conversation and language was yet to be evolved, the educational process went on by observation and imitation of actions. Even among the wild animals teaching and training is visual. The lioness teaches its cubs how to hunt. They imitate her. After the development of language, the process of education accelerated and in the modern world it has captured the imagination of even the most backward communities. They try to emulate their educated brethren. The exchange of experiences, knowledge and wisdoms through the generational way the learned and experienced personalities of the world tried to make their later generation more prosperous and skillful in their lives. This great effort of wise personalities of every era, from the very beginning of human civilization to the present time of cyber age, in the society and the competitive spirit among the nations has given birth to educational
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institutions and the universe of education is so vast that there is no dearth of upcoming institutions.

Education is an index of the development of human beings. Because it is a pre-requisite for progress and development and in the order of priorities, it has been accorded a high priority as an integral part of country’s developmental process. It has always been considered as an important instrument of social change. It is the most dynamic force in the life of an individual in influencing his physical, mental, emotional, social, moral spiritual and aesthetic development. A well-educated man is able to meet the conflicting challenges and tide over all the difficulties which confront him in day-to-day living. Not only this, education cauterizes the individual and helps him in his needs all over the world. Thus education develops the individual like a flower which distributes its fragrance all over the environment. Throughout the ages, the very conception of education has been that it is a source of illumination. It enables a man to view the present in the light of the past. It enables the individual to solve the personal as well as the societal problems. It has no pauses as long as there is life. It liberates man from all bondages and he proceeds towards immortality –

“Asatoma Sadagmaya,
Tamasoma Jotirgamaya,
Mrirorma Amritomgamaya”.

Frankly speaking, education helps bringing out the best in a person. Education, in short, is able to instill in the child a sense of maturity and responsibility by bringing in him the desired changes according to his needs and demands of ever changing society, of which he is an integral part. In this sense, education is that conducive process which leads a person out of darkness, poverty, ignorance, superstitions and misery by developing his individuality in all aspects – mental, emotional, physical and social. An individual, with all-round development, becomes a responsible, dynamic, resourceful and enterprising citizen of strong, good, moral character and uses all his capacities to develop his own self, his society and his nation to the highest extent by contributing his best to national honour, glory, culture and civilisation.

Education, on one hand, develops the full potentiality as well as personality of an individual making him intelligent, learned, bold, courageous and strong with good moral character; on the other hand, it contributes to the growth and development of
the society in particular and the nation at large. It is only through education that moral ideals and spiritual values, the aspirations of the nation and its cultural heritage are transferred from one generation to the other for preservation, purification and sublimation into higher and higher achievements. In other words, with the growth and development of the individual, the society also achieves higher levels of attainments. Thus, education is greatly essential for the growth and development of an individual as well as the society. A strong and effective education can help to boost the development of any nation. Achievement is the central point of educational process and it has been the central topic of interest to the educators since the early starting of the education system. Educational achievement or knowledge learned in schools matters very much. Persons with the same academic diploma often have vastly different levels of subjective knowledge, reading abilities or problem solving skills. These differences in school achievement have important effects on social and economic success. Children with greater early cognitive skills are likely to attain higher levels of achievement. High achieving secondary school students go on to more selective colleges. And teens with higher test scores are paid significantly more in mid-career, even after controlling for other factors.

The attainment of success in any area of human endeavor including art, craft, science, literature, technology is the principal aim of every aspiring society, which depends on appreciating and fostering achievement need in students. In our society academic achievement is considered as the key criteria to judge one’s total potentialities and capabilities. Therefore, it is becoming more and more pressing for the individuals to have good academic achievement. Academic achievement has become an index of child’s future particularly so in highly competitive world. Academic achievement has special importance for both the student, and those around him/her. Educational and psychological researches have been identified multiple factors that play a role in predicting adolescents’ academic achievement. There can be no doubt that it is affected by many factors that may reduce it, like anxiety, stress, test anxiety, poor mental health, lack of motivation, etc. However, education can become a burden to a country as low academic achievement is one of the major problems facing the families, society and government at large.

For years, the question of the impact of various social, economical, educational and psychological factors on students’ educational achievement has been
of great interest to the researchers in education. Riding (2005) 2 opined that identification of the primary individual difference variables affecting academic achievement is challenging in that: (a) there are so many individual differences that may account for academic achievement; and (b) the variables usually have interactive relationships with one another and with academic achievement. Various researchers identified the numerous factors of academic achievement, such as, learning aptitude, learning styles, learning strategies, gender, culture, age, affective variables, cognitive variables or psychological variables and other demographic variables. Both parents’ socio-economic status and social capital available in the family promote child’s educational achievement. Purpura (1999) 3 and Kunnan (1995) 4 mentioned that test-takers vary on dimensions relating to background or demographic characteristics, socio-psychological or socio-cultural characteristics, personality characteristics, and cognitive characteristics. Brown, Robson, and Rosenkjar (2001) 5 found that high proficiency learners were well balanced, emotionally stable, less instrumentally motivated, and less anxious. Researchers also indicated that the differences in achievement are partly related to gender differences in motivation, learning anxiety, and test anxiety (MacIntyre, Baker, Clément, & Donovan, 2003) 6. Jensen and Seltzer (2000) 7 showed that individual, family and neighbourhood factors all influence further education decisions. Thirunarayan (2004) 8 compared students’ achievements in different content areas by school location and conclude that students of urban schools perform statistically “significantly worse” in many subject areas than students in suburban schools. Research on students’ academic achievement has generally taken the form of finding human or environmental variables which correlate with higher achievement and which can be used as predictors of achievement. Among the various variables identified, the most important is individual differences (Pitcher, 2002) 9. Different researchers emphasized different dimension of individual differences which correlate with higher achievement and which hold out some hope for positive action for educational practice (Stephen, 2002) 10 of these dimension, achievement motivation, test anxiety and students’ mental health are major ones.

There has been extensive research on the influences of students’ achievement motivation. Achievement and motivation are important determinants of effort when an individual expects that his performance will be evaluated in relation to some standard of excellence. Therefore, achievement motivation is defined as a concern for
excellence in performance as reflected in competition with the standards set by others or over unique accomplishment or long time involvement (McClelland, et al. 1953). It is one of the basic ingredients necessary for one’s success in life. Different studies have been made to correlate motivational variable with academic success and failure. Some, studies have examined motivation independently, while others collectively with other factors.

It is evident that high n-Achievement is bound to have better learning and superior performance. McClelland and his associates have asserted “pupils with high n-Achievement score show evidence of better learning and performance”. There is definite and statistically significant evidence for superior learning in high as compared with low n-Achievement group. The question as to why two children of the same intelligence have a difference in their scholastic achievements has always been haunting the two. McClelland (1961) and Atkinson dealt with such queries and tried developing theories of achievement motivation. A study from NCERT (Mehta 1969) indicated a low positive correlation between n-Ach and marks obtained in various subjects by children from various schools in annual examinations. Desai (1970), Mehta (1973) and Sinha (1970) found a significant correlation between the need for achievement and scholastic achievements of children. Contrary to the above findings, Gokulnathan (1971) did not find the need for achievement having a positive correlation with academic achievements in postgraduate students. Perhaps the best support for the expectation that high-need achievers should perform better than those with low scores is provided by Lowell's (1952) experiments. McClelland et al. (1953) found that where learning is possible, subjects with strong achievement motivation learn as the difficulty of the task progresses and the skills thus acquired are facilitated by the achievement motive. Additional evidence purporting to show that performance in certain situation is enhanced by high achievement motivation has been reported by McClelland and Liberman (1949). Veroff, Wilcox and Atkinson (1953) showed that women with high achievement motivation scores performed better than those with low scores during anagrams test when the general level of performance tended to lag. Williams (1955) reported that children with high scores worked faster on simple addition test than those with low achievement scores. Evidently it is still controversial that performance in a variety of situations is enhanced by high achievement motivation.
Researchers generally agree that a specific degree of test anxiety may motivate the students in their test performance and make him/her inclined to better academic achievement. However, a high test anxiety score may be one of the obstacles to academic achievement. According to Zeidner (1998), test anxiety is a multidimensional signs that can be described as a group of phenomenological, physiological, and behavioral reactions to appear with possible negative consequences or failure on an examination or similar evaluative situation. Test anxiety, especially worry has impact on academic performance, and working memory (Eysenck, 2001). In addition, Sarason (1984) has found that test anxiety decreases attention span, memory and concentration, which leads to low academic performance. Masson, Hoyois, Peadot, Nahama, Petit and Ansseau (2004) found that high school students with high test anxiety had a poor school performance. Thus, test anxiety contributed to academic achievement because of vulnerability, distraction and interference experienced by the students.

