

**A STUDY OF SOME NON-COGNITIVE FACTORS
RELATED TO ACADEMIC ACHIEVEMENT OF
SECONDARY SCHOOL STUDENTS**

*Thesis submitted to the Department of Psychology , University
of Dhaka in partial fulfillment of the requirement for the
Degree of Master of philosophy in Psychology*

Submitted By

**Mohammad Salim Chowdhury
M. Phil (Part-II)
Registration No – FH 264(1999-2000)**

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**DEPARTMENT OF PSYCHOLOGY
UNIVERSITY OF DHAKA
October 2006**

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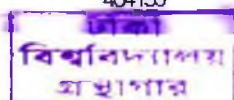
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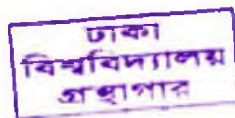
APPROVAL SHEET

This is to certify that I have read the thesis entitled “**A Study of Some Non-Cognitive Factors Related to Academic Achievement of Secondary School Students**” submitted by *Mohammad Salim Chowdhury* in partial fulfillment of the requirement for the Degree of M. Phil in Psychology and that this is a record of bonafide research carried out by him under my supervision and guidance. The results embodied in this thesis have not been submitted for the award of any other degree or diploma.

Date: Dhaka
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ABSTRACT

The aim of the present study was to predict academic achievement of the secondary school students in Bangladesh as a function of some non-cognitive factors, such as, school motivation, social climate of the family, classroom social climate study habits and socioeconomic status of the family. A total of 504 students belonged to class IX and X from 12 secondary schools (10 non-govt. and 2 govt.) in Dhaka City, selected at random and were used as sample. The sample was collected from four Thana out of twenty-five Thana of Dhaka City. The sample was selected following stratified sampling procedure. In the present research, school motivation was assessed by the adapted Bengali version (Roy, 1995) of the School Motivation Inventory of Kozeki and Entwistle (1984). To measure the social climate of the family and classroom a new Bengali adapted version of Family Environment Scale of Das Gupta and Bose (1985) and a new Bengali adapted version of the Classroom Social Climate Scale (CSCS) of Dasgupta and Bose (1986) were used. The Study Habit Scale (SHS) developed by Karim & Banu. (2000) was used for measuring the study habits of the subjects. To ascertain the effect of socio-economic status on students the Social Index of Family (SIF) developed by Islam (1995) was applied. Data were analyzed using various statistical techniques. In order to explore interaction and relationship between the variables, such as school motivation, social climate of the family, classroom social climate, study habits and SES and academic achievement zero-order correlation analyses were calculated. Multiple regression analysis was used to predict academic achievement by means of the selected non-cognitive variables.

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The study also revealed that academic achievement significantly correlated with school motivation ($r = 0.194$), social climate of the family ($r = .122$) and study habits ($r = .229$) and socioeconomic status ($r = 0.198$). Dimensions of school motivation, the measure of identification with teachers ($r = 0.201$), competence in knowledge and skill ($r = 0.124$), interest and enthusiasm ($r = 0.119$), trust, competence and self esteem ($r = 0.119$), need for order and compliance with norms ($r = 0.158$) were found to be related with corresponding increase of the measure of academic achievement. Intellectual-cultural orientation ($r = 0.104$) and organization ($r = 0.137$) of social climate of the family were found to be significantly correlated with academic achievement while rule clarity ($r = -.100$) of social climate of the school were negatively correlated with academic achievement.

Findings of the study suggested that school motivation, social climate of the family, classroom social climate, study habits and SES, have done excellent job in predicting academic achievement of the secondary school students in Bangladesh. All selected non-cognitive, e.g. school motivation, social climate of the family, classroom social climate, study habits and SES were found to predict on the average about 9% and 13% academic achievement. The power of the prediction through all the non-cognitive and parental factors were found to be better for girls (13.1%) than that of boys (7.2%).

Results of the present study suggested that academic achievement can be predicted based on school motivation, social climate of the family, classroom social climate, study habits and SES in respect of secondary school students in Bangladesh. The obtained findings of the research would be helpful to the teachers and parents to understand the academic performance of the school-going students and the importance of school motivation, positive and interactive family environment, social climate of the classroom and study habits of the students. This study would also provide knowledge about the importance of effective domain of academic achievement that would give a direction to design and implement the quality education by policy maker, educationist, curriculum designers and researchers in Bangladesh.

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I pressed my idea and interest to probe in this issue which substantiate certain conviction of mine to my teacher Professor (Retd.) Sultatn Bau, Department of psychology, University of Dhaka. It was under her kind encouragement and guidance; I develop a proposal for research leading to the Degree of M. Phil in Psychology. I expressed my deep valuation to her for her encouragement and help without any reservation.

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Dhaka

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Mohammad Salim Chowdhury

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Chapter One

INTRODUCTION

INTRODUCTION

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Academic achievement, which generally refers to scholastic achievement of the students at the end of an educational program, is thought to be of paramount importance to the students, parents, teachers, and society for various reasons. First, Academic achievement is considered to be an index of amounts of knowledge, skill, application etc. learned by the students during the course and which facilitates promotion to higher class and finally to get them employed. Moreover, it implies an index of total educational growth of the students, which either directly or indirectly facilitates their personal and social adjustment in various walks of life beyond school years. Secondly, better achievement of their wards feel parents proud and satisfied because they aspire that their children should climb the ladder of performance as higher as possible in order to be productive and contribute to the society.

Thirdly, to the teachers as well as to the school as a whole, level of achievement is considered as an index of teacher and /or school effectiveness; better achievement of students help them feel proud, effective and significant. While poor academic achievement of student stamps the teachers and school ineffective, consequently, the authority can adopt corrective measures afterwards to repair the system accordingly, if they desire so.

Therefore, for the parents, teacher, schools, and the students, the whole systems of education revolve around the academic achievement of students. Consequently, lot of effort, time and innovations in teachings and learning are invested, used and exercised to promote academic achievement of students as a gross measure of school learning.

Academic achievement has an important psychological and social implication too. Failure in the examination creates a negative impact on the students. Students who fail, loose their self-confidence and they never achieve their self-confidence. They feel ashamed that makes them frustrated. Rest of the life unsuccessful students cannot take any positive initiative for their life or for society.

Then, a pertinent question is: 'what factors do promote or demote academic achievement of student?' or To what extent do the different factors, commonly called correlates of academic achievement, contribute towards academic achievement of students?. There is no ready-made answer to this sort of question. Therefore, the prediction of academic achievement has been a problem of continuing interest to educationist and psychologists over the years and a complete and comprehensive picture of academic achievement still seems to elude the researchers through the search towards this end.

This domain of research invites complexities and demands further look from another angle as the basic construct in the fields of educational research and measurement has undergone fundamental changes over the years as mentioned by Bloom (1976). Before 1960, according to Bloom (1976) the prevailing construct was “there are ‘good learners’ and ‘bad learners,’” which implied that good learners and bad learners would differ mainly because of their permanent attributes generally in the form of intelligence, aptitude and many other similar constructs. Then during the 1960s emergence of the Corroll Model of School learning has built the construct that there are faster learners and there are slow learners. This implied that the slower learners could learn as much as the faster learners if they were given extra time and help they needed, provided their interests and attitude towards the school subjects in which they would attain the achievement criterion were positive as those of the faster learners. However, during the last two decades, significant research, especially of Bloom and associates led to the view that most students become very similar with regard to learning ability, rate of learning, and motivation for further learning when provided with favorable learning conditions. This new construct seems to have far-reaching implications for all aspects of education such as teacher training, instructions in the classroom, development of new curricular and instructional system. This latest view has, no doubt, infused enthusiasm in many educational psychologists, teachers, researchers, etc. throughout the world to go deep into the interior of school learning with a new zeal to know and to explain very minutely the entire spectrum of factors that either promote or hinder academic achievement. One of the operationalization of the construct attempted to explain individual differences in school learning as well as to determine the ways in which such differences may be altered in the interest of the students.

