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Impact of Personality Factors on Academic Achievements of College Students

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IMPACT OF PERSONALITY FACTORS ON ACADEMIC ACHIEVEMENTS OF COLLEGE STUDENTS

**A Thesis Submitted in the Partial Fulfillment for
the Degree of M. Phil. in Psychology**



Under the Supervision of

Dr. Shawkat Ara
Professor of Psychology

BY

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Department of Psychology

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May, 2006

ABSTRACT

The present study attempt at investigating the similarities and differences of achievement motivation of college students in relation to personality variables i.e. internal – external control and demographic factors i.e. gender differences like male and female and achievement level i.e. high achievement and low achievement within the framework of socio-cultural and educational background of Bangladesh. The study has been developed in the line of (i) Achievement Motivational Approach, (ii) Philosophical and Physiological Roots of Motivation Theory, (iii) Psychoanalytic Approach of Motivation, (iv) Rotter's Social Learning Approach and Internal-External Control of Personality, (v) Cognitive Approach: Expectancy-Value Theory, and (vi) Socio-Demographic Approach. All these approaches have been utilized and integrated in order to show similarities or differences of achievement motivation of college students having high and low achievement motivation.

Thus, the present study uses correlational approach with a criterion group design. The study conducted in two phases. *In the first phase*, criterion group of arts and science college students were selected on the basis of a criteria questionnaire. The criterion groups of arts and science students were divided into male and female equally. These male and female students were further sub-divided into high achiever and low achiever on the basis of their achievement level and responses to the

criteria questionnaire. *In the second phase*, the criterion groups were given measures of (i) Achievement Motivation Scale, (ii) Internal-External Control of Personality Inventory and (iii) Demographic Variables. For measuring achievement level of motivation a modified form of Achievement Motivation Scale was used and for measuring personality Internal-External Control Inventory was used. Demographic variables include arts and science faculty, gender differences like male and female and level of achievement like high achiever and low achiever.

The study utilized two samples drawn from arts and science faculties' of different educational institutions of Rajshahi and Chapai Nawabganj District. Each sample was composed of 120 respondents equally divided into male (N = 60) and female (N = 60). Again male and female were sub-divided into high achiever (N = 30) and low achiever (N = 30). Thus, the total sample was composed of 240 college students. All the respondents were Muslims. This choice was preferred in order to keep the religious variable controlled.

The main objectives of the present study were to make an empirical investigation of academic achievement as reflected in their personality. Thus, the specific objectives of the present study were as follows:

Firstly, to find out the differential achievement motivation scores between arts and science, male and female, high and low achiever students.

Secondly, to find out the differential personality factors on internal-external control scores between arts and science, male and female, high and low achiever students.

Thirdly, to find out the similarities between arts male and science male, arts female and science female, arts high achiever and science high achiever, arts low achiever and science low achiever students on the variables of achievement motivation and personality factors of internal-external control.

Fourthly, to find out the similarities between arts male and arts female, science male and science female, arts high achiever and arts low achiever, science high achiever and science low achiever students on the variables of achievement motivation and personality factors of internal-external control.

Three specific hypotheses were formulated for this study is given below:

H₁: It was hypothesized that science students as a whole would scores higher on achievement motivation and personality factor of internal-external control as compared to arts students respectively.

H₂: It was hypothesized that male students of both arts and science would scores higher on achievement motivation and personality factor of internal-external control as compared to female students of both arts and science respectively.

H₃: It was hypothesized that both arts and science high achiever students would score higher on achievement motivation and personality factor of internal-external control as compared to female of both arts and science low achiever students respectively.

Analysis of data has been divided into two parts. *In the first part*, intergroup differences on achievement motivation and personality factors

of internal-external control of arts and science Ss has been computed by univariate method using t-test. Further intragroup differences were computed each variable separately. *In the second part*, Pearson's product moment correlations were computed to find out the similarities of achievement motivation and personality factors of internal-external control of intergroup and intragroup students.

Results obtained strongly supported the three hypotheses. The main findings showed that science students exhibited high achievement as compared to arts students. Male students in general were found to achieve high scores on Achievement Motivation Scale. When high achiever students who had both first division in their S. S. C. and H. S. C. examination obtained higher scores on Achievement Motivation Scale and also found more internally controlled. The findings of the present study are explainable by McClelland et. al. and Atkinson et. al. through achievement motivational approach, Rotter's social learning theory and expectancy-value approach.

An attempt has also been made to integrate all these approaches into a new theoretical perspective in which achievement motivation have been moderated by the personality factors and demographic variables. The study has emphasized educational, cultural and environmental factors as the determinants of achievement motivation, which has enormous effect on personality factors of the college students in the present context of Bangladesh.

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May, 2006

Declaration

I hereby declare that the entire thesis is made on the basis of my own insight and investigation and this thesis has not been submitted or placed in any where for any award or degree or any profitable purpose.



University of Rajshahi
May, 2006

Chowdhury 25.05.06

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CERTIFICATE

This is to certify that the dissertation entitled "IMPACT OF PERSONALITY FACTORS ON ACADEMIC ACHIEVEMENTS OF COLLEGE STUDENTS" submitted by Md. Rahamat Ali Chowdhury in partial fulfilment of the requirements for the degree of M. Phil. in Psychology has been done under my supervision and it constitutes his own work. I feel proud to recommend this dissertation for evaluation.

SUPERVISOR

Dated: Rajshahi
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Rajshahi University

May, 2006

Md. Rahamat Ali Chowdhury

Dedicated

To my

Inspiring Eldest Brother

And

Beloved Parents

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Introduction

Chapter One

INTRODUCTION

Life of individual is largely made up of social contacts during which they are constantly making judgments of each other's personalities and accommodating their behaviour. But there is a rush towards professional courses, technical training and higher education in Bangladesh. Students are mostly guided by the professional prestige and social esteem attached to different occupation regardless of their abilities, interest and personality pattern. Bangladesh educationists cope up with the problem of admission in many professional and non professional colleges in a very crude fashion by admitting the students merely on the basis of selection on admission tests alone or even on the basis of previous education imparted them. The true value of the professional education must be sought on their performance as specialists and as a man (Brikman, 1962). Success in a core of studies depends to some extent upon skills in seizing up the students. To an increasing extent psychologists are moving into educational and other applied fields they call upon to use their expertise for such purposes and need for achievement of students become essential for psychologists or educationalists.

All these suggest that the personality factors and achievement motivation play a significant part in the success of entrance in academic and professional courses. Therefore an important need in education is for a systematic research into the achievement motivation and personality. But very few systematic research attempts are available in the literatures which have taken into account for the combination of academic achievement motivation as related to personality factors and gender difference in rapidly changing academic and socio-demographic cultures in Bangladesh.

The present study represents an effort of a similar nature. The broad objective is to focus on similarities and differences of high and low achievers of arts and Science students on the phenomenon of academic achievement motivation and personality factors of college students in Bangladesh. Prior to outlining the background, genesis and development of the study it is necessary to review recent approaches to the study of academic achievement behaviour, the role of personality like Internal-External control and demographic differentials in determining academic achievement behavior. This investigation is concerned with object of finding out the differential need for achievement and personality traits of students belonging to Arts and Science courses.

A. Theoretical Approaches to the Study of Achievement

Motivation:

1) Achievement Motivational Approach

The theory of achievement motivation also attributes the strength of a tendency to undertake an achievement oriented activity with the expectation that it will produce an attractive consequence to the individual. Such an activity is undertaken by the individual with the expectation that his performance will be compared with some standard of excellence. If the situation in which the activity is undertaken presents a challenge to achieve for the individual for achievement, it will produce an expectation in him that the action will lead to either success or failure. Thus the resultant achievement orientated activity is always influenced by the resultant conflict between the expectancy of success and the expectancy of failure. Of course, other external motivational forces can also influence the achievement-orientated activity. Thus, though achievement motivation primarily focuses on the resolution of the conflict between two intrinsic opposite tendencies of success and failure it also emphasizes the importance of extrinsic force to undertake the activity, particularly when the achievement oriented activity is negative.

Motivation is the concept, which forces acting on or within an organism to initiate and direct behavior. Motivation explains differences in the intensity of behaviour. Behaviour is considerable to be the results of

higher levels of motivation. Additionally, motivation indicates the direction of behavior. Both casual and scientific observations suggest that motivation is something, which triggers behavior. Sometimes the people behave other way. Motivation helps to explain why behavior occurs in the one situation but not in the other. To the extent that such a concept increases the ability to understand and predict behavior (Petri, 1985). The term “Achievement motivation” has been defined as the striving to increase or to keep as high as possible one’s own capability in all activities in which a standard of excellence could be applied (Heckhausen, 1967). Some investigators (Atkinson and Feather, 1966) prefer to call it a tendency when they refer to it as the product of motives; expectancy and success when the product is an active impulse to engage or not to engage in a particular taste, which is expected to have a certain consequence. These investigators did not imply any change while they used tendency, which means motivation. Heckhausen (1967) better calls it a drive since it implies force to behave in a certain direction with the expectation of a goal object. Similarly without changing the meaning, which it intrinsically implies.

Achievement motivation is characterized by a wide variety of factors. Though the inherent meaning of the term implies that it is a tendency of the individual to do his best or to achieve unique success in his own line of work yet such a tendency is determined by many other factors. The ultimate outcome of his effort, i.e. the achievement of an outstanding goal, depends on his zeal for work, persistence, competence and

intelligence, diligence, punctuality, regularity etc. They tendency only cannot help an individual for achieve the unique success. The individual shall have to develop some good habits through rigorous practice. And when he is successful in developing these habits in him, he is sure to succeed in any competitive work. That is why it has been emphasized that persons with high achievement motives can bring about a radical change in economic development of a society in which they live.

The economic development of country or overall progress in any society is largely a function of and inner need for achievement present in the inner stable need characteristic of the individual; the individual carries the same need from one situation to another. It is mainly characterized by the individual's capacity to take pride in his own accomplishment. When such a need is present within an individual it presupposes in him an awareness of two essential conditions, i.e. his performance on a task will be evaluated on the basis of a certain standard of excellence and that the out come of his work effort will be either success or failure (Atkinson, 1964). Thus, Heckhausen (1967) mentioned that like other needs achievement motive is also developed through certain socio-cultural factor. These include the ideological system of a society. The religious belief and the value system of its people, the manner and the extent to which the members of the society internalize these beliefs and the value system through early learning and education, their experience of success and failure in their attempt to fulfill their early needs how their roles and

actions to other people have been determined by their families in early childhood and later by others, the manner in which the society has regulated their behavior with reference to their common goals through the leaders and through various kinds of incentive systems. Motivation has been studied from many different points of view. Although these dimensions overlap in some respects, the following analysis attempts to provide a framework:

i) Nomothetic versus Idiographic: Research may be classified as falling along a continuum that proceeds from strictly monotheistic approaches at one extreme to strictly demographics approaches at the other. The monotheistic approach involves the development of general or universal laws (Websters New World Dictionary, 1962). Typically research of this type studies groups of people or animals and determines how they are similar. In the study of motivation the homothetic approach predominates. In opposition to nomothetic analyses is the ideographic approach, which proposes that we can understand behavior by looking at how people differ from each other that is by examining those properties that make each person unique. In motivation the ideographic approach is most clearly seen in the humanist and actualization theorists.

ii) Innate versus Acquired: Psychologists have debated for almost 100 years the contribution that innate versus acquired tendencies make behaviour and motivation as a special area within psychology has not escaped this contention. Early theorists such as James (1980) saw

motivation as primarily controlled by innate motives they termed instincts. Theorists and researchers studied how behavior is acquired and much of that has been discovered is also applicable to the acquisition of motive states. Perhaps the most important motivational motion to develop from this work was the concept of incentive motivation. Analyses of incentive motivation emphasizing both innate and acquired motives continue today.

iii) Internal versus External: Another dimension along which motivation may be studied concerns the source of the motivation, which is internal versus external sources of motivation. One approach to the study of the motivation has involved the idea that different motive states can be conceptualized as needs that when active promote behaviors to reduce those needs. Needs are usually viewed as internal sources of motivation that activate and direct behavior to items in the environment that alleviated some state of deprivation. In this context needs are often couched in physiological terms, although some investigators also include social and psychological needs within their frameworks. In contrast to need investigators and theorists other emphasized external sources of motivation. Theses theorists generally examine the motivation effects of either various goal objects or social relationship. According to this point of view motivation can be activated by changes in the external environment (Petri-1985).

iv) Mechanistic versus Cognitive: Some theorists argue that such motives as hunger, thirsts and sex are triggered automatically by changes in

factors such as blood sugar level fluid balance and hormonal concentration. This mechanistic approach assumes that changes in specific factors activate circuits that in turn motivate the organism to engage in appropriate behavior. Neither conscious awareness nor intent on the part of the organism is assumed. Research who embrace the mechanistic view are often interested in internal need states and innate patterns of behavior. In contrast, other researchers more often interested in externally motivation states and acquired motives believe that motivational processes are cognitive in nature. The cognitive approach assumes that the manner in which information is interpreted influences motive states.

The complexity of motivation is such that it is probably safe to assume that all the approaches mentioned above have some validity, in certain situations behavior seems best understood as motivated by internal states that activate the organism to respond in genetically determined ways. Other behaviors seem clearly the result of external information that is acted upon based on acquired experiences. Various combinations of approaches fit our observations of still other behaviors. To summarize, at this time no one approach would appear to be better than any other in explaining motivation in its entirety. Some approaches explain particular motive states better than other; however, depending on the motive studied. The best explanation may be ideographic innate or acquired, internal or external, mechanistic or cognitive, or some combination of these (Petri-1985).

2) Philosophical and Physiological Roots of Motivation Theory

Modern psychology is the product of philosophical thought that can be traced back to Greek philosophers such as *Aristotle* and to developments within the study of physiology many of which occurred between 1800 and 1850 (Boring, 1950). These two approaches to understanding heavily influenced early psychological thought and indeed continue to influence our understanding of psychological processes today. The study of motivation is a complex blend of philosophical and physiological concepts. While some theorists have attempted to understand motivation almost exclusively from the point of view of physiology, other have approached it from a more philosophical direction. Both philosophy and physiology have much to offer psychologists who attempt to unravel the complex motives that activate and direct human behavior. It is important therefore to briefly review some ideas within philosophy and physiology that have influenced modern psychological thought.

i) Philosophical Antecedents: The Greek philosopher Aristotle proposed two important ideas that even to day continue to have an influence within the study of motivation. Aristotle argued that the soul is free and that the mind at birth is a blank state (Boring, 1950). Aristotle's first idea is often contrasted to the idea of determinism, which proposes that all behavior is the result of conditions that precede the behavior. In psychology, the preceding conditions are known as antecedent variables.

Though the antecedent conditions that determine behavior are often not observable, psychology nevertheless assumes that some previous condition caused those responses to occur. The concept of motivation is often proposed as the antecedent conditions that lead to responding. This deterministic point of view is necessary if one is to study behavior.

Though modern psychology has generally chose determinism over free will Aristotle's idea that the mind is a bland slate had a tremendous influence on psychological theory. Aristotle's concept led to the proposal that most behaviors are learned. The acquisition of behavior through experience is one side of a long-standing argument in psychology known as the nature controversy. Psychologist who accepted Aristotle's premise believed that experience (Nurture) is the major force in the development of behavior. In opposition to nurture psychologists other proposed that much of our behavior is programmed into us by heredity (Nature). This latter group argued that nature provides ready-made behaviors that are executed when conditions are appropriate. Psychological though on the nature-nurture problem has alternated back and forth several times and the controversy has never been resolved to everyone's satisfaction. Most psychologists today however recognized that both sides were right: behavior is a combination of both nature and nurture.

The nature-nurture controversy is important to the study of motivation because both nature and nurture play roles in the activation of motive influenced psychological thought. Rene Descartes was equally influential Descartes psychological nature of human. Dualism proposes

that human behavior is partly the result of automatic non-rational process of the body. Human being the only possessors of souls, are motivated by both the soul. Two ideas proposal by British philosophers became especially important for psychology. These two ideas concern the importance of sensory experience and the association of ideas. We shall consider the philosophy of John Lock as representative of the British approach, although there were may other noted philosophers within this same framework. Lock proposed that ideas are the elementary units of the mind (Boring, 1950). Further he thought that these ideas come from experience in one of two waves. One source of ideas is the conversion of sensation into perception. The second source of ideas according to Locke is reflection, which occurs when the mind obtains knowledge of its own operation. Thus one can generate ideas from sensory information or from understanding how one manipulates and works ideas. This second source amounts to ideas about ideas and the manner of their occurrence (Boring, 1950). Other philosophical approaches have contributed to our understanding of motivation, many more than we have time to consider here. It is time to move on the brief look at discoveries in physiology that have also affected motivational thought.

ii) Physiological Antecedents: Modern conceptions of the role of brain mechanisms in motivation are largely outgrowth of discoveries about how the nervous system information and controls behavior. At one time it was thought that nerves allowed the flow of animal spirits from one part of the body to another the concept of reflex and its close companion, instinct are outgrowths of the idea that animal spirits coming from the sense organs along one pathway are sent back to the muscles along a separate path way

are sent back to the muscles along a separate path-way (Boring, 1950). The discovery of separate sensory and motor fibers led to the study of sensation on one hand and response on the other. Indeed one might argue that the stimulus-response analysis or behavior once so popular in psychology could not exist before his fundamental fact of physiology was known.

3) Psychoanalytic Approach of Motivation

To understand one of the earliest approaches of academic achievement behavior in modern psychology is systematically embodied in Lasswell's (1930) book 'Psychopathology and Policies Borrowing from Freud, Lasswell dealt with the application of psychoanalysis to personality phenomena as accepted by scientists. According to Lasswell the significance of personality behavior opinion is not to be grasped apart from the private motive, which they symbolize. Through the presentation of case history Lasswell showed that the main function of personality opinion was to externalize or displace some longstanding inner motive upon some external social issues. Thus preference and creeds are often formulated in highly rational forms by they are grown in highly irrational ways.

Lasswell (1930) obtained some of the case material of 'Psychopathology' by means of life history, interviews with active persons. The interviews elicited free associations from the subjects, thus obtaining a body of material more amenable to depth interpretation. The prolonged interview was conducted with subjects who had highly diverse motivations. On the basis of these interviews, Lasswell concluded that "to describe a personality system comprehensively in to discover the pattern of

value demand of the person and to describe the mechanism chiefly relied upon by the person in seeking to maintain internal order within the changing configuration of external environments. The value demands are selective in regard to outcome, the mechanism are selective in terms of the style by which outcome are sought.

Lasswell should be given credit for applying psychoanalytic approach to the understanding of achievement behavior process. But the study of achievers through the method of psychoanalysis has made little progress. The psychoanalytic method fails to demonstrate the developmental sequence that results in this formation of a power-centered personality at maturity. The matter is further complicated by the changing patterns of development. The different modes of conduct are treated derivationally in the school, and the community at large. They relevant configuration is continually shifting through time as academic roles changed their relationship to personality systems. The developmental history of personality system is a perpetual flux. Psychoanalytic method of Lasswell did not take account of all these environmental factors in ascertaining academic roles of the individual. Finally the concept of role, personality and development need continual redefinition in the context of changing environment. Depth interview technique could not provide proper insight and understanding for integration of role personality and development that give rise to socio-academically attitudes and achievement behavior.

The authoritarian personality research on the theoretical background is based on the works of two neo-Freudians Fromm and Maslow. According to Fromm (1941) biological independence of a child results in insecurity and anxiety. A growing child fails to establish a continuing relationship with others lacks self strength and self integration. This gives birth to powerless. He thus establishes secondary ties to overcome his unbearable feeling of powerlessness by escaping from freedom. There are three ways in which an individual can escape from freedom. These are (a) authoritarianism (b) destructiveness and (c) automation and conformity. Authoritarianism is an attempt to establish relation with relation with others either by fusing oneself with others fusing others with one's own self. Thus an authoritarian tends to dominate others sadistically or is likely to be masochistically dominated by them.

Maslow (1943), on the other hand, gave emphasis on the security needs of the individual is the analysis of authoritarian character structure. According to Maslow, some individuals fail to outline their safety needs because of their peculiar life experiences. Such individuals perceive the world as threatening. By believing in an ideology, insecure individual organize the inverse and men in it in a meaningful way. Thus the work of Adorno and his collaborators on 'Authoritarian Personality' is the first attempt in this direction where a link between surface beliefs and the underlying personality dynamics his been establish. Fromm (1947) remained close to his Freudian roots is his attempts to assess personality

functioning like Freud. He focused on the ways in which traumatic experiences in early childhood, hinder personality development. He also agreed with Freud, that the unconscious conflicts responsible for the patients problems must be made known if he or she is over to recover and that free association and dream analysis are useful tools for achieving that object.

Yet Fromm went well beyond Freud in his assessment attempts. In addition to his use of psychological method of inquiry, he also employed a historical method that emphasized the role that political religious economic sociological and anthropological factors play in molding personality. It is this continued and systematic effort at utilizing a multilevel approach to the understanding of personality that makes Fromm and his humanistic psychoanalysis unique. The goal he sought is a theoretical construction of human nature through the observation and interpretation of actual behavior in a cross-cultural and historic context (Fromm, 1947). Horney (1939) believed that free association and dream analysis were techniques that could help therapists identify the sources of neurotics' problems. Horney's interpretations focused on the disturbances experienced by patients in their interpersonal relationship and on the neurotic trends utilized by them to cope with their basic anxieties and fears.

According to Adler (1969), individual psychology is a science that attempts to understand the experiences and behavior of each person as an organized entity. He believed further that all actions are guided by a

persons fundamental attitudes toward life. True to his interest in improving the to humankind, he said that he also aimed at the correction of faulty or mistaken attitudes, through use of the basic knowledge accumulated by tests of the theory, Like Freud, Adler sought to understand the individuals personality by focusing on an examination and analysis or early childhood experiences. He used three major techniques to gain access to these crucial experiences early recollections, dream analysis and knowledge of birth order. Cattell (1950) strongly believes that all scientific advances depend on exact measurement. He is disdainful of armchair speculation that has no ties to measurement. Measurement provides the foundation from which theories spring and not the reverse. Before we try to determine why a person behaves as he or she does, we need to be able to accurately describe and measure the behavior itself (Catlell, 1950). Finally, theoretical developments within the study of personality were also to leave their marks on the study of personality. Mischel (1973) emphasized the importance of the interaction of personality and situational variables. He suggests the relative importance of individual difference will depend on the situation selected; the type of behavior assessed the particular individual differences sampled and the purpose of the assessment.

B. Theoretical Approaches to the Study of Personality:

1) Rotter's Social Learning Approach and I-E Control of Personality

i) Origins and Development of I-E Orientations: The bulk of the research literature indicates that beliefs in internal control are learned initially in families in which the parents are warm and supportive of children, praise them for their accomplishments and do not try to exert authoritarian control over their behavior (Crandall, 1973). In late childhood, however, the family atmosphere tends to change from one of support and involvement to one of more parental detachment. At this stage, both parents, but especially the mothers, encourage their children to be independent. They do not reward dependency behaviors as often. They also show less involvement and less contact with their offspring (Crandall, 1973). Research has also indicated that children tend to acquire a progressive sense of personal efficacy as they grow older; that is they become more internal with age (Milgram, 1971). Much research with college students shows that they are generally quite internal in their orientations (Rotter, 1966). A study has shown that there is an increasing sense of personal efficacy from college age to adulthood, a stabilized sense of internal control through middle age, and no decrease in internal control among the elderly (Ryckman & Malikioti, 1975). This last finding runs contrary to popular stereotypes of the elderly as helpless and dependent. The study suggests that many of the elderly believe that they are personally competent and not at the mercy of authority figures or a capricious environment.