Eysenck (2001) holds that test-anxiety creates irrelevant thoughts, preoccupation, and decreased attention and concentration which leads to academic difficulties. In addition, test anxiety is link to memory and can have effect on academic achievement, because both of them disrupt attention and concentration. Daskzan (2004) found that there was a significant relationship between test-anxiety and academic achievement. Moreover, Keoghi, et al. (2004) found that test anxiety was related to distraction, and this has resulted in low academic achievement. Chapell, Blanding, and Silverstein (2005) found a significant difference of academic achievement among three different levels (low, moderate, and high) of test anxiety. Hembree’s (1988) meta-analyses of 562 studies found that test anxiety did cause poor performance and that the anxiety was negatively related to students’ self-esteem and positively related to their fear of negative evaluation and defensiveness. Covington, Omelich, and Schwarzer (1986) proposed that the worry component of anxiety might interfere with test performance by diverting the individual’s attention from the task at hand. They claimed that anxiety worked as a mediator of performance “where the particular conditions of learning and evaluation are sufficiently threatening to disrupt test taking”. At the risk of being over simplistic, they formulated the following relationship:

Perceived Threat → Anxiety Arousal → Impaired Performance.
The other factor of academic achievement is the mental health of the students. Mental health or, better still, mental disorder significantly interrelates with the life style as well as the academic arena of the individual. A balanced mental health is the determinant force of educational achievement. In a compulsory school system, education may be seen merely as an activity in which individuals participate in the context of their interests and involvement in the culture. School age is a dynamic period of physical growth and development, when the student undergoes rapid mental, emotional, and social changes. Students’ healthy social and emotional development is an essential underpinning to school readiness, academic success, and overall well-being.

Mental health is the capacity to work, to love, and play and for recreation. Child and adolescent mental health is an essential component of overall as well as academic achievement and its importance is gaining increased recognition. Mental health problems can affect school performance and academic achievement. When mental health problems are not recognized, students may be unable to reach their academic potential. According to Kaplan (In Marais, 1999) schools must therefore “educate for mental health”.

1.2 THEORETICAL BACKGROUND OF THE STUDY

The theoretical background is the base of any research work, which helps the researcher not only to identify and establish the research worthy problem but also to design the research work and to verify the project. Hence the present researcher organised this part of the study according to the following diagram:

**Figure 1.1:** Proposed Conceptual Model for the Present Research.

The present investigation is an effort to study the correlates of academic achievement, namely Achievement Motivation, Test Anxiety and Mental Health and their impacts on students’ academic achievement. Therefore, the researcher has been
analysed the relevant theoretical propositions of these variables and the previous research foundation as the prerequisite of the present investigation.

1.2.1 Achievement Motivation and Academic Achievement

‘Suki koso mono no joozu nare’ (what you like you will do well in). This Japanese saying clearly points out that motivation is the “driving force in any situation” (Gardner, 2001a). Motivation is a prominent element in pursuing anything in our lives. “The truly motivated individual displays effort, desire, and affect” (Gardner, 2001b). In education, motivation and performance bear a reciprocal relationship, that is, motivation influences performance, and, in turn, what students learn and how they perform influences their motivation (Pintrich & Schunk, 2002). Over the years, a plethora of motivational theories has been developed to examine the relationship between motivation and performance. It is not surprising that the motivation of students is an important topic (Knight, 2002) given the claims for its power to influence academic achievement (Hattie, 2003). The motivation to achieve, a more intrinsic construct, was positively related to academic performance. According to Brophy (1998), motivation to learn is a skill acquired through general experience.

Motivation is a crucial element to the learning process. Many researches clearly show a positive correlation between motivation and achievement. Some students are highly motivated to learn, and this interest continues throughout their years at school. Some other students, particularly adolescents, see what happened at school as having no functional relevance to their lives. They become increasingly bored, particularly with academic task and are generally uninterested in anything that happens in the classroom. Motivation is one of the important factors affecting achievement behaviour. The level of motivation not only affects the human perception and learning but also affects the total performance of the individual learners, as expressed -

\[
\text{Performance} = \text{Ability} \times \text{Motivation}
\]

Hence, motivation -

- energizes learners’ academic achievement,
- directs or channels academic achievement, and
- maintains or sustains the educational achievement behaviour.
According to Cofer and Appley (1964), “No matter where we begin the psychological process or phenomena, we must sooner or later deal with the problem of motivation”. Atkinson (1974) highlights the importance of motivation when he says, "Motivation influences both efficiency in the execution of an activity (and therefore the level of performance) and persistence or more generally, the time spent in a particular endeavour." As pointed out by Bunch (1958), motivation is a fundamental part of a psychologist’s effort to achieve a valid psychology of social behaviour of all form. Adequate motivation results in better attention, interest and efforts. According to Young (1961), “All of us wish to achieve something. Our ultimate goal may be economic security, wealth, health, fame, recognition, happiness, peace of mind or something else, whatever the goal may be, achievement is relative to the end.” Therefore, achievement motivation is not important in and of itself, but rather it is important because motivated students tend to engage in activities that help them to learn and achieve highly in academic settings.

The origin of the word ‘achieve’ is extremely complicated and derives from the Latin “Ad caput vinere” which means “to bring to a head”. The achievement motive is a complex human motive which is acquired through the process of socialization, and is one of a multitude of motive system. It is the tendency to endeavour for success and to choose goal oriented activities. Being motivated keeps one to remain dynamic. High achievement motivation among learners include high desire to learn, greater need to excel in academics, ability to accept and solve the academic problems, low nervousness about accomplishments, favourable attitude towards education and teachers, interest in widening knowledge.

Work on achievement motive started in the late eighteenth century by Sigmund Freud and Henry A. Murray, who actually laid the foundation of achievement motive. The need for achievement motive (abbreviated as n-Ach) has been prevalent in one form or another since beginning of the present century. The tendency which is called n-Ach is deep-rooted and fixed in human nature. Need for achievement (n-Ach) refers to individual's desire for significant accomplishment, mastering of skills, control, or high standards. People high in need for achievement are characterized by a tendency to seek challenges, academic challenges is related with accepting difficulties and taking risks, interpersonal relations involves interaction with faculty and peers for guidance to improve, general interest include widening the
mental horizon through exposure to the world of knowledge. The presence of n-Ach in a person reflects his/her wish to do well. This involves with a particular standard of excellence of performance. Research on achievement motive has comparatively a short history of development. But as a subject matter of importance in personality dynamics it finds a place in the work of Adler (1972)\textsuperscript{44}. In Murray’s (1938)\textsuperscript{45} system of personality study also, an important place is accorded to human need. He was the first psychologist who used the form n-Ach to refer to achievement needs. It is a teacher’s primary task to assist a student in their learning development. “Teachers are concerned about developing a particular kind of motivation in their students - the motivation to learn” (Woolfolk, 2004)\textsuperscript{46}. Slavin (1987)\textsuperscript{47} opined, “Students who are academically unmotivated to learn do not learn”, showing that it is important for teachers to be able to understand students’ academic motivation.

The concept of achievement motivation includes the behavioural aspects that cause a person to become activated towards achievement. This can be observed by the amount of interest and desire a student shows towards learning or another achievement outcome. It is the energisation and direction of competence-based affect, cognition, and behaviour (Elliot, 1999)\textsuperscript{48}. It is the desire to do better, to achieve unique accomplishment, to compete with a standard of excellence and to involve oneself with long term achievement goals. Achievement motivation is assumed to be one of the driving forces for the development of a concept or idea and is like a mental virus which causes individuals to be competitive, hardworking and having more persistence. According to Berkowitz (1965)\textsuperscript{49}, “the achievement motive is generally regarded as the impetus to do well relative to some standard of excellence.” The concept of achievement motivation helps teachers to understand and explain intriguing facts about students’ behaviour in academic situation and their learning, which can result in better reporting on students, as well as aiding them in improving student learning practices. Motivation is causally related to achievement, acting both as a means to achieve educational outcomes and as an end (aim) of the educational process (Cole, 1992)\textsuperscript{50}, indicating the importance of achievement motivation and its effect on a student’s ability to both learn and achieve.

1.2.1.1 Stages of Achievement Motivation

Veroff (1969)\textsuperscript{51} outlined three sequential stages or phases of achievement motivation from early childhood to adulthood. A child must achieve success in each
stage before moving on to the next stage. Many people may never reach the final stage. These stages are –

1. **Autonomous competence stage** (0-3/4 years of life): Focus on skill mastery in the environment/testing themselves. Autonomous evaluation-builds up perception of personal competence.

2. **Social comparison stage** (5 years +): children begin to compare themselves with others/focusing on competition seen as better within their peer groups. Make 'normative' comparisons - focusing on winning, others on 'informative' value of comparisons - evaluating own mastery of skills.

3. **Integrated stage**: The most desirable stage - here there is no age limit to enter this stage. This stage involves a person in both 'autonomous competence' and 'social comparison' stages.

### 1.2.1.2 Theories of Achievement Motivation

The concept of Achievement Motivation has been discussed in scientific psychology for over a century (James, 1890)⁵², and systematic empirical and theoretical work commenced over 70 years ago (Murray, 1938)⁵³. Throughout the years, numerous theoretical conceptualisations of achievement motivation have been proffered, but the following have emerged as the most prominent:

- the achievement motive approach (Atkinson,1957; McClelland, Atkinson, Clark and Lowell, 1953)⁵⁴,
- the test anxiety approach (Mandler and Sarason, 1952; Speilberger, 1972)⁵⁵,
- the attributional approach (Weiner and Kukla, 1970)⁵⁶,
- the self-worth approach (Covington and Beery, 1976)⁵⁷, and
- the achievement goal approach (Dweck, 1986)⁵⁸.

The present researcher made his study on the basis of McClelland’s Achievement Motive Theory.