The school and ultimately, the society, new genera of factors and forces as determinants of school learning have come in this field of research as a results of continuous researches in environmental psychology, academic motivation, school motivation, intrinsic motivation and instructional technology; besides various other cognitive and affective characteristics of the learners, such as self concept, self esteem etc.

Consequently all these views, have brought in to focus several new convictions in this particular domain of educational research, such as, what adults do in their interactions with children in the home is the major determinants of these characteristics rather than academic level of parents, their level of education or other status characteristics. It is the environment for

learning in the class and classroom that is important for school learning or affective characteristics are important in determining the student's academic achievement (Bloom, 1976). These factors are called non-cognitive.

The Non-cognitive factors were found to have effective predictability of academic performance and student retention for different student populations: Asian Americans (Fuertes, Sedlacek, & Liu, 1994); African Americans (Boyer & Sedlacek, 1988; Sedlacek & Adams-Gaston, 1992); Hispanics (Fuertes & Sedlacek, 1995); White and African Americans (Ting & Robinson, 1998; Tracey & Sedlacek, 1984, 1985, 1987), specially admitted students (Ting, 1997a; White & Sedlacek, 1986) and low-income and first generation students (Ting, 1998). It was also found that correlations with college grades and retention were significantly higher when the non-cognitive variables were used in conjunction with standardized test scores and earlier grades.

Educators began to pay attention to the idea and value of self-concept through the belief that non-cognitive variables have a role in the academic success of students (Cokely, 2000; Frazier & DeBlassie, 1982; Gerardi, 1990; House, 1997; Messick, 1979; Nettles & Johnson, 1987; Reynolds, 1988; Reynolds, Ramirez, Magrina, & Allen, 1980; Shavelson & Bolus, 1982; Shavelson & Stuart, 1977; Smith, Reynolds, & Serlin, 1986).

All these issues and concerns have attracted researchers throughout the world in explaining individual differences in school learning by leaning heavily particularly on the domain of non-cognitive determinants of academic achievement which is an important index of school learning. The present research is a modest venture toward this end, particularly by taking several non-cognitive variables such as school motivation (motivational non-cognitive predictor), perceived social climate (non-cognitive environmental predictors) and study habit as probable non-cognitive correlates of academic achievement which has not yet been systematically studied particularly in Bangladesh where education is considered very ardently an important instrument for national development in the broad frame of human resource development. Therefore, the main view of this study is that individual differences in school learning is an observable phenomenon which can be assessed mainly by academic achievement and it can be predicted and explained by a good many non-cognitive e.g. school motivation, Study habit, perceived social climate factors.

1.1. Emergence of the Problem

A thorough probe into the relevant related literatures and studies carried out during the last fifty years both in Bangladesh and abroad, has led the present researcher to think that crucial issue in researching on correlates of academic achievement is to have a clear picture, how different factors or forces determine academic achievement. So the investigation though several efforts have been made to solve the riddle by many experts in Western countries (Atkinson et al., 1974; Bloom, 1976; Nicholls1979; Ameerjan,1981; Entwistle and Kozeki, 1985) according to their respective line of thinking.

In an attempt to determine a small number of variables that will account for much of the variation in school learning, Bloom (1976) has proposed three interdependent variables which are central to his theory of school learning. These are: a) the extent to which the student has already learned, b) the extent to which the student is (or can be) motivated to learn, and c) the extent to which the instruction to be given is appropriate to the students. More specifically, his theory deals with three broad aspects: student characteristics – cognitive entry behavior (Prior learning, attitude toward subject/school, academic self-concept) instruction- quality of instruction and learning outcome level and types of achievement, rate of learning and effective outcomes.

In other words, where there is considerable variation among students in their entry characteristics and where the quality of instruction is not optimal for different students there should be great variation in the learning outcomes. This theory intended to explain the interaction between an individual learner and the instruction same time has to be learned. As a result, the learning has finally accomplished. This theory however, has not made any explicit reference to peripheral variables like, school organization, administration, finance, control, teacher characteristics, classroom climate, home climate, which are believed by many scholars to effect school learning. Bloom (1976) has claimed by summarizing previous studies, the cognitive entry characteristics and effective entry behavior in combination could account for only about sixty percent of the achievement variation on a new set of learning tasks and the characteristics of teacher rarely account for more than five percent of the achievement variation. These findings have led him to conclude that environment for learning in the classroom rather than the physical characteristics of the class and classroom was important for

school learning and at the same time family environment should also be taken into consideration.

After an extensive survey of research studies on relation between different variables and academic achievement, a schematic model of determinants of academic achievement has been proposed by Ameerjan (1981) in which he assumed, academic achievement as dependent variables resulting from the dynamic interaction among personality, motivation, study habits, skills and attitudes and school or college climate. In his model, he has also reasoned out that home environment has no direct influence on academic achievement; rather its effect on academic achievement is mediated through development of pupil in respect of intelligence, personality, motivation, and study habits skill and attitudes, etc. This model though seems comprehensive yet no empirical validation has ever been made. However, by combining this theoretical model with several discrete models mapped by other researchers (e.g. Brown, 1955; Harris, 1940; Cattell et al., 1966; Eysenck and Cookson, 1969; Entwistle and Welsh, 1969; Finger and Schlessler, 1965; Lavin, 1965; Cattell and Butcher, 1968; Gough, 1949; Srivastava, 1975; Lynn et al. 1983; Cassidy and Lynn, 1991; Eshel and Kuman, 1991; Kreitler et al. 1995) has led the present investigator to think that in simple way all those determining variables can best be divided into two broad classes of variables – cognitive and non-cognitive and any search for possible lack in knowledge in this area of research from which the problems at hand may emerge should begun with from this point.

Klug (1989) presented another conceptual model for understanding classroom learning and achievement. Klug's model for understanding classroom learning and achievement is presented in the following figure