Various studies have shown that internals not only believe that they have the power to affect their outcomes, but that they actually perform more effectively in both laboratory and academic situations. In academic settings, for example, Findlay and Cooper (1983) have found very strong evidence that internalization is associated positively with superior performance on a variety of standard achievement tests. Bar-Tal and Bar-Zohar (1977) found also that internally controlled individuals are associated positively with grade-point average. There are several explanations for these general findings. Internals may outperform externals because internals are more task-oriented, persistent, cognitively active and efficient in learning the rules necessary for problem solving. That also gave been found to gather more information than externals about their situations in an attempt to cope with and control outcomes. For example, internal inmates in a federal reformatory knew more about the way in which the institution was run and more about the conditions affecting their possible parole than did externals. Another study showed that internals even gave more implications for their well being than do externals (Ryckman, 1979).

ii) Basic Concepts and Principles: Rotter has constructed a theory of personality based on learning concepts and principles. It is an approach that focuses on learned behavior. The assumption is that it is acquired through our experiences with other people (Rotter, Chance, & Phares, 1972). Such a social learning view also makes use of a historical approach to the study of personality, for it is thought necessary to investigate the

antecedent event in persons' lives to understand their behavior adequately. Unlike the Freudians, however, Rotter does not believe it is essential to sample the individual's past experiences in great detail to predict behavior adequately. Instead, he argues that we should focus on these past events only to the extent that they help us to meet our predictive goals (Rotter, Chance, & Phares, 1972).

To understand personality, Rotter also thinks that we must consider it to have unity, or interdependence (Rotter, Change, & Phares, 1972). One aspect of this belief is that a person's experiences or interactions influence one another. Past experiences influence current experiences and current experiences change the things the person has learned in the past. For example, a student might reject potentially helpful advice from her college counselor because she has consistently been given poor advice by other counselor in the past. If she could be induced to accept the advice of this counselor, however, and it proved helpful, her general attitude toward counselors might become more positive. Thus personality is seen not only as involving change because the individual is continuously exposed to new experiences but also as having stability because previous experiences affect new learning (Rotter & Hocheirich, 1975).

The other aspect of the belief that personality has unity is that different behaviors are functionally related (Katkobsky, 1968). A student may be successful in having his name added to the class list for a popular course in political science by engaging in such diverse behaviors as getting

up earlier than the other students and securing a place in front of the line, asking a friend to register him speaking directly to the instructor, getting approval from the college dean, and so on. Each of these behaviors then would be functionally related; that is, they would all operate to secure the same outcome. Reinforcements can also become functionally related (Rotter, Change & Phares, 1972).

In Rotter's position there is also the assumption that behavior is goal directed. This directional aspect is inferred from the effect of reinforcing conditions (Rotter, chance, & Phares, 1972). In short Rotter considers human behavior to be motivated. People strive to maximize rewards and to minimize or avoid punishment. In other words Rotter, like Skinner, endorses the principle of the empirical law of effect. He maintains that "any stimulus complex has reinforcing properties to the extent that it influences movement toward or away from a goal" (Rotter, Change, & Phares, 1972). Some investigators have objected to this principle because it seems circular and because there is no attempt to define reinforce independently of behavior. Rotter maintains that such a view would be correct if we studied only the behavior of people from other cultures and were able to identify cultures and were able to identify reinforces only after they had occurred. In reality, the situation is quite different. We live in a culture in which it is possible to identify reinforcing events that have known Effect both for groups and for individuals (Rotter, Chance & Phares, 1972). Thus it is possible to use this knowledge to make predictions about behavior.

A few other corollary points about human motivation should be made. First, when investigators using social learning theory focus on the environmental conditions that determine the direction of behaviors, they speak of goals or reinforcements. When they focus on the person determining the direction of behavior, they speak of needs. Second social learning theory assumes that early goals are learned within a family setting. We are born with certain physiological needs that are satisfied by parents. Their association with the satisfaction or frustration of our basic or unlearned needs provides the basis, in Rotter's judgment, for our later reliance on them and others for affection and love, praise, recognition, status, and dependency (Rotter, Chance, & Phares, 1972).

This view, however, creates special theoretical difficulties. It assumes that all reinforces are reinforcing because they have become associated with drive reduction. For example, a mother's praise of her son's performance in school is positively reinforcing to him because it is associated with earlier feeding experiences that reduced his hunger drive. Such a drive reduction view of reinforcement may be fine when we are dealing with simple behaviors, but it becomes difficult to defend when we begin to consider complex social behavior (Rotter, Change, & Phares, 1972). Social learning theory assumes that the initial learning of goals occurs within a drive reduction framework, but that the later acquisition of highly complex behaviors is better explained by using a reinforcement concept based on the empirical law of effect.

iii) The process of Personality Development: Rotter believes that a person's development changes largely on the range, diversity, and quality of his or her experiences with other people. Early in life, these important figures are usually, and quite obviously, one's parents. The individual's early goals arise out of certain physiological need that is then satisfied by the parents or parents or parental substitutes. As a result of their association with need reduction parents become reinforcing stimuli in their own right. The child comes to rely on them for affection love praise recognition and other reinforces. Rotter surmise that stimulus generalization occurs and that other people who resemble the parents are perceived and evaluated in the same or similar ways. Once the parents and others (teachers, other adults, clergy) acquired value as conditioned reinforces, Rotter assumes the child will work to secure their approval and avoid their disapproval, irrespective of whether their behavior toward him or her results in primary drive reduction.

In Rotter's view, language acquisition also plays a critical role in the child's development. Words serve as cues in directing the person's behavior. Parents issue instructions that often help children solve problems in a few trials rather than in the hundreds of trials it would take if they had to perform their actions in trial-and-error fashion. The parents thus direct their children to the relevant cues in given situations and show them how to avoid the irrelevant ones. Parents also use words as verbal reinforces in statements of recognition, love, rejection, and some to shape their children's behavior (Rotter, 1954). Through these procedures, children learn different expectancies for success and failure in many different situations. These expectancies are also subject to modification through

the use of verbalizations. People can build up for that matter, by directing their attention to new and previously neglected consequences of performing given behaviors. Or people can change their expectancies by analyzing children's previous experiences and showing them how they are responding to the wrong cues and how to rectify the situation (Rotter, 1954). Since the effect of language is to classify, to categorize, or to abstract similarity in events, in events, it serves, therefore, to determine and enhance the nature of generalization. If an event is symbolized not only does language determine generalization. On the basis of the subject's implicit categorizing the control, or enhance generalization (Rotter, 1954).

Thus the developmental process involves the acquisition and modification of expectancies and reinforcement values through contact with various socialization agents. These socialization agents include not only adult authority figures but also the person's peers (Rotter, 1954). Healthy or unhealthy behaviors are learned in the home. According to Rotter and later transfer include parents who encourage the development and maintenance of behavior that leads to acceptance, love, and identification with others. Such behavior is most likely to occur in homes in which the parents themselves show affection and concern for the welfare and reinforcement, the child is unlikely to learn the kinds of behaviors that will permit him or her to adjust to the larger society (Rotter, 1954). Such an individual is likely to develop in an antisocial way and show selfish behaviors that produce hostility in others. Rotter feels that overindulgence and overprotection can create problems. Under these circumstances, he

thinks school life will be a traumatic the school as a place where he is unwanted, unloved, and unprotected (Rotter, 1954). Generally speaking, the rejected child is likely to enter school with low expectations for success, whereas the overindulged one will likely have expectations that are too high. Both attitudes are unrealistic. According to Rotter, the main importance of the school is to correct these views and help children attain a feeling of security and a realistic set of expectations for success that will serve them well when they assume adult responsibilities (Rotter, 1954). To help a child grow into an effective citizen, then, Rotter believes that parents, teachers, and others should be warm, accepting, good-natured, democratic, and consistent in their disciplinary practice.

iv) Internal-External Control of Reinforcement: One of the key constructs in social-learning theory is called internal-external control of reinforcement. According to Rotter, people acquire generalized expectancies to perceive reinforcing events either as dependent on their own behavior or as being beyond their control (Rotter, 1966). Internally oriented people tend to believe that reinforcers are subject to their own control and occur as a result of displaying their skills. Externals, in contrast, see little or no concretion between their behavior and various reinforcers. Instead, they perceive the occurrence of reinforcers as being determined by fate, luck or powerful others. Constructs such as competence, powerlessness, helplessness, hopelessness, mastery, and alienation have all been used by other investigators in psychology and sociology to describe the degree to which people can control important

events in their lives. All these constructs are related to a belief in internal-external control. But Rotter's construct has the advantage of being an integral part of a formal theory from which relatively precise predictions can be made.

Another attempt to the study of academic students' behavior and attitudes in relation to personality variables has utilized Rotter's Internal-External control model of personality references. The research on Internal-External control dimension was first started at Ohio University in mid, 1950 by James and Rotter. Internal-control refers to the degree to which an individual perceives that the events that happen to him are dependent on his own behavior. External control, on the other hand, has reference to the result of fate, luck chance or power which are beyond individuals personal control and understanding. Social-learning theory has been found to be predictive of, and related to, a wide range of behavior across numerous situations with diverse groups of people. Extensive review and studies are available related to locus of control (Rotter 1966, Strickland 1965, Hill, Chapman 1974). Rotter's I-E dimension has been used in several studies related to social actions and achievement beliefs. When research first began with the I-E, dimension, an obvious area of interest had to do with social activism. Gore and Rotter (1963) found as expected, intent students more likely to commit themselves to the more dramatic types of social action. Strickland (1965) replicated this work using I-E, responses of young black activists who were living in situations of daily harassment and

threats to their well-being. She found Civil Right activists to be significantly more internal than matched nonactivists. The nature of the activist movement changed with progress.

Everyone's self-esteem is influenced by many factors (Osbarne, 1997). Parents' teachers, co-worker, friends, fellow classmates and the environment are constantly influencing self esteem. Self-esteem is the product of two internal assessments or judgments the global judgement. On other hand college students with a low self-esteem tend to be unhappy less sociable, more likely to use drug and alcohol and are more vulnerable to depression, which are all correlated with lower academic achievement (Wiggins, 1994). Academic achievement in influenced by perceived competence, locus of control, autonomy and motivation (Wiest, 1998). Poulson (1998) has indicated that individuals who have a high level of religiosity are less likely to engage in risky behavior than individuals who have a low of religiosity. Oh (1999) found that high school students who had a high level of religiosity were more likely to have a higher GPA than non-religious student. Academic self esteem seems to become a motivational factor (Moeller, 1994). For many college students their self esteem in based or enforced by their academic success or achievements.

Murk & Addleman (1992) have been studied to find out the relationship among moral reasoning locus of control and demographic variables among college students. Oh D.M. (1999) study of evidence on

the correlation between religiosity and social psychological behavior and the resulting impact on student performance. Poulson, Eppler, Satterwhite, Wuensch, & Boss (1998) have been researches on Alcohol consumption, strength of religions beliefs and risk sexual behavior in college students. Johnson, D.W & Johnson, R.T. (1993) research on, impact of cooperative and individualistic learning on high ability student's achievement, self-esteem, and social acceptance. Osborne's (1997) study on Identification with academics and academic success among community college students. Weest, Wong & Kreid's (1998) study on Predictors of global self-worth and academic performance among regular education, learning disabled, and continuation high school students. They are all appear to support that high achievers internally controlled on academic achievement motivation, and academics structures that emphasis individual responsibility.

2) Cognitive Approach: Expectancy-Value Theory

The study of modern cognitive approach is the understanding of motivation known as expectancy-value theory. Expectancy-value approaches can be traced back to the theories of Tolman (1932) and Lewin (1938). The basic idea of underlying expectance-value theory is than motivated behavior results from the combination of individual needs and the value of goals available in the environment. Expectance-value theories also stress the idea that the probability of behavior depends not only upon the value of the goal for the individual but also upon the person's expectance obtaining the goal. The general expectancy-value model

provides an alternative to the stricter stimulus response explanations of incentive motivation. According to Karman (1972) the motives that expectancy-value theories generally attempt to explain are usually psychological in nature rather than physiological and include such motives as achievement, dominance power and affiliation applied to a number of psychological fields, including social learning, theory, achievement, and a work motivation.

Rotter's social learning approach examines and attempts to explain the social factors through internal and external that influence the acquisition and regulation of a behavior. Internal factors of importance include cognitive expectancies and subjective values that we place on goals while external factors include the particular social situation that we experience. Petin (1985) mentioned that those both internal and external factors contribute to how we behave. Social learning theory also proposes the learning can occur directly through interaction with the environment or indirectly through observation of the actions of others and the consequences resulting from those actions. There are four major concepts in the social -learning approach, behavior potential, expectancy, reinforcement value, and the psychological situation. In its simplest form, the formula for behavior is that "the potential for behaviour to occur in any specific situation is a function of the expectancy that the behavior will lead to a particular reinforcement in that situation and the value of that reinforcement" (Rotter, 1975,). Let us examine each of these concepts in order.

i) Behavior Potential: For Rotter, behavior potential refers to “the potentiality of any behavior’s occurring in any situation or situations or situations as calculated in relation to any single reinforcement or set of reinforcements”(Rotter, Chance, & Phares, 1972). Like Skinner, Rotter is actually talking about the probability of the individual’s responding when certain environmental conditions are present. Rotter’s view, however, places more emphasis on the role of cognitive factors in the prediction of behavior than does Skinner’s, because Rotter makes active use of our subjective interpretation of the events that confront us. For example he assumes that our potential for behavior is affected by our perception of the other factors. Thus a complex set of internal or cognitive factors is typically involved in the prediction of behavior. Finally, it should be noted that Rotter’s definition of behavior is quite broad:

Behavior may be that which is directly observed but also that which is indirect or implicit. This notion includes a broad spectrum of possibilities swearing, running, crying, fighting, smiling, choosing, and so on are all included. These are all observable behaviors, but implicit behavior that can only be measured indirectly, such as rationalizing, repressing, considering, alternatives, planning and reclassifying, would also be included, the objective study of cognitive activity is a difficult but important aspect of social learning theory. Principles governing the occurrence of such cognitive activities are not considered different from those that might apply to any observable behavior (Rotter, Chance, & Phares, 1972). As we can see, the prediction of behaviour is a monumental task.

ii) Expectancy. Rotter defines expectancy as a cognition or belief about the property of some objects (s) or event (s) (Rotter, 1984b.) Expectancies can vary in magnitude between zero and 100 (from 0% to 100%) and are subject to modification by experience. For example, some people may believe initially that a woman could never be elected president of the United States (0%), but as a result of the influence of the women for vice-president, their expectations could change radically and even approach absolute certainty (100%).

There are three kinds of expectancy postulated in social learning theory, according to Rotter (1981). They are (1) simple cognition's or labeling of stimuli (2) expectancies for behavior-reinforcement outcomes and (3) expectancies for reinforcement sequences. Within social-learning theory any behavior that has been associated with reinforcement gives rise to expectancy. Thus, each expectancy is based on past experience (Rotter & Hochreich, 1975). According to Rotter, simply knowing how important a goal or reinforcement is to a person is no guarantee that we can predict his behavior. Expectancies also vary in their generality that is, we may acquire generalized expectancies or expectancies specific to a given situation (Rotter & Hochreich, 1975). Generalized expectancies operate across a variety of situation.

iii) Reinforcement Value: Rotter defines reinforcement value as “the degree of preference for any one of a group of reinforcements to occur, if the probabilities of all occurring were equal” (Rotter, Chance, &

Phares, 1972). In simplest terms, reinforcement value refers to the importance we attach to different activities. In addition to these differences between people, we can arrange our own activities in order to preference. Given the values associated with different reinforcers are versed on our past experiences.

iv) Psychological Situation: The fourth major concept utilized in the prediction of behavior is the Psychological situation that is the situation as it is defined from the perspective of the person. In Rotter's view, this concept plays an extremely important part in the determination of behavior. As he points out, traditional theories tend to focus almost exclusively on as "inner core" of personality in which certain motives or traits are considered to control behavior, irrespective of the operation of situational demands (Rotter, Chance, & Phares, 1972). In general terms, believes that the compiled cues in a given situation arouse in the person expectancies for behaviour-reinforcement out-comer and also for reinforcement-reinforcement sequences (Rotter, 1981,)

Two other concepts, freedom of movement and minimal goal, play a lesser but nevertheless important role in Rotter's position. Freedom of movement is defined as the "main expectancy of obtaining positive satisfactions as a result of a set of related behaviors directed toward obtaining a group of functionally related reinforcements" (Rotter, Chance & Phares, 1972). The second concept, minimal goal is defined as the

lowest in a continuum of potential reinforcements for simplify situation or situations which will be perceived as a satisfaction” (Rotter, 1954). In other words, a minimal goal is conceptualized as the dividing point between those reinforcements that are positively reinforcing and those that are punishing on some dimension.

C. Socio-Demographic Approach:

A large number of studies have been attempted to investigate relationship between need for achievement and demographic variables. On the survey of demographic variable conducted as early as 1938 by Murray and his collaborators report of an attempt to measure the need for achievement by a questionnaire consistency or crude achievement relation statement which the subject is required to agree or disagree on a six point scale. In an improved measure-the Edward’s personal preference schedule (EPPS-1954) the subject is forced to make choice between two statements expressing two alternatives needs the questionnaire method used by Murray and EPPS by Edward seem to isolate motivational variables less than general culture depended variables of achievement ability. This questionnaire date has shown very later correlation. This questionnaire shows a number of relations will Heckhausen TAT (1967) nature of achievement motivation. The questionnaire items related to socio-cultural evaluative norms and long term goals are found to have correlations with the TAT measure of n-ach.

A moment's reflection should quickly reveal that our behavior often differs when we are in the company of others. Behavior in the classroom is generally predictable: students, take note, ask questions and sometimes fall asleep; professors lecture, answer questions and tend to write illegibly on the chalkboard. These same individuals however behave rather differently at parties. Student and professors may drink alcoholic beverages, dance, argue politics and play idiotic games that they would not even consider in their circumstances. Our motivations for engaging in these rather different sets of behavior are often studied by social psychologists. These psychologists tell us our behaviors are considerably influenced by both situational factors (such as whether we are in the classroom party) by the presence of other people. As just one example, conformity studies conducted by Solomon Asch (1952, 1965) showed that approximately 80% of the subjects he tested confirmed to a group decision at least one even through decision way clearly wrong. When interviewed after the experiment that they did not question the group decision but rather wondered why they different from the group. These subjects also expressed a strong desire of confirm. Students such as those conducted by n-ach indicate that the presence of others whose opinions differ from our own generates within us motivation to confirm. Motivation then may be analyzed not only at physiological or individual level but also at the level of groups. Groups can influence our motives and it conjunction with situational arrivals after the ways in which we behave.

A second line of research that has evolved from achievement theory concerns the relationship of achievement motivation to social change. McClelland (1961) in the *Achieving Society*, has outlined some of the relationships that exist between individuals' need for achievement and the economic condition of the nation in which these individuals live. For example, McClelland (1965) showed that young men high in need for achievement tended to select entrepreneurial occupation (an entrepreneur takes the risks involved in organizing and managing a business in order to receive the profits from that business). If a nation contains a large enough number of persons high in need for achievement and they enter entrepreneurial business situations then one should expect fairly rapid economic growth in that nation.

As a way of trying to test this idea, McClelland (1961) collected myths, folklore and children's stories from a number of countries and applied the method of content analysis to determine the levels of achievement motivation present in the stories. On one study of preliterate cultures, oral folktales were analyzed for need for achievement imagery. Twenty-two of these cultures were determined to have high need for achievement imagery in their stories. Of these 22 cultures approximately 75% had individuals who could be classified as entrepreneurs. Twenty-three other cultures were judged to be low in need for achievement (based on the imagery in their folktales). And only about 33% of these cultures contained persons who could be classified as entrepreneurs. Thus cultural attitudes about achievement, at least measured by that culture's myths and

folktales are apparently correlated with the number of individuals willing to take the risks of managing a business that may increase these economic well-being of that culture. Cultures with high need for achievement imagery in their stories have many such individuals, while cultures low in need for achievement imagery has few.

Fyans and associate (1983) found a good deal of agreement across cultures on the meaning of achievement. They noted that “there appears to be something liked an achievement ethic that is universally recognized as an identifiable behavioral category”. That ethic stresses work knowledge and freedom while devaluing the importance of family tradition and interpersonal concern. In another study McClelland collected stories in children’s beginning readers that we in use in 1925 in several different countries. He then content analyzed these stories for need for achievement. As a measure of economic growth within these same countries, McClelland used electric power consumption figures from 1925 through 1950. He found that for 78% of the countries ranked above the mean in need for achievement, there were large gains in the electric power consumed during the interval 1925-50. For those countries, ranked below the mean in need for achievement only 25% showed comparable changes. Interestingly, there was no relationship between stories collected from readers in 1950 and this earlier economic growth. Therefore, achievement imagery in the children’s literature of a nation apparently can be used to predict further economic changes in that nation.

Bradburn and Berlew (1961) examined English literature for achievement content at 50 years intervals for the period 1400 to 1830. These researchers use coal imports as their measure of economic growth and discovered that economic changes lagged behind changes in achievement imagery was high coal imports were up 50 years late: then this imagery was down coal imports were lower 50 years later. These data although correlation is tantalizing: they suggest that achievement attitudes, as reflected in the popular literature of a country, precede economic changes. Similar content analyses of achievement imagery have been conducted for cultures that were once prominent and then declined. Achievement concerns generally appeared highest before particular civilizations economic growth has peaked. Achievement imagery present at the time of peak economic growth, however, had usually declined foretelling the decline of that civilization. DeCharms and Moellaer (1962) analyzed children readers in the United State during the period 1800-1950 and found that achievement imagery in this country peaked around 1890. Given the 50 year lag between achievement imagery and economic change, peak economic growth in the United States should have occurred around 1940. The continued decline in achievement imagery from 1800 through 1950 suggests that economic growth in America is now on a downward trend.

In the present chapter an attempt has been made to provide a brief over view of the various approaches to the study of achievement motivation relating to personality factors. A close inspection of these

approaches reveals that for an adequate study and for analysis of motivational comparisons both psychological approaches of achievement motivation approach, and theoretical approaches to the study of personality and also the sociological approaches of structural variables as related to socio-demographic variables within which the investigation of motivational comparisons are to be conducted. The main objective was therefore, to find out the differences and similarities between Arts and Science, Male and Female, High achiever and Low achiever college students on the variables of achievement motivation and personality factor i.e. internal-external control. Several relevant variables emphasized and reviewed in the present chapter have been utilized in the design and planning of the study. Hence, it is necessary to review the empirical study available in the literature related to achievement motivation and personality factors of internal – external control in the next chapter II, prior to describing the development and specific objectives of the study, which have been given in chapter III.

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Review of Literature

Chapter Two

REVIEW OF LITERATURE

In order to substantiate the theoretical orientation of achievement motivation as related to personality factors of internal – external control, a review of the available literature corresponding to the theoretical approaches described in Chapter- I has been put forward in this section.

Achievement Motivational Concepts

The study of personality Factors and Achievement Motivation on academic students is not sufficient in the present context of Bangladesh in the field of social psychological study. Thus the line of research is comparatively new. A good number of Psychologists (Atkinson,1950; McClelland,1953, 1961; Morris & Fargher, 1974; Sarder & Hossain, 1976; Wan Rafaei, 1980; Zaineah, 1981; Wolfendale,1985; Winter, 1988; Oh,1999; Barrett, Alesia & Weinstrin, 2000; Koutsoulis & Campbell, 2001;Adams, 2003 and Bray, 2003) suggested that the causal relationship achievement motivation as related to academic achievement behavior, personality factors and socio-demographic variables have used survey method. These investigations are documented in appropriate sections.