### 1.2.1.2.1 McClelland’s Theory of Achievement Motivation

Among various theorists of achievement motivation Murray (1938)⁵⁹ described it as a trait-like characteristic influencing behaviour, specifically in relation to, excelling in a task and attaining a high standard. Atkinson and Feather (1966)⁶⁰
postulated that people whose motivation to achieve success was greater than their motivation to avoid failure would be more motivated to perform in achievement situations. These all have strong elements of achievement motivation in them. However, one model that has influenced a number of these theories has been the model of need for achievement (n-Ach) developed by David McClelland who along with Atkinson and Murray first defined the theory of “need for achievement”, including its constructs and variables. McClelland considered the need for achievement as fundamental to achievement motivation. McClelland saw the need for achievement (n-Ach) related to competing with one’s own performance norms. He distinguished between hope for success and fear of failure (Ziegler, Schmukle, Egloff and Buhner, 2010).

Psychologist David McClelland has spent several decades studying the human need-structure and its implications for motivation. According to McClelland’s theory of needs, needs reflect relatively stable personality characteristics that one acquires through early life experiences and exposure to selected aspects of one’s society. McClelland has been concerned with the specific behavioural consequences of needs. In other words, under what conditions are certain needs likely to result in particular patterns of motivation? The three needs that McClelland studied most have special relevance for organizational behaviour—

- **need for achievement or achievement motive (n-Ach)**: a drive to excel, advance and grow;
- **need for affiliation or affiliation motive (n-Aff)**: a drive for friendly and close interpersonal relationships; and
- **need for power or power motive (n-Pow)**: a drive to influence others and situations.

### 1.2.1.2.1.1 Achievement Motive and Academic Achievement

Clearly, the most directly relevant of these motives for explaining differences in academic achievement seems to be the need for achievement or achievement motive. This motive has been defined as a tendency to strive for success in situations involving an evaluation of one’s performance in relation to some standard of excellence. It is the drive to excel, to achieve in relation to a set of standards, to strive to succeed. Individuals who are high in need for achievement (n-Ach) have a strong desire to perform challenging tasks well. More specifically, they exhibit the following characteristics:
• A preference for situations in which personal responsibility can be taken for outcomes. Those high in n-Ach do not prefer situations in which outcomes are determined by chance because success in such situations does not provide an experience of achievement.

• A tendency to set moderately difficult goals that provide for calculated risks. Success with easy goals will provide little sense of achievement, while extremely difficult goals might never be reached. The calculation of successful risks is stimulating to the high n-Ach person.

• A desire for performance feedback. Such feedback permits individuals with high n-Ach to modify their goal attainment strategies to ensure success and signals them when success has been reached (Luthans, et al. 1988)\textsuperscript{62}.

A person with a strong motive to achieve tends to derive notification from overcoming obstacles by his own efforts and taking calculated risks. In comparison to affiliation motive- to give and receive affection, or power motive- to control the means of influencing behaviour of others, the achievement motive seems most likely to be associated with setting of moderately difficult goals, interest in concrete feedback, assuming personal responsibilities and showing more initiative and exploratory behaviour (McClelland and Winter, 1969)\textsuperscript{63}.

Perhaps the most interesting implication of achievement motive refers to situations involving risks. There is satisfaction in doing difficult things well, and the satisfaction increases with the difficulty. At the same time, the mathematical expected value of any risky venture becomes smaller, the smaller the probability of success. It is this combination of the desire to do well and the desire for satisfaction of achieving something difficult which leads to the derivation that those with strong achievement motive should succeed in academic achievement too (Flanagan, 1964)\textsuperscript{64}. Empirical studies have revealed that college students are typically high in motive to achieve success and low in motive to avoid failure as compared to the rest of the population (Atkinson and Feather, 1966)\textsuperscript{65}. Further, individuals high in achievement motive have shown to be more active in college and community activities. They judge their levels of achievement against a general background colored with success and show anticipatory feelings of confidence, whereas correspondingly, the reverse is true of
individuals low in achievement motive, who entertain feelings of apprehension (Reitman, 1961). According to Atkinson (1966) one of the major characteristics of achievement motive is to be more anticipatory or forward looking. Students with high level of achievement motive are believed to be more successful in the classroom than students with low achievement motive. This susceptibility to achieve and succeed has further been substantiated by the results of studies on performance. In general individuals with higher achievement motive have been found to do better on tasks which permit learning, demand concentration, or have certain levels of difficulty which by mastering one’s competence can be demonstrated.

All the above discussions resulted achievement motive as an important variable in the field of achievement, covering all the spheres. Thus, corroborating the researcher’s conviction that achievement motive is a necessary condition for academic achievement of the learners.

### 1.2.1.2.1.2 Affiliation Motive and Academic Achievement

It is the desire for friendly and close interpersonal relationships. People who are high in need for affiliation (n-Aff) have a strong desire to establish and maintain friendly, compatible interpersonal relationships. Typical achievement situations in in school as well as most experimental situations, either explicitly or implicitly involve both aspects of competition, i.e., (a) noncompetitive achievement-oriented situation involving competition against a standard only; and (b) an interpersonal competitive achievement-oriented situation involving completion against another person (s). For example, in order to succeed or do well in school, one must usually perform well on tests, not only in relation to some basic standard but also in relation to others in the class.

Atkinson and O’Connor (1966) argued that in situations where social approval is an additional incentive, differences in the strength of affiliation motive could systematically influence achievement-related behaviour. That is, an individual high in desire to affiliate might be motivated to perform well regardless of his achievement-related motives. Since this, social approval can be contingent upon good performance in a group situation, individual difference in affiliation motive need to be examined. The affiliation motivated pupils -
Focuses on "establishing, maintaining, and restoring positive affective relations with other pupils".

Want close, warm interpersonal relationships with teachers and also peers.

Seek the approval of others, especially those about whom they care.

Like other people, want other people to like them, and want to be in the company of others.

Besides this, conversely put, the fear of social rejection in individuals may also be a source of inhibitory motivation that could be aroused by anticipation of academic failure. Fear of ‘being a loser’ and a ‘social outcast’ often are associated with the inability to ‘hack it’ in the traditional area of academic achievement. The extent to which such motivation may be aroused in the academic field is not clear and thus deserves extensive and intensive exploration.

In the light of this increasing awareness of the functions of affiliation motive influencing behaviour in social situations, a need was felt to understand its relationship with academic achievement.

**1.2.1.2.1.3 Power Motive and Academic Achievement**

The power motive could be the force behind high grades in school. This need makes others behave in a way that they would not have behaved otherwise. People who are high in need for power (n-Pow) strongly desire to have influence over others. In other words, they wish to make a significant impact or impression on them. Power motive has, therefore, been defined as a desire to have impact on other(s) (Winter, 1967). Individuals high on power motive to control and influence the behavior of others. They want to feel ‘power’ or ‘more powerful than…..’ Power is their goal. According to Adler’s (1938) assumption power motive is precipitated and status. A student who has not been able to achieve in school is in a low position in our society and consequently experiences feeling of inferiority in contrast to other students. Power motive may thus be the reflection of this failure to meet the competitive demands of school and society, which can reinforce him to achieve in school. The pupils with power motive -

- focuses on "controlling the means of influencing the behavior of another person",
- have strong effects on other people,
• means of influence: anything available to the person to control the behavior of another, and  
• actively searches for means of influence.

It may thus be speculated that the three motives have been invested with the properties essential for understanding the differences in academic achievement. General observation of students also reveal that some of them like to work heart and soul with a consistent endeavor, give the best of their performances, and compete with their friends. Others study because they wish to be in the good books of the teacher, please their parents and be accepted by their peers. Still others achieve high because they are desirous of the impact of influence one acquires on being educated.

The issues of motivation of students in education and its impact on academic performance are considered as an important aspect of effective learning. However, a learner’s reaction to education determines the extent to which he or she will go in education. The impact of motivation on education of a child cannot be undermined. That is why Hall (1989)\(^7\) believes that there is a need to motivate pupils so as to arouse and sustain their interest in learning mathematics.

From the overall discussion of the theoretical basis of the Achievement Motivation the researcher found the following general characteristics of an achievement motivated learner:

• Takes responsibility for results of behavior.  
• Willing to take calculated risks.  
• Sets moderate achievement goals.  
• Prefers to set performance standards for themselves.  
• Prefers non-routine tasks to routine assignments.  
• Takes achievement as more important than material or financial reward.  
• Considers achieving aim as a personal satisfaction.  
• Seeks improvements and ways of doing things better.  
• Logically likes new or challenging job and responsibility to satisfy their needs.  
• Wants and welcomes concrete feedback about performance.  
• Wants to feel successful at doing something over which they have control.
Gill (1986) stated, “A person who has high levels of achievement motivation would have a tendency to strive for success, persist in the face of failure and experience pride in accomplishments.” The level of a person’s ‘need to achieve’ is a relatively stable disposition displaying a positive approach in relation to their ‘achievement orientation’ as well as ‘positive success tendency’ will strive to achieve a high level of performance. Hence, achievement motivation determines the academic achievement of the pupils and helps them to achieve their aim as well as the very success in their academic life.

1.2.2 Test Anxiety and Academic Achievement

Testing is a reality both in education and society. A view of educational practice reveals that teachers subject students to frequent examinations. They test to determine interest, achievement, aptitudes and intelligence. Credence is given to scores received from these tests and used to screen, admit or reject, place and select, judge, grade, and evaluate students. These tests cause test anxiety among the students, which is “a set of phenomenological, physiological, and behavioural responses that accompany concern about possible negative consequences or failure on an exam or similar evaluative situation” (Pintrich & Schunk, 2002).