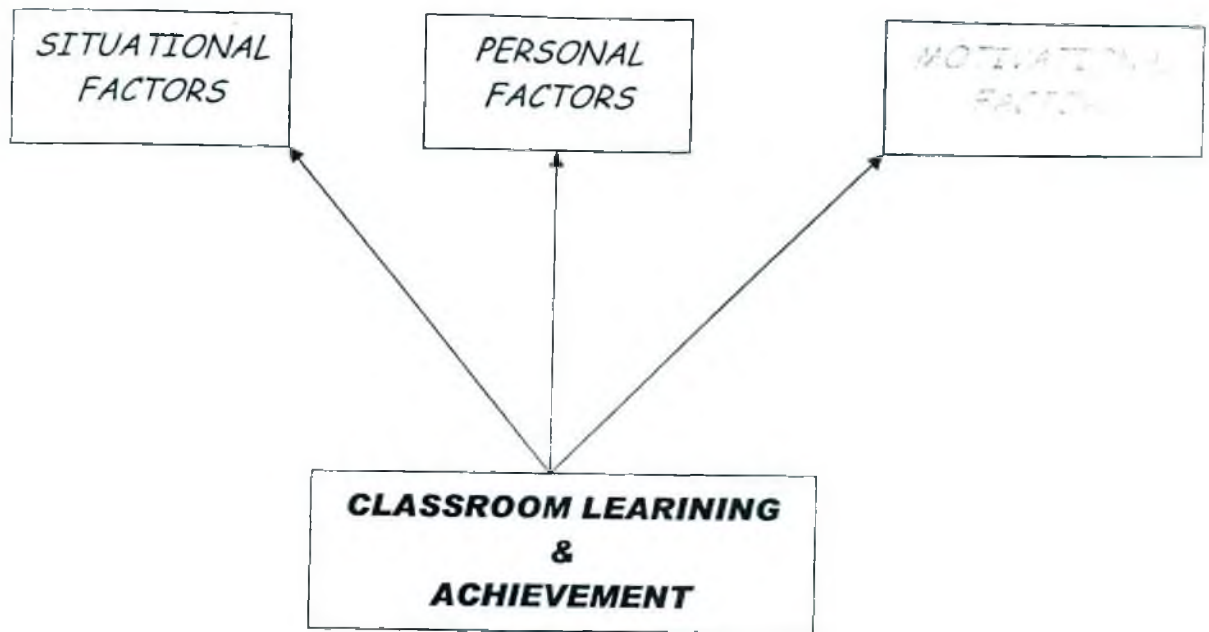


Figure: 1.1 A conceptual Model for Understanding Classroom Learning and Achievement

Source: Klug (1989)

A number of other researchers e.g Agarwal, (1973); Das, (1975); Kreidler et al., (1995); Patil, (1984); Das, (1986); Bhatnagar, (1968); Mitra, (1985); Carter, (1959); Wellman, (1957) and the like have established the fact that intelligence, the most important measure of cognitive ability, is positively and highly correlated with academic achievement irrespective of age group, sex, socio-economic status etc. of students. Because learning is clearly cognitive act designed to improve cognitive performance, it is therefore natural to expect that it could depend on cognitive abilities of the general kind called intelligence or more specific types called mental abilities (Ackerman, 1989). Other, studies however, showed that cognitive abilities explained only a limited part of variance in academic achievement (Weiner, 1984).

However, when intelligence has been one of the variables of a broad spectrum of other non-cognitive variables in the regression models, it appears that contribution of intelligence to the prediction of academic achievement is high but not cent percent. Gough's (1949) statement in this connection need to be mentioned. In his own words, "Resources has ordinarily been had to tests to ability and capacity, but recently there has been a growing realization that other, non-intellectual factors must be assessed if the margin of predictive error is to be diminished appreciably" (p.1).

Regarding the role of cognitive factors in academic achievement view points of other eminent experts need to be mentioned here. For example, Bishton (1957) has said, "Intelligence is significant determinant of scholastic achievement but many other personal, social, psychological and emotional factors affect the nature and extent of a school achievement". This notion has also been accorded by Bhatnagar (1968), Cattell et al., (1972), Cattell and Child (1975), Bloom, (1976) and Boyle (1983). In more definite terms, Gillis and Lee (1978) opine: "... for some areas, such as reading and mathematics, that ability, motivation and temperament modalities each can separately account for as much as 20-25 percent of the academic variation, to give a total of 60-75 percent accounted for variation" (p.241)

This argument is also supported by Bhatnagar (1968) who said that when the measure of mental ability and achievement as measured by standardized tests are correlated, co-efficients can be expected to range from 0.30 to 0.80, most of them at or near 0.55, the middle of the range. This notion has also been reflected in Bloom's theory of school learning. Thus, intelligence is not a sole determinant of academic achievement. For this error in measurement, Bloom (1976) has taken cognitive entry behaviors, not general intelligence, though he has suggested taking general intelligence for making gross prediction of academic achievement.

The evidences cited in the preceding paragraph suggest the importance of non-cognitive variables in predicting academic achievement more precisely. The above citations also suggest that in order to reduce the predictive error attempts have to be made to find out key moderators which are not possibly within the domain of cognitive variables, rather, within personality, motivation and environment, etc. to get possible answer to the question very clearly: "why do two individuals having nearly the same amount of intelligence, one topping the list of academic achievement and the other coming at the lower range of the ladder?". There is, however, no readymade answer to this in relevant research studies, particularly in Bangladesh. It is quite likely that there are a number of non-cognitive factors that may influence academic achievement but especially certain non-cognitive variables related mainly to personality, motivation, attention and family environment are thought to have stronger influence than others do.

One of the several kinds of non-cognitive variables, which have been considered as probable moderator of academic achievement over the years is personality. In this context Entwistle (1972) said that personality is the dynamic organization within the individual of those psychophysical systems that determine his characteristic behavior and thought. This view clearly suggests that personality will be an important determinant of classroom behavior and ultimate scholastic success. The multi-dimensional approach of Cattell et al. (1969) shows that 25% of the variance in school attainment may be attributable to the effect of personality.

Lavin (1965) after summarizing the findings of several studies carried out in America found that majority of results showed academic achievement is related with several personality characteristics. Bloom (1967) also reported that academic self-concept has been found to correlate positively with the measure of academic achievement, though the extent of relationship varies with level of grade. The most frequent estimate of relation after grade 5 is in the order of +0.50. Similarly many other researchers have carried out studies on certain personality characteristics to establish relation with academic achievement. In those studies the selected personality variables mainly were : anxiety (Das, 1975) ; ego-involvement (Varma, 1966) ; extroversion-introversion (Lall, 1984); locus of control (Gupta, 1987) ; personality traits of Cattell and self concept, self –esteem (Puri, 1987) which are considered as non-cognitive factors. A review of all these studies suggests that relationship of academic achievement and personality traits have been established though there remain some inconsistencies. Therefore, the investigator in the present study has concentrated only to motivation, the underlying dynamics of personality, which seems not well covered in Bangladesh.

Within the domain of motivation, it has been found that need for achievement has been researched upon by a host of experts throughout the world. Most of the work on need-for achievement, as a general personality traits of achievement motivation has been done in America by McClelland (1953) and Atkinson and Feather (1966) using a thematic apperception test. When this measure has been used to predict academic achievement in school the result were found to be largely contradictory (Lavin, 1965). Moreover, the dependency of academic achievement on factors, such as achievement motivation (Nicholls, 1984; Stipek, 1988), intrinsic vs. extrinsic attributions of success and failure (Weiner, 1984); self-esteem (Covington, 1987); has also been explored and it has become increasingly evident that in order

to improve educational theory and practices it is necessary to integrate the motivational approaches to learning (Covington, 1987; Snow, 1991). Therefore, a specific measure of academic motivation is felt necessary with the underlying objective to explain some of the difference in school attainment of children with similar measured abilities as has been suggested by Entwistle (1968).

Most of the attempts have been documented in the works of Schlessor and Finger (1962), Buxton (1966), Nisbet and Entwistle (1966), Entwistle (1968), Chiu (1967), Kozeki (1975, 1980), Kozeki and Entwistle (1984) with various extents of success. Factor analytic study of Finger and Schlessor (1965) showed that a factor of academic motivation covering aspiration, attitude towards school and study habits was clearly related to grades achieved by the students. Entwistle (1968) by applying his Aberdeen Academic Motivation Scale on school students' population has reported that the scale correlated highly with attainment than with reasoning ability. Entwistle concludes that the construct measured a non-intellectual trait interchangeable related to school attainment. All the studies mentioned above concentrated only on the uni-dimensional scales of academic motivation and were found to explain additional variances in school attainment beyond that related to verbal reasoning scores, but their conceptual bases seemed far from clear. Subsequently, Entwistle et al. (1974) recognized that further conceptual clarification was needed for several different types of motivation, which was thought to be related to education. That is a multidimensional approach was felt needed and their thinking got some supports from further researches such as Chiu (1967).