McClelland (1953) and Atkinson (1950) found that a person with high achievement motivation is very acquisitive and status seeking as compared to persons of low achievement motivation. McClelland (1961), Yap (1980), Zaineah (1981), and Chan (1986) have shown that entrepreneurial success is related to achievement motivation. Achievement motivation is a need to achieve success in competition with a standard of excellence. Individuals with high achievement motivation tend to get involved in entrepreneurial activities such as business undertaking. A study by Morris and Fargher (1974) in Australia shows that among small businessmen, those with high achievement motivation have bigger business ventures than those with low achievement motivation. Sarder & Hossain (1976) found that achievement motivation was related to the performance level. The performance of employee was better when achievement motivation is high.

Wan Rafaei (1980) in Malaysia, found that there was a significant difference in achievement motivation among the three ethnic groups. The Chinese showed a higher achievement motivation compared to the Malays and Indians. In another study by Chan (1986) on Chinese and Malay entrepreneurs, it was found that the Chinese entrepreneurs showed higher achievement motivation than the Malay entrepreneurs. Stroyhorn (1966) has found that people, who have a high need for achievement, also have a belief in their own ability or skill to determine the outcome of their efforts. Morgan and Lyon (1979), Topping and Wolfendale (1985), Winter (1988) have investigated on Home Environment, and Academic Performance.

They show that some processes in the home e.g., academic guidance, levels of family literacy, parental participation are more directly related to student achievement. Acharyulu (1978) found that the correlation between verbal Test of Creative Thinking score and school achievement was higher than that of between intelligence and school achievement test.

Lewis & Adank (1975); Tuckman et al. (1974) showed that even if open school children were learning more, they were not better prepared to take achievement test. Ruhland et al. (1978) studied the relationship between achievement motivation and scholastic performance. Results indicated that upper graders had higher achievement motivation and a positive relationship between socially based measure of achievement motivation and scholastic performance. Bridgeman & Shipman (1978) in their study found that achievement motivation, especially for entrance first grade, contributed significantly to predictions of later achievement. Sharan (1979) found that students with low academic achievements also possessed power of original thinking. They should be treated and guided properly like students with high academic achievement. Lalitha (1982) did not find significant relationship between the school environment and need for achievement in both the tribal and the non-tribal children. Ahluwalia (1985) reported that the organizational climate in different types of school did not affect achievement motivation of children. Mansuri (1986) in his study found that grade was an effective variable in achievement motivation.

Riaz (1989) conducted a study to find out the relationship between academic excellence, creativity, achievement in science and psychological differentiation. 68 students of class XI who had passed Secondary School Certificate Examination (SSCE) with Science subjects, consisting of academically superior (N=39, Grade A+) and below average (N= 29, Grade D/E) were given three psychological test i.e. Wallach- Kogan Creativity Test, Urdu Version of Dallas Times-Herald Science Achievement Test and Group Embedded Figures Test. The result showed that academically superior group earned significantly higher scores on all these tests as compared to below average group. Analysis of data further revealed that the correlations between scores on creativity and science achievement test are significant in case of academically superior group but not in case of below average group.

Ramsden, Mortin and Bowden (1989) found in their study that school environments offering supportive teaching emphasis on autonomy and moderate stress on achievement are associated with active research for understanding organized study methods and avoidance of surface approaches. Schools with extreme emphasis on examination success are associated with a tendency towards minimalist reproductive and uncompromisingly competitive to learning. They found in examination performance negative correlation with surface approach and positive but low correlation with deep approach.

Habibah, et al. (1993) conducted a study which examines the status of achievement motivation among Malaysian entrepreneurs. A total of 133 Malay and Chinese entrepreneurs from Selangor and Kuala Lumpur were surveyed. Achievement motivation was measured by Mehrabian Achievement Scale (1963), which indicates that the Malaysian entrepreneurs have moderately low achievement motivation. High scores were recorded on future orientation and their responsibility in undertaking a particular task individually. The findings also indicated that Malaysian entrepreneurs are not willing to undertake difficult and challenging tasks, and are dependent in nature. There was no significant difference in achievement motivation between the Malay and Chinese entrepreneurs. Both groups are strong in their future orientation and their responsibility in performing a particular task. The Malay entrepreneurs prefer to compete in a team rather than individually. The Chinese entrepreneurs, on the other hand, prefer to perform tasks which they found easy rather than doing a difficult and challenging one. The implication of the study is that the achievement motivation aspect of entrepreneurs should be included in entrepreneurial training programmes in schools and higher institutions. This personality trait should be given emphasis just like the other managerial skills.

McClelland et al. (1994) spreading over 20 years, has suggested that achievement imagery in TAT stories can be best interpreted as achievement concerns. However, Skolnick (1966) reported no significant relationship between achievement themes, TAT cards and scholastic excellence or achievement in later life. Moller's (1994) found that Honors

students tend to demonstrate higher academic self-esteem and competency. This academic self-esteem seems to become a motivational factor. For many college students their self-esteem is based or enforced by their academic success or achievements. Wiggins (1994) conducted a study which showed that college students with a low self esteem tend to be unhappy less sociable, more likely to use drugs and alcohol, and are more vulnerable to depression, and these are correlated with lower academic achievement. He also showed that self-esteem and academic achievement used to correlate directly to a moderate degree.

Nessa (1995) attempted a study to identify the relationship between creativity and achievement motivation. The study was conducted in Dhaka University. A total of 480 students from 12 schools were selected as the sample for this study. The analysis was done at both individual and school levels. Univariate statistical techniques were used to analyze the data. The results indicated that academically high and low achievers differed significantly in terms of creativity almost in all grades and in both government and non-government schools. Drew and Watkins (1998) found both the approaches, surface and deep had significant direct effect on academic achievement.

Poulson (1998) did a study on alcohol consumption, strength of religious beliefs and risky sexual behavior in college students which indicated that individuals who have a high level of religiosity are less likely to engage in risky behavior than the individuals who have a low level of religiosity. Students who engage in risky behavior often do not

have the same level of academic achievement as students who don't engage in risky behaviour.

Religion has also been directly linked to academic achievement. Oh (1999) found in one study that high school students who had a high level of religiosity were more likely to have a higher GPA than nonreligious students. Barrett, Alesia and Weinstrin (2000) have indicated that the perceptions of differential parental treatment predict a significant difference between unique amount of variance in achievement and self-perceptions. Koutsoulis and Campbell (2001) found parental pressure to be a negative predictor of motivation and achievement for mathematics and science specially for girls. They also show that parental psychological support was found to affect students' motivation directly and their achievement indirectly.

Adams (2003) conducted a study on the impact of religiosity and locus of control in Wedster University. The relationship among religiosity, academic achievement and locus of control was examined through the use of a survey completed by 68 college students. In this survey the investigator used Strayhorn's (1990) "Religiosity Scale" Rotter's (1966) "Locus of Control Scale" and Academic Achievement Scale. The findings of the study indicated that students who have high religious attitudes, also have a high level of academic achievement. Bray (2003) conducted a study to find out the influence of academic achievement on a college student's self-esteem. In this study the investigator found that academic achievement had more influence on the self-esteem of the honours in comparison to general students.

Internal-External Control of Personality

The research on internal-external control dimension was first started at Ohio University in mid 1950 by James and Rotter. Internal control of personality refers to the degree to which an individual perceives that the events that happen to him are dependent on his own behaviour. External control, on the other hand, has reference to the result of fate, luck, chance or powers which are beyond individual's personal control and understanding. Social learning theory has been found to be predictive of, and related to, a wide range of behaviours across numerous situations with diverse groups of people. Extensive reviews and studies are available related to locus of control (Rotter, 1966; Joe, 1971; Lefcourt, 1972; Mac Donald, 1973; Phares, 1973; Strickland, 1965; Hill, Chapman and Wertzler, 1974).

Rotter's I-E dimension has been used in several studies related to different areas. Gore and Rotter (1963) asked. Students to commit themselves to varying degrees of social activism ranging from doing nothing to signing petitions, to taking a "freedom ride" across the southeastern states. They found, as expected, intent students more likely to commit themselves to the more dramatic types of social action. Stiickland (1965) replicated this work using I-E responses of young black activists who were living in situations of daily harassment and threats to their well-being, she found Civil Right activists to be significantly more internal than matched non-activists. The nature of the activist movement changed with

progress. Internals not only tend to resist influence attempts by others but, when given an opportunity, make more efforts, to control the behavior of others (Phares, 1965). They also tend to like people they can easily manipulate and to dislike those they cannot influence (Soilverman & Shrauger, 1970).

If internals have more information about their situations and greater problem-solving ability those externals, it should not be surprising that they are more resistant to influence from others. In fact, many of the early studies in the I-E literature reported findings consistent with that view. They found that internals tended to make judgments independently of the demands of others, whereas externals were much, more compliant in the same situations (Lefcourt, 1971). You should not get the impression, however, that internals always act rationally; some data indicate that some internals are capable of acting quite irrationally under certain circumstances (Ryckman, Rodda, & Sherman, 1972).

Several studies have been conducted which demonstrate a relationship between I.E. and social activism (Sanger and Alker, 1972; Ryekman, Rodder and Sherman, 1972; Pawlicki and Almquist, 1973). But Abramowitz (1974) cautions that with any investigation of social activism in relation to I-E beliefs one must consider the multifactor clusters within the I-E beliefs one must consider the multifactor clusters within the I-E scale, some of which may relate to socio-political activities and some of which may not. In addition to the I-E / Social action research a number of experiments have been interested in the degree to which I-E expectancies

may predict political beliefs or affiliation (Johnson, 1961; Rotter, 1966; Thomas, 1970; Mirrels and Garrett, 1971; Fink and Hjelle, 1973). These researches suggest that internals do attempt to take responsibility for their lives and to change uncomfortable and aversive situations. They appear to support political structures that emphasize individual responsibility.

Some interesting research has shown that internal and external students differ in the number and kinds of romantic heterosexual experiences they have (Dion & Dion, 1973). Internals were found to have proportionally fewer romantic attachments than externals. They also reported experiencing romantic love as less mysterious and volatile than externals. In addition, internals were more strongly opposed to an idealistic view of romantic love than were externals. In comparison with externals, they disagreed more with these statements: (1) there is only one real love for a person; (2) true love lasts forever; and (3) true love leads to almost perfect happiness. But why do internals and externals differ in their orientations toward romantic love? The investigators who conducted the study suggest a number of reasons, all compatible with previous research findings. Romantic love implies that both parties give themselves up to their partners; that is, they become vulnerable and pliable to the wishes of the partner. But we have already learned that internals do not like to be influenced by others. In addition, internals are often concerned with manipulating other so that strong feelings of attraction toward another may not serve their purposes; it is difficult to assume a calculating manipulative attitude toward someone your love. For these reasons, then, perhaps it was not surprising that many of the internal students did not become as involved in romantic liaisons as externals.

We have painted a general picture of internals as competent, responsible, and independent people who in comparison to externals, perform more effectively on a variety of skill-determined tasks. Furthermore, it should be clear that a person's willingness to strive for excellence in performance depends on the way in which he or she accounts for success and failure experiences. With only one two exception, a great variety of studies have shown that, unlike externals, internals tend to attribute success to internal factors, rather than to external factors. In other words, internals attribute their success to ability and hard work, whereas externals attribute it to good luck or an easy task. Thus internals experience more pride in their achievements and a greater willingness persist at tasks that do externals.

Phares and Lamiell (1974) also found that externals employ defensive strategies before task performance as well as after it. These investigators gave internals and externals choices of taking four kinds of intelligence tests. Two of the tests contained built-in rationalizations for subsequent failure. The other two did not contain such rationalization. Externals, more than internals, chose to take the tests that contained the excess for failure already built in. Research has also indicated that internals not only take responsibility for own actions but also assume that others are responsible for theirs. Externals, in contrast, assume that their behavior and the behavior of others are controlled by outside forces (Phares, 1976). Although extreme and indiscriminate reliance on either internal or external factors to account for one's experiences may be unhealthy, it seems

reasonable that an internals-factor accounting system would be necessary if individuals are to attain competence with its attendant feeling of self-worth. It has therefore been proposed that an internal orientation is necessary for adequate social adjustment and functioning.

Externals also tend to devalue tests that they fail using the old sour grapes gambit. Phares found that, after failing intelligence tests that they strongly wanted to pass, externals claimed success on these tests was not that important (Phares, 1971; 1979). This judgment about internals is corroborated indirectly by a study in which internal and external college women were asked to evaluate an autobiographical essay allegedly written by a woman applying for admission to a university and then to make a decision about whether to reject her application on the basis of the information in the essay. (Ryckman & Cannon, 1977). A photo of either an attractive or an unattractive woman was attached to the application form. It was predicted that when evaluating an essay of objectively good quality, as determined by ratings from a comparable and independent student sample, internal women would discriminate more against the unattractive person and they did. They downgraded her essay and indicated a greater willingness to reject her application than one completed by attractive person.

Internals are thus more likely, when given the opportunity, to mete out more severe punishment to rule violators in various situations than are externals. Thus they may be seen as being more punitive and less

sympathetic than externals in their judgments and behavior toward wrongdoers (Kauffman & Ryckman, 1979). There is considerable research evidence indicting internally oriented individuals are physically more healthy than externally oriented individuals (Rackman et al. 1982; Strickland, 1979, Wallston & Wallston, 1981). One major explanation for this reliable finding is based on the early family experiences of internals and externals. Specifically Lau (1982) has found that internals more than externals were encouraged by their parents when they were children to follow a good diet, to get enough exercise, to brush their teeth properly, and to have regular dental and medical checkups. As a consequence of these early experiences, internals have learned to see themselves as responsible for the maintenance or improvement of their physical health. Thus we would expect to find that internals know more about the conditions that cause poor health and to be more likely to steps to improve or maintain their health.

Although the data are not completely consistent with these expectations (see Wallston & Wallston, 1982), a number of studies do support these ideas. Other research has shown that internals take more precautionary measures to protect their health than do externals. Internally oriented high school students report greater use of seat belts when driving than do externals. They also report greater going to the dentist for checkups and maintenance more often than externals even when their teeth or gums do not hurt. Several studies have shown that internals are also more likely than externals to reduce or quit smoking (Strickland, 1978, pp.

1193-1194; Wallston & Wallston, 1982, p. 78). Studies also show that internals have more positive attitudes than externals about physical exercise and cardiovascular fitness (Strickland, 1979). Thus an internal locus of control is associated generally with good health, preventive health care, and more adequate coping with illness once it does occur. As you can see from a consideration of the many research studies with the I-E variable, the composite picture of internals and externals formed by integrating study findings is a complicated and intriguing one. Although internals are more adjusted than externals in some respects, we see that they also have their limitations. Research with the I-E construct has proved highly informative, and there is little doubt that it will continue to be a popular area of investigation for personality psychologists.

Locus of Control is the degree to which one believes that they are the cause of most events, such people have a highly internal locus of control. On the other hand those people who believe that most events are caused by luck, fact or powerful others, they have a highly external locus of control. Rotter (1966) explained the characteristics of internally controlled individuals as more striving, more self-confident and less anxious and apathetic than externals. Palmore and Luikart (1972) found that internality as measured by four locus of control questions was the third most important variable to account for life satisfaction in the elderly.

Kuyper with an abbreviated locus scale, found internal elderly to be more competent in coping, less defensive, more cognitively complex and

intellectually superior. Wolk (1976) found the internality on the Nowicki-Strickland Locus of control Scale correlated with adjustment, satisfaction, positive self-concept, and activity only in those elderly living in low-constraining environment. Lachman and Leff (1989) examined whether control beliefs are related to individual differences in intellectual aging by administering a battery of intellectual tests and perceived control scales to 63 elderly adults in 1981 and in 1986. Results indicated that fluid intelligence was a significant predictor of changes in intellectual control beliefs, but control beliefs did not affect performance.

Vallerand and O'Connor (1989) suggest a theoretical framework that has been found useful in research on young adults as a promising direction for research on the psychology of motivation in the elderly. Findings are presented from an ongoing research program that has found that the 4 types of motivation (intrinsic, self-determined extrinsic, non-self-determined extrinsic and motivation) can be reliably measured and are related to other important aspects of the lives of elderly people. Fry (1989) present conceptual frameworks delineating and integrating the treasure on mediators of stress in older adults. Self-efficacy and problem solving as moderator of stress and coping effectiveness and perceived locus of control are discussed. Nelson (1990) studied intrinsic/extrinsic religious orientation of the elderly. Result shows subjects with high self-esteem had more intrinsic religious orientation and were less depressed. Stroyhorn (1990) in his study found that a good significant relationship between academic achievement, religious and internal-external control of personality.

Murk and Addleman (1992) conducted a study relationship among moral reasoning, locus of control and demographic variables of college students. They found that students who had a high level of moral reasoning were also more likely to have an internal locus of control many religious organizations fed that it is their duty to teach moral values so one can assume that religious students are also likely to score high on a moral reasoning scale. In Indian context, Ramamurti and Jamuna (1994) examines how religiosity and externality are related to adjustment in old age. Findings indicate that religiosity and externality are positively associate with good adjustment. Clements (1999) studied intrinsic religious motivation and attitudes towards death among the elderly. Data provides some support for the hypothesis that people whose religious motivation tends to be primarily intrinsic fear certain aspects of death less than do people who tend to be more extrinsic in their religious orientation.

Socio-Demographic Variables

A good number of previous researches (Lazarsfeld et al., 1948; Davidson and Kruglov's, 1953; French & Lesses, 1964; Veroff and Felo, 1970; Pandharipande, 1976; Chatterjee, 1977; Shaila, 1986; Dhillon & Acharya, 1987; Nessar, 1987; Islam & Hossain, 1999; Zhang, 2000; Weir et al., 2004) suggest a number of relationships among gender, masculinity, femininity, achievement motivation, personality. The current study attempt to clarify these findings by investigating possible links between achievement motivational, personality and demographic variables. One of the earliest survey on demographic variable was conducted by Lazarsfeld et al. (1948).

French and Lesses (1964) in their study found that achievement oriented women in the traditional group did best on the skills when they were related to success as a wife and mother. Veroff and Felo (1970) also found that career oriented women value achievement through education and work life where as family centered domestic women entail achievement through marriage and parenting. Pandharipande (1976) found that socio-economic class is an important determiner of need for achievement. The pattern of school achievement in primary grades was investigated by Chatterjee (1977). He observed very little differences in achievement and cognitive development of children varying in sex, rural-urban background and school climate. But when the children reached grade 5, there were significant differences in favour of boys. Aggarwal & Suraksha (1978) studied the effect of achievement motivation and level of perception of personal control. They found that high internal group had significantly high achievement motivation than the low internal group. But there was no significant difference in the strength of achievement between high and low socio-economic groups.

Gupta's (1978) study is an exception; he observed significant differences between boys and girls in achievement motivation. Lalitha (1982) in her study did not get significant relationship between socio-economic status and achievement motivation. Gupta (1982) studied the effect of achievement motivation and personality of two cultural groups. Bangladeshi subjects were higher in achievement motivation than Tripuri.

There was a definite positive correlation between IQ and the need for achievement. Chistian (1983) in his study found that high motivated people had better study habits than low motivated in boys and girls. Share et al. (1983) show that indices of socio-economic status are associated positively with reading achievement. Bharathi (1984) in his study observed a high positive correlation between achievement motivation and socio-economic status. Begum & Dhar (1984) also found that achievement motivation differ as a function of occupation and is related to risk taking behaviour.

Huq, Rahman and Mahmud (1985) conducted a study the relationship between personality dimensions and academic achievement. An adapted Bengali version of Eysenck Personality Questionnaire was administered on second year honours students of psychology department of Dhaka University. First year examination records of these students were taken as a measure of academic performance. A negative correlation between psychoticism and academic achievement was found. In case of extraversion, a positive correlation with achievement was observed for the boys only. Female students were found to be less psychotic than their male counterparts. They were also observed to be superior in academic achievement. The results revealed important consistencies with some Persian findings and certain variations from the British trends. These suggest the possible operation of some cross cultural factors as moderator variable on the personality-performance relationship.

Jahan & Akhter (1985) in their study was found people those who occupying managerial position have higher achievement motivation than that of lower grade employee. The managers of private industries have high achievement motivation and risk taking decision than those of working in the public or government owned industries. Shaila (1986) in her study found that achievement motivation of male was higher than those of female counterparts. Dhillon & Acharya (1987) in their study found gender differences among different socio-economic classes in achievement motivation.

Nessar (1987) conducted a study to see whether achievement motivation and social self concept differed among working and non-working women. Nahar's (1985) Achievement Motivation Scale and M. H. Kuhn's (1954) Social Self Concept Scale were used to measures achievement motivation and social self concept. Working women were found to have higher achievement motivation than non-working women. Women having higher education were found to be higher in achievement motivation than those having lower education. Age, on the other hand, was not found to be significantly related to achievement motivation. Secondly, social self concept did not vary significantly as a function of work status and education. However, subjects in younger age group were found to have higher social self concept than those of the older age group.

Singh (1988) found that mathematical creativity was related to socio-economic status perception about parents. He also showed no significant influence on mathematical creativity by birth order and family

size. Shair (1988) and Kumari (1992) found the positive correlation between creativity and socio-economic status. Khanam (1989) conducted a study of examine the relationship between creativity, self concept and academic achievement. The sample consisted of 102 female students of class IX in the age range of 14 to 16 years and was randomly selected from two schools of Dhaka city. To measure the said variables, the following instruments were used: Bengali Version of Khatun's Torrance Creative Perception Inventory (1976), Piers-Harris Self-Concept Scale (1969) and average of total marks were obtained for academic achievement by each student in last three final examinations. Pearson's Product Moment correlations were calculated. The obtained values suggested that there is significant positive correlation between creativity and self-concept ($p < 0.05$) and between self-concept and academic achievement ($p < 0.05$). But the relationship between creativity and academic achievement was not significant.

Santhana's (1990) study suggests that educational qualifications, level of occupational categories and income groups of parents have a positive relationship with creatively. Hasan (1994) selected 50 successful Pakistani women as a sample of the study. The investigator found that those successful women were motivated and encouragement by the family members. Najam, et al. (1995) found the relationship between the achievement motivation of young Pakistani women (age 16-18 years, $N=48$) and the education of their mothers and fathers. The TAT and a questionnaire were used to obtain information. The findings indicate that there was no significant effect of mother's education in contrast to the father's education with the achievement of the subjects.

Islam & Hossain (1999) conducted a study to investigate the achievement motive and risk taking behaviour of entrepreneurs and non-entrepreneurs. It was hypothesized that entrepreneurs achievement motive and risk taking decision will be higher than those of non-entrepreneurs. To test the hypotheses 30 entrepreneurs and 30 non-entrepreneurs was selected as an incidental sample. Achievement motivation and risk taking behaviour of the entrepreneurs and non-entrepreneurs were measured by administering the Bengali version of the achievement motive scale (Afrose, 1988). Risk taking behaviour of the respondents was measured by the Bengali version of choice dilemma (CDQ) (Jahan & Jenkins, 1975). The data was analyzed by Mann-Whitney U test and Pearson's product moment correlation. The results showed that entrepreneur's achievement motive and risk taking decision scores were significantly higher than those of the non-entrepreneurs. From this result it can be said that entrepreneurs have higher achievement motivation and they take more risk than non-entrepreneurs. The overall achievement motive and risk taking score of both the groups were very low which indicates that the people in general have lower achievement motive and risk taking tendency. Pearson's product moment correlation co-efficient between the respondents age, family size, ordinal position, and income with their achievement motivation and risk taking behaviour reveal that entrepreneur's age has significant positive correlation with achievement motive and negative correlation with risk taking behaviour. Ordinal position was found to have positive correlation with risk taking behaviour. On the other hand family

size has significant negative correlation with achievement motivation and risk taking behaviour. For non- entrepreneurs, risk taking behaviour was negatively correlated with the age. Correlation between achievement motivation and risk taking behaviour of entrepreneurs and non-entrepreneurs with other variables were non-significant. The study of Zhang (2000) suggests that the subscales of Biggs's study process Questionnaire statistically predict student's achievement beyond their self-rated abilities and in some cases are significantly related to the student's age, gender and their parent's education level.