Test anxiety investigation officially began its journey when George Mandler and Seymour Sarason presented their pioneer research in the field in 1952. In educational testing situations, it is argued that test anxiety may represent a bias that conceals the true potential of students (Meijer, 2001). Researchers have conceptualized emotionality and worry as the two constructs in test anxiety. Some have argued for four-construct models: tension, test irrelevant thinking, bodily symptoms, and worry (Sarason, 1984), or worry, emotionality, interference, and lack of confidence (Stober, 2004). Disagreement arises as to how each component of test anxiety impacts on performance. Covington, Omelich, and Schwarzer (1986) claimed that anxiety worked as a mediator of performance “where the particular conditions of learning and evaluation are sufficiently threatening to disrupt test taking”.

Students with test anxiety feel tense, fearful, and worried in evaluative situations. These students do not perform optimally on tests (Hancock, 2001). Although anxiety is often detrimental, it may be beneficial if it is not extreme.
Simpson, Parker, and Harrison (1995) convey this with two well-known principles of anxiety: “A minimal amount of anxiety can mobilize human beings to respond rapidly and efficiently”, while “excessive amounts of anxiety may foster poor response and sometimes inhibit response”. Knox, Schacht and Turner (1993) stated that test anxiety can include performance anxiety and content anxiety. Both of these make it hard for students to concentrate on tests and perform adequately. They also recognized the consequences of poorly-managed test anxiety. “Failure to manage test anxiety can result in failing courses, dropping out of school, a negative self-concept and a low earning potential”.

Test anxiety refers to physiological, psychological, and behavioural responses that reflect or underpin apprehension about possible failure during a test or evaluative condition (Barlow & Durand, 1995). Research has demonstrated the negative relationship between test anxiety and academic achievement. Test anxiety has negative effects on students’ learning and academic performance (Sud & Prabha, 2003). Test-anxious students do not perform well on standardized achievement tests receive poorer grades (Chapell et al., 2005) and are more likely to be retained and to drop out of school. Birenbaum and Nasser (1994) claimed that test anxiety is a widespread problem in school, and Shaked (1996) estimated that 30% of all students suffer from some level of test anxiety. Test anxiety begins in childhood, and as testing experiences increase, an individual’s test anxiety levels may also increase because of compounding episodes of poor performance. Test anxious students report the inability to recall information when in a testing situation (Mueller, 1980).

Different definitions of test anxiety have evolved as a function of both the changes in the zeitgeist and theoretical perspectives of key investigators involved in research in the field (Zeidner, 1998). In the early days, the construct was defined in motivational terms and test anxiety was simply a reflection and expression of general anxiety in evaluative situations (Taylor, 1956) in which test-anxious students emitted more task-irrelevant responses, resulting in poorer test performance (Spence & Spence, 1966). Test anxiety (TA) is a term applied to the experience of unpleasantness, uneasiness, and/or bodily tension in test and test-like situations. The assumption is made that the child “is more or less aware that whatever he is experiencing involves unpleasantness and tension” (Sarason, et al., 1960). Hagtvet & Benson (1997) opined that fear of failure has been considered a pivotal construct.
in two different research traditions: in test anxiety research and in the study of achievement motivation. In the early work on test anxiety, it was originally seen to have the potential of either facilitating or debilitating performance. The later conceptualizations of test anxiety, however, focused on its debilitating aspect. For example, Liebert and Morris (1967)\textsuperscript{92} conceptualized the key indices of test anxiety, the interfering self-related cognitions in evaluative situations, in terms of worry, which they defined as the “primarily cognitive concern about the consequences of failing”. Ever since, worry has played a key role in discussions of the nature and consequences of test anxiety (Zeidner, 1998)\textsuperscript{93}. In Atkinson’s (1957)\textsuperscript{94} theorizing, individuals’ concerns about failure were formulated as a dispositional tendency to avoid failure, “a capacity for experiencing shame and humiliation as a consequence of failure”. Thus, in contrast to the early views of test anxiety, Atkinson argued that anxiety about failure should always result in negative motivational outcomes. In his view, “a disposition to be anxious about failure tends to make all activities in which performance is evaluated threatening to an individual” (Atkinson, 1964)\textsuperscript{95}.

Test anxiety occurs when students experience a major discrepancy between current behaviors and progress toward desired goals (Carver & Scheier, 1991)\textsuperscript{96}. In evaluative situations associated with desired goals, test-anxious students experience self-doubts about their ability to perform, engage in self-depreciating thoughts, and misinterpret and do not attend to relevant cues, resulting in poor test performance. In contrast, the self-worth model suggests that test-anxious students are not able to maintain their self-worth or protect their academic competency because of repeated academic failures (Covington, 1992)\textsuperscript{97}. Hence, test anxiety is viewed as a symptom of “perceived intellectual incompetency and a defensive ploy to ward off low self-evaluation” (Zeidner, 1998)\textsuperscript{98}. Today’s high stakes world of testing serves to exacerbate the level of test anxiety that is experienced by all students, and most specifically those students who have a lower level of academic self-concept, such as students with learning difficulties (Hill, 1996)\textsuperscript{99}.

1.2.2.1 Causes of Test Anxiety

Various researchers in the field of test anxiety found a variety of interrelated variables associated with individualized student characteristics, family and peer
interactions, and school and classroom practices can lead to test anxiety. These factors include:

- Anxiety, attention, or obsessive compulsive disorders;
- Perfectionist tendencies and unrealistic expectations;
- Negative self-esteem, self-statements, and criticism;
- Poor motivation, lack of confidence, and procrastination;
- Stereotype threat;
- Inadequate study and test-taking skills;
- Poor prior testing performance;
- Pressure from peers, family, and teachers;
- Unfavorable testing environments;
- Invalid, flawed, and timed tests; and
- Ineffective teaching.

1.2.2.2 Components of Test Anxiety

The components of test anxiety, as Zeidner (1998) mentioned, are as below-

- **Cognitive components**: the negative thoughts and depreciating self-statements that occur during assessments (e.g. ‘If I fail this exam my whole life is a failure’) and the performance-inhibiting difficulties that may arise from anxiety (e.g. recalling facts and difficulty in reading and understanding questions);

- **Affective components**: the person’s appraisal of their physiological state (such as tension, tight muscles and trembling);

- **Behavioural components**: poor study skills, avoidance and procrastination of work.

1.2.2.3 Theories and Models of Test Anxiety

A review of the most popular test anxiety models developed over the past 50 years shows that these paradigms differ in how they conceptualize test anxiety. The current view of the test anxiety construct is that it is a complex construct consisting of multiple dimensions (Zeidner, 1998). Because, according to him, it is multidimensional in nature, no single theoretical perspective has been able to account for its complexity at the present time. More comprehensive models of test anxiety are
needed that (a) define the test anxiety construct more broadly, (b) include many key components found in earlier models, and (c) incorporate current research in the field.

The literature presents several plausible theories regarding test anxiety. These theories include, but are not limited to, interference problems, learning deficits, ineffective study habits and ineffective test taking skills, information processing difficulties, lower intelligence, lower self-efficacy and expectations, perfectionistic traits, high evaluative threat, and high importance of the test. Considering the present study, the researcher mentioned the following models of test anxiety.

1.2.2.3.1 Interference Models

The interference models presuppose that some other information interferes with the retrieval process of the information needed for the examination or the evaluation at hand. Task irrelevant thoughts, worry, and negative self-talk distract the student from focusing on the information needed for the examination or evaluation; therefore, they are unable to retrieve the required information. The larger implication here is that the individual has been able learn the information; they simply cannot retrieve it when they need to.

Mandler & Sarason (1952) advanced the cognitive interference model, which states that anxiety responses interfere with the evaluative process, and subsequently test performance. This theory states that students with severe test anxiety perform unsuccessfully primarily because they are unable to hold back competing thoughts during tests (Cassady & Johnson, 2002). Cognitive-attentional theory of test anxiety, which added an attentional component to the interference model, is based largely on Mandler & Sarason's earlier work. Wine's (1971) theory postulates that test anxious students are less able to focus on the task at hand, and their thoughts fluctuate between personal variables and test related information; therefore, they are less able to attend to the cognitive task at hand and their performance suffers. These competing thoughts can simply be worries, social comparisons, feelings of ill preparedness, or ruminations of a self-deprecatting nature (Schultz & Davis, 2000). Lee (1999) found that test anxious students are likely to engage in this practice of negative self-talk. Self-talk (typically self-blaming) occurs during the test, supplies competing thoughts and supports an increase in test anxiety. Schultz & Davis (2000) found that it is not just the character of the self-
talk, but also the frequency, duration, and intensity that dictates the anxiety sensations experienced.

The interference model and the cognitive-attentional model both state that anxiety moves one’s focus away from the task at hand to more task-irrelevant thoughts (worry). This attention shift, or divided attention, hinders the student cognitively, and reduces their ability to focus on, and apply the information they have studied and newly learned to the exam questions. Wine (1971) reported that students with higher test anxiety also pay even more attention to the task irrelevant thoughts; this leaves little attention left for the task relevant thoughts.

1.2.2.3.2 Deficit Models

Deficit models purport that test anxious students have fewer or poorer study skills, lower abilities, and engage in ineffective test taking. In these models the interference in performance is the student's ability to study properly, a lowered intellect, and an inability to take exams, not task-irrelevant thoughts.