Researches have been conducted extensively by Kozeki and Entwistle in Hungary and Britain in developing a multidimensional concept of motivation and they identified the ten factors through factor analysis which are warmth, sociability, competence, interest, compliance, responsibility, independence, competence and interest. This however, when used in predicting school attainment has been found to have only limited success. Entwistle and Kozeki (1985) reported significant effect but small correlations of those ten motives with the British as well as with the Hungarian children. In the Hungarian children, many motives were found not to reach the significant level.

An unpublished research venture found that, only independence among the ten conceptualized motives engulfed in the theoretical model of school motivation (Roy, 1995) correlated

significantly with academic achievement of tenth grade school children in West Bengal. This contradictory trend in research findings may be due mainly to cultural variation or due to methodological weakness.

Moreover, Entwistle and Kozeki (1984) have also reported that the combined predictive capacity of all these ten motives is drastically low. They have reported that when these ten dimensions of school motivation are combined with deep approach, surface approach, strategic approach, success and failure, instrumental motivation and hope for success in the multiple regression model to predict school attainment the multiple r are around 0.50, that is only 25% of variance of school attainment has been found attributable to all those predictors. They also conclude that the predictive variables are too closely inter-related to produce consistent beta-weights in the regression equations.

As a result of which in a further factor analytic study, it was also found that warmth and moral domains, interest, competence, and consciousness, moral and cognitive domains got intermingled. Most probably in their prediction venture there was prominent problems of multiple Collinearity as pointed out by Kozeki and Entwistle (1984).

Therefore, the investigator has intended to predict academic achievement from combinations of a predictor's battery consisting of principal component factor of school motivation. This would perhaps be the first venture in this field of research and the result of which may have both theoretical and empirical utility, and significance. Hence, the present researcher has one objective to establish actual nature of academic motivation that can predict academic achievement when the group of subject is nearly homogenous.

The concept or definition of environment so far used in the area of educational research has not been studied in the light of environmental or ecological psychology. Especially Moos and others (1974, 1976) have systematically conceptualized the concept of environment in education and Trickett and Moos (1973) on the concept of environmental press and by applying the logic of perceived climate was to study under the concept of social environments. Since then the measurement of social climate has been one of the principal means of characterizing human environments by subsuming three dimensions which are; i) relationships (involvement, support and cohesion), ii) personal development (autonomy, task orientation and

competition) and iii) system maintenance and system change (order and organization, clarity, innovation). Almost everyone intuitively believes that the social environment or social climate has a significant impact on the pupil's functioning including learning outcomes in it (Moos, 1974) and this measurement scale is stated to be good enough to yield more readily interpretable and less ambiguous data (Anastasi, 1982). But unfortunately predictive capacity of social climate, engulfed in pupils' home has not been systematically explored in the domain of correlates of academic achievement. Similarly, many studies have been done in finding out the relations of the characteristics of classroom or school including such variables as number of students, equipment and facilities available, school organization and administration, with academic achievement but the results are not so very encouraging. It was also found that selected variables from the above list rarely account for more than 5 percent of the achievement variation (Coleman, 1966; Plowden Report, 1967; Stephens, 1967; Jamison, Suppes and Wells, 1974). However, Bloom (1976) opines that the environment for learning in the classroom rather than the physical characteristics of class and classroom is important in school learning.

Moreover, some other research data have confirmed dependence of academic achievement on classroom climate (Moos, 1979; Fraser, 1981; Walberg, 1979). A report of meta analysis conducted over results of several independent research enterprises show that learning outcomes of students are found to be positively associated with certain classroom environment dimension, e.g. cohesiveness, satisfaction, material environment and negatively associated with dimensions of friction, apathy and disorganization. Following these studies, the present investigator has reasoned out that perceived social climate at home and classroom would be important non-cognitive variables in studying their association ship with and impact on academic achievement. One may argue that there may be some disparity between the perceived situations of social climate and the veridical ones, however, for the pupils themselves, the perception is the reality as mentioned by Fry and Coe (1980). Hirunval (1980) had one major objective to study relationship between academic motivation, self-concept, classroom climate and academic performance of IXth grade students and reported: (i) boys were more academically motivated than girls, (ii) classroom climate bore a positive relationship to pupils' performance, (iii) self-concept and pupils' academic performance was positively related and (iv) academic motivation as measured by Junior Index of Motivation was positively related to self-concept

The family and the classroom of Bangladesh may be different respectively from the western home and classroom in structure, function and organization though the existing elements of three basic dimensions (relationship, personal development, and the system maintaining and system change) in constituting perceived social climates remains same. Therefore, uses of appropriate tools for measuring perceived social climates of the family and classroom is felt necessary. Survey of related research revealed that the Family Environment Scale and the Classroom Social Climate Scale originally developed Moos and Moos (1978) and Trickett and Moos (1973) were adapted in Bengali and were used in research on Bengali sample of west Bengal. Culture in West Bengal and Bangladesh are similar particularly in respect of language and socio-cultural aspects. Availability of Bengali version of these two scales and Reza's Study Habit Scale developed in Bangladesh as well assumed to serve the purpose.

Another class of non-cognitive variables which have been extensively researched upon in this area is demographic variables encompassing, on the main, socio-economic status and environment of various kinds in which the learner is engulfed. A number of theories have preferred to explain the intergenerational transmission of educational disadvantage. Lewis's (1968) notion that the poor have a qualitatively different culture from the rich with regard to child-rearing practices and socialization process is one of such theory, which has been greatly emphasized. Duncan (1968) has devised a model based on path-analysis which demonstrates an interaction between socio-economic background and educational attainment, mediated by intelligence and school-type. Research conducted by Duncan et al (1972), Jencks (1972), Taylor (1977) and Halsey et al. (1980) have supported the model. In India too the dependency of school attainment on socio-economic status has been studied and Shukla (1984), Malhotra (1986), Misra (1986) and Singh (1986) have found a positive relationship between socio-economic status and academic achievement of students. Probably, association between these two variables are due mainly to the fact that socio-economic status provides learning climate to the children and differences between high achievers and low achievers are due mainly to differences in educational environment rather than social background, provision of facilities etc. (Sarker, 1983). Likewise, Kawralla and Pandya (1996) found that students' academic achievement was facilitated more by perceived school processes rather than school inputs and socio-economic status. Many studies give ample evidence that the characteristics of children and their home environment account for the larger proportion of the variation in the measured

achievement of students than those explained by parental status, education, concern etc. This has been supported by Bloom (1976). Thus, it seems, several aspects of environment rather than socio-economic status are more important in predicting academic achievement, but unfortunately, this has not been studied systematically until the date in Bangladesh.

Definitions of the non-cognitive variables assumed to influence academic achievement of Bangladeshi students will be presented in the following chapters.

1.2. Definition of the Non-cognitive factors and academic achievement

The above discussion clearly suggest that the non-cognitive factors of academic achievement refer to principal components of school motivation, perceived social climate in the context of family and classroom, study habits of the students and socio-economic condition of the students.

1.2.1. School Motivation

School motivation refers to psychological forces (such as, motives, attitudes, etc) spanning over mostly affective, and less cognitive and moral domains of behavior that draw or impel students to do school work. The underlying rationale of this multi-dimensional concept depends on the fact that student's experience in relation to learning and different types of rewards and punishment. These depend essentially on relationships with other variables, such as, developing competencies in knowledge and skill, and the feelings derived from living up to the expectations of self and other.