All the different approaches cited above have attempted to explore the uncultivated region of achievement motivation as relating to personality factors of internal external control of Science and Arts students from different angles of visions. This does not indicate that the various approaches are the isolated and the discrete phenomena in the motivational, personality and demographic variables. In fact the study of achievement motivation and personality is a total entity and it cannot be separated into different compartment of approaches. Each approach unfolds and unknown region that held to the understanding and development of the other viewed in this sense of achievement motivation is a joint product of all the approaches taken together.

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*The Development and Background
of the Present Study and the Statement
of the Objectives*

Chapter Three

THE DEVELOPMENT AND BACKGROUND OF THE PRESENT STUDY AND THE STATEMENT OF THE OBJECTIVES

The relationship between academic achievement and internal-external control was examined through the use of a survey completed by college students. The present study was designed, for a comparative analyses of the achievement motivation and personality factors of Arts and Science, male and female college students having high and low academic back-ground in Bangladesh. The review of the interpretation to the study of achievement motivation and internal-external control of personality (*Chapter-1*) and empirical studies in this area (*Chapter-2*) indicate the presence of several compiling explanations for the continuity and trend in academic achievement. The review of the literature suggests that any attempt at understanding achievement motivation and personality factors between Arts and Science college students cannot be separated from socio-cultural context within which the study is to be carried out. It is therefore, necessary to give a brief introduction to the educational culture of transitional societies to spelling out the approach and objectives of the study.

Educational Culture of Bangladesh

We should have to know about the history and geography of Bangladesh brief, before the discussion of Education Culture of Bangladesh. Once Bangladesh was a part of the Indian state of West Bengal. West and east Bengal together was called Greater Bengal. When India becomes independent and then a new country was created from the two parts called. Pakistan where Muslims were in the majority. East Pakistan actually was East Bengal which is now called Bangladesh. The great mass upheaval in East Bengal was the direct consequence of student activism and student power. The need of Bengali Nationalism was rooted in all these student protests, the main issue being autonomy of the East Bengal. Eventually the demand for autonomy was turned into a demand for free and sovereign Bangladesh which became a reality on the 16th December, 1971. In this struggle for freedom student community played the vital role by gaining as freedom fighters.

Bangladesh occupies part of the north-east of the Indian subcontinent. It is surrounded by Indian part boarder. There are many rivers, which is ended to the Bay of Bengal and in India Ocean. These rivers are the Ganges, Brahmaputra, Meghna etc. The land of Bangladesh is very flat and low. The highest point is the hills in the northeast and southeast. Public education of Bangladesh generally follows the model established by the British prior to 1947. Although primary-school education is cost-free but at least one third of all children are not enrolled

in school. Poor school attendance is a major reason for a literacy rate of only 35% for Bangladesh aged 15. The country had about 48,140 primary schools, with total annual enrolment of some 13 million pupils, and about 9,700 secondary schools, with a combined yearly enrolment of about 3.6 million in the period of 1990 to 1991. Literacy rate is low and there is a significant disparity between female and male literacy rates. However, with on going awareness of both the government and NGO's literacy rate has been going up. Bangladesh gets international literacy prize 1998 from UNESCO for its ongoing literacy rate.

The system of education is divided into 4 levels-primary (from grades 1 to 5), secondary (from grades 6 to 10), higher secondary (from grade 11 to 12) and ultimately to college and university level. Alongside national education system, English medium education is also provided by some private enterprises. They offer 'A' level and 'O' level courses. There is also Madrasha system, which emphasizes on Arabic medium Islam-based education. Under-graduate level is finished with H.S.C. Then begins graduation level, which is dealt by Universities. Universities also offer Master's and Doctorate degrees.

There are Government Universities and approximately 55 private Universities in Bangladesh. Specialized universities are Bangladesh University of Engineering and Technology (BUET), Bangladesh Agricultural University and Bangladesh Shaikh Mujib Medical University. Bangladesh has several Universities, the largest of which is the University

of Dhaka (1921). Others include Bangladesh University of Engineering and Technology (1962) and Jahangirnagar University (1970), both in Dhaka the Bangladesh Agricultural University (1961) in Mymensingh, the University of Chittagong (1966); and the University of Rajshahi (1953). Colleges included the Bangladesh College of Textile Technology (1950) in Dhaka, the Chittagong Polytechnic Institute (1962). In the period 1990 to 1991, the country's colleges and universities together enrolled more than 767,000 students. In the EFA National plan of Action, the Government set the target of rising gross primary enrolment from 76% in 1991 to 95% by the year 2000, the completion rate from 40% to 70% and the adult literacy rate from 35% to 62%. It is being claimed that already considerable progress has been achieved in realizing these, targets; gross primary enrolment has reached 92%, completion rate 60% and adult literacy rate 42%.

Educational Planning and Policy of Bangladesh

Public expenditures for education were very low in Bangladesh and as a percentage of the gross domestic product, the level of expenditure for education in 1983 was approximately 1.3%, a figure that did not rise substantially through 1988. On the average, the sectoral share of education in the total development expenditure of the Government between 1973 and 1983 was only 4.1%, in 1985, it was only 3.1%. The third five years plan included efforts to improve quality by restructuring higher secondary, college education making it more cost effective, introducing management

controls and performance evaluations. Community based non formal education approaches seemed to hold promise as an alternative means of providing basic arithmetic and reading skills. For instance the Bangladesh Rural Development Board has been able to achieve low dropout rates, especially for females in nonformal primary schooling, keeping operating costs low and capital expenditures at a minimum.

The Ministry of Education and Culture was responsible for planning, financing and managing education at all the levels. The adhoc Bangladesh Education Commission was appointed in 1972 to investigate and report on all major aspects of education. In 1987 another high-level body, “the National Education Commission” was instituted. In August 1988 recommendation were for compulsory free education; reforms in madras a, medical and low education; and removal of student politics from the campus. It was expected that the commission’s recommendation would be addressed in the fourth and fifth five year plans covering the period up to the year 2000. For the development of personality, academic institution is one of the places, where personality develop achievement motivation influenced by personality factors. Thus teaching learning process can be help to develop of student’s personality and than personality influenced to achievement motivation.

After the discussion of the approaches, it is therefore necessary to trace the background of academic achievement motivation and personality. In order to appreciate the design and method employed for the study, it is

also necessary to reflect on the educational background of Bangladeshi people and economic growth in the country. Furthermore, it is necessary to review the relevant literature related to Achievement Motivation and Personality factors like Internal-External control. In order to understand achievement motivation in relation to students' personality factors and demographic variables such as Arts Science faculty, gender differences and as well as high and low achievement category differences, an extensive review is attempted for arriving at an integrative analysis of the present study in *chapter-II*. Therefore this chapter of reviews is an extension of the theoretical approaches outlined in the *chapter-I*.

Developing Attitudes that Promote Learning

Instant Gratification is the byword of modern society. When people want light, they turn a switch. When they want entertainment, they turn a knob. People's expectations of instant gratification make it difficult for them as they rear children. Parents must think horizontally of reaching their goals, in months and years rather than moments and days. When they think in terms of months and year, they become more patient. As they have more patience, they feel less frustration and find more pleasure in their work of children. The children sense their parents' increase in satisfaction, and they respond by being happier and more motivated to learn and please because they sense parental acceptance. When adults remember the principle of patience, they become more flexible and less stressed in setting their goals for the children. They set their goals realistically, basing

those goals on the child's immediate and specific needs. Each child is different, each child functions differently from other child, as though two children may be in the same general phase of development. People who work with the children enjoy them without comparing them to other children.

Given an atmosphere of happiness, children learn better and parents find more satisfaction in child rearing. Parents make progress when they allow time for an attainable goal. They can enjoy any situation if they continually focus on the pleasing factors in their lives. There are two ways to handle the problems of all children. Adults can be threatened and angry, or can enjoy what is beautiful while devising training programs and constructive methods for solving the problems. It all works better when adults remember to be patient, loving and reasonably happy.

Motivation to Learn and the Training of Human Beings

People do the things that reward them with something they want or enjoy. The popular belief is that "the mind is a storehouse for facts". Teaching is thus a process of filling the storehouse with facts and learning is the process of acquiring or absorbing facts. The more facts, the more learning. The concept of learning as a process of acquiring facts, knowledge or information is fallacious. Unless what we learn becomes a necessary or useful part of our functioning as individuals, unless there is a change in our behaviour as a result of learning, such learning cannot be called real learning. Contrary to the above traditional views, learning today is

considered to be a process of change, in behavior or modification of behavior. Look at the definition given below; they all emphasize learning as change of modification of behavior.

All learning is change in behavior but all change in behavior is not learning. Certain changes in behavior occur due to maturation, drug and fatigue and practice in schools and colleges. Besides fatigue, drug or temporary mental state, maturation also plays an important role in bringing out change in behavior. Maturation in youth means development of anatomical and physiological structure of the body. Moore, Manning and Smith (1978) have very rightly said, learning is limited to those changes in behaviour in training or experience and not a result of maturation or temporary physiological or psychological states of organism. Maturation helps in the learning process.

However, any real learning leads to permanent changes in behaviour. Students learn a subject or a chapter, and after the examination, they forget most of what they were taught. This happens so, because what is learned does not become a part of their daily life. By learning they, mean 'memorization' or being able to pass an examination or forget it after the examination. Learning can be both incidental and intentional. The school / college curriculum teaching methods and learning styles must be oriented to both intentional and incidental learning. Learning results from reinforced practice makes a man perfect. Practice training or experience leads to improvement in present learning. But practice done does not cause

improvement. Some types of reinforcement should therefore follow practice. Learning should always be associated with reinforcement. Learning involves both overt and covert processes. Students learn attitudes and values, which are covert processes. When we define learning as change in behavior, it includes both overt acts and covert processes. Learning as a product includes the results or outcomes of learning. The outcomes of learning may be cognitive, affective, or motor learning. Outcomes of learning not only include the types of achievement but also the level of achievement such as mastery over the task or learning just the essentials. In short learning as a product includes the level and type of competencies attained by the students in relation to the learning task.

Teaching and Learning Effectiveness of the Students

Education is essentially a human affair. It is the influence of one person on another. One mind, one personality and character interact with another and that how education begins. Two groups of persons will inevitably exert the greatest and most enduring influence on the education of the students, his parents and his teachers. Good parents and good teachers are born as well as made. The qualitative aspect of education depends entirely on the character and personality of the teacher. Teaching aids, school and college plants and material aids are necessary for qualitative improvement of education. But a good teacher can communicate the divine spark of learning in a barn, a shallow one will achieve little, even with the latest scientific aids.

Research consistently shows that teachers have the greatest potential to influence student's education. The major research finding is that student achievement is related to teacher competence in teaching (Kemp and Hall, 1992). Evidence from teacher-effectiveness studies indicates that students' engagement in learning is to be valued above curriculum plans and materials. Research on teacher effectiveness has yielded a wealth of understanding about the impact that teacher ability has on students. Some findings are as follows:

- Students achieve more when teachers employ systematic teaching procedures (Kemp and Hall, 1992).
- Effective teachers spend more time working with small groups throughout the day (Taylor et al. 2002).
- Greater academic progress occurs when lessons begin with review (Kemp and Hall, 1992).
- Effective teachers use systematic feedback with students about their performance (Kemp and Hall, 1992).
- Teachers who have higher rates of communication with parents are viewed as more effective (Taylor et al, 2002).
- Teachers who adjust the difficulty level of material to student ability have higher rates of achievement in their classes (Kemp and Hall, 1992).

Thus, the problem of finding enough teachers for students population, explosion all over the country is a pressing one. But a greater and more urgent necessity is that of finding the effective teachers.

Teacher Effectiveness and its Determinants in the Educational Institution:

Teacher effectiveness means perfection or the optimums level of efficiency and productivity on the part of the teacher. It refers to the height of maturity and learning in the life span of a teacher. This concept of effectiveness as the height of maturity and learning indicates that as the teachers grows with experience and learn more and more, he is able to perform his best on the process of education. Anand (1983) reports “effectiveness is considered to be the finest trait of a person. As an attribute, it represents his personality in the best of his form”. Teachers’ effectiveness is an area of research, which is concerned with relationships between the characteristics of teachers, teaching acts and their effects on the educational outcome of classroom teaching. Teacher effectiveness is assessed using three types of criteria such as; (a) process, (b) product and (c) presage Process as a Criterion (Klausmeir and Goodwin, 1978).

Process refers to the performance and behavior of the teacher student behaviour, and the student-teacher interaction in the classroom. Individuals who prefer this criterion think that the best of teacher effectiveness is what the teacher does in the classroom, what the students do the interaction that occurs between the teacher and the students or all

there. *Product* refers to what is learned or the outcomes of learning. Individuals who prefer this criterion think the best test of teacher effectiveness is how well student achieve Achievement test and other measures in the cognitive, psychomotor and affective domains are used to measure teacher effectiveness according to this criterion. A third type of criterion is *presage*, which refers to the academic background and personal characteristic of teachers. Individuals who prefer this criterion think that the best of teacher effectiveness is the intellectual abilities of the teacher, the training and education received by him, his personal characteristics or all these. Thus, according to this criterion, teacher effectiveness is assessed from the teacher's college records/marks, test scores and ratings usually made outside the classroom. It must be noted here that there are both direct and indirect ways of determining teacher effectiveness. Product and process are direct determinants of teacher effectiveness, presage being the indirect determinants. But while assessing teacher effectiveness it is advisable to use all the three criteria than to use any one criterion (Begum, 2005).

Need of the Present Study

Higher secondary education is the most important stage of education from where quality education takes lace. Most of the student decided there starting of academic carrier after completion of higher secondary education. Achievement of the students and their quality education already decided after completion of S.S.C. and H.S.C. examination results.

Whether students would be a doctor, engineer, university/college teacher or chose cadre service as their carrier depends on their efficacy. High motivation for achievement and internal controlled personality on which, they have strong faith and belief. Thus, the present investigator thinks that the quality education depends on high achievement motivation and personality factor like internal-external control (Ara, 1983).

Objectives of the Present Study

The purpose of the present study was to make a comparative analysis of the phenomenon of achievement motivation and personality factors of internal-external control on college students related to some demographic factors in the present context of Bangladesh. The main objective was therefore, to find out the differences and similarities between Arts and Science, Male and Female, High achiever and Low achiever college students on the variables of achievement motivation and personality factor i.e. internal-external control. The specific objectives may be stated as follows:

Firstly, to find out the deferential achievement motivation scores between Arts and Science, male and female, high and low achiever students.

Secondly, to find out the deferential personality factors on internal-external control scores between Arts and Science, male and female, high and low achiever students.

Thirdly, to find out the intergroup similarities between Arts male and Science male, Arts female and Science female, Arts high achiever and Science high achiever, Arts low achiever and Science low achiever students on the variables of achievement motivation and personality factors of internal-external control.

Fourthly, to find out the intragroup similarities between Arts male and Arts female, Science male and Science female, Arts high achiever and Arts low achiever, Science high achiever and Science low achiever students on the variables of achievement motivation and personality factors of internal-external control.

Design of the Present Study

A perusal of aims of the present study stated above shows that it emerges from the interplay of certain wider achievement motivation variables and personality factors as a social psychological processes of the faculty of Arts and Science, male and female, high achiever and low achiever students. It is, therefore, necessary to note that as the study constitutes a somewhat pioneering effort to integrate specific achievement motivation variables relating to personality and demographic factors of college students. There are few guidelines in the literature for the prediction in this field. Moreover, there are a few empirical studies available in Bangladesh for providing empirical evidence about the high and low achievement motivation of the Arts and Science.

The study used college students as the sample from different educational institutions with high and low achievement. A total of 240 subjects equally divided into Arts and Science with subdivision of male and female students having high and low achievement motivation were used. Thus each group constituted 30 students subjects. Thus, two faculty of Arts and Science, two gender of male and female, and high and low motivation were used as the demographic factors of the present study.

In order to attain and explore the objectives of the present study the following hypotheses were formulated.

Formulation and Justification of the Hypotheses:

The present investigation has been designed to explore achievement motivation between Arts and Science students having male and female gender background. *Chapter-I* contains important theoretical interpretation and *chapter-II* contains relevant review of literature which provide substantial guideline for formulating specific prediction for the study consequently. The following hypotheses were formulated on the basis of chapter I and II.

H₁: It was hypothesized that science students as a whole would scores higher on achievement motivation and personality factor of internal-external control as compared to arts students in general.

Science students exhibited higher achievement motivation and were found more internality control in personality patterns, in general. It was

also observed in the educational field that Science students have to depend on their own internal ability and skills for their higher achievement. On the contrary, arts students in the college level were found to depend on so many external factors such as on the teachers, or powerful others for their better results. Riaz (1989) conducted a study to find out the relationship among academic excellence, creativity, achievement in Science. The result showed that academically superior group earned significantly higher scores on all these tests as compared to below average group. Atkinson (1964) stated that the economic development of country or overall progress in any society is largely a function of an inner need for achievement of the individual. The individual carries the same need from one situation to another. It is mainly characterized by the individual's capacity to take pride in his own accomplishment. This theme is explainable in the context of socio cultural, economic, political and also educational system of a society. The religious belief and the value system of its people, the manner and the extent to which the members of the society internalize these beliefs and the value system of early learning and education, their experience of success and failure to fulfill their early needs have tremendous effect on socialization process and in formation of attitudes motives and personality and also on the skills the Science students have developed (Ara, 1983, 1988; Rahman, 2003; Ahmed, 2004; Kabir, 2006). The individual's roles and actions to other people have been determined by their families in early childhood. The manner in which, the society has regulated their behavior with reference to their common goals through various kinds of incentive

systems that has also worked. Thus it is hypothesized that science students as a whole would score higher on achievement motivation and personality factor of internal-external control as compared to arts students in general.

H₂: It was hypothesized that male students of both arts and science would score higher on achievement motivation and personality factor of internal-external control as compared to female students of both arts and science respectively.

In order to investigate motivational differences between male and female the concept of role behaviour and its relation to gender differences is a very important factor. According to Linton (1937); Lazarsfeld et. al. (1948) role refers to the functioning of an individual in the larger society and helps to explain the patterning of social behaviour. The role involves the performance of the rights and duties constituting a particular status. Role behaviour may be ascribed or achieved. It is ascribed when duties were assigned automatically by the society and it is achieved when individuals fit themselves into a pattern of social norms because of the learning and experience (Ara et. al., 1989; Ahmed, 2005; Rahman, 2006). One of the most important aspects of role behaviour may be attributed to gender differences. Beliefs, attitudes, personalities, and culture reflect the fundamental differences in male and female and because of these obvious differences, numerous assumptions about psychological differences arise. Gender differences are also observable in the area of achievement motivation, personality manner and different contemporary issues like educational

system. It is always expected that in developing countries like Bangladesh male individuals have more exposure to the area of higher achievement. In most of the cases they are the policy makers. On the country female individuals have to perform different role behaviour regarding family member, society and relatives. In the present investigation it is observable that male students were found to possess higher score on achievement motivation. They show of motivation as primarily control by innate motives. Gupta's (1978) study is an exception; he observed significant differences between boys and girls in achievement motivation. Shaila (1986) in her study found achievement motivation of male was higher than female. In developing societies the male students predominates the female in making decisions in comparison to female students and these decisions are hardly changed. But the females have to cope with the every situation to make adjustment with the families and thus have to play flexible role. In the present study the male students were found more internally controlled as compared to female students in their personality pattern. This pattern of personality may be explained through the theoretical interpretation by Rotter's social learning theory and value expectancy theory. Thus, it is hypothesized that male students of both arts and science would scores higher on achievement motivation as well as on personality factor of internal-external control as compared to female students of both arts and science respectively.

H₃: It was hypothesized that high achiever students both arts and science would score higher on achievement motivation and personality factor of internal-external control as compared to low achiever students both arts and science respectively.

High achiever students would express more achievement motivation and more internally controlled as compared to low achiever students. This idea is explainable through the theoretical framework of social and psychological needs of high achiever and low achiever students. Motivation also concerned the source of the motivation, i.e. internal versus external sources of motivation. Different motive states can be conceptualized through the active promote behaviours which used to reduce those needs. Petri (1985) examined the motivation effects of either various goal objects determined by the individuals. High achiever students are generally guided by their fixing the high goal objects. Thus, they usually try to achieve high stimuli objects as compared to low achiever students. This idea can be explained through Rotter's expectancy reinforcement value theory. Reinforcement value of the individual is the degree of preference for any one of the groups of reinforcement to occur. Reinforcement values of the high achiever students used to belief on their own ability and to achieve high goal. Thus, the high and low achiever students who have been associated with their level of reinforcement which gives rise to expectancy may be justified that the high achiever would be found more internally controlled as compared to low achiever students in general. Thus, it is hypothesized that high achiever students both arts and science would scores higher on achievement motivation and personality factor of internal-external control as compared to low achiever students both arts and science respectively.

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Method and Procedure

Chapter Four

METHOD AND PROCEDURE

The chapter describes the method and procedure used for the study. It contains the description of the sample, sample selection, description of the instruments and procedure of administration of the test.

Sample

Background of the Sample Setting

The investigation was conducted on two student samples- one from Arts and the other Science. These samples were collected from Rajshahi and Chapai Nawabganj District in Bangladesh. These samples came from different educational institutions like Rajshahi University, Rajshahi Govt. College, Rajshahi Women's College, Rajshahi New Govt. College, Rajshahi City College, RUET, Nawabganj Govt. College, Nawabganj Women's College, Kansat Degree College, Binodpur College, Sibganj Women's College, Adina Fazlul Huque Govt. College, Sibganj Degree College and Alabocks Memorial College. These Ss consisted of the male, female, high achiever, and Low achiever students. Before giving the details of the sample and procedure it is essential to get acquainted with the background of the sample settings.

Rajshahi district is famous for her reputation of having educational institutions since late 18th century. The educational institutions of this city are equally loaded with heavy pressures of students hailing from remote rural areas. Rajshahi is a traditional old city on the northern part of Bangladesh. It is situated on the northern side of river Padma. This city bears the testimony of high reputation for its production of intelligentsia. This city was the centre for occupation, culture, and educational activities during pre-British period. Since then the students' community of this city is well known for their participation in national and local development. Almost all the educational institutions have active students' union. These unions are reputed for conducting various students' movements relating to the interests of the students' community as well as the regional and national issues. Most of the students' of this city hail from lower middle and upper middle classes of the population. Almost all educational institutions of the city have active students' organizations. These organizations are related with various students' movements of local and national issue.

Chapai Nawabganj was famous for mango garden and as well as the place of educated and wealthy people. Economically and politically the people of Chapai Nawabganj are very much conscious and they have actively taken part in independence of Bangladesh in 1971. Chapai Nawabganj was famous for so many intellectual people. This place is well known for the intellectual classes in the field of education, politics, and cultural sector. The famous folk sang of Chapai Nawabganj named 'Gamvira' is also well known to all. It has also some memorable history

for the independence of Bangladesh bearing the testimony of some freedom fighters who were shahid. Some famous small silk industries are also situated in different places of Chapai Nawabganj. In pre-partition India today's Sonamoszid of Chapai Nawabganj was the capital of Bengal in the period of Somrat Allauddin Hossain Shah while it was named as Gour. She had also religious importance for some famous pious men who came there and preached Islam.