The two deficit models examined here are the learning deficit model, and the study coping strategies model. Both of these models propose that students experience test anxiety because they have poor study skills. The learning deficit model also includes lower student ability in its model. The learning deficit model purports that the student's knowledge may be reduced as a result of inferior study skills and their failure to learn the requisite information is due to both the student’s poorer study skills and the student’s lower intellectual abilities. When it is time to take the test the students realize that they are ill-prepared for the exam because of their limited knowledge of the material and are subsequently anxious about the test, which further reduces their performance (Paulman & Kennelly, 1984). The subsequent poor performance leads to harmful pessimistic attitudes toward evaluation, which can exacerbate the anxious reaction to future testing (Scruggs, 1984).

According to this model poor study skills and the resulting reduced knowledge set the student up for impaired performance. Realizing this, the student becomes anxious about his or her performance because of the lack of preparedness. It is further postulated that a performance failure will be internalized by the student, and experienced as either a lack of effort, a result of using a faulty approach, or a lack of ability. If the student believes it is a lack of effort, or a result of using a faulty
approach, then guilt can result. Evaluative appraisals will likely influence future testing conditions, as it is believed that test anxiety results from experiencing failures in the past and the student's belief that he or she is once again unprepared for the test (Culler & Holahan, 1980)\(^{111}\). Some studies have found that study skill training alone is not largely effective in reducing test anxiety, other studies have found study skills training to be effective (McKeachie, Pintrich, & Lin, 1985)\(^{112}\). In line with many other research findings, Giodana, (2000)\(^{113}\) found that study skills training was effective at improving study skills but had mixed results on decreasing anxiety and improving overall academic performance.

The deficit models focus on the student's lowered ability to study properly and the resulting lack of knowledge that results in a poor performance. In these models, this pattern of poor performance can lead to feelings of inadequacy, which heighten the test anxiety in future testing situations. These models are contrasted to the information processing models, which focus more on the student's personal learning process.

1.2.2.3.3 Information Processing Model

In the information processing model, it is believed that test anxiety affects all three levels of learning: encoding, organizing, and retrieval (Stober & Esser 2001)\(^{114}\). It is believed that the test anxious student is in a heightened arousal state at all times, knowing that they will be evaluated on their learning at some point, (Benjamin et al., 1981)\(^{115}\). The term encoding refers to the actual process of taking in the information; from listening, to processing what one heard, to taking notes on the information presented. Organizing refers to the process of reviewing and arranging the material, mentally or otherwise. Organizing also refers to how one stores the material, in memory, through notes and reviewing. Retrieval is bringing the information back when it is needed. In the example of a test, encoding would be listening to a lecture and taking notes, organizing would be the process of studying, and retrieval would be remembering the information learned, that is now being asked on the exam. Again, the research shows that test anxious individuals will have problems with all areas of the learning process as they remain in a heightened state of arousal (Hembree, 1990)\(^{116}\).
1.2.2.3.4 **Inference Hypothesis**

The inference hypothesis, which is also called the examination-taking coping strategies, blends the interference model and the information processing model. Here it is believed that the student knows the information, and has been able to learn the information, but is anxious during the exam and thus cannot retrieve the information. The primary component is how much the task irrelevant responses occur (Onwuegbuzie & Daley, 1996). It is further believed that the task irrelevant responses can also affect the student's information processing abilities. As stated previously, the information processing model states that information or knowledge is processed in three distinct stages, encoding, storage, and retrieval (Dutke & Stober, 2001). These task irrelevant thoughts can also affect the student's ability to encode, ability to retain, store and retrieve from memory, and use logical rules and conceptual processes.

1.2.2.3.5 **Evaluative Threat**

Some theories have evaluated the level of threat in the classroom, task complexity, and the importance of the task to determine their roles in test anxiety. An instructor's evaluative practices can influence students' achievement by increasing the level of debilitative test anxiety. It has been found that high evaluative threat brought about higher levels of test anxiety and lower levels of performance in students with even mild levels of test anxiety (Hancock, 2001). It has also been found that students who report high levels of test anxiety do not necessarily achieve at a lower level than students with low test anxiety, and may in fact only do worse on exams when the students believe that the evaluative threat is high, or when success and failure are highly relevant; as is the case in high stakes testing. If the task is not seen as relevant or important to one’s goals or one’s future, one may not experience any emotional disruption (Schultz, & Davis, 2000). Hancock (2001) reported that highly test anxious students are more sensitive and easily influenced by their environment. It has also been found that test anxious students tend to perform better in classrooms that are supportive and assignment-oriented, highly ordered, and self-paced (Tobias, 1980). Task difficulty may also play a crucial role in the effects of test anxiety. If the task is less complex, the test anxiety may not affect performance. Some studies have found that test anxious students show performance deficits
exclusively in intricate or difficult tasks, while others state that perceptions of test difficulty are related to the anxiety the student is experiencing regardless of the actual test demands (Hong & Karstensson, 2002).

The various theories tried to answer the questions that test anxiety raises: what happens, how does it happen, and why does it happen. The interference models and the deficit models seem to be the predominant theories in the field today. Alternative test anxiety models have emerged, though they all seem to have commonalities with the two predominant models.

Finally, test anxiety is seen as influencing the individual in two ways: the immediate appraisal of test item performance and the final score or results on the test. When an individual’s immediate response to items is perceived as incorrect or inadequate, this perception may further increase test anxiety. After a review and evaluation of the major theories of test anxiety, Spielberger et al. (1978) concluded that:

“Most test anxiety theorists seem to agree that test-anxious people are more likely: (a) to perceive examination situation as more dangerous or threatening than do people who are low in test anxiety, and (b) to experience worry cognitions and intense elevations in state anxiety in situations in which they are evaluated”.

1.2.2.4 Students with Test Anxiety

Some distinct yet potentially overlapping categories of students with test anxiety, on the basis of the above theories in the domain of test anxiety research, presented by Zeidner and Matthews (2005), can be sketched down as below –

- **Examinees with deficient study and test-taking skills**
  
  This type of test-anxious student is characterized by a major deficiency in study and test-taking skills. Their poor examination performance results from deficits that include problems in acquisition, organization–rehearsal, and retrieval–application during a test.

- **Examinees experiencing anxiety blockage and retrieval problems**

  A second type of test-anxious student includes those who have efficient study skills but suffer from anxiety blockage and, consequently, have problems retrieving information during the
examination. These anxious students study effectively but cannot handle the stresses and pressures of evaluative situations.

➤ **Failure-accepting examinees**
These students are characterized by a personal history of repeated test failures. They come to accept low ability as the primary explanation of their failures. As a consequence, they become accepting of failure, exhibiting apathy, resignation and a sense of defeat.

➤ **Failure-avoiding examinees**
Failure avoiding students are those driven to achieve primarily as a means of protecting themselves against beliefs that they lack ability. For these students, effort is truly a “double edged sword”. They may strive for success through meticulous preparation, yet failure despite high efforts increases the probability that their ability will be considered low, thus inducing anxiety reactions.

➤ **Self-handicappers**
Self-handicapping students avoid diagnostic information about intellectual tasks by reducing effort or avoiding the test situation. Accordingly, if a low score is obtained, the student can rely on the debilitating effects of anxiety as an excuse to escape responsibility for actions, thus reducing otherwise burdensome expectations others hold for that person.

➤ **Perfectionistic over-strivers**
Over striving high test anxious perfectionists are characterized by high personal standards of academic success, perception of high or even exaggerated expectations, perceived doubt regarding quality of academic performance, and a need for order and organization in their academic work. No effort is ever sufficient as the perfectionistic examinee seeks approval and acceptance, and tries to avoid errors and failure through an endless cycle of self-defeating over-striving.

In fact, this typology of test anxious students demonstrates, test anxiety has a variety of sources and, similarly, its behavioral consequences vary with contextual and personal factors.
Tobias (1986) suggested that anxiety can affect performance at three separate stages: encoding (input), organizing (processing) and retrieving (output) the information. The individuals with good skills and low level of anxiety are usually good at all three stages, but others are so only at one, two or none. For instance, some are good at encoding and processing but not at retrieving. This case is especially relevant to the anxiety that occurs during the test or test anxiety: a highly anxious student just ‘freezes up’ at test time, even though he acquires knowledge of the relevant material (Culler & Holahan, 1980). Naveh-Benjamin, McKeachie and Lin (1987) came up with two types of test-anxious students:

- the students with poor preparation have problems in encoding, organizing and retrieving the information, and
- the students with good preparation have a major problem only in retrieving the information during the test.

The latter also performs fairly well in non-threatening situations, presumably because they have a sufficient knowledge of the subject matter. Tobias (1986) supposed that anxiety can affect performance at three separate stages, and the suggestion of the additive model that the impact of anxiety on performance is an additive function of the individual’s trait anxiety and situation-specific variables.

1.2.3 Mental Health and Academic Achievement

The proverb “Mens sana in corpore sano” tells about the importance of mental health. It is very necessary pre-condition of academic achievement as well as of the success in life. Sound mental health always helps men to reach the aspired goal in life. In case of educational achievement it also is a determinant condition of academic performance of the adolescent students. Adulthood is the transitional period between adolescence and adult life. As with other general young adult population, university students carry along several of life’s issues such as a personal and social adjustment, academic and career concerns, stress and other related psychosomatic issues which may lead to an unhealthy mental condition. These “life baggage” and stress must be managed well in order to prevent them from interfering with normal adult development and growth processes.