Researches have been conducted extensively by Kozeki and Entwistle in Hungary and Britain in developing a multidimensional concept of motivation in the name of 'school motivation' but with limited success. Kozeki (1975) believes that in place of single dimension of academic achievement motivation, cognitive, there are at least three motivational domains- affective, cognitive and moral through which operation of several motives in school learning and attainment could best be determined. " The underlying rationale of the scheme depends on the fact that children experience in relation to learning different types of rewards and punishment.

These depend essentially on relationships with others (the affective domain) and the feelings of competencies in knowledge and skill (the cognitive domain) and the feeling of satisfaction derived from living up to the expectations of self and others (the moral domain). The affective domain, according to them covers warmth, identification, sociability and adult pressure

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(affiliation), the cognitive domain includes independence, competence and interest and finally, the moral domain covers trust, compliance and responsibility (Entwistle and Kozeki, 1985). After a factor analytic study they identified six oblique factors, warmth, sociability, competence, interest, compliance and responsibility where most of the factors are non-cognitive. This multi-dimensional approach has attracted the present researcher a lot, as it is found comprehensive to encompass all experience of children relating to learning at school. But Roy (1997) has considered school motivation as a non cognitive factor in the research. "The picture of prediction of academic achievement by the combination of some no-cognitive factors identified from factor analytic studies of social climate scales and school motivation inventory perhaps, has some different story to tell from different groups of subjects' studies" (Roy, 1997 Pp-226)

1.2.2. Perceived Social Climate of Family

Perceived social climate of family is a directional force or tendency resulting from interactions of interpersonal relationships among the family members, direction of the personal growth emphasized within the family and basic organizational structure of the family.

On practical point of view, consensus of individuals (students) characterizing this directing force or tendency constitutes a measure of perceived social climate of family and this climate gets manifested in the family in terms of cohesion, expressiveness, conflict, independence, achievement orientation, intellectual cultural orientation, active recreational orientation, moral religious emphasis, organization, and control.

Dimensions of the family social climate were defined by to Moos and Moos (1978) in the following way:

i) Cohesion

The extent to which family members are concerned and committed to the family and the degree to which family members are helpful and supportive to each others.

ii) Conflict

The extent to which the open expression of anger, and aggression and generally conceptual interactions are characteristics of the family.

iii) Independence

The extent to which family members are encouraged to be assertive, self-sufficient, to make their own decision and to think things out for themselves.

iv) Achievement orientation

The extent to which different types of activities (i.e. school and school work) are cast into an achievement orientation of competitive frame work.

v) Intellectual-cultural orientation

The extent to which the family is concerned about political, social, intellectual and cultural activities.

vi) Active recreational orientation

The extent to which the family participates actively in various recreational and sporting activities.

vii) Moral religious emphasis

The extent to which the family actively discussed and emphasizes ethical and religious issues and values.

viii) Organization

Measure how important order and organization are in the family in terms of structuring the family activities related to financial planning and the explicitness and clarity regarding family rules and responsibility.

ix) Control

Assess the extent to which the family is organized in a hierarchical manner. the rigidity of family rules and procedures and the extent to which family members order each other around.

1.2.3. Perceived Classroom Social Climate

Perceived classroom social climate refers to directional force or tendency resulting from interaction or interpersonal relations between the class teacher and students attending the class and among the classmates participating in the class work, directional force of personal growth emphasized by the class teacher and basic organizational structure of the classroom.

Another view of Perceived Social Climate is that consensus of students characterizing this directional force or tendency constitute a measure of perceived classroom social climate which gets manifested in the classroom behavior or performance and that can be measured objectively in term of cohesion, competition, innovation, teacher control, and teacher support.

In more details, the definitions of each of the nine dimensions according to Dasgupta and Bose (1986) are:

- i) Involvement reflects students' identification with community life in school.
- ii) Cohesion reflects the level of student's in-group integrity, cooperation in problem solving, understanding and peer relationships.

- iii) Teacher support reflects the feedback offered by student teacher relationships.
- iv) Task orientation reflects students' incorporation in school life, ideology which are transacted through plan and programmed of the school.
- v) Competition reflects students' healthy rivalry for success school life.
- vi) Order and organization reflects students disciplined behavior in classroom to fulfill the expectations of teacher in the classroom.
- vii) Rules clarity reflects students' conformity to classroom norms and code of conducts.
- viii) Teacher control reflects students' sincerity to classroom life regimentation and consequently acceptance behavior.
- ix) Innovation reflects students' creativity in classroom performance.

1.2. 4. Study Habits

Study habits generally refer to pupils' repeated actions to study from the beginning to the end of an educational program Study habits are thought to be of paramount importance for them for a variety of reasons. The operational definition of study habit in the present study is considered as a systematic and organized study program, which involves the following elements:

1.2.4.1. Setting up a schedule for studying

The 1st step for designing a good study program is to set up a schedule for studying. To reach this aim definite time to studying should be allocated first.

1.2.4.2. Selecting a definite place to study

When a definite schedule for studying has been set up, students should find a place where distractions are likely to be minimal so that they can concentrate to their studying.

1.2.4.3. Reward for studying

In order to be motivated towards regular study, students should reward themselves immediately after studying or after getting good grades. They themselves can be rewarded by involving in play activities, by visiting the house of loved ones or gossiping with them through telephone, or by witnessing TV shows or playing on a harmonium as well as singing a song.

1.2.4.4. Setting techniques and strategies for studying

It is true to some extent that each person studies in a unique way. Yet students should regularly exercise on general techniques and strategies that have been proved to be effective. Such a strategy, for example, was formulated by Robinson (1946 &1970) which is known as

SQ3R method. This study system designed to permit effective reading derives its name from the five steps recommended by him namely, **Survey, Question, Read, Recite and Review.**

1.2.5. Socio-Economic Status (SES)

Socio-economic status is an amalgam of a series of interrelated variables, such as occupation, income, wealth, power, prestige and educational achievements, each of which goes some way toward determining the position of an individual within society. According to Bank and Finlayson (1973) indicators that have been used for determining socio-economic status are usually incomes, education, occupation, or a combination of at least two of these factors.

Income may be used as an indicator for socio-economic status because it is highly and closely related to the economic status or material conditions of the family (Bank & Finlayson, 1973). In other words, poverty directly effects the quality of family life, through bad housing, malnutrition and higher rates of sickness. In addition, it has indirect effects on family relationships and patterns of child rearing which can be considered as non-cognitive factors. Bank and Finlayson (1973) claimed that poverty, especially if it occurs over a long time in terms of financial insecurity, might have an influence on value orientation. However, the effects of poverty, either direct or indirect, can influence the perception of peoples and develop a negative perception toward social activities including education. In the present study, socio-economic status (SES) has been measured based on SIF (Social Index of Family) developed by Islam (1995).

1.2.6. Academic Achievement

Academic achievement, in this study has been defined as the average composite score obtained by the ninth and ten-class students on the immediate school examination during data collection for the present study.

1.3. Review of Related Literature

1.3.1. Relationship of School Motivation and Academic Achievement

The conceptual frame of school motivation then, definitely leads to think that it in combination of its factors or class of several motives which will explain more of the variance of scholastic achievement as all the factors or dimensions are conceptually constructed to have variance with school works.

The volume of research so far documented in this area is not too extensive. The most consistent correlations indicated perceived pressure from adults being associated with low level of achievement and positive relationships of attainment with independence, competence (Entwistle and Kozeki, 1985). In Britain identification with teachers, compliance and warmth

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(both among girls) showed significant positive relationships with the indices of attainment. But school motivation in combination with approaches to studying failed miserably in predicting school attainment.