Personal Information Sheet (PIS)

A questionnaire was set for collecting the personal information of the male and female students, such as his / her name, age, sex, name of the educational institutions, religion, monthly income, faculty, results in S.S.C. examination, results in H.S.C. examination, socio-economic status, urban-rural background, place of birth, etc.

Demographic Criteria Questionnaire (DCQ):

In this study Ara's (1998) Demographic Criteria Questionnaire (DCQ) were used. In the first phase criterion groups of Arts and Science were selected on the basis of a demographic criteria questionnaire. The criterion groups were subdivided into male and female students. These groups were again subdivided into high achiever and low achiever according to their response in demographic criteria questionnaire, who passed their S.S.C and H.S.C examination ether in first divisions or obtained grade-A or above were selected as high achiever students. But those students who passed S.S.C. and H.S.C. in second division / Third division obtained grade B / C were considered as low achiever students.

Final Sample Selection

The investigation was conducted on two groups of sample- One from Arts (N = 120) and the other from Science (N = 120). Each sample was divided into two groups of male (N = 60) and female (N = 60) between age ranged from 18-24 years. Both group of male and female students were again sub-divided into high achiever (N = 30) and low achiever (N = 30). High and low achievers were determined according to their S.S.C and H.S.C examinations results. Those students who passed in first division or grade A or above exam were considered as high achiever and less than that were considered as low achiever.

The selection of sample was done on the basis of their belongingness of Arts and Science. These samples were the male and female students of under graduate classes from Govt. and non Govt. degree college, Medical College, Engineering College i.e. from different Faculties between the age ranges from 18 to 24 years. Their educational background was determined on the basis of their responses of their academic results as mentioned on the bio-data sheets. High achievers and low achievers background was determined by demographic criteria questionnaire (DCQ). The sample distribution has been shown in the following table.

Table –01: Group Wise Sample Distributions

Group	Arts		Science		Total
	High Achiever	Low Achiever	High Achiever	Low Achiever	
Male	30	30	30	30	120
Female	30	30	30	30	120
Total	60	60	60	60	240

Demographic Characteristics of the Sample:

Arts Students

Table-02: Showing Residential Background of Male and Female Students of Arts (N=60 for each group separately).

Students	Urban Background	Rural Background
Male	65%	70%
Female	35%	30%

Regarding residential background of 65% male and 35% female had urban background. But 70% male and 30% female had rural background (Table No-02).

Table – 03: Showing SES Background of Male and Female Students of Arts (N=60 for each group separately).

Students	Upper Middle SES	Lower Middle SES
Male	45%	60%
Female	55%	40%

Regarding SES background of 55% female and 45% male had upper middle SES background. But 60% male and 40% female had lower middle SES background (Table No-03).

Table – 04: Showing Institutional Background of Male and Female Students of Arts (N=60 for each group separately).

Name of the Institutions	Male	Female
Rajshahi University	14%	10%
Rajshahi College	18%	12%
Rajshahi Women's College	-	15%
Rajshahi New Govt. College	6%	4%
Rajshahi City College	4%	3%
RUET	8%	2%
Nawabganj Govt. College	12%	8%
Nawabganj Women's College	-	11%
Kansat Degree College	7%	5%
Binodpur College	9%	6%
Sibganj Women's College	-	12%
Adina Fazlul Huque Govt. College	13%	7%
Sibganj Degree College	6%	3%
Alabocks Memorial College	3%	2%

Regarding institutional background it was found from the information sheet that male students of Arts were taken 14% from Rajshahi University, 18% from Rajshahi College, 6% from Rajshahi New Govt. College, 4% from Rajshahi City College, 8% from RUET, 12% from Nawabganj Govt. College, 7% from Kansat Degree College, 9% from Binodpur College, 13% from Adina Fazlul Huque Govt. College, 6% from Sibganj Degree College and 3% from Alabocks Memorial College. But female students of Arts were taken 10% from Rajshahi University, 12% from Rajshahi College, 15% from Rajshahi Women's College, 4% from Rajshahi New Govt. College, 3% from Rajshahi City College, 2% from

RUET, 8% from Nawabganj Govt. College, 11% from Nawabganj Women's College, 5% from Kansat Degree College, 6% from Binodpur College, 12% from Sibganj Women's College, 7% from Adina Fazlul Huque Govt. College, 3% from Sibganj Degree College and 2% from Alabocks Memorial College (Table No-04).

Science students

Table-05: Showing Residential Background of Male and Female Students of Science (N=60 for each group separately).

Students	Urban Background	Rural Background
Male	62%	53%
Female	38%	47%

Regarding residential background of 62% male and 38% female had urban background. But 53% male and 47% female had rural background (Table No-05).

Table – 06: Showing SES Background of Male and Female Students of Arts (N=60 for each group separately).

Students	Upper Middle SES	Lower Middle SES
Male	42%	56%
Female	58%	44%

Regarding SES background of 58% female and 42% male had upper middle SES background. But 56% male and 44% female had lower middle SES background (Table No-06).

Table – 07: Showing Institutional Background of Male and Female Students of Science (N=60 for each group separately).

Name of the Institutions	Male	Female
Rajshahi University	17%	12%
Rajshahi College	15%	10%
Rajshahi Women's College	-	17%
Rajshahi New Govt. College	8%	2%
Rajshahi City College	2%	5%
RUET	9%	2%
Nawabganj Govt. College	11%	6%
Nawabganj Women's College		13%
Kansat Degree College	9%	3%
Binodpur College	7%	8%
Sibganj Women's College		10%
Adina Fazlul Huque Govt. College	15%	9%
Sibganj Degree College	5%	2%
Alabocks Memorial College	2%	1%

Regarding institutional background it was found from the information sheet that male students of Arts were taken 17% from Rajshahi University, 15% from Rajshahi College, 8% from Rajshahi New Govt. College, 2% from Rajshahi City College, 9% from RUET, 11% from Nawabganj Govt. College, 9% from Kansat Degree College, 7% from Binodpur College, 15% from Adina Fazlul Huque Govt. College, 5% from Sibganj Degree College and 2% from Alaboeks Memorial College. But female students of Arts were taken 12% from Rajshahi University, 10% from Rajshahi College, 17% from Rajshahi Women's College, 2% from Rajshahi New Govt. College, 5% from Rajshahi City College, 2% from RUET, 6% from Nawabganj Govt. College, 13% from Nawabganj Women's College, 3% from Kansat Degree College, 8% from Binodpur College, 10% from Sibganj Women's College, 9% from Adina Fazlul Huque Govt. College, 2% from Sibganj Degree College and 1% from Alaboeks Memorial College (Table No-07).

Method and Procedure

As stated in Chapter III the present study uses a multidimensional approach with a criterion group design to highlight the similarity and differences on achievement motivation, internal-external control and demographic variables of Arts and Science college students in Bangladesh. In addition to these demographic variables gender differences was also used for the study.

Selection of Instruments

- 1) Ara's Modified form of Afsaruddins' Achievement Motivation Scale (Bengali Version).
- 2) Adaptation of Rotter's Internal-External Control Inventory (Ara's Bengali Version).

The investigator collected the answer sheet from the respondents. Each sheet was properly scrutinized and coding was done accurately. The scale was comprised of both types of positive and negative statements. Its positive statements expressed high achievement and negative statements expressed low achievement. Strong agreement with positive items was assigned a score of 5 while strong disagreement with these items was given a score of 1. Scoring was reversed for negative items. Strong disagreement with negative items was scored 1 and strong disagreement with these items was given a score of 5. Thus for 26 statements the total scores ranged from $(26 \times 1) = 26$ to $(26 \times 5) = 130$. Therefore, the highest score indicated high achievement and the lowest score indicated low achievement.

1. Ara's Modified form of Achievement Motivation Scale (Bengali Version).

In the present investigation Ara's modified form of Achievement Motivation Scale (Bengali version) was used which was based on Afraruddin's Achievement Motivation Scale measure the achievement

motivation of college students which was related to academic achievement. The scale was constructed as an objective measure of achievement motivation through questionnaire technique. It consists of 44 items out of 54 items after revision. Each item represents on characteristic of need for achievement motivation. These items were constructed in the form of sample statements to which the individual respondent was required to express his agreement or disagreement with a certain degree. It is a single item system. Afsaruddin's Achievement Motivation Scale was adopted in Bengali in 1987 in which finally 44 items were retained. The items were ranged from strong agreement to strong disagreement.

The Achievement Motivation Scale in its original form is comprised of 44 items including fillers. This scale is an outcome of revision and purification done by Afsaruddin (1987). He eliminated those items which were highly correlated with academic desirability scale. Two types of reliability had been obtained to this scale. The reliability of the method of the final achievement motivation scale was estimated by the method of (a) Split-half reliability and (b) test retest reliability. (a) *Split-half reliability* was obtained firstly at the time of final selection of items. The split-half reliability co-efficient was obtained $r = 0.75$, $p < 0.01$ with $N = 205$. Secondly at the time of standardization the split-half reliability co-efficient was found to be $r = 0.67$, $p < 0.01$ with $N = 822$. (b) *A test-retest reliability* co-efficient with interval of 11 months for 72 Ss was determined to be $r = 0.46$, $p < 0.02$. The concurrent validity of the scale in terms of its

correlation with the achievement variable of EPPS was obtained and the co-efficient of correlation was found to be $r = 0.69$, $p < 0.01$ with $N = 75$.

In the present investigation Afsaruddin's Achievement Motivation Scale was modified. 26 items out of 44 items in the modified form was selected. The modified form of Bengali version scale was correlated with Afsaruddin's Scale ($N=30$) and high correlation was obtained $r = 0.72$. Predictive validity of the achievement motivation scale (AMS) was obtained by comparing the mean scores of the high academic success group with those of the low academic success ones. Ss with high academic success obtained significantly higher scores on the AMS than the Ss with low academic success ($t = 5.26$; $p < 0.01$). Afsaruddin's (1987) achievement motivation scale was translated into Bengali in the present socio-economic and educational context of Bangladesh.

Administration of Achievement Motivation Scale:

The application booklet contains all the necessary information regarding the administration of the scale. The achievement motivation scale was scored in the direction of 5 point scale ranging from the positive items scale points were distributed 5, 4, 3, 2 and 1 respectively which were corresponding to strong agreement, agreement, uncertain, disagreement and strong disagreement. Therefore the maximum score was obtained $(26 \times 5) = 130$ and the minimum score was $(26 \times 1) = 26$ according to Achievement Motivation Scale. Thus the total scores ranged from 26 to 130. Here high score indicated high achiever and Low scores indicated low

achievers. Answer sheet was provided and the respondent decided whether he/she agreed or disagreed with the statement and then they expressed the degree of their agreement or disagreement by marking in the answer sheet.

The items in the scale were presented in which each items was scored as given below:

Direction of Scoring	Strong Agreement	Agreement	Uncertain	Disagreement	Strong Disagreement
Positive	5	4	3	2	1
Negative	1	2	3	4	5

Dimensions of Achievement Motivation Scale were conceptualized by various investigators in different way (Weber, 1904; Brown, 1967; Lynn, 1969; Murphy and Likert 1938 and Afsaruddin 1987). The present scale had eleven cluster variables, which carry 11 characteristics of high and low achievement motivation. The eleven dimension of this scale, are given below:

1. Regularity and punctuality.
2. Work habit.
3. Initiative.
4. Sense of responsibility.
5. Risk taking.
6. Spirit of independence.
7. Optimistic.

8. Leadership quality and ability to guide.
9. Concern for efficiency.
10. Tendency to accept additional responsibility.
11. Tendency to do better than others.

However for the present purpose of the study high achievers and low achievers has been conceptualized as follows on the basis of item's characteristics modified by Ara (2003). Conceptualized item characteristics high achievers and low achievers personality in the present form were determined in the following manners, which was used in the present study.

Characteristics of High Achievers:

i) Not easily fatigued, (ii) Setting a goal object in advance, (iii) Competence and hard work, (iv) High time perception, (v) High persistence is present, (vi) Belief in regularity and punctuality, (vii) Unsatisfied with perfection in work, (viii) Tend to achieve a goal that possess standard of excellence, (ix) Interest in discovering new things, (x) Disinherited tendency, (xi) Tendency of best worker among the colleagues, (xii) Possess an fatalistic attitude, (xiii) Exhibitory tendency, (xiv) Sense of responsibility, (xv) Feeling interest when confronted with moderate blockage, (xvi) Have Inquisitiveness, (xvii) Strong tendency to achieve success, (xviii) Conscious about time in relation to work, (xix) Setting a goal object in advance, (xx) Having Task tension, (xxi) Initiative, (xxii) Conscious about time in relation to work, (xxiii) Having Risk taking behavior, (xxiv) Tendency to achieve unique success, and (xxvi) Willingness for personal achievement.

Characteristics of the Low Achievers:

(i) Easily fatigued, (ii) Not setting a goal object in advance, (iii) Incompetence and not hard working, (iv) Poor time perception, (v) Poor persistence, (vi) Irregularity in less punctualness, (vii) Satisfied less work, (viii) No tendency to achieve a goal that can be compared with some standard of excellence, (ix) Not interest in discovering new things, (x) Inertial tendency, (xi) No tendency to be the best worker among the colleagues, (xii) Possess Fatalistic attitude, (xiii) Non exhibitory tendency, (xiv) No sense of responsibility, (xv) Not feeling interest when conform with moderate blockage, (xvi) Careless to time, (xvii) Low tendency to achieve success, (xviii) Unconscious about time in relation to work, (xix) Not setting a goal object in advance, (xx) Negative to task tension, (xxi) Not initiative, (xxii) Unconscious about time in relation to work, (xxiii) No risk taking behavior (xxiv) Satisfied with partial work (xxv) No tendency to achieve success. (xxvi) Willingness for affiliated group achievement.

Thus the achievement motivation score may be conceptualized in the way that those students who possess the characteristics of the high achievement may be called as high achievement motivation. On the contrary, those individuals who possessed the characteristics less of the low achievement may be called the low achievement motivation.

The modified form of Achievement Motivation Scale of the present study contains 26 items consisting of 16 positive and 10 negative characteristics in the continuum of high achievement and low achievement

motivation. Each item was scored one to five point scales. Higher scored individual was considered as possessing high achievement motivation and lower scored individual as the low achievement motivation. Hence the total score of Achievement Motivation Scale ranged from $(26 \times 5 = 130)$ to $(26 \times 1) = 26$. The achievement score was determined by using the following formula. Achievement motivation Score,

$$= \frac{[\text{Maximum possible score} - \text{Minimum possible score}]}{2} + \text{Minimum possible score}$$

$$= \frac{130-26}{2} + 26$$

$$= \frac{104}{2} + 26$$

$$= \frac{156}{2}$$

$$= 78$$

Thus, a subject scoring above 78 was considered as a high achiever in motivation and a subject scoring below 78 was considered as a low achiever in motivation. The split half reliability for the Achievement Motivation Scale was shown by the present investigator. The validity of Achievement Motivation Scale was determined through different techniques. Bi-serial correlation between Afsaruddin's Achievement Motivation Scale and the present modified form of Achievement Motivation Scale was computed with product moment correlation and the 'r' was obtained 0.78.

Adaptation of Rotter's Internal-External Control Inventory (Ara's Bengali Version)

Rotter's internal-external control inventory measure generalized beliefs in internal versus external control of events. Internal control refers to the perception of positive or negative events as being a consequence of one's own action and therefore by under personal control. External controls refer to the perception of positive or negative events as being unrelated of one's own behaviour to certain situations and therefore beyond personal control (Rotter, 1954).

The internal-external control inventory in the original form was made up of 29 items including 6 fillers. This inventory was an outcome of several revisions and purification done by Rotter and Liverant (1963, 1966 and 1975). Rotter eliminated those items which were highly correlated with social desirability scale. The reliability of the methods of the final internal-external control inventory was estimated by the methods of split-half reliability ($r = 0.65$ to 0.79). Kuder-Rickardson test ($r = 0.69$ to 0.73) and test-retest ($r = 0.55$ to 0.83). The internal-external control inventory was translated into Bengali for the purpose of using it the social context of Bangladesh, Method of Back translation was used by Ara (1983) and correlation coefficient was computed between the original English version and Back, translated English version. The r was found by Ara, 0.85 indicating high reliability of Bengali adaptation of the test.

In the present form out of 29 items 18 items were selected and adapted by Ara (2003). This form of internal-external control inventory with the original form was administered on 30 Ss and the correlation was obtained $r = 0.82$. this high correlations indicated that the inventory possessed high concurrent validity.

Administration of the Scale: The application book let contains all the necessary information of the inventory. The internal-external control inventory was scored in the direction of 5 point scale ranging for the scale was distributed 5, 4, 3, 2 and 1 for the internal items and the distribution of scale was reversed for external control i.e. 1, 2, 3, 4 and 5 respectively which were corresponding to strong agreement, agreement, uncertain, disagreement and strong disagreement. Therefore the maximum score was $(18 \times 5) = 90$ and the minimum score as $(18 \times 1) = 18$ according to the I.E scales. Thus the total scores range from 18-90. Here high score indicated internally controlled and low score indicated externally controlled of personality.

Procedure of Data Collection and Administration of Scales

The present investigation utilized Modified form of Ara's (2003) Bengali version of Achievement Motivation Scale and Adapted form of Ara's Internal-External Control Inventory for the collection of data. These two measure were administered to each of the 240 subjects separately for Arts students ($N = 120$) and Science students ($N = 120$) . At first data

collection job was done at Rajshahi and Chapai Nawabganj district in January 2003 and it was continued up to April 2005. All the respondents were the students of different educational institutions. All the respondents were Bengali and all the measures were back translated into Bengali version. These scales were administered for all students in several groups during class period. On the contrary, these scales were administered in several groups at several places for all students. As the sample was drawn from several separate institutions, data was collected from each institution on different occasions. Moreover, the students were not easily available and sometimes they were individually contacted in their hostels, house, and institutions instead of groups. Most of the students were contacted in their institutions.

Each sample was administered with a time gap of one week in order to prevent serial position effect from one measure to another. This sequence was maintained in order to check the response set effect of the respondents. The respondents took hardly half an hour to fill up each questionnaire. However, it seemed to me very difficult to collect data of female respondents, as they were very suspicious to fill up the scale. The male respondents in general, were found more co-operative as compared to female respondent. They thought that these tests were nothing but the collection of information's about their achievement in the examination results through questionnaire. This data will provide them information why some students' achievement is high and some one's achievement is low. As well as the students will also be able to know about their personal

pattern whether they have belief on their own ability or they depend on the teachers for their success. Then they were agreed to fill up those test materials. In spite of that, the investigator was successful to establish proper rapport with all the respondents.

Method of Analyses

The data thus collected has been analyzed for group each separately. Scoring was made for each subject and coding was done for final analysis of the results. The analyses were done in two parts. *In the first part*, univariate analyses of all the measures were computed for all the students to find out the differences between Arts and Science student, male and female student, and high achiever and low achiever student groups. *In the second part*, Pearson's product moment correlations were computed to find out the similarities between Arts and Science student, male and female student, and high achiever and low achiever student groups.

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Results

Chapter Five

RESULTS

Analyses of data for the present study have been divided into three parts. *In the first part* to find out the intergroup differences between Arts students and Science students on the variable of achievement motivation and personality factors of internal-external control of different educational institutions of Rajshahi had been computed by univariate method using 't' test. In this part the differences between Arts male students and Science male students, Arts female students and Science female students, Arts high achiever students and Science high achiever students, Arts low achiever students and Science low achiever students, Arts high achiever male students and Science high achiever male students, Arts low achiever male students and Science low achiever male students, Arts high achiever female students and Science high achiever female students, Arts low achiever female students and Science low achiever female students on both the variables of achievement motivation and internal-external control scores had been computed by univariate method using 't' test. These analyses contained mean and SD of each group separately.

Again, in this part to find out the intragroup differences had been computed by univariate method using 't' test on both the variables of achievement motivation and internal-external control scores between Arts male students and Arts female students, Science male students and Science female students, Arts high achiever male students and Arts low achiever male students, Science high achiever male students and Science low achiever male students, Arts high achiever female students and Arts low achiever female students, Science high achiever female students and Science low achiever female students, Arts high achiever male students and Arts high achiever female students, Arts low achiever male students and Arts low achiever female students, Science high achiever male students and Science high achiever female students, Science low achiever male students and Science low achiever female students. These analyses contained mean and SD of each group separately.

In the second part of analyses bi-serial correlation through product moment method was computed to find out the *intergroup* similarities of achievement motivational variable and personality factors of internal-external control between Arts students and Science students, Arts male students and Science male students, Arts female students and Science female students, Arts high achiever students and Science high achiever students, Arts low achiever students and Science low achiever students, Arts high achiever male students and Science high achiever male students, Arts low achiever male students and Science low achiever male students, Arts high achiever female students and Science high achiever female

students, Arts low achiever female students and Science low achiever female students. Again, *intragroup* similarities of achievement motivation and internal-external control score were determined by computing the same correlational technique between Arts male students and Arts female students, Science male students and Science female students, Arts high achiever male students and Arts low achiever male students, Science high achiever male students and Science low achiever male students, Arts high achiever female students and Arts low achiever female students, Science high achiever female students and Science low achiever female students, Arts high achiever male students and Arts high achiever female students, Arts low achiever male students and Arts low achiever female students, Science high achiever male students and Science high achiever female students, Science low achiever male students and Science low achiever female students.

Part –I

Univariate Analyses

A. Intergroup Differences

In this part 't' test was computed to determine the statistically significant differences between Arts students and Science students, Arts male students and Science male students, Arts female students and Science female students, Arts high achiever students and Science high achiever students, Arts low achiever students and Science low achiever students, Arts high achiever male students and Science high achiever male students, Arts low achiever male students and Science low achiever male students, Arts high achiever female students and Science high achiever female students, Arts low achiever female students and Science low achiever female students on the total achievement motivation and internal-external control scores.

Table No-8: Showing Intergroup Differences between AS and SS on the Total Achievement Motivation Scores (N=120 for each group separately).

Subject	Mean	SD	t
AS	105.51	5.31	
SS	107.84	5.73	3.27*

* = $p > 0.05$,

AS = Arts Students, SS = Science Students

The result (table -8) showed that the difference between Arts students (Mean=105.51, SD=5.31) and Science students (Mean=107.84, SD=5.73) on the Achievement Motivation Scale were found statistically significant ($t = 3.27$, $P < 0.05$). The result indicated that Science students (both male & female and high & low achiever) as compared to Arts students (both male & female and high & low achiever) exhibited higher achievement motivation scores on Achievement Motivation Scale.

Table No-9: Showing Intergroup Differences between AMS Vs SMS, AFS Vs SFS, AHAS Vs SHAS, ALAS Vs SLAS on the Total Achievement Motivation Scores (N=60 for each group separately).

Subject	Mean	SD	t
AMS	106.53	5.42	2.66*
SMS	109.30	5.98	
AFS	104.48	4.99	2.07*
SFS	106.38	5.07	
AHAS	107.67	5.15	3.07*
SHAS	110.67	5.54	
ALAS	103.35	4.53	2.02*
SLAS	105.02	4.50	

* = $p > 0.05$

AMS = Arts Male Students

SMS= Science Male Students

AFS= Arts Female Students

SFS= Science Female Students

AHAS= Arts High Achiever Students

SHAS= Science High Achiever Students

ALAS= Arts Low Achiever Students

SLAS= Science Low Achiever Students

The results (table -9) showed that the difference between arts male students (Mean=106.53, SD=5.42) and science male students (Mean=109.30, SD=5.98) on the Achievement Motivation Scale were found statistically significant ($t = 2.66, P < 0.05$). Again the results showed that the difference between arts female students (Mean=104.48, SD=4.99) and science female students (Mean=106.38, SD=5.07) on the Achievement Motivation Scale were found statistically significant ($t = 2.07, P < 0.05$). Again the results showed that the difference between arts high achiever students (Mean=107.67, SD=5.15) and science high achiever students (Mean=110.67, SD=5.54) on the Achievement Motivation Scale were

found statistically significant ($t = 3.07, P < 0.05$). Again the results showed that the difference between arts low achiever students (Mean=103.35, SD=4.53) and science low achiever students (Mean=105.02, SD=4.50) on the Achievement Motivation Scale were found statistically significant ($t = 2.02, P < 0.05$). These results indicated that Science students (both male & female and high & low achiever) as compared to Arts students (both male & female and high & low achiever) exhibited higher achievement motivation scores on Achievement Motivation Scale.