Mental health is an important part of a person’s life besides physical, spiritual and financial well-being. It is believed that a healthy mind is the key to an individual
attaining satisfaction in life (Swami, Chamorro-Premuzic, Sinniah, Maniam, Kannan, Stanistreet & Furnham, 2007). The term "Mental Health" is often used loosely, but generally it means to convey the idea of psychological wellbeing. This is true as far as it goes, however, one cannot think of psychological well-being, or of mental illness, merely in terms of what is going in the mind.

A brief description regarding the early attempts to define mental health as published in various literatures have been presented here. The Indian concepts of mental health have been originated from the ancient legendary books like ‘Arthavaveda’, ‘Charak Samhita’, ‘Sushruta Samhita, etc. (Chouhan, S. S., 2005). In Europe, the attempt to define mental health goes back to Hippocrates, ancient Greek physician of the Age of Pericles (Classical Athens), at that time, Hippocrates’s notion or concept of hysteria was essentially a notion of mental health. The ancient Arabic medical writings recorded that people could be happy and more effective with symptoms than without it (Soddy & Ahrenfeldt, 1967).

Since the time of Hippocrates many researchers tried to conceptualize the term mental health. But, because of many meaning of the “mental health”, they could not agree on its general application. The lack of agreement continued for a long time because of multifarious use of the term “mental health”. Nevertheless one conclusion was drawn that “mental health” is not a precise term but an intuitively apprehended idea which is striving for a scientific status, while also serving as an ideological level (Schwartz & Schwartz, 1968). According to them, the word 'mental' usually connotes something more than the purely cerebral functioning of a person. It also stands for his emotional defective states, the relationship he establishes with others, and a quite general quality that may be called his equilibris in his socio-cultural context. Similarly “health” means something more than merely physical health, it also connotes individuals intra-psychic balance, the adjustment of his psychic structure with the external environment and social functioning. In general usage "mental health" often means both psychological well-being and mental-illness.

Many attempts have been made by different investigators to define the term “mental health”, but no precised definition emerged out. Soddy (1961) gave an operational description of “individual mental health”. He stressed among other points, that the responses of the healthy person to life is without strain, that he was consistent and self-reliant, but could accept aid, and that his private beliefs were a source of
strength. But after twelve years Soddy had to confess that his description of mental health was given from a static viewpoint. It appeared from his statement that while defining mental health one should consider cultural factors too.

A great deal of controversy continued for a long time regarding the status of "Mental Health" and "Mental Illness". The main issue is whether 'mental health' and 'mental illness' should be conceptualized on the same continuum or not. The conventional medical point of view is that mental health is the absence of mental illness. Mental health and mental illness represent the extreme ends of same continuum, and that the difference between the two states is a matter of degree. But the contrary view is that mental health is qualitatively different from mental illness and that a person can be both mentally healthy and mentally ill at the same time. Soundness means the level of integration of the general and more enduring personality structure. Whereas the individual's early environment is important in personality development and long term mental health.

As Ernest Jones (1942)\textsuperscript{135} has pointed out, "If once the statistically normal mind is accepted as being synonymous with the psychologically healthy mind (that is, the mind in which the full capacities are available for use), a standard is set up which has a most fallacious appearance of objectivity."

Other definition of mental health refer to abilities such as making decisions, assuming responsibilities in tune with one’s capacities, finding, satisfaction; success and happiness in the accomplishment of everyday tasks, living effectively with others and showing socially considerate behavior.

Jahoda (1958)\textsuperscript{136}, as an advocate of the concept of “positive mental health,” mentioned that the absence of certain qualities does not imply the presence of others. According to her, positive mental health means a successful synthesis of the rectors who the person is, where he is and what he wishes to be. Behaviour of a person is determined by concepts. Unifying look on life, possession of long range of goals, and appropriate connections with the past are the characteristics of a healthy person. She argued that much of the descriptive conflict in the field of mental health stems from the failure to establish which category of mental health is being talked about or measured. She has mentioned six categories as important to conceptualize the terms mental health, they are:
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- An attitude towards one’s self in which self-inspection leads towards acceptance of weaknesses and pride in strength; a clear image of what one really is and identify with it so that one is motivates toward inner stability.

- Growth and development towards understand no of one’s potentialities: a blending of one’s potentialities and a blending of one’s total personality toward achieving the best of what one might become.

- Integration of personality involving a balance of cognitive, emotional and motivational aspects, a unified outlook on life and some capacity for understanding anxiety and stress.

- Autonomy of action in which the individual determines behaviour from within, instead of drifting with the impact of present stimuli independent in the face of difficulties.

- A perception of reality which is relatively free from what one wishes things might be and which involves his being attentive to and concerned with the welfare of others.

- Mastery of the environment through -
  - the ability to love;
  - adequate to love, work and play;
  - competence in human relation;
  - capacity to adopt oneself to current circumstance;
  - ability to draw satisfaction from one’s environment;
  - efficiency in problem solving approaches to life process.

After explaining Jahoda's six concepts of mental health, Smith (1961)\textsuperscript{137} summarized that attitudes towards self, integration, autonomy, growth and self-actualization, environment mastery and perception of reality are related to the mental health of a person.

Tinning & Spry (1981)\textsuperscript{138} examined Jahoda's view carefully and pointed out that she indicated two ways of looking at mental health. These two ways are: (a) Mental health is relatively constant and enduring function of personality leading to predictable differences in behaviour and feeling, and (b) It depends on the stresses and strains of the situation in which a person finds himself. In other words it is monitory function of personality and situation. They, again, pointed out that to look at mental health in the first way will lead to a classification of individuals as more or less
healthy: to look at it in the second way will lead to a classification of actions as more or less healthy. This would be clearer from the example concerning physical health given by Jahoda. If a man with severe cold is considered in relation to the first classification he would be regarded as healthy, but in relation to the second he is sick. Both suggestions are justifiable and useful, but confusion will result if either diagnosis is made in the wrong context i.e., if he is regarded as a permanently sick person or one who is functioning healthy.

Maslow and Mittelman (1951)\textsuperscript{139} have suggested the following criteria for normal psychological health:

- Adequate feeling of security;
- Adequate self-evaluation;
- Adequate spontaneity and emotionality;
- Efficient contact with reality;
- Adequate bodily desires and the ability to gratify them;
- Adequate self-knowledge;
- Integration and consistency of personality;
- Adequate life goals;
- Ability to learn from experience;
- Ability to satisfy the requirements of the group; and
- Adequate emancipation from the group or culture.

Schultz (1977)\textsuperscript{140} has presented following seven criteria of the healthy personality:

- Extension of the sense of self;
- Warm relation of self to others;
- Emotional security;
- Realistic perception;
- Skills and assignments;
- Self-objectification; and
- Unifying philosophy of life.

1.2.3.1 Characteristics of Mental Health

From the above discussion, the researcher deduced certain characteristics of the psychological construct of mental health. These characteristics can serve as
criteria for optimum mental health. The characteristics of mental health are as follows:

- Mental health is a dynamic event. From a positive perspective, it implies a becoming whole or healing process. This means some form of transformation from being ill to being well, some change from illness to wellness, disorder to integrity.
- Mental health and illness are experiences and as such essentially psychological. Mental health in particular implies some experience of psychological well-being.
- Mental health may mean the absence of illness (negative definition of health on a continuum or spectrum with illness), as on the circumference of a circle.
- Mental health may mean the presence or state of well-being (positive definition of mental health not necessarily continuous with illness, as on dimensions at right angles to each other in a sphere).
- Like general health, mental health may be viewed as existing on a spectrum of many dimensions, physical, emotional, cognitive, social and spiritual.
- Mental health implies wholeness or some degree if integration of various dimensions of well-being.

1.2.3.2 Characteristics of a Mentally Healthy Individual

Donnelly (2001) mentioned the characteristics of people who are mentally healthy as below:

- A positive outlook on life.
- A realistic set of expectations and approaches to life.
- Effective management of emotions.
- The ability to function well with others.
- The ability to draw strength from others without being overtly dependent upon them.
- Reasonable appetites.
- A spiritual nature.
- Effective coping skills.
- An honest self-regard and self-esteem.
The ability to view the world honestly, accurately, and realistically.

Hence, the researcher deduced certain characteristics that a mentally healthy individual or a well-adjusted person possesses or develops. These characteristics can serve as criteria for optimum mental health. Some of the characteristics of mentally healthy person are as follows:

- positive self-concept,
- sense of responsibility,
- lasting and satisfying personal relationship with other people,
- adaptability to change, new experiences and new ideas,
- ability to accept life’s shortcomings or disappointments,
- ability to face problems squarely, to plan ahead and not to fear the future,
- ability to accept criticism with an open mind,
- ability to control emotions, such as fear, anger, love, jealousy, guilt, or anxiety,
- ability to feel good about themselves and comfortable with other people,
- ability to laugh at themselves and with others,
- respect for themselves and for others even if there are differences,
- ability to meet life’s demands and handle problems when arise,
- ability to make own decisions,
- ability to shape suitable environment whenever possible and adjust to it when necessary,
- ability to tolerate and easy-going attitude,
- neither underestimate nor overestimate own abilities, have self-respect,
- ability to take pleasure in simple, everyday things,
- ability to give love and consider the interests of others,
- ability to trust others, and feels that others will like and trust him/her,
- do not take advantage of others nor allow others to take advantage of them,
- group belongingness,
- ability to use own talents,
- ability to set realistic goals and to think clearly and constructively,
- ability to put best effort into what he/she does, and to get satisfaction from doing it,
has a variety of interests and generally lives a well-balanced life of work, rest and recreation,

- ability to live in a world of reality rather than fantasy, and

- after all, ability to develop a philosophy of life that gives meaning and purpose to daily activities.