Entwistle and Kozeki (1985) concluded that School Motivation Inventory and Approaches to Studying inventory were probably not designed specifically to school attainment (Which generally refers to cognitive aspect) and said "Not all students or pupils, see high academic attainment as their main goal" (Entwistle and Kozeki, 1985, p.137). This has been supported by Marton (1984) and Selmes (1985). Particularly this latter researchers noticed different intentions in studying in secondary school pupils.

However, in an earlier unpublished study of Roy (1995), it appeared that of the ten dimensions of school motivation conceptualized by Kozeki and Entwistle (1984) only independence was found positively and significantly correlated with academic achievement of tenth grade children though the value of 'r' was found to be very low ($r=0.104$). The researchers suggested that this surprisingly very poor correlations reflected cultural variations in establishing relationship between these two sets of variables. In the same study, it was also observed also that all the ten dimensions of school motivation could explain only about 3% of total variance of academic achievement. The researcher argued that this low predictive capacity of dimensions of school motivation were due to some methodological fallacies. It was found that these dimensions of school motivation were found significantly intercorrelated. The researcher also found that there was problem of multi collinearity in the multiple regression analysis and suggested that the strength of prediction could be better if orthogonal factors of school motivation were identified and were used in future as predictors of academic achievement.

Applying his first generation Aberdeen Academic Motivation Inventory Entwistle (1968) found that academic motivation was highly and significantly correlated with academic performance and verbal reasoning. Dey and Singh (1970) also found this positive and significant relationship. Moreover, many other researchers have also reported similar evidences. For example, William (1965) found positive correlation between academic motivation and academic achievement among Negroes.

Rousseau (1971) remarked that the important source of reward for academic motivation lie with the nature of students' interpersonal relationships rather than various structural

characteristics. However, Jindal University Institutional Repository found no statistically significant relationship between academic motivation and reading achievement.

In a later study Entwistle and Kozeki (1985) reported consistent positive correlation between academic attainment and independence and competence in almost all schoolchildren of Britain and Hungary. Warmth and trust were found to have significant positive correlation for the girls who took Science or Arts stream. The most consistent correlations indicated perceived adult pressure being negatively associated with school attainment. Sinha and Sharma (1975) found academic motivation scores of high achievers higher than those of low achievers. Raja Mohan (1978) found that students having high internal locus of control had high academic motivation and also found positive and high significant relationships between examination grades and academic motivation.

A moot point relating to establishment of causal relationship between academic (school motivation) and scholastic achievement is that this relationship may be both direct and indirect, via social climate, sex, socio-economic status, intelligence, self-concept, locus of control, level of aspiration for good grade, etc. Central to the issue is that concept of 'achievement striving' is likely to be a function of individual's social and family background (Showers and Canter, 1969; Hundal, 1970). Duncan (1968) devised a model based on path analysis which demonstrated an interaction between socio-economic background and educational achievement, mediated by intelligence and school type. In a later extended model, Lynn et al. (1983) noticed both direct and indirect effects of achievement motivation (i.e. work ethic and status aspiration) on educational level at 16 years. In a further study of this kind Cassidy and Lynn (1991) also found both direct and indirect (via home background, school type, and personality etc) effects on school attainment. They also found that achievement motivation was a better predictor of educational attainment than I.Q. in their study. Finally they have concluded " a child who is more intelligent, attends grammar school as opposed to secondary modern school, is brought up in a less physically crowded environment where parents provide encouragement to study and aspiring for material reward, has a less strong work ethic and aspire to lead, will attain a higher educational level" (Cassidy and Lynn , p.8). These findings are compatible with those reported by Ramsden and Entwistle (1981) in higher education.

The relationship of academic achievement and academic motivation may also be mediated by sex. Kreidler et al. (1995) found that girls' scholastic achievements were more affected by

motivational factors than by cognitive factors. They found that girls did not differ from boys in underlying mathematics, their lower achievements in mathematics, might be due to lower motivation for mathematics. This finding was actually concurred with the findings of Kohlberg and Ziglar (1967), Sharma (1983), Sadker and Sadker (1985).

However, the present researcher was interested in determining only direct effect of school motivation and social climate factors on scholastic achievement.

Singhaulakh (1979) found adolescent student's motivation to work was significantly and positively correlated with school achievement.

Kohli (1984) conducted a multivariate correlation study to predict scholastic achievement of over achiever, under-achiever, and total sample with the help of 34 predictors classified under 5 headings viz., adjustment, personality trait (HSPO), SES, study habits and attitude and achievement motivation and found income, spatial environment, rejection of home making role, harsh punitive control and intelligence explained about 2% of the variance of the criterion.

Singh (1984) found aggregate marks were significantly and positively related to self-concept of academic ability.

Mitra (1985) found that (1) intelligence was the most significant correlates of academic achievement, irrespective of sex; (2) achievement motivation and extraversion positively and significantly correlated with academic achievement for both sexes (preadolescent school children); (3) intelligence achievement motivation and extraversion accounted for three fifth of the variance of the criterion.

Gupta (1985) found that there were significant differences among bright and dull (classified on the basis of scores of PRM) students as regards to need for difference, abasement nurturance, change, endurance, exhibition, autonomy, affiliation and heterosexuality.

Puri (1987) estimated that (1) about 19.8% of the intellectually gifted student (16-18) did not come up to the expected level of academic performance, (2) the majority of under achievers belonged to lower socio-economic groups and had poorer self-concept, (3) the under achievers generally tended to be warm-harted and easy-going, had comparatively lower scholastic capacity and were inactive; they tended to be assertive; aggressive, stubborn, and dominant.

were impulsive and happy. Dhaka University Institutional Repository generally over protective; sensitive, individualistic and reflective and were found to be apprehensive, worrying and trouble makers.

Florence (1989) found that high-achievers were found more often in higher identity statuses and more advanced stages of ego development than the low-achievers.

Wu (1990) investigated the relationship between self-esteem and educational outcomes in Chinese children and adolescents and concluded; self-esteem was an important indicator of educational outcomes of children.

Colon (1991) examined some of the major factors that seemed to influence motivation and academic achievement. Data revealed positive relationship between motivation and achievement and a varied relationship between self-concept and motivation towards academic achievement. Results showed, a sub-set of undesirable home environment characteristics were more closely related to children's behaviors at home than at school. The findings suggested that home environment characteristics might not be major predictors of children's school performance.

Eshel and Kurman (1991) by employing regression and path analysis reported that accuracy of perceived ability had an independent unique effect on academic attainment beyond the effects of academic self-concept and background variables.

Appel (1993) found that the self-concept of ability accounted for academic achievement. Support from peers was rated highest by all the students.

Kreitler et al. (1995) studied cognitive and motivational determinants of academic achievement and found : (i) both cognitive and motivational variables were found necessary for predicting academic achievements and school behaviors and that both together provided a better prediction than each singly; (ii) cognitive variables, contributed more to the predictions, especially of academic achievements, and more in the case of verbal than mathematical abilities; and (iii) in girls motivational factors played a larger role than cognitive factors absolutely relative to boys.

According to Gottfried (1985), the result supported the hypothesis that academic intrinsic motivation is positively and significantly related to children's school achievement as measured

by both standardized achievement tests and teacher grades. Children who reported higher academic intrinsic motivation had significantly higher school achievement.

In a research paper comprised of several field studies and laboratory experiments, Boggiano et.al (1992) revealed that academic motivation positively influence academic performance.

It should be noted that some studies have found little or no significant relationship between motivation and academic achievement. Niebuhr (1995) completed a study that examined relationships between several variables and student academic achievement. The study included an investigation of the relationship of individual motivation and its effect on academic achievement. The findings of the study indicate that student motivation showed no significant effect on the relationship with academic achievement.