Table No-10: Showing Intergroup Differences between AHAMS Vs SHAMS, ALAMS Vs SLAMS, AHAFS Vs SHAFS, ALAFS Vs SLAFS on the Total Achievement Motivation Scores (N=30 for each group separately).

Subject	Mean	SD	t
AHAMS	108.73	5.40	3.05*
SHAMS	112.77	4.89	
ALAMS	104.33	3.46	2.05*
SLAMS	105.83	5.93	
AHAFS	106.60	3.64	1.99*
SHAFS	108.57	5.89	
ALAFS	102.37	5.39	2.18*
SLAFS	104.20	3.85	

* = $p > 0.05$

AHAMS= Arts High Achiever Male Students

AHAFS= Arts High Achiever Female Students

SHAMS= Science High Achiever Male Students

SHAFS= Science High Achiever Female Students

ALAMS= Arts Low Achiever Male Students

ALAFS= Arts Low Achiever Female Students

SLAMS= Science Low Achiever Male Students

SLAFS= Science Low Achiever Female Students

The results (table -10) showed that the difference between arts high achiever male students (Mean=108.73, SD=5.40) and science high achiever male students (Mean=112.77, SD=4.89) on the Achievement Motivation Scale were found statistically significant ($t = 3.05, P < 0.05$). Again the results showed that the difference between arts low achiever male students (Mean=104.33, SD=3.46) and science low achiever male students (Mean=105.83, SD=5.93) on the Achievement Motivation Scale were found statistically significant ($t = 2.05, P < 0.05$). Again the results showed that the difference between arts high achiever female students (Mean=106.60, SD=3.64) and science high achiever female students (Mean=108.57, SD=5.89) on the Achievement Motivation Scale were found statistically significant ($t = 1.99, P < 0.05$). Again the results showed that the difference between arts low achiever female students (Mean=102.37, SD=5.39) and science low achiever female students (Mean=104.20, SD=3.85) on the Achievement Motivation Scale were found statistically significant ($t = 2.18, P < 0.05$). These results indicated that Science students (both male & female and high & low achiever) as compared to Arts students (both male & female and high & low achiever) exhibited higher achievement motivation scores on Achievement Motivation Scale.

Table No-11: Showing Intergroup Differences between AS and SS on the Total Scores of Internal-External Control (N=120 for each group separately).

Subject	Mean	SD	t
AS	73.22	4.01	3.05*
SS	74.84	4.25	

*= $p > 0.05$

AS = Arts students, SS = Science students

The results (table-11) showed that the differences on the scores of Internal-External Control between arts students (Mean=73.22, SD=4.01) and science students (Mean=74.84, SD=4.25) obtained statistical significant level ($t = 3.05$, $P < 0.05$). The result clearly indicated that science students (both male & female and high & low achiever) were found more internally controlled on I-E scores as compared to arts students (both male & female and high & low achiever).

Table No-12: Showing Intergroup Differences between AMS Vs SMS, AFS Vs SFS, AHAS Vs SHAS, ALAS Vs SLAS on the total scores of internal-external control (N=60 for each group separately).

Subject	Mean	SD	t
AMS	74.17	4.02	2.56*
SMS	76.12	4.30	
AFS	72.27	3.75	1.89
SFS	73.57	3.80	
AHAS	74.67	4.07	2.13*
SHAS	76.69	4.21	
ALAS	71.77	3.37	1.99*
SLAS	73.00	3.42	

*= $p > 0.05$,

AMS = Arts Male Students

SMS= Science Male Students

AFS= Arts Female Students

SFS= Science Female Students

AHAS= Arts High Achiever Students

SHAS= Science High Achiever Students

ALAS= Arts Low Achiever Students

SLAS= Science Low Achiever Students

The results (table-12) showed that the differences on the scores of Internal-External Control between arts male students (Mean=74.17, SD=4.02) and science male students (Mean=76.12, SD=4.30) obtained statistical significant level ($t = 2.56, P < 0.05$). The results also showed the differences on the scores of Internal-External Control between arts female students (Mean=72.27, SD=3.75) and science female students (Mean=73.57, SD=3.80) but the differences did not obtained statistically significant level. Again the results showed that the differences on the scores of Internal-External Control between arts high achiever students (Mean=74.67, SD=4.07) and science high achiever students (Mean=76.89, SD=4.21) obtained statistical significant level ($t = 2.13, P < 0.05$). The results also showed the differences on the scores of Internal-External

Control between arts low achiever students (Mean=71.77, SD=3.37) and science low achiever students (Mean=73.00, SD=3.42) obtained statistical significant level ($t = 1.99, P < 0.05$). These results clearly indicated that science students (both male & female and high & low achiever) were found more internally controlled on I-E scores as compared to arts students (both male & female and high & low achiever).

Table No-13: Showing Intergroup Differences between AHAMS Vs SHAMS, ALAMS Vs SLAMS, AHAFS Vs SHAFS, ALAFS Vs SLAFS on the Total Scores of Internal-External Control (N=30 for each group separately).

Subject	Mean	SD	t
AHAMS	75.97	3.80	2.88*
SHAMS	78.63	3.35	
ALAMS	72.37	3.38	1.36
SLAMS	73.60	3.62	
AHAFS	73.37	3.90	1.55
SHAFS	74.73	4.07	
ALAFS	71.17	3.25	1.51
SLAFS	72.40	3.09	

*= $p > 0.05$

AHAMS= Arts High Achiever Male Students *AHAFS= Arts High Achiever Female Students*

SHAMS= Science High Achiever Male Students *SHAFS= Science High Achiever Female Students*

ALAMS= Arts Low Achiever Male Students *ALAFS= Arts Low Achiever Female Students*

SLAMS= Science Low Achiever Male Students *SLAFS= Science Low Achiever Female Students*

The results (table-13) showed that the differences on the scores of Internal-External Control between arts high achiever male students (Mean=75.97, SD=3.80) and science high achiever male students

(Mean=78.63, SD=3.35) obtained statistical significant level ($t = 2.88$, $P < 0.05$). The results also showed the differences on the scores of Internal-External Control between arts low achiever male students (Mean=72.37, SD=3.38) and science low achiever male students (Mean=73.60, SD=3.62) but the differences did not obtained statistically significant level. Again the results showed the differences on the scores of Internal-External Control between arts high achiever female students (Mean=73.37, SD=3.90) and science high achiever female students (Mean=74.73, SD=4.07) but the differences did not obtained statistically significant level. The results also showed the differences on the scores of Internal-External Control between arts low achiever female students (Mean=71.17, SD=3.25) and science low achiever female students (Mean=72.40, SD=3.09) but the differences did not obtained statistically significant level. These results clearly indicated that science students (both male & female and high & low achiever) were found more internally controlled on I-E scores as compared to arts students (both male & female and high & low achiever).

B. Intragroup Differences

In this part 't' test was computed in order to determine the statistically significant intragroup differences between Arts male students and Arts female students, Science male students and Science female students, Arts high achiever male students and Arts low achiever male students, Science high achiever male students and Science low achiever male students, Arts high achiever female students and Arts low achiever female students, Science high achiever female students and Science low achiever female students, Arts high achiever male students and Arts high achiever female students, Arts low achiever male students and Arts low achiever female students, Science high achiever male students and Science high achiever female students, Science low achiever male students and Science low achiever female students on the total achievement motivation and internal-external control scores.

Table No-14: Showing Intragroup Differences between AMS Vs AFS, SMS Vs SFS on the Total Achievement Motivation Scores (N=60 for each group separately).

Subject	Mean	SD	t
AMS	106.53	5.42	2.16*
AFS	104.48	4.99	
SMS	109.30	5.98	2.88*
SFS	106.38	5.07	

*= $p > 0.05$

AMS = Arts Male Students

SMS = Science Male Students

AFS= Arts Female Students

SFS = Science Female Students

The results (table -14) showed that the difference between arts male students (Mean=106.53, SD=5.42) and arts female students (Mean=104.48, SD=4.99) on the Achievement Motivation Scale were found statistically significant ($t = 2.16, P < 0.05$). Again the results showed the difference between science male students (Mean=109.30, SD=5.98) and science female students (Mean=106.38, SD=5.07) on the Achievement Motivation Scale were found statistically significant ($t = 2.88, P < 0.05$). The result indicated that male students (both arts and science) as compared to female students (both arts and science) exhibited higher achievement motivation scores on Achievement Motivation Scale.

Table No-15: Showing Intragroup Differences between AHAMS Vs ALAMS, SHAMS Vs SLAMS, AHAFS Vs ALAFS, SHAFS Vs SLAFS, AHAMS Vs AHAFS, ALAMS Vs ALAFS, SHAMS Vs SHAFS, SLAMS Vs SLAFS on the Total Achievement Motivation Scores (N=30 for each group separately).

Subject	Mean	SD	t
AHAMS	108.73	5.40	3.44**
ALAMS	104.33	3.46	
SHAMS	112.77	4.89	5.50**
SLAMS	105.83	5.93	
AHAFS	106.60	3.64	3.63*
ALAFS	102.37	5.39	
SHAFS	108.57	5.89	3.70*
SLAFS	104.20	3.85	
AHAMS	108.73	5.40	1.64
AHAFS	106.60	3.64	
ALAMS	104.33	3.46	1.72
ALAFS	102.37	5.39	
SHAMS	112.77	4.89	3.24*
SHAFS	108.57	5.89	
SLAMS	105.33	5.93	2.15*
SLAFS	104.20	3.85	

*= $p > 0.05$, **= $p > 0.01$

AHAMS= Arts High Achiever Male Students

ALAMS= Arts Low Achiever Male Students

SHAMS= Science High Achiever Male Students

SLAMS= Science Low Achiever Male Students

AHAFS= Arts High Achiever Female Students

ALAFS= Arts Low Achiever Female Students

SHAFS= Science High Achiever Female Students

SLAFS= Science Low Achiever Female Students

The results (table -15) showed that the difference between arts high achiever male students (Mean=108.73, SD=5.40) and arts low achiever male students (Mean=104.33, SD=3.46) on the Achievement Motivation Scale were found statistically significant ($t = 3.44, P < 0.01$). Again the results showed that the difference between science high achiever male students (Mean=112.77, SD=4.89) and science low achiever male students (Mean=105.83, SD=5.93) on the Achievement Motivation Scale were found statistically significant ($t = 5.50, P < 0.01$). The results also showed the difference between arts high achiever female students (Mean=106.60, SD=3.64) and arts low achiever female students (Mean=102.37, SD=5.39) on the Achievement Motivation Scale were found statistically significant ($t = 3.63, P < 0.05$). Again the results showed that the difference between science high achiever female students (Mean=108.57, SD=5.89) and science low achiever female students (Mean=104.20, SD=3.85) on the Achievement Motivation Scale were found statistically significant ($t = 3.70, P < 0.05$). These results indicated that high achiever students (both arts and science) as compared to low achiever students (both arts and science) exhibited higher achievement motivation scores on Achievement Motivation Scale.

The results showed that the difference between arts high achiever male students (Mean=108.73, SD=5.40) and arts high achiever female students (Mean=106.60, SD=3.64) on the Achievement Motivation Scale were found did not statistically significant level. Again the results showed that the difference between arts low achiever male students (Mean=104.33, SD=3.46) and arts low achiever female students (Mean=102.37, SD=5.39) on the Achievement Motivation Scale did not achieve statistically significant level. Again the results showed the difference between science high achiever male students (Mean=112.77, SD=4.89) and science high achiever female students (Mean=108.57, SD=5.89) on the Achievement

Motivation Scale were found statistically significant ($t = 3.24, P < 0.05$). The results also showed the difference between science low achiever male students (Mean=105.83, SD=5.93) and science low achiever female students (Mean=104.20, SD=3.85) on the Achievement Motivation Scale were found statistically significant ($t = 2.15, P < 0.05$). These results indicated that male students (both arts and science) as compared to female students (both arts and science) exhibited higher achievement motivation scores on Achievement Motivation Scale.

Table No-16: Showing Intragroup Differences between AMS Vs AFS, SMS Vs SFS on the Total Scores of Internal-External Control (N=60 for each group separately).

Subject	Mean	SD	T
AMS	74.17	4.02	2.67*
AFS	72.27	3.75	
SMS	76.17	4.30	3.44*
SFS	73.57	3.80	

*= $p > 0.05$

AMS = Arts Male Students

SMS = Science Male Students

AFS = Arts Female Students

SFS = Science Female Students

The results (table-16) showed that the differences on the scores of Internal-External Control between arts male students (Mean=74.17, SD=4.02) and arts female students (Mean=72.27, SD=3.75) obtained statistical significant level ($t = 2.67, P < 0.05$). The results also showed the differences on the scores of Internal-External Control between science male students (Mean=76.17, SD=4.30) and arts female students (Mean=73.57, SD=3.80) obtained statistical significant level ($t = 3.44, P < 0.05$). These results clearly indicated that male students (both science & arts) were found more internally controlled on I-E scores as compared to female students (both science & arts).

Table No-17: Showing Intragroup Differences between AHAMS Vs ALAMS, SHAMS Vs SLAMS, AHAFS Vs ALAFS, SHAFS Vs SLAFS, AHAMS Vs AHAFS, ALAMS Vs ALAFS, SHAMS Vs SHAFS, SLAMS Vs SLAFS on the Total Scores of Internal-External Control (N=30 for each group separately).

Subject	Mean	SD	t
AHAMS	75.97	3.80	3.88**
ALAMS	72.37	3.38	
SHAMS	78.63	3.35	5.59**
SLAMS	73.60	3.62	
AHAFS	73.37	3.90	2.37*
ALAFS	71.17	3.25	
SHAFS	74.73	4.07	2.50*
SLAFS	72.40	3.10	
AHAMS	75.97	3.80	2.61*
AHAFS	73.37	3.90	
ALAMS	72.37	3.38	1.40
ALAFS	71.17	3.25	
SHAMS	78.63	3.35	4.05**
SHAFS	74.73	4.07	
SLAMS	73.60	3.62	1.38
SLAFS	72.40	3.10	

*= $p > 0.05$, **= $p > 0.01$

AHAMS= Arts High Achiever Male Students

ALAMS= Arts Low Achiever Male Students

SHAMS= Science High Achiever Male Students

SLAMS= Science Low Achiever Male Students

AHAFS= Arts High Achiever Female Students

ALAFS= Arts Low Achiever Female Students

SHAFS= Science High Achiever Female Students

SLAFS= Science Low Achiever Female Students

The results (table-17) showed that the differences on the scores of Internal-External Control between arts high achiever male students (Mean=75.97, SD=3.80) and arts low achiever male students (Mean=72.37, SD=3.38) obtained statistical significant level ($t = 3.88$, $P < 0.01$). The results also showed the differences on the scores of Internal-External Control between science high achiever male students (Mean=78.63, SD=3.35) and science low achiever male students (Mean=73.60, SD=3.62) obtained statistical significant level ($t = 5.59$, $P < 0.01$). Again the results showed the differences on the scores of Internal-External Control between arts high achiever female students (Mean=73.37, SD=3.90) and arts low achiever female students (Mean=71.17, SD=3.25) obtained statistical significant level ($t = 2.37$, $P < 0.05$). The results also showed the differences on the scores of Internal-External Control between science high achiever female students (Mean=74.73, SD=4.07) and science low achiever female students (Mean=72.40, SD=3.09) obtained statistical significant level ($t = 2.50$, $P < 0.05$). These results clearly indicated that high achiever students (both science & arts) were found more internally controlled on I-E scores as compared to low achiever students (both science & arts).

The results showed that the differences on the scores of Internal-External Control between arts high achiever male students (Mean=75.97, SD=3.80) and arts high achiever female students (Mean=73.37, SD=3.90) obtained statistical significant level ($t = 2.61$, $P < 0.05$). Again the results showed the differences on the scores of Internal-External Control between arts low achiever male students (Mean=72.37, SD=3.38) and arts low achiever female students (Mean=71.17, SD=3.25) but the differences did

not obtained statistically significant level. The results also showed the differences on the scores of Internal-External Control between science high achiever male students (Mean=78.63, SD=3.35) and science high achiever female students (Mean=74.73, SD=4.07) obtained statistical significant level ($t = 4.05, P < 0.01$). The results also showed the differences on the scores of Internal-External Control between science low achiever male students (Mean=73.60, SD=3.62) and science low achiever female students (Mean=72.40, SD=3.09) but the differences did not obtained statistically significant level. These results clearly indicated that male students (both science & arts) were found more internally controlled on I-E scores as compared to female students (both science & arts).

Part –II

Correlational Analyses

A. Intergroup Similarities

In this part bi-serial correlation were computed through the method of product moment correlation in order to find out the intergroup similarities between Arts male students and Science male students, Arts female students and Science female students, Arts high achiever students and Science high achiever students, Arts low achiever students and Science low achiever students, Arts high achiever male students and Science high achiever male students, Arts low achiever male students and Science low achiever male students, Arts high achiever female students and Science high achiever female students, Arts low achiever female students and Science low achiever female students on the variable of achievement motivational and internal-external control of personality.

Table No-18: Showing Intergroup Similarities between AMS Vs SMS, AFS Vs SFS (N=60 for each group separately).

Subjects	Achievement Motivation Scale	Internal-External Control Scale
AMS Vs SMS	0.37*	0.43**
AFS Vs SFS	0.43**	0.39*
AHAS Vs SHAS	0.46**	0.34*
ALAS Vs SLAS	0.35*	0.29*

* = $P < 0.05$, ** = $P < 0.01$

AMS = Arts Male Students

AHAS= Arts High Achiever Students

SMS = Science Male Students

SHAS= Science High Achiever Students

AFS= Arts Female Students

ALAS= Arts Low Achiever Students

SFS = Science Female Students

SLAS= Science Low Achiever Students

The results (Table -18) showed that there was significant correlation between arts male students and science male students ($r=0.43$, $P < 0.01$); arts female students and science female students ($r=0.39$, $P < 0.05$); arts high achiever students and science high achiever students ($r=0.46$, $P < 0.01$); arts low achiever students and science low achiever students ($r=0.35$, $P < 0.05$) on achievement motivation scores. These results indicates the highest positive 'r' between arts high achiever Ss and science high achiever Ss and the lowest 'r' between arts low achiever Ss and science low achiever Ss on achievement motivation scores.

The results also showed that there was significant correlation between arts male students and science male students ($r=0.37$, $P < 0.05$); arts female students and science female students ($r=0.43$, $P < 0.01$); arts high achiever students and science high achiever students ($r=0.34$, $P < 0.05$); arts low achiever students and science low achiever students ($r=0.29$,

$P < 0.05$) on internal-external control scores. This results indicates the highest positive 'r' between arts female Ss and science female Ss and the lowest 'r' between arts low achiever Ss and science low achiever Ss on internal-external control scores.

Table No-19: Showing Intergroup Similarities between AHAMS Vs SHAMS, AHAFS Vs SHAFS, ALAMS Vs SLAMS, ALAFS Vs SLAFS (N=30 for each group separately).

Subjects	Achievement Motivation Scale	Internal-External Control Scale
AHAMS Vs SHAMS	0.51**	0.36*
AHAFS Vs SHAFS	0.42**	0.54**
ALAMS Vs SLAMS	0.38*	0.27*
ALAFS Vs SLAFS	0.36*	0.44**

* = $P < 0.05$, ** = $P < 0.01$

AHAMS= Arts High Achiever Male Students

ALAMS= Arts Low Achiever Male Students

SHAMS= Science High Achiever Male Students

ALAFS= Arts Low Achiever Female Students

AHAFS= Arts High Achiever Female Students

SLAMS= Science Low Achiever Male Students

SHAFS= Science High Achiever Female Students

SLAFS= Science Low Achiever Female Students

The results (table-19) showed that there was significant correlation between arts high achiever male students and science high achiever male students ($r=0.51$, $P < 0.01$); arts high achiever female students and science high achiever female students ($r=0.42$, $P < 0.01$); arts low achiever male students and arts low achiever female students ($r=0.38$, $P < 0.05$); science low achiever male students and science low achiever female students ($r=0.36$, $P < 0.05$) on achievement motivation scores. This results indicates

the highest positive 'r' arts high achiever male Ss and science high achiever male Ss and the lowest 'r' between science low achiever male Ss and science low achiever female Ss on achievement motivation score.

The results also showed that there was significant correlation between arts high achiever male students and science high achiever male students ($r=0.36$, $P < 0.05$); arts high achiever female students and science high achiever female students ($r=0.54$, $P < 0.01$); arts low achiever male students and arts low achiever female students ($r=0.27$, $P < 0.05$); science low achiever male students and science low achiever female students ($r=0.44$, $P < 0.01$) on achievement motivation scores. This results indicates the highest positive 'r' between arts high achiever female Ss and science high achiever female Ss and the lowest 'r' arts low achiever male Ss and arts low achiever female Ss on achievement motivation score.

B. Intragroup Similarities

In this part intragroup similarities of achievement motivation and internal-external control scores were determined by computing the same correlational technique between Arts male students and Arts female students, Science male students and Science female students, Arts high achiever male students and Arts low achiever male students, Science high achiever male students and Science low achiever male students, Arts high achiever female students and Arts low achiever female students, Science high achiever female students and Science low achiever female students, Arts high achiever male students and Arts high achiever female students, Arts low achiever male students and Arts low achiever female students, Science high achiever male students and Science high achiever female students, Science low achiever male students and Science low achiever female students.

Table No-20: Showing Intragroup Similarities between AMS Vs AFS, SMS Vs SFS (N=60 for each group separately).

Subjects	Achievement Motivation Scale	Internal-External Control Scale
AMS Vs AFS	0.56**	0.53**
SMS Vs SFS	0.64**	0.66**
AHAS Vs ALAS	0.59**	0.75**
SHAS Vs SLAS	0.61**	0.65**

** = $P < 0.01$

AMS = Arts Male Students

AFS = Arts Female Students

SMS = Science Male Students

SFS = Science Female Students

AHAS = Arts High Achiever Students

ALAS = Arts Low Achiever Students

SHAS = Science High Achiever Students

SLAS = Science Low Achiever Students

The results (Table -20) showed that there was significant correlation between arts male students and arts female students ($r=0.56$, $P < 0.01$); science male students and science female students ($r=0.64$, $P < 0.01$); arts high achiever students and arts low achiever students ($r=0.59$, $P < 0.01$); science high achiever students and science low achiever students ($r=0.61$, $P < 0.01$) on achievement motivation scores. This results indicates the highest positive 'r' between science male Ss and science female Ss and the lowest 'r' between arts male Ss and arts female Ss on achievement motivation score.

The results also showed that there was significant correlation between arts male students and arts female students ($r=0.53$, $P < 0.01$); science male students and science female students ($r=0.66$, $P < 0.01$); arts high achiever students and arts low achiever students ($r=0.75$, $P < 0.01$);

science high achiever students and science low achiever students ($r=0.65$, $P < 0.01$) on internal-external control scores. This results indicates the highest positive 'r' between arts high achiever Ss and arts low achiever Ss and the lowest 'r' between arts male Ss and arts female Ss on internal-external control scores.