According to Fromm (2002), ‘a mentally healthy person has developed a zest of living that includes a desire for activity which is reflected in an attitude of utilizing whatever potentialities he possesses, in productive forms of behavior’ (Man for Himself).

1.2.3.3 Principles of Mental Health

Some important principles of mental health are explored by various researchers and psychologists. A few among the principles are as –

- There is continuous variation between mental health and mental illness on a single continuum. It is likely that the distribution of persons with different degrees of mental health in the general population would be normal.

- The degree of one’s mental health depends upon the magnitude of intensity of positively and negatively valued behaviours, gauged according to various criteria, acting in combination. Thus all people possess characteristics which if developed or aggravated could signal mental illness, as the negative extreme or optimum functioning and mental health of the positive extreme.

- Multiple criteria are needed to describe one’s condition of mental health. No single concept of adjustment is adequate to identify ones status at all levels of organization.

- No mental condition is static or simples, each involves complex, changing and dynamic relationship between individual and social behaviours in constant interaction with complex and changing environmental situation. Mental condition rarely stands still; they are always subject to change, for better or for worse.

Jennings et al. (2000) stated that well balanced mental health of the students ensures –
• higher academic achievement;
• lower absenteeism; and
• fewer behavior problems.

Maslow (1954)\textsuperscript{144} indicated that study of people who have fulfilled their potentialities to the greatest degree will lead us to the formulation of a ‘positive psychology’ and will rid us of negative approaches. He was very critical of Freud and other personality theorists who tried to understand the nature of personality by studying only neurotics and severely disturbed individuals. He suggested to study the best, the healthiest, and the most mature side of human nature. Allport (1955)\textsuperscript{145} developed a theory which concerned entirely with the healthy personality. Indeed, he was concerned entirely with the healthy personality. Indeed, he was the first personality theorist who stressed to study mature and normal adults instead of neurotics. He indicated that healthy persons were not controlled by unconscious conflicts while neurotic adults possessed these conflicts. Fromm (1955)\textsuperscript{146} characterized mental health by the ability to love and to create, by the emergence from incestuous ties to clay and soil, by a sense of identify based on one’s experience of self as the subject and agent of one’s powers, by the grasp of reality inside and outside of ourselves: that is by the development of objectivity and reason.

Rumke (1955)\textsuperscript{147} is of the opinion that “The understanding of the disturbances of the sick man hardly contributes to the understanding of the normal man.” Thus, a proper definition mental health may not be given as more absence of mental disease. Positive connotation of mental health must be kept in mind to understand the human personality. Due to emphasis on the healthy aspect of human personality growth psychology’ or ‘health psychology’ developed which attempts to expand, enlarge, and enrich the human personality. Several psychiatrists and behavioural scientists have presented their views about the nature of psychological health in various ways. Heckman, Stixrud, and Urzua (2006)\textsuperscript{148} conceptualize non-cognitive skills as innate traits (similar to native ability) and measure them using the Rotter Locus of Control Scale and the Rosenberg Self Esteem Scale. They conclude that such non-cognitive skills are important determinants of academic and economic success. It seems clear that these measures of non-cognitive skills are likely to capture some aspects of mental health as well as innate character traits.
From the foregoing description of underlying factors in mental health, it may be seen that mental health involves continuous process of education through optimum use of one’s potentials rather than a static condition. Buhler (1959) indicated four basic biological tendencies of life, such as, need of satisfaction, upholding of the internal order, adaption and productivity. Pareek and Rao (1971) suggested that mental health is not a separate entity but rather a latent hypothetical construct manifested in behaviour of an individual under various circumstances. By virtue of complexity of behaviour which is an indicator of mental health, it can be interred that mental health is conglomeration of a number of variables. They have given a list of twenty one such variables which can be classified into two broad categories viz., those dealing with the adjustment towards various facets of life: adjustment being determined by the desirability of behaviour shown by the individual and those go a step further and make the individual active or creative interaction with the environment.

Mental well-being is recognised as a major contributor to maximising the benefit that students derive from their experiences at educational institutions, and the contribution that students make to an educational community. In an analysis of mental disorders in children, Reddy (1994) reported six clusters of mental health problems i.e., childhood psychosis (18%), hysterical syndrome (28%), anxiety disorders (18%), conduct disorders (14%), attention deficit hyperactivity syndrome (12%) and scholastic backwardness (13.65%). The data came from 435 cases of school going 5-16 year old children whose both parents were alive. Anxiety is often found to be related to maladaptive behaviour pattern. In one study (Agarwala and Bhandari, 1995) nail biters were found to be more anxious on the measure of state trait anxiety. The motivational dispositions of children are closely related to mental health. For instance, Tickoo and Jagadish (1997) found that achievement motivation was positively associated with mental health.

It is alarming to note that the level of mental health among adolescents in declining. Reddy and Nagrathnamma (1994) reported poor mental health among 8-10 Graders. In a similar sample Vani (1995) found that girls had relatively better mental health. The kind of school that children attend also plays important role. The boys attending unisex schools were found to have low level of health than the boys studying in co-educational institutions. However, this difference was not present.
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among girl students. The home or family experiences also play an important role in determining the health status of children. It negatively related to mental health among high school students (Jagdish and Yadav, 1999). Mukhopadhyaya and Kumar (1999) noted that the interaction of achievement motivation and academic pressure yielded impairment to health among ninth graders.

Ill mental health creates stress and anxiety. It is well-established that stress has a negative effect on the level of performance. This fact has been reiterated in many studies. The high anxious students have been reported to task (Kibico, 1995). Anxiety and aspiration were negatively related among the college students. The younger generation is quite optimistic. As Verma, Qumra, and Bala (1995) found in a survey study that the college going students showed a positive sense of well-being, better future, and positive attitude towards self.

Health is, undoubtedly, an indispensable quality in human beings. It has been described as soil from which the finest flowers grow. Therefore neglecting one’s health for other virtues in life is said to be the greatest of follies. Person’s concern for health has not always been so attractive as it seems to be in the present era. Indeed, with growth of science, technology and materialistic predominance, hazards, especially ‘mental health, has become the essence of time. Most of the medical scientist and psychologists have been dealing with disease or illness rather than health, therefore, the phenomenon of health’ was being forgotten, but it is a matter of happiness that during the last two decades medical as well as behavioural scientists mainly realized the importance of mental health’. Hence, from the above discussion the present researcher assumed that mental health plays an important role in academic achievement of the learners of secondary education.

1.3 RATIONALE OF THE STUDY

Sadowski (2003), in his famous book entitled ‘Adolescents at School: Perspectives on Youth, Identity, and Education’, argued:

“If we want students to succeed - not just as test-takers but also as thinkers, as learners, and as people who make valuable contributions to our society - we need to know more about them than their scores on standardised measures of achievement”.
There is more to education than assessment, test-taking and teacher-school accountability; students need to be thinkers, risk-takers and independent learners to succeed in the world of today. Besides this thought, there is another picture flashed down that academic success is highly valued in our society and it plays an integral role in the lives of children as well as affects their basic development. It considered as a key criterion to judge one's total potentialities and capacities. Hence academic success occupies a very important place in education as well as in the learning process. In consequence, test results have become more and more significant for the individual. The outcome of education determines the level of life, progress and status of the people living anywhere in the world and it is the vital force for the development of human life and society at large. Hence modern society stresses success in examinations as a central indicator in determining a student's future path in life. In India, with the march of democracy and the proposals for the compulsory free education at the elementary level a different view of the scope and responsibility of educators has emerged. This goal is envisaged in maximizing the achievement of all children. Scholastic achievement has become an index of child's future in this highly competitive world. It is only a drop in the vast sea of education and great many students would appear not to give themselves credit commensurate with their known or rated abilities (Katyal and Bindra, 1995). The development of human resources and maximum utilization of the resources are necessary for the growth and prosperity of any society. It is only children who are high in their scholastic achievement who can be moulded to occupy strategic position in society and thereby determine the destiny of society (Manocha, 1993). Therefore, scholastic achievement occupies a very important place in education as well as in the learning process.

There is a highly competitive educational system that stresses the acquisition of knowledge at all costs by the students in Indian society. Students have to take many highly competitive centralized examinations, such as the Secondary (Madhyamik) Examination at Xth grade, Higher Secondary Examination (XIIth grade), various Entrance Examinations, etc. Performance in these high stake exams is crucial for seeking admission for higher education and to gain access to prestigious careers. Hence the achievement dream still exists, and researchers are continuing to launch investigations of academic performance in the context of what affects it, how it can be achieved, and how it can be sustained.
Tests and examinations at all stages of education, especially at secondary education level have been considered an important and powerful tool for decision making in Indian competitive society, with people of all ages being evaluated with respect to their achievement, skills and abilities. Zollar and Ben-chain (1990)\textsuperscript{163} have opined that “the era in which we live is a test-conscious age in which the lives of many people are not only greatly influenced, but are also determined by their test performance”. Test and examination stress is thought to prevent some individuals from reaching their academic potential. It has been found that students consistently perceive examination as a source of increase in anxiety and a situation engulfed with uncertainty/unfairness in letting them demonstrate their true achievements. Such feelings among students’ limit their potential performance during the test situation, resulting in higher text anxiety (Hill & Wigfield, 1984)\textsuperscript{164} directly causing drop in the student achievement. There are number of researches reporting text anxiety as one of the major cause for students’ underachievement and low performances at different levels of their educational life (Oludipe, 2009)\textsuperscript{165} and has been shown to affect students’ ability to profit from instruction (Schonwetler, 1995)\textsuperscript{166}.