A 1998 study by Goldberg and Cornell revealed that intrinsic motivation did not directly influence subsequent achievement. The sample includes participants in the Learning Outcome Project being conducted by the National Research Center of the Gifted and Talented.

Marcon (1999) found contrasting result in her study of a group of early adolescent. The sample of the study was 97% African American. Achievement data was comprised of grade and standarized achievement scores. The academic motivation of Black urban student was found to be more intrinsic than extrinsic.

In other ethnic and cultural studies, Whang and Hancock (1994) state that Chinese Americans attribute their academic achievement to trying hard and their academic failure to lack of effort; whereas Anglo American students tend to divide their explanations for achievement and failure more evenly between good luck, ability, and effort. Similar patterns favoring effort attributions for achievement have also been found among native-born Mexicans (Covington, 2000).

The above researches finding indicate that some studies are positively related to non-cognitive factors on academic achievement and some not which are all carried out in western countries. So the contradiction findings inspired the investigator to find out the actual relationship between school motivation and academic achievement of the students in Bangladesh.

1.3.2. Relationship between ~~Individual and Social~~ ^{Family} Climate of the Family and Academic Achievement

The purpose of making more explicit causal connections between man's development and the environments with which individual interacts is a moot question in environmental psychology as the similarities and differences in selected aspects of environments now offer opportunities for clarifying many theoretical and empirical issues in understanding of man and his environment (Bloom, 1964). Although psychology in its own general casual approach has not had much emphasis on the environment in research activities in its effort to bring about change in the individual or group, particularly, when an individual remains in his formative stage of development by becoming a member of the school going population. Therefore, "the introduction of the environment as a variable makes a major difference in our ability to predict the Human characteristics", (Bloom, p.184).

'Environment', according to Bloom (1964) is a shaping and reinforcing force or factor which act on the individual. "By environment, we mean the conditions, forces, and external stimuli which impinge upon the individual. These may be physical, social as well as intellectual forces and conditions.....We regard the environment as providing a net work of forces and factors which surround, engulf and play on the individual"; (Bloom p.187).

In an extended research program Moos and his associates (1975) have advocated this issue in another dimension of thinking. They defined 'social climate' as the personality of the environment and argued, as personality tests assess personality traits or needs and provide information about the characteristic way in which people behave, social climate can be similarly described with a great deal of accuracy and detail. In doing so, Moos was influenced by Withall (1949), Simpson (1963), Pace and Stern (1958) and Murray (1938).

Moos (1974a 1975) and his associates thought that the basic dimensions of social climate were – Relationship dimensions, Personal Development or Personal Growth dimensions and System Maintenance and System change dimensions which were found useful in characterizing the social climate of a variety of groups and institutions, viz., hospital, community, correctional, military university, school, social, task oriented, etc. group, industrial and family.

Relationship dimensions, according to Moos and associate (1975) include the nature and intensity of personal relationship that are operative in an environment. These dimensions

purports to assess “the extent to which people are involved in a environment, the extent to which they support and help one another, and the extent of spontaneity and free and open expression among them”, (P.20-21). They actually intend to assess extent of feeling of involvement, sense of belonging and togetherness, cohesion and emotional concern among the persons engulfed in the social environment.

“Personal Development dimensions assess the basic directions along which personal growth and self-enhancement tend to occur in an environment” (Moos, 1975, p.21). The exact nature of these dimensions is not same for all the environments studied by Moos and his associates. For instance, in family set up these dimensions point out the directions along which family may wish to develop. For example, independence, achievement orientation, intellectual-cultural-orientation, recreational-orientation, moral religious emphasis are the basic dimensions.

Finally, System Maintenance and System Change dimensions generally similar in all the nine environment studied by Moos, actually “deal with the extent to which an environment is orderly, is clear in its expectations, maintains control, and is responsive to change” (Moos, 1975, p.24). The basic dimensions are order and Organization, Clarity, Control, and Innovation. For example, clarity in a classroom assesses the emphasis on following a clear set of rules and on students knowing the consequence of disobedience. However, in family climate there are only two of these basic dimension which are organization and control.

Grover (1979) hypothesized that parental aspiration would be related to child's personality and school achievement at high school level. He also found that there was significant difference between school achievement of children of low aspiring parents and moderate aspiring parents. The researcher also noticed guilt proneness, self-concept, etc of those children varied as parents' aspiration levels differed.

Salunk (1979) found that educational climate as well as emotional climate of home was related with academic achievement of students but male and female students differed so far as their home environment was concerned.

Siddiqui (1979) found that there was a mutual relationship between achievement and personality and that family background had positive relationship with students' academic achievement.

Singh (1971) aimed at finding out the relationship between economic deprivation and educational achievement of primary school children and found that in total achievement the economically deprived students were significantly inferior to the economically affluent students whereas correlational studies indicated almost negligible relationship between socio-economic status and academic achievement.

Pyari (1980) found that the relationship between family attachment scores and educational achievement scores of adolescent students were negatively correlated while relationship between security-insecurity scores and family attachment scores was, however, positive.

Shah (1981) found that school climate had differential impact on students' achievement. Achievement was the highest in closed climate followed by paternal relationship and autonomous climate and was the lowest in familiar climate.

Sarkar (1983) found that home variables, such as, educational environment, income, spatial environment, social background, provision of facilities and parent-child relationship had significant influence on academic achievement of students (age group 7-12), when high achiever and low achiever were compared. The multiple correlation coefficients was 0.546 and the multiple regression revealed that the contribution of parent child relationship to academic achievement was about 17%, of social background about 7% and of educational environment about 4%.

Pal (1984) found that parent's acceptance promoted scholastic achievement while mother avoidance as well as more concentration demoted scholastic achievement.

Jagannathan(1985) attempted to study influence of some personal and situational variables on academic achievement of students belonging to three separate levels of education, viz., primary, upper primary and high school. On the main some findings were : (i) the zero-order correlations between pupils' perception of school environment and academic achievement yielded a significant and positive correlation of 0.184 on the whole sample. This type of correlations were also noticed in different sub-samples studied, (ii) partial correlation between these variables were not found significant when other independent variables (sex, locality, SES, pupils, role expectations, intelligence, etc.) were held constant; (iii) school environment had positive and significant relationship with SES, academic motivation, role expectations, and home environment; (iv) home environment was found significantly and positively correlated

with academic achievement (Qak6 University Institutional Repository) independent predictor, viz., SES, social environment, role expectations, academic motivation and intelligence on the whole sample the multiple R was found to be 0.524. Thus, home environment was found as a very weak predictor of academic achievement of school children.

Khader (1985) intended to study relative importance of some predictors on school and college achievement and reported that achievement value, paternal socioeconomic status, type of school and social environment explained jointly 28.99% of variance of school achievement where achievement value alone explained 16.91% of school achievement.

Zaidi (1986) Studied effect of parental deprivation and some socio-psychological factors on the scholastic achievement of primary school children. The major findings were: (i) parentally deprived children (both maternally deprived and paternally deprived) were found to be underachievers, ii) both the deprived groups were emotionally less stable and had low self – concept, iii) maternally deprived children were more affected by feeling, excitable and tender minded : while the paternally deprived children were dominant, expedient and forthright.

Entwistle and Kozeki (1985) found that the ten motives, viz., warmth, identification, sociability, independence, competence, interest, trust, compliance, responsibility and adult pressure were related to arts and science attainments among both the English and Hungarian school samples in a consistent manner, though adult pressure was found negatively correlated with the criterion of academic achievement.