Table No-21: Showing Intragroup Similarities between AHAMS Vs ALAMS, AHAFS Vs ALAFS, SHAMS Vs SLAMS, SHAFS Vs SLAFS, AHAMS Vs AHAFS, ALAMS Vs ALAFS, SHAMS Vs SHAFS, SLAMS Vs SLAFS (N=30 for each group separately).

Subjects	Achievement Motivation Scale	Internal-External Control Scale
AHAMS Vs ALAMS	0.69**	0.59**
AHAFS Vs ALAFS	0.54**	0.47**
SHAMS Vs SLAMS	0.58**	0.61**
SHAFS Vs SLAFS	0.57**	0.52**
AHAMS Vs AHAFS	0.65**	0.73**
ALAMS Vs ALAFS	0.46**	0.56**
SHAMS Vs SHAFS	0.51**	0.81**
SLAMS Vs SLAFS	0.67**	0.62**

* = $P < 0.05$, ** = $P < 0.01$

AHAMS= Arts High Achiever Male Students

ALAMS= Arts Low Achiever Male Students

AHAFS= Arts High Achiever Female Students

ALAFS= Arts Low Achiever Female Students

SHAMS= Science High Achiever Male Students

SLAMS= Science Low Achiever Male Students

SHAFS= Science High Achiever Female Students

SLAFS= Science Low Achiever Female Students

The results (table-21) showed that there was significant correlation between arts high achiever male students and arts low achiever male students ($r=0.69, P < 0.01$); arts high achiever female students and arts low achiever female students ($r=0.54, P < 0.01$); science high achiever male students and science low achiever male students ($r=0.58, P < 0.01$); science high achiever female students and science low achiever female students ($r=0.57, P < 0.01$); arts high achiever male students and arts high achiever female students ($r=0.65, P < 0.01$); arts low achiever male students and arts low achiever female students ($r=0.46, P < 0.01$); science high achiever male students and science high achiever female students ($r=0.51, P < 0.01$); science low achiever male students and science low achiever female students ($r=0.67, P < 0.01$) on achievement motivation scores. This results indicates the highest positive 'r' arts high achiever male Ss and arts low achiever male Ss and the lowest 'r' between arts low achiever male Ss and arts low achiever female Ss on achievement motivation score.

The results also showed that there was significant correlation between arts high achiever male students and arts low achiever male students ($r=0.59, P < 0.01$); arts high achiever female students and arts low achiever female students ($r=0.47, P < 0.01$); science high achiever male students and science low achiever male students ($r=0.61, P < 0.01$); science high achiever female students and science low achiever female students ($r=0.52, P < 0.01$); arts high achiever male students and arts high achiever female students ($r=0.73, P < 0.01$); arts low achiever male students and arts

low achiever female students ($r=0.56$, $P < 0.01$); science high achiever male students and science high achiever female students ($r=0.81$, $P < 0.01$); science low achiever male students and science low achiever female students ($r=0.62$, $P < 0.01$) on internal-external control scores. This results indicates the highest positive 'r' science high achiever male Ss and science high achiever female Ss and the lowest 'r' between arts high achiever female Ss and arts low achiever female Ss on internal-external control scores.

Summary of the main findings

The main findings of the present study are as follows:

Firstly, science students as a whole showed significant higher scores on achievement motivation as compared to Arts students respectively.

Secondly, male students of both Arts and Science showed significant higher scores on achievement motivation as compared to female students of both Arts and Science respectively.

Thirdly, high achiever students both Arts and Science showed significant higher scores on achievement motivation as compared to low achiever students both Arts and Science respectively.

Fourthly, Science students as a whole showed significant higher scores on personality factor of internal-external control as compared to Arts students respectively.

Fifthly, male students of both Arts and Science showed significant higher scores on personality factor of internal-external control as compared to female students of both Arts and Science respectively.

Sixthly, high achiever students both Arts and Science showed significant higher scores on personality factor of internal-external control as compared to low achiever students both Arts and Science respectively.

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Discussion

Chapter Six

DISCUSSION

Achievement motivation and personality factors i.e. internal – external control have arrested the attention of sociologists, anthropologists, and social psychologists as the area of research both in developing and developed nations. Achievement motivation is characterized by a wide variety of factors. Though the inherent meaning of the term implies that it is a tendency of the individual to do his best or to achieve unique success in his own line of work yet such a tendency is determined by many other factors. The ultimate outcome of his effort, i.e. the achievement of an outstanding goal, depends on his zeal for work, persistence, competence and intelligence, diligence, punctuality, regularity etc. This tendency only can not help an individual for achieve the unique success. The individual shall have to develop some good habits through rigorous practice. And when he is successful in developing these habits in him, he is sure to succeed in any competitive work. That is why it has been emphasized that persons with high achievement motives can bring about a radical change in economic development of a society in which they live. In order to make a systematic linkage between achievement motivation and personality

factors i.e. internal – external control, it is necessary to make a reference to the work of Atkinson (1964). This investigator conducted a pioneering work in the field of achievement motivation.

A large number of studies have shown that achievement motivation as the causative factor in the development of personality (Atkinson, 1950; McClelland, 1953, 1961; Wan Rafaei, 1980; Wolfendale, 1985; Koutsoulis & Campbell, 2001 and Adams, 2003). These studies revealed a closer relationship of achievement motivation with personality factors. The present study has been designed to assess the similarities and differences of arts and science, male and female, high achiever and low achiever of college students in Bangladesh context. Using a multidimensional group design, the study focused on two students group in each category through the exploration of achievement motivation, personality factors i.e. internal – external control, and demographic factors and gender differences. An attempt has been made to provide an insight into the context of achievement motivation, between two student groups in each category as related to personality factors i.e. internal – external control, demographic factors and gender differences. The study had pointed out the strength of relationship with the achievement motivation, personality factors and certain demographic characteristics of gender differences. The finding suggests that achievement motivation can be used as a stable indicator of personality differences related to cultural variables. Moreover, there were significant predictable relationship between achievement motivation and arts & science background orientations of the students.

Intergroup and Intragroup Differences on Achievement Motivation Scale

In the present study, science student expressed higher achievement motivations (table – 8) as compared to arts student in general. This result was supportive of the theoretical interpretation of need achievement motive which stemmed from certain socio cultural factor (Heckhausen, 1967). Riaz (1989) conducted a study to find out the relationship between academic excellence, creativity, achievement in science and psychological differentiation. The result showed that academically superior group earned significantly higher scores on all these tests as compared to below average group. The economic development of country or overall progress in any society is largely a function of an inner need for achievement present in the inner stable need characteristic of the individual; the individual carries the same need from one situation to another. It is mainly characterized by the individual's capacity to take pride in his own accomplishment. When such a need is present within an individual it presupposes in him an awareness of two essential conditions, i.e. his performance on a task will be evaluated on the basis of a certain standard of excellence and that the out come of his work effort will be either success or failure (Atkinson, 1964).

In the present study, male students of both arts and science expressed more achievement motivation as compared to female students of both arts and science student (table-14). The family socialization processes of male students in comparison to female students are virtually dissimilar.

Parents of a family expect that male students would have more achievement motivation to stand on their own foot. On the contrary, female students were socialized and nourished in a different way. Thus, the male and female are instinctively different. Some investigators (Atkinson, 1950; McClelland, 1961; Sarder & Hossain, 1976; Wan Rafaei, 1980; Oh, 1999; Barrett, Koutsoulis & Campbell, 2001; Adams, 2003 and Bray, 2003) also studied how behaviour is acquired and much of that has been concerned in acquisition of motive states. The male students of arts and science acquired their motivational motion in the process of attitudinal constellations in a different way from the female students of arts and science in general. Gupta's (1978) study is an exception; he observed significant differences between boys and girls in achievement motivation. Shaila (1986) in her study found that achievement motivation of male was higher in comparison of female. Dhillon & Acharya (1987) in their study found gender differences among different socio-economic classes in achievement motivation.

Another dimension along which motivation may be studied was the source of motivation, i.e. internal versus external sources of motivation. Different motive states can be conceptualized than when active promote behaviours to reduce those needs. In the present study, high achiever students of both arts and science were found to express more achievement motivation as compared to low achiever students of both arts and science respectively (table-15). This result is explainable through the theoretical framework of social and psychological needs of high achiever and low

achiever students. Petri (1985) examined the motivation effects of various goal objects, which was determined by the individuals. The high achiever students are generally guided by their fixing the high goal objects. Thus, they usually try to achieve high stimuli objects as compared to low achiever students.

Intergroup and Intragroup Differences on Internal - External Control of Personality Variable

In this result, it was also observed that Science Students exhibited more internality controlled personality pattern as compared to arts students in general (table-11). These results are explainable through the socio cultural and political system of a society. The religious belief and the value system of its people, the manner and the extent to which the members of the society internalize these beliefs and the value system through early learning and education, their experience of success and failure in their attempt to fulfill their early needs, their roles and actions to other people have been determined by their families in early childhood. And later by others, the manner in which the society has regulated their behavior with reference to their common goals through the leaders and through various kinds of incentive systems have enormous effect on socialization processes.

It was also observed in the educational field that Science students have to depend on their own internal ability and skills for their higher achievement as compared to the arts students. On the contrary, arts

students in the college level were found to depend more on external factor such as on the teachers, or powerful others for their better results. In the present study, male students of both Arts and Science were found more internally controlled as compared to female students of both Arts and Science students (table -16). This result may be explained by the theoretical interpretation (James, 1980). They show motivation as primarily controlled by innate motives. In the present study, it was also found that both arts and science high achiever students were more internally controlled as compared to both arts and science low achiever students respectively (table-17). This result can be explained through Rotter's expectancy reinforcement value theory. According to Rotter (1966) reinforcement value of the individual is the degree of preference for any one of the groups of reinforcement to occur. Reinforcement value of the high achiever students was to belief on their own ability and to achieve high goal (Rotter, Chance & Phares, 1972). There are three kinds of expectancies postulated in social learning theory given by Rotter (1981). They are simple cognition's of stimuli, expectancies for behaviours reinforcement outcomes and expectancies for reinforcement sequences. Within social learning theory of the behaviour of the high and low achiever students have been associated with their level of reinforcement which gives rise to expectancy. Thus it is title justified that the high achiever would be found more internally controlled as compared to low achiever students, in general.

Intergroup and Intragroup Similarities on Achievement Motivation Scale

In the present study, the highest achievement motivation was obtained between male high achiever of arts and science students followed by the female students of both arts and science as a whole. These results can be explained through the theoretical framework of achievement motivational approach. This approach explained the strength of a tendency to undertake an achievement oriented activity with the expectation that it will produce an attractive consequence to the individual. Such an activity is undertaken by the individual with the expectation that his or her performance will be compared with some standard and excellence. In the present society of Bangladesh cultural and educational exchange among the male students are easily happened. But the female students used to face some external factors to achieve anything, particularly to exchange their views in the achievement areas. For this reason the deviation among the male students are very low in case of success. As the external motivational forces can also influence the achievement oriented activities. The achievement motivation is the primary variable in case of male students so far observation is concerned. But sometimes these achievement motivations works as secondary variables in case of female students. Riaz (1989) revealed that the correlations between scores on creativity and Science Achievement Test are significant in case of academically superior group, but not in case of below average group. Correlations between creativity, psychological differentiation and science achievement are insignificant in both the groups. Thus the highest similarity of male students was justification in the light of above discussion.

Intergroup and Intragroup Similarities on Internal - External Control of Personality Variable

In the present study, an attractive similarities was found on the personality patterns among the high achiever of arts and science particularly among the male science students in general in comparison to their female counterparts. This result is obtained while internal-external control of personality measures were administered. This result can be explained through the various studies (Strickland, 1965; Rotter, 1966; Mac Donald, 1973; Clements, 1999) as well as through theoretical interpretations. These findings have shown that internals not only believe that they have the power to influence their outcomes but that they actually perform more effectively in both laboratories and in academic situations. In academic settings Findlay and Cooper (1983) have found strong evidence that internalization is associated positively with superior performance on a variety of achievement tests. There are several explanations for the general findings that internals may out perform externals because internals are more tasks oriented, persistent, cognitively active and efficient in learning the rules necessary for problem solving. In the present study science high achiever male students were found more internally controlled in comparison to science high achiever female students. This result can be explained and justified through the analysis that these male science students were successful to gather more information in comparison to female counterparts because male were found more capable to the control outcomes. Thus the achievement motivations as well as personality orientation were found more consistent in case of male students in comparison to female counterparts (Ryckman, 1975).

Implication of the Present Study

The study had made an empirical investigation on achievement motivation of arts and science relating to male - female and high achiever – low achiever college students of Bangladesh. Viewed in this perspective the present study may be regarded as valuable addition in the understanding of achievement motivation and personality factors of internal-external control in developing countries. Literature on achievement motivation and personality factors in developed and developing countries has provided various competing explanations, which are not sufficient to draw conclusive generalization in explaining achievement motivation of two student groups and four groups i. e. male - female and high achiever – low achiever college students in Bangladesh. The study has been conducted with the specific aim of having empirical findings of achievement motivation in the context of Bangladesh. Furthermore, it should be pointed out that the study has provided a motivational comparison between arts and science student groups which is unique in the senses that not even a single attempt has been made previously in Bangladesh. Bangladesh is a country of homogeneous culture but motivational differences are observed within the socio-cultural and educational context of Bangladesh. It is therefore, suggested that a comparative study of ‘achievement motivation’ on different issues between two faculty of arts and science would be of scientific value in understanding achievement motivation in the present context of educational and cultural variations. Thus, the present study is a novel approach for understanding and explaining achievement motivation of students scientifically, methodically and in a broader perspective of social settings and progress.

The most important feature of the study is that it is useful in the evaluation and guidance of the phenomena of motivational comparisons in terms of achievement motivation, personality factors, and demographic variables' preferences. This feature is specially important in the current period of educational situations in Bangladesh. It is the general consensus of the educationalist as well as other professionals that motivational attitude should be dealt with properly for future progress of the nation with making a scientific attempt for explaining the psychological functioning. The study is concerned with the integration of several factors that might have both predisposing and precipitating effect on achievement motivation creating personality differences. Thus, the study makes an effort to an empirical study in the natural social setting of the students.

Considered in its social, cultural and educational context of Bangladesh, the study holds to deal with the controversial aspects about the students and supports empirically. The strong convictions that achievement motivation in developing countries like Bangladesh are stemmed from cultural variation, socio-economical and educational condition, role behaviour, age variation, frustration and deprivation. Having motivational stance working on personality factors the study also focuses some light about the relevant factors of students that appear to moderate and integrate effect of achievement motivation and personality. All these explanations cited above might be pointed out as the theoretical and applied relevance of the present study.

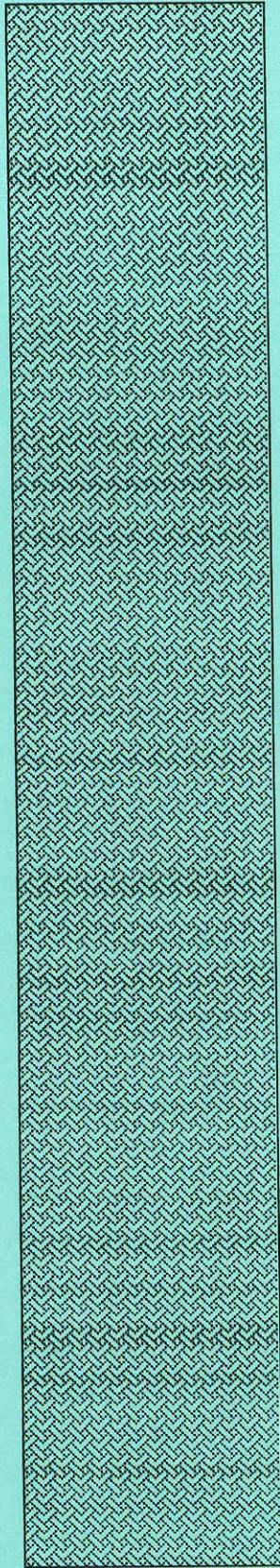
Suggestions for Future Research

The study utilized multidimensional criterion group design method, which proved to be effective for investigating 'Achievement Motivation' of the students in the context of Bangladeshi educational culture as it appears from these findings. The results relating to achievement motivation and personality suggest that higher achievement and internally controlled personality is joint product of motivational, personality and some related demographic variables. The interpretation of the important findings, however, reflect the achievement motivation of a very small population, which may not be sufficient for making inference and assumption, leading to conclusive theoretical orientation about the higher achievement for the whole nation. There are number of controversial literatures relating to area of achievement motivation, which cannot be covered by the findings of the present study. It is, therefore, suggested that well designed and sophisticated and longitudinal researches at the empirical level in the context of Bangladesh are basic necessity for the future research.

It is, however, admitted that the study was conducted to find out motivational comparisons in which samples were selected from Rajshahi and Chapai Nawabganj district in Bangladesh. Thus, it may be doubted how far, the sample only from Rajshahi and Chapai Nawabganj district was a representative sample from Bangladesh. The findings, so far obtained from the results, have been explained largely in the form of high

and low achievement and internally-externally control of personality of the college students. No control have been maintained in parental income, education and occupation like govt. - semi govt. - non govt., & autonomous proportionately, and also Hindu-Muslim proportionate respondent which, to a large extent, may have enduring influence for specific higher achievement of two student groups. The main purpose of the study is to investigate differences and similarities in achievement pattern of students. The Hindu-Muslim religious perspectives have been by passed for pragmatic reasons of making the investigation less complicated. Future empirical studies covering these areas may be conducted with specific objective for obtaining conclusive results.

In spite of all the limitations of the study the investigator hopes that in the absence of any specific study in the area of achievement motivation and personality differences, the investigation might provide valuable insight to the future researchers for making conclusive and valid generalizations. In the area of achievement motivation particularly in Bangladesh, a longitudinal study for intergroup and intragroup differences has to be carried out by the present investigator or other researchers.



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Personal Information Sheet (PIS)

অনুগ্রহ পূর্বক গবেষণামূলক কাজে সহযোগিতা করুন।

নামঃ-----

বয়সঃ-----

লিঙ্গঃ পুরুষ / স্ত্রী

শিক্ষা প্রতিষ্ঠানের নামঃ-----

ধর্মঃ -----

মাসিক আয়ঃ-----

বিভাগঃ বিজ্ঞান / কলা

মাধ্যমিক পরীক্ষার ফলাফল (বিভাগ/গ্রেড)ঃ-----

উচ্চ মাধ্যমিক পরীক্ষার ফলাফল (বিভাগ/গ্রেড)ঃ-----

আর্থ-সামাজিক স্তর :-----উচ্চবিত্ত / মধ্যবিত্ত / নিম্নবিত্ত

বসবাসের স্থানঃ----- শহর / গ্রাম

Please help in the research work.

Name-----

Age-----

Sex: -- Male / Female

Name of the Educational Institution-----

Religion-----

Monthly Income-----

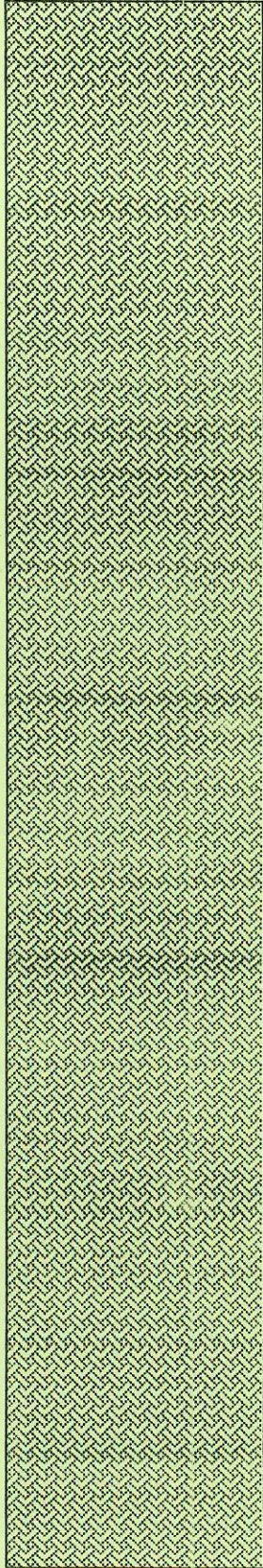
Faculty:---Arts / Science

Results in S.S.C. Examination-----

Results in H.S.C. Examination -----

Socio Economic Status: -----Higher / Middle / Lower Class

Place of Residence:----- Urban / Rural Area



Appendix

Appendix – A

Demographic Criteria Questionnaires (DCQ)

নির্দেশাবলী

নিম্নে প্রদত্ত বাক্যগুলির মাধ্যমে বিশেষ কতকগুলো সামাজিক ও ব্যক্তিগত ধারণাকে প্রকাশ করা হয়েছে। অনুগ্রহ পূর্বক মনোযোগ সহকারে এই ধারণাগুলো পাঠ করুন এবং অন্তর্নিহিত সমস্যাগুলো সম্পর্কে আপনার মতামত নির্দেশিত মাপনীর যে কোন একটিতে টিক (✓) চিহ্ন দিয়ে ব্যক্ত করুন।

Instruction

There are some important social and personal concepts expressed by the following statements. Please read these statements attentively and express your opinion by putting (✓) marks in any of the options in the scales.

১. আমাদের দেশের শিক্ষা ব্যবস্থা অত্যন্ত উন্নতমানের - অতীতে ছিল / বর্তমানে আছে / ভবিষ্যতে হবে (The education system of our country *was/ is/ will be* very much developed)।

২. আমাদের শিক্ষা ব্যবস্থা শুধুমাত্র বিজ্ঞান ভিত্তিক হওয়া উচিত / উচিত নয় বলে আমি মনে করি (I think that, the system of our education is *to be appropriate / not to be appropriate* only scientific based)।

৩. শুধুমাত্র কঠোর অধ্যাবসায় ও দৃঢ় মনেবলের দ্বারা ভাল ফলাফল করা সম্ভব / সম্ভব নয় বলে আমি মনে করি (I think that, to achieve good result is *possible* / *not possible* by only hard study and with a strong mental ability)।
৪. ভাল ফলাফলের জন্য শুধুমাত্র মেয়েদেরই পুরস্কৃত করা উচিত / উচিত নয় বলে আমি মনে করি (I think that, for good result, reward only to the females is *appropriate* / *not appropriate*)।
৫. কঠোর পরিশ্রম না করেও লক্ষ্য অর্জন করা সম্ভব / সম্ভব নয় বলে আমি মনে করি (I think that, to achieve goal is *possible* / *not possible* without hard work)।
৬. শুধুমাত্র উচ্চ কৃতি প্রেষণা সম্পন্ন শিক্ষার্থীদেরই পুরস্কৃত করা উচিত / উচিত নয় বলে আমি মনে করি (I think that, it is *worthy* / *not worthy* to reward – only to the high achievement of learners)।
৭. ছাত্রীদের চেয়ে ছাত্রদের কৃতি প্রেষণা বেশী / বেশী নয় বলে আমি মনে করি (I think that, male student's achievement motivation is *surplus* / *not surplus* than female students)।
৮. কলা অনুষদের চেয়ে বিজ্ঞান অনুষদের শিক্ষার্থীরা বেশী সৃষ্টিশীল (I think that, the students of science faculty are more *creative* / *not more creative* than the students of arts faculty)।

Appendix - B

Ara's Modified form of Afsaruddins' Achievement Motivation Scale (Bengali Version)

নির্দেশাবলীঃ

নিম্নে কতকগুলি ব্যক্তিগত বিভিন্ন ধারণা সম্বলিত বাক্য দেওয়া আছে। প্রতিটি বাক্যের সাথে স্কেল আকারে “সএ, এ, নি, এন এবং এএন” - সংকেতগুলি ক্রমান্বয়ে সাজানো আছে।

এগুলো নিম্নরূপ অর্থ বহন করেঃ

- | | |
|--------|---------------------|
| ১। সএ | = সম্পূর্ণ একমত। |
| ২। এ | = একমত। |
| ৩। নি | = নিরপেক্ষ। |
| ৪। এন | = একমত নই। |
| ৫। এএন | = একেবারেই একমত নই। |

এখন মনোযোগ সহকারে বাক্যগুলি পড়ুন এবং তার অন্তর্নিহিত ধারণাটি বুঝতে চেষ্টা করুন। এবার ধারণাটি সম্পর্কে আপনার মতামত, প্রতিটি বাক্যের পাশে দেওয়া স্কেলের (সএ, এ, নি, এন, এবং এএন) যেকোন একটিতে টিক (✓) চিহ্ন দিয়ে ব্যক্ত করুন। উক্তিগুলির জন্য কোন ভুল বা শুদ্ধ উত্তর নাই। অনুগ্রহ করে নির্দেশ অনুযায়ী প্রতিটি উক্তি আন্তরিকভাবে উত্তর দিন। আপনাকে ধন্যবাদ।

Instruction:

To given following list of statements which have various personal ideas. As a scale "SA, A, U, DA and SDA" symbols have given in serial order in every sentences. These are means following ideas:

1. SA =Strong Agreement.
2. A = Agreement.
3. U =Uncertain.
4. DA =Disagreement.
5. SDA = Strong Disagreement.

Please read the sentences with mind and try to understand its latent conception now. Then put tick (✓) mark any one against response you think most appropriate for you where given beside the scale in every sentence (SA, A, U, DA and SDA). There is no right or wrong response to any statement. Please to give a sincere response to each of the statements as you instructed. Thank you.