“Achieving one’s educational and professional goals generally depends on academic performance. Therefore, it is not surprising that most students experience anxiety both before and during examinations. As a consequence of their emotional reactions during tests, the level of achievement of many of these students is substantially lower than would be expected on the basis of their intellectual aptitude”. - (Gonzalez, 1995)\textsuperscript{167}.

Test anxiety plays an important role in the adolescent’s academic life and it accounts for variation in their academic performance, achievement or academic success. Though some the research findings argued that test anxiety is essential in mobilizing the potentialities of the students to their academic achievement more efficiently, but increased amount for prolonged period will have venomous effect on the mental health and academic achievement of the students. Now-a-days, the mark competition has settled in increased test anxiety in students. The test anxieties for achievement issues mounted. It has emerged as a significant mental health problem and took the antagonistic place in academic life as well as in the normal achievement level of the students. Test anxiety acts also to distort performance, and makes motivation fluctuate, focusing it constructively, or annihilating it totally, in a sense of
uselessness and hopelessness. Research on the role of test anxiety on performance has repeatedly demonstrated that high levels of cognitive test anxiety promote the probability of notable declines in exam performance. Research on test anxiety typically has been focused on appropriate methods of measuring the construct, the impact of test anxiety on academic and standardized test performance, and the underlying locus of the impact of test anxiety. However, despite decades of research into feelings of anxiety during evaluative situations, there is little agreement regarding these central issues of test anxiety.

Many important human outcomes depend on individuals marshaling up the motivation to go above and beyond comfortable conduct into the realm of difficult, effortful, superior behavior. Achievement motivation helps learners to be sufficiently competent or motivated to achieve excellence. Therefore, students who show poor performance are seen as unmotivated or incapable of self-determination (Thompson, Davidson, & Barber, 1995). Motivating students so that they can succeed in school is one of the greatest challenges of this century. Lack of motivation is a big hurdle in learning and a pertinent cause in the deterioration of education standards. According to Deci and Ryan (2000), motivation is greatly appreciated because of the consequences it produces. Motivation, as it relates to students, is very important. Students who have high motivation to achieve generally do well academically. Students with low motivation do not do well academically. All students are influenced by a need to achieve. It causes them to want to be successful at what they attempt. But each student is affected to different degrees. For some students, the desire to achieve overwhelms other factors that could cause failure, such as; test anxiety, low mental health, etc.

Several researches on achievement motivation explored that achievement motivation is significantly correlated with academic performance. According to these studies, people with high achievement motivation are high academic achievers. They always set high levels of aspirations. Salami (2004), therefore, reported that achievement motivation is a strong predictor of high academic performance and efficient schooling. Motivational theorists agree that academic motivation positively influences academic achievement.

For students in middle and high school, mental health risks and academic risks affect each other. Students who do poorly in school may have mental health risks,
which adversely affect their achievement and in turn contribute to mental health risks. Data from the Healthy Youth Survey in Washington State provide a new way of looking at the relationship between health risk and academic achievement. The report examines 13 key physical and mental health risk factors and analyzes the relationship between these specific health factors and the grades students report getting in school.

Secondary education learners are in the process of entering their higher education, and in some cases are also initiating unhealthy behaviors. It may be that each of mental health and academic achievement influences the other; and that the relationship can work in either direction. Also, there seem to be underlying factors that influence both academic achievement and mental health. Researchers have suggested that the relationship between mental health and academic achievement works in different ways. Townsend, Flisher, and King (2007) specifically studied the direction of the relationship between mental health and achievement by looking at previously published studies. They reported that low mental health score was associated with dropping out of high school even after adjustment for demographic differences, but that more research was needed to understand how the relationship worked. The neglect of mental health results in serious consequences and the students passing the college cannot cope with the demands of life and future career (Nanda, A. K., 2001). The students are losing mental equilibrium due to pressures from outside and inner conflicts that affect the mental health. So, it is essential to understand the dynamics of mental health.

The psychological factors and their effects on academic situations are the growing concerns of the educational researchers and practitioners attributed to a notable lack of rigorous scientific inquiry in some important factors in the fields of students’ achievement. A review of the related literature reveals numerous studies addressing the psychological factors topics in general; while few studies are found to target the special psychological factors in educational situations. Although educational reforms and efforts have been made in improving academic achievement, inadequate student performance continues to be a problem. Identifying the need of the society as well as the secondary schools, the researcher found it very urgent to explore the impact of achievement motivation, test anxiety and mental health into academic achievement of the students which cannot be overemphasized for a developing country like India as well as the State of West Bengal. It has continuously been facing
wastage of human resources in various endeavors of national development. The reason obviously lies in the fact that there hardly exists any research, of this kind in West Bengal, unveiled the nature of impact of these factors in together on academic achievement of the students of secondary education under two different affiliating boards. Consequently, an overwhelming majority of correlational research are confronted with positive or negative correlation between the dependent variable and independent variables. The investigator found no research exists in West Bengal that specifically explores the impacts of test anxiety, achievement motivation and mental health among high school students under two different boards. This state and trend of research affairs does make heavy demands upon the selected study. Hence it is an urgent need to investigate the impact of factors such as, test anxiety; academic motivation and mental health affecting students’ academic achievement. It can be beneficial for providing better opportunities for high school students, not only for adolescents’ academic life but also their wellbeing at schools. Therefore, in the present investigation, the investigator attempted to venture the impacts of Test Anxiety, Achievement Motivation and Mental Health on Academic Achievement of students at secondary level education under the boards of WBBSE and CISCE.

1.4 ORGANIZATION OF THE THESIS

The researcher presented his research work in the form of this thesis in the following manners –

Chapter I: Introduction – The Theoretical Background of the Study

This is the introductory chapter where the investigator analyzed the theoretical background of his research project. In this section, he described the conceptual nature and the theories and models of the variables adopted by him for research work. He analyzed the concepts and theoretical basis of the Achievement Motivation, Test Anxiety, and Mental Health in his research perspective. Beside this discussion, he also presented the introduction of the two boards of secondary education, namely West Bengal Board of Secondary Education and Council for the Indian School Certificate Examination, selected for the study. He boldly argued for his study and mentioned the rationale behind this ongoing research study at the last section of this introductory chapter.
**Chapter II: Review of Related Literatures**

In this chapter, the researcher presented the previous studies conducted by various researchers of India and abroad in relation to the present investigation. In this section, he logically distributed all the related research works into three main headings – (i) Studies conducted on Academic Achievement and Achievement Motivation, (ii) Studies conducted on Academic Achievement and Test Anxiety and (iii) Studies conducted on Academic Achievement and Mental Health. Each and every main heading were divided into two subheadings, namely (i) Indian Studies and (ii) Foreign Studies. The researcher made a concluding remark on his review work in the heading of the Summary of the Review of the Related Literature. At the ending of this chapter, the researcher defined his problem of study in the form of Emergence, Formulation and Statement of the problem.

**Chapter III: Design of the Study**

In the chapter of the design of the study, the researcher declared the objectives of his study along with its importance and selection of the variables. In this chapter the researcher also mentioned the assumptions behind his study and constructed the hypothesis in alternative as well as in null forms. He delimited his study in every aspect and defined the important terms as well as the selected variables were also discussed in this chapter.

**Chapter IV: Procedure of the Study**

The researcher presented the procedures and methodology followed for the study in Chapter IV. He documented the sampling techniques followed by him, Population and Samples of the study, Tools used in this study along with their construction and standardization procedures and descriptions, scoring norms, administration of the tests and data collection were described in this chapter.

**Chapter V: Systematization, Analysis and Interpretation of Data**

In this chapter, the researcher presented the collected data in the form of its systematization and analysis. First, he presented the symbols and statistical formulae used in the study. Then he presented the collected data in respect of each and every variables selected in his study. After presenting the data, the researcher analyzed them in respect of the hypotheses constructed for the statistical analysis and for
Chapter VI: Summary and Discussion

In the last Chapter of the thesis, named Summary and Discussion, the researcher documented each and every important steps, he used to make his study fruitful, in concise form. He started this chapter with the restatement of the objectives of his study and ended up with the discussion of the interpretation of his study in light of the researches exposed the results previously. In this discussion, he used to restate the null-hypotheses and findings of the study at a glance. Besides concluding remarks for the study, the researcher further mentioned the limitation of his study, scope for future research as well as he drew the educational significance of the present study along with the suggestions he made for further research and to further researchers.

Bibliography

As all the chapters contains the reference section, hence, the researcher added some more resources he used in this study and presenting the report in bibliography.

Appendices

In this section, all the data collected in respect of the study, the tools used to collect the required data and all testimonials and specially all the correlation matrices (Appendix – A) were presented by the researcher in systematic steps.

The researcher acknowledged all the great personalities, officials and any other dignitaries helped him in any form for completing his research study. After all, the researcher provided synopsis of his study as required for submission the Ph. D. thesis to the university officials for further procedures.

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Chapter I: Introduction - Theoretical Background of the Study