Statement:

১। কিছু কাজ করার পর আমি সহজেই ক্লান্তি অনুভব করি (I feel easily fatigued after working for while)।

(সএ)	(এ)	(নি)	(এন)	(এএন)

২। আমার পেশার লক্ষ্যমাত্রা নির্ধারণ করেই আমি সব সময় পড়াশুনা করি (I always study with a professional goal in mind)।

(সএ)	(এ)	(নি)	(এন)	(এএন)

৩। সাফল্য লাভের জন্য যোগ্যতা ও কঠোর পরিশ্রমের প্রয়োজন আছে বলে আমি মনে করি না (I don not think that competence and hard work have essential to unique success)।

(সএ) (এ) (নি) (এন) (এএন)

৪। আমি আশা করি যে, সঠিকভাবে লেখাপড়া করলেই আমার সাফল্য আসবে (I hope that, if I study properly I should get success)।

(সএ) (এ) (নি) (এন) (এএন)

৫। আমি লেখাপড়া করি বা না করি তাতে কিছু আসে যায় না (It matters little, if I study or not)।

(সএ) (এ) (নি) (এন) (এএন)

৬। যে সকল ছাত্র-ছাত্রী সময়ানুবর্তিতা সম্পর্কে অজ্ঞ, আমি তাদের পছন্দ করি না (I can not like those students who are ignorant about punctuality)।

(সএ) (এ) (নি) (এন) (এএন)

৭। আমি অধ্যয়ন সংক্রান্ত কাজগুলি ক্রুটিপূর্ণ হলেও সন্তুষ্ট থাকি (I may be satisfied with any works of study that is less than perfect)।

(সএ) (এ) (নি) (এন) (এএন)

৮। আমার পরীক্ষা সংক্রান্ত ফলাফলের সাফল্য কোন শ্রেষ্ঠ আদর্শের সাথে তুলনীয় হবে বলে মনে করি (I feel that the success, which I achieve in my examination result should always be comparing with some standard of excellence)।

(সএ)	(এ)	(নি)	(এন)	(এএন)
------	-----	------	------	-------

৯। নতুন কোন কিছু আবিষ্কার করতে আমি বেশ আগ্রহ অনুভব করি (I always feel much urge to discover something new)।

(সএ)	(এ)	(নি)	(এন)	(এএন)
------	-----	------	------	-------

১০। পরীক্ষায় বিফল হলে আমি আর কোন উৎসাহ বোধ করি না (Experience of failure in an examination away, all my impetus for further works of the same)।

(সএ)	(এ)	(নি)	(এন)	(এএন)
------	-----	------	------	-------

১১। শ্রেণী কক্ষে আমি সর্বতোম ছাত্র হবার তাগিত অনুভব করি (I always feel on inner urge to be the best student my classroom)।

(সএ)	(এ)	(নি)	(এন)	(এএন)
------	-----	------	------	-------

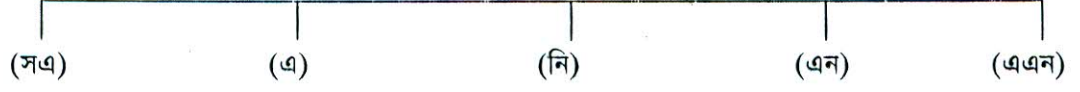
১২। লক্ষ্য অর্জনে ব্যর্থ ছাত্র-ছাত্রীরা ভাগ্যের দোষ দিলে আমি তাদের পছন্দ করি না (I hate those students who blame their fate when unsuccessful at their attempt to reach the goal)।

(সএ)	(এ)	(নি)	(এন)	(এএন)
------	-----	------	------	-------

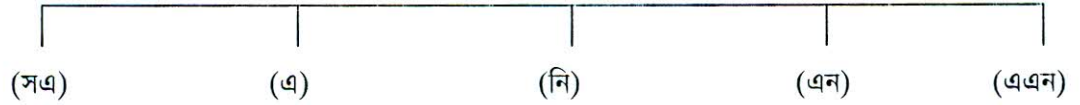
১৩। আমার ব্যক্তিগত কৃতিত্বকে সবার সামনে প্রকাশ করতে আমি গৌরব বোধ করি (I feel proud of making public any of my personal achievement)।

(সএ)	(এ)	(নি)	(এন)	(এএন)
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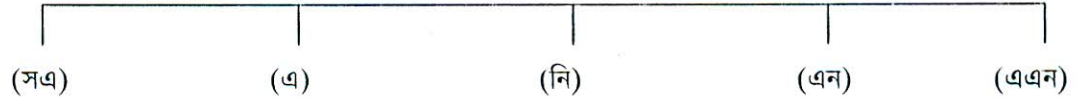
১৪। কোন যৌথ কাজে অতিরিক্ত দায়িত্ব নিতে আমার ভাল লাগে (I like to take additional responsibility in my co-operative work)।



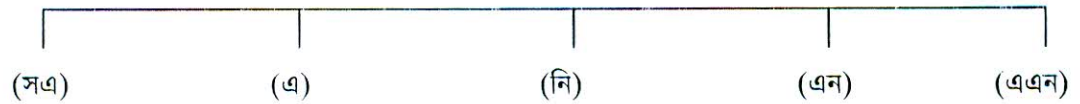
১৫। আমার লেখাপড়ার কাজে বাধা প্রাপ্ত হলে, লেখাপড়া চালিয়ে যাওয়ার আগ্রহ আরও বেড়ে যায় (When confronted with any problem in my study, I feel all even more urge to continue with it)।



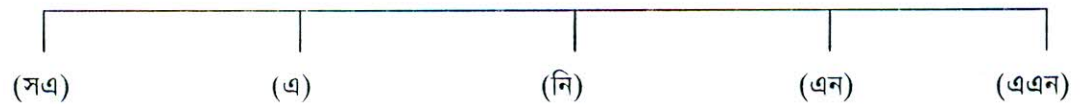
১৬। আমি এ পর্যন্ত যে জ্ঞান অর্জন করেছি, তা যথেষ্ট বলে আমি মনে করি (I feel that the knowledge I have acquired so far is enough)।



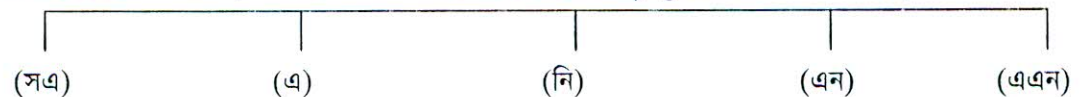
১৭। যে কোন কাজে নিয়োজিত হলে, আমি সফলতা অর্জনের শ্রবল তাগিত অনুভব করি (While engaged in any activity, I always feel strong urge to come out successful)।



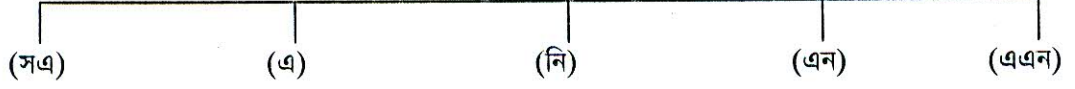
১৮। আমার লক্ষ্য অর্জন অবশ্যই নির্দিষ্ট সময়সীমার মধ্যে হবে বলে আমি মনে করি (My goal that I would achieve, I think, it must be achieved within time limit)।



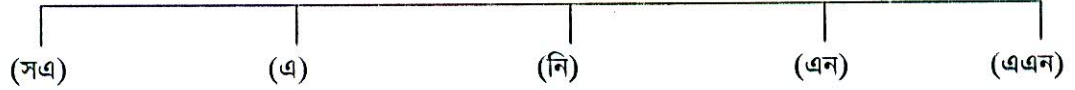
১৯। সফলতা অর্জনের আগে থেকে লক্ষ্যমাত্রা নির্ধারণ করার প্রয়োজন মনে করি না (For successful work, there is no need to set any goal in advance)।



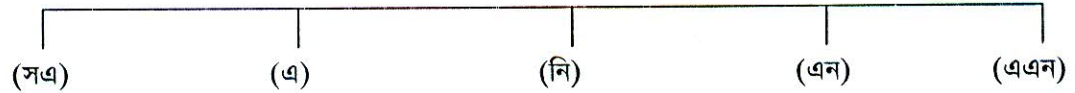
২০। কোন কাজ সাফল্যের সাথে সম্পন্ন না হওয়া পর্যন্ত আমি কাজ চালিয়ে যায় (I continue my any task, unless and until it is successfully completed)।



২১। যে কোন কাজে উদ্যোগী হতে আমি সব সময় তাগিত অনুভব করি (I always feel an inner argue to take the initiative in any work)।



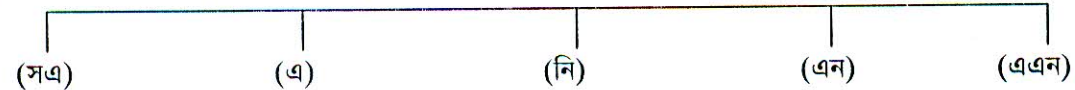
২২। একবার কাজে নিয়োজিত হলে, সময় সম্পর্কে আমি কমই মাথা ঘামাই (I care little for any time schedule, after I engage myself in my work)।



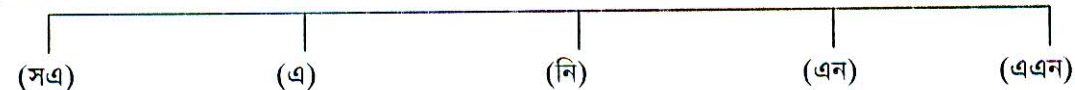
২৩। “কষ্ট না করলে কেষ্ট মিলে না” এ নীতি, আমার কাজের আদর্শ হওয়া উচিত বলে মনে করি (“Nor risk no gain” should always be the motto in my work)।



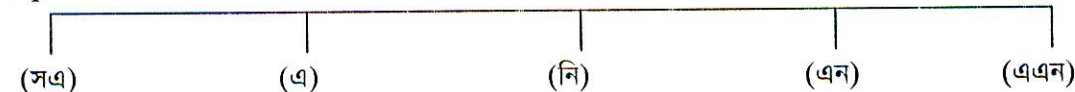
২৪। আশানুরূপ সাফল্য লাভ না করলে, আমি সন্তুষ্ট হতে পারি না (I don not get any mental peace, until my work is perfectly all right that I hope)।



২৫। আমার ব্যক্তি সাফল্য অর্জনকে আমি সব সময় প্রাধান্য দেই (I always prefer predominate of my personal achieved success)।



২৬। ব্যক্তি সাফল্য অর্জনের চেয়ে গোষ্ঠীগত সাফল্যকে আমি অধিক প্রাধান্য দেই (I prefer most to predominate to achieve success of a group than me)।



Appendix - C

Rotter's Internal-External Control Inventory

নির্দেশাবলীঃ

নিম্নে ১৮ টি ব্যক্তিগত বিভিন্ন ধারণা সম্বলিত পরস্পর বিরোধী বাক্য দেওয়া আছে। প্রতিটি বাক্যের সাথে স্কেল আকারে “সএ, এ, নি, এন এবং এএনই” - সংকেতগুলি ক্রমান্বয়ে সাজানো আছে।

এগুলো নিম্নরূপ অর্থ বহন করেঃ

- | | |
|--------|---------------------|
| ১। সএ | = সম্পূর্ণ একমত। |
| ২। এ | = একমত। |
| ৩। নি | = নিরপেক্ষ। |
| ৪। এন | = একমত নই। |
| ৫। এএন | = একেবারেই একমত নই। |

এখন মনোযোগ সহকারে বাক্যগুলি পড়ুন এবং তার অন্তর্নিহিত ধারণাটি বুঝতে চেষ্টা করুন। এবার ধারণাটি সম্পর্কে আপনার মতামত, প্রতিটি বাক্যের পাশে দেওয়া স্কেলের (সএ, এ, নি, এন এবং এএন) যেকোন একটিতে টিক (✓) চিহ্ন দিয়ে ব্যক্ত করুন। উক্তিগুলির জন্য কোন ভুল বা শুদ্ধ উত্তর নাই। অনুগ্রহ করে নির্দেশ অনুযায়ী প্রতিটি উক্তি আন্তরিকভাবে উত্তর দিন। আপনাকে ধন্যবাদ।

Instruction:

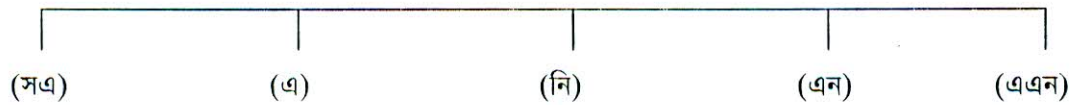
To given following list of contradictory 18 statements which have various personal ideas. As a scale "SA, A, U, DA. and SDA." symbols have given in serial order in every sentences. These are means following ideas:

1. SA =Strong Agreement.
2. A = Agreement.
3. U =Uncertain.
4. DA =Disagreement.
5. SDA = Strong Disagreement.

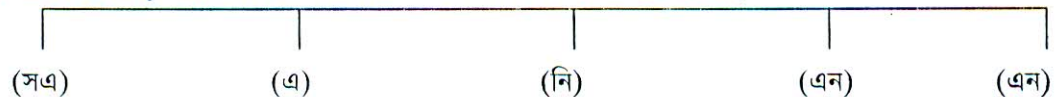
Please read the sentences with mind and try to understand its latent conception now. Then put tick (✓) mark any one against response you think most appropriate for you where given beside the scale in very sentence (SA, A, U, DA, and SDA). There is no right or wrong response to any statement. Please to give a sincere response to each of the statements as you instructed. Thank you.

Statement:

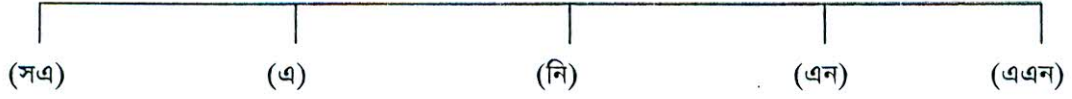
১। ছাত্র-ছাত্রীদের জীবনে বিদ্যালয় এবং কলেজগুলোতে তাদের ব্যর্থতা দুর্ভাগ্যের কারণে ঘটে থাকে (In student life of school and college, students are failure for the causes of their misfortune)।



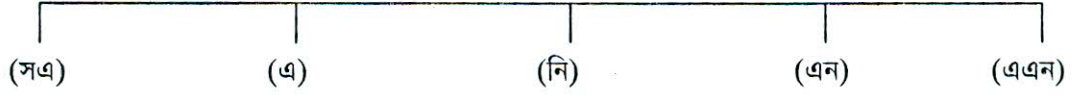
২। নিজেদের ভুল-ত্রুটির ফলে ছাত্র-ছাত্রীরা দুর্দশার কবলে পতিত হয় (Students are fall down in adversity for their errors and omissions in life.)।



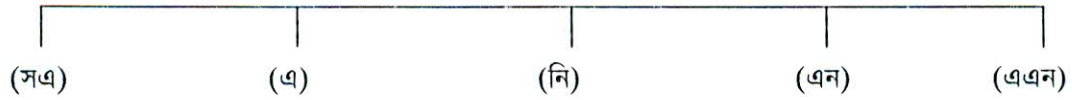
৩। লেখাপড়ায় উদাসীনতার কারনেই ছাত্র-ছাত্রীরা পরীক্ষায় অকৃতকার্য হয় (Students are failure in examination for their reluctant on studies)।



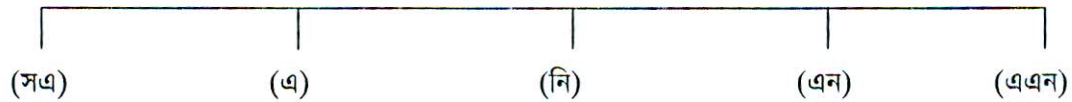
৪। ছাত্র ছাত্রীরা আপ্রান চেষ্টা করেও তাদের ব্যর্থতা রোধ করতে পারে না (Students cannot to obstruct their failure although they trying supreme and final effort)।



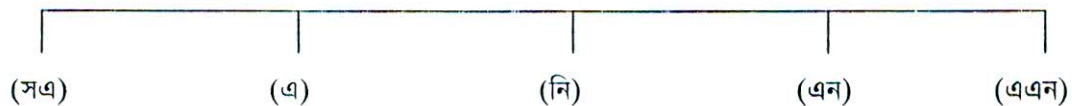
৫। শিক্ষকগন পরীক্ষার ফলাফল নির্ধারনে পক্ষপাতিত্ব করেন এ ধারণা ঠিক নয় (This idea is not correct that teachers are justifying to their student's examination result with partiality)।



৬। পরীক্ষার ফলাফল দৈব ঘটনা দ্বারা প্রভাবিত হয়, তা অধিকাংশ ছাত্র-ছাত্রী অনুভব করে (Majority person of students feel that the examination result influenced by a providential incident)।



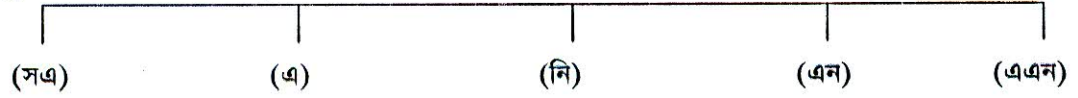
৭। আমি প্রায়ই দেখি, যত চেষ্টাই করিনা কেন, পরীক্ষার ফলাফলে যা ঘটায় তাই ঘটে (I often watch that, how much I try the result of examination as it as that happens in previous)।



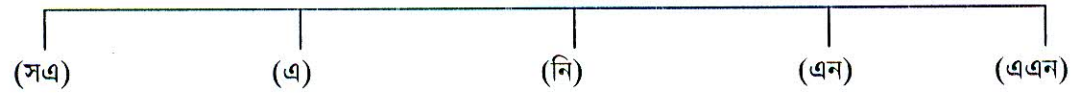
৮। ভাগ্যের হাতে ছেড়ে না দিয়ে যখন আমি নিজেই লেখাপড়ায় সচেষ্ট হই তখন পরীক্ষার ফলাফল মন মতই হয় (When I active to study in myself without depend of luck, than my examination result is well as I hope)।



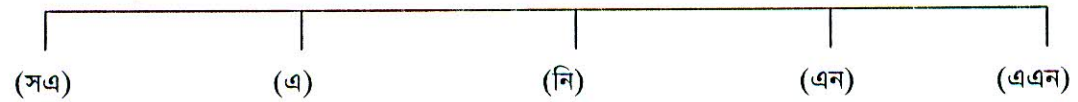
৯। যে ছাত্র পরীক্ষার জন্য প্রকৃত প্রস্তুতি নিয়েছে, সে কখনই পরীক্ষায় খারাপ করতে পারে না (The student who has taken good preparation for the exams never cuts a bad figure in the exam)।



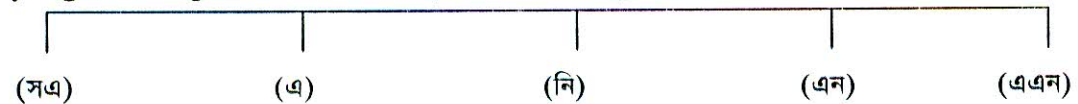
১০। অনেক সময় পরীক্ষার প্রশ্ন-পত্র ও পাঠ্যক্রমের মধ্যে অসংগতি থাকার কারনে, পরীক্ষার প্রস্তুতি ঠিকমত হয় না (In various times, there are inconsistency between questions and syllabus so; preparation for the examination is not well)।



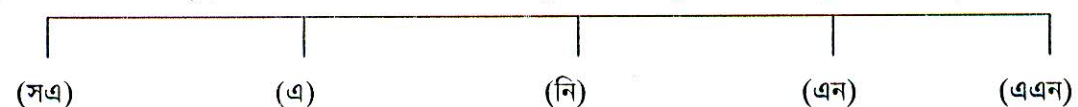
১১। সফলতা কঠোর পরিশ্রমের দ্বারা অর্জিত হয়, এখানে ভাগ্যের কোন হাত নেই (To achieve success by the hard work there is no influence of lack here)।



১২। যতই চেষ্টা করা যাক না কেন, ভাল ফলাফল একেবারেই ভাগ্যের ব্যাপার (How many trying to do, good results only have to depend on lack)।



১৩। যখন আমি পড়াশুনার পরিকল্পনা তৈরী করি তখন আমি সম্পূর্ণ নিশ্চিত থাকি যে, পরিকল্পনাটি বাস্তবায়নের দ্বারা আমি কৃতকার্যতা অর্জন করব (I fully ensured that; when I making a plane of study, then I will succeed by accomplish that plane)।



১৪। পূর্ব থেকে পরিকল্পনা তৈরী করা বুদ্ধিমানের কাজ নয়, কেননা জীবনের সফলতা ভাগ্যের দ্বারা নিয়ন্ত্রিত হয় (To making plane previously is not the act of intelligent, because success of life is control by luck)।

(সএ)	(এ)	(নি)	(এন)	(এএন)
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১৫। আমি মনে করি শিক্ষকগণ খেয়ালখুশি মত খাতায় নম্বর দিয়ে থাকেন (I think that, teachers are evaluate marking scripts to their whimsically)।

(সএ)	(এ)	(নি)	(এন)	(এএন)
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১৬। আমি মনে করি অধ্যয়ন এবং পরীক্ষার ভাল ফলাফল প্রত্যক্ষভাবে সম্পর্কযুক্ত (I believe that, study and good result in examination related to each other directly)।

(সএ)	(এ)	(নি)	(এন)	(এএন)
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১৭। আমি অনুভব করি যে, আমার জীবনে যা কিছু ঘটে তার উপরে আমার নিজের কোন প্রভাব নেই (I feel that, I have no influence in myself what happen in my life)।

(সএ)	(এ)	(নি)	(এন)	(এএন)
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১৮। আমার জীবনে আমার কর্মের বিফলতার জন্য আমিই দায়ী (In my life, only I am responsible for failure of my duty)।

(সএ)	(এ)	(নি)	(এন)	(এএন)
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