Puri (1987) estimated that (1) about 19.8% of the intellectually gifted student (16-18) did not come up to the expected level of academic performance, (2) the majority of under achievers belonged to lower socio-economic groups and had poor self-concept, (3) the under achievers generally tended to be warm-hearted and easy-going, had comparatively lower scholastic capacity and were inactive. They tended to be assertive: aggressive, stubborn, and dominant, were impulsive, happy-go-tucky and gay persons; they were generally over protective; sensitive, individualistic and reflective and were found to be apprehensive, worrying and trouble makers.

Reddy (1991) found that academic achievement of student under controlled-cum-open climate in the family was the highest in mean.

Butter (1991) attempted to examine the influence of four non-ability factors (self-concept of ability, self-esteem, and locus of control and school climate) as predictors of success. He found that the factors of self-concept of ability and reactions to teachers, a sub-scale of the school climate inventory, emerged as the best predictors of academic productivity.

Cassidy and Lynn (1991) by employing path analysis found that the influence of family background and school, combined with the more stable and early developed characteristics of personality was found to produce a particular achievement motivational style which in turn predicted educational attainment.

Colon (1991) examined some of the major factors which seemed to influence motivation and academic achievement. The findings suggested that characteristics of home environment might not be major predictors of children's school performance.

Eshel and Kurman (1991) by employing regression and path analysis reported that accuracy of perceived ability had an independent unique effect on academic attainment beyond the effects of family background variables.

Findings in Ghuman's (1974) study on high school students suggested that (i) the over achievers and under-achievers did not differ significantly in respect of aptitude, achievement motivation, or personality traits of Cattell, though the over-achievers, regardless of their sex, possessed high achievement motivation: (ii) the greatest source of variance of the over-achievers was the personality variables whereas it was aptitude determined by the non-intellective personality variables.

Ginsburg, Golda and Bronstein (1993) studies on family factors as related to children's intrinsic, extrinsic motivational orientation and academic performance showed that parental reactions to grades that included negative control, or extrinsic reward and over-and under-controlling family styles, were related to an extrinsic motivational orientation and to lower academic performance.

Li Preti, Peter (1993) showed from his results that children's academic success was related to parent-child relationship and home environments.

1.3.3. Relationship between Classroom Social Climate and Academic Achievement

The social climate approach developed by Bloom (1964) and Moos and associate (1975) suggests that the consensus of students, for example characterizing their classroom environment constitute a measure of social climate of classroom. Basically, he was influenced

by Murray (1938) who took overall model for studying behavior consisted of the interaction between personality needs and environmental press which may either facilitate or hasten the satisfaction of need. Murray (1938) selected the term 'press' to designate a directional tendency in an object or situation, which facilitates or impedes the efforts of an individual to attain a particular goal.

Combining the studies of Fraser and Fisher (1982) and that of Entwistle et al. (1989) it appears that relationship between classroom climate and learning outcomes is mediated by academic or school motivation. Finally, this sort of notion was expressed by Ramsden et al. (1981) in their endeavor to identify underlying relationship between learning environment and learning outcomes. There are of course, some studies, which have attempted to explain and describe influence of home and school/classroom climate conjointly on school attainment. For example, Duncan (1968) devised a model based on path-analysis, which demonstrated that, an interaction between socio-economic background and educational achievement is mediated by school type. Lynn et al, (1983) extended the Duncan model to include Eysenkian personality dimensions – such as neuroticism, extraversion and, psychotism and a measure of two dimensions of achievement motivation (work ethic and status aspiration). Cassidy and Lynn (1991) further extended the Lynn et al. (1983) model of the relationship between home background, IQ, personality, school type and educational attainment in a longitudinal study spanning over 7 years and concluded: "though that factors, such as, intelligence, while playing an important role do not provide the sole necessary prediction for educational, type of school attended and achievement motivation which is important"" (p. 479). The study also revealed that school type was the single best predictor, accounting for 19.6% of the variance and combined home background variable of crowding and parental encouragement account for 18.1% of variance. The study also established that the influence of socialization (formal and informal) through family background and school, combined with the more stable and early developed characteristics of personality achievement motivational style which in turn predicted educational attainment.

Therefore, it appears that social environment pervading one's school/classroom and home has bearing on his/her academic achievement though its prediction requires to take many more variables, such as environmental, motivational and cognitive in order to have a clear picture of prediction of academic achievement which is lacking at least in Bangladesh.

Feldvebel (1964) found that when effect of social class was controlled, production emphasis ($r=0.40$) and consideration ($r=0.39$) were significantly related with achievement.

Lulla et al.'s (1966) study revealed that adverse school conditions, poor school administration, poor quality of teachers, etc. hindered pupils' performance.

Walker (1964) found that children in creative schools had higher average academic achievement than those belonging to traditional schools because creative schools had higher intellectual climate.

Sharma (1968) found that schools having 'open' and 'autonomous' climates had a significantly high achievement index as compared with 'closed' climate schools. On the basis of correlational study, he concluded, esprit, thrust, and consideration added to high achievement index of school while disengagement, hindrance, and aloofness affected school achievement adversely.

Narang (1977) studied relationship between academic performance of the higher secondary students and their personality variables, viz., intelligence, adjustment and achievement motivation and found that academic achievement was significantly and positively correlated with intelligence ($r=0.474$) and achievement motivation ($r=0.254$).

Verma (1977) found that socio-emotional climate of classroom, generally characterized by factors of warmth, fairness, acceptance, trust, communication, adaptability, etc. not only predicated and influenced the pupils' academic achievement but also affected classroom behavior development. The classroom climate was found positively correlated with the studiousness factor.

De Sales (1978) found that pupils from a better classroom climate were found to be better adjusted and independent. The finding suggested that i) the better the social relationship in a class, the higher was the class climate, ii) there was no significant correlation between class room climate and academic performance of pupils: iii) the less direct was the behavior of the teachers the greater was the positive climate of the classroom. .

Moos and Moos (1978) found that the classroom social climate was significantly related to academic motivational factors and student absenteeism.

Debas (1979) on the main found that IX grade student's perception of teacher's attitude towards them was significantly related with pupils' self-perception, teacher's perception of pupil's characteristics and school achievement.

Desai (1979) investigated among many other things particularly relationship between classroom climate, pupils' motivation, academic and non-academic achievement and socio-economic status and found: (i) the level of classroom climate was positively related to their academic achievement, (iii) non academic achievement had no relationship with classroom climate and pupils' motivation, and (iv) boys were higher than girls in the level of classroom climate, academic motivation, and academic achievement

Fry and Coe (1980) found that classroom characteristics had significant relationships with students academic motivation, classrooms perceived to be 'affiliation oriented' (characterized by emphasis on student-teacher support and interaction) had students who reported a high desire for self-improvement, who enjoyed learning and who were motivated towards academic success. In contrast, classrooms perceived to be 'competition oriented' had students reporting high anti-school feelings and lowered enjoyment of learning. Classrooms perceived by pupils to be 'task oriented' were associated significantly with students who were career minded and motivated by a desire for career preparation and specific task objectives.

O'connel (1980) found that open climate school student's attitudes toward schools were more positive than those of the other group. Girls' attitude to schools were more positive than those of boys. Students and teachers differed in their attitude to school when they were put into various climates.

Sundar Lakshmi (1981) found that both the strategies, namely teacher initiator and the teacher-facilitator tended to have positive influence on certain attributes of the classroom climate and the pupils growth, academic achievement, initiative ness, classroom cohesiveness, acceptability and classroom trust though in varying degrees. Teachers' initiator strategy had a positive and greater influence on academic performance and initiative than the other strategy, while the teacher facilitator strategy had comparatively greater positive influence on classroom trust, acceptability and cohesiveness.

Fraser and Fisher (1982) found that there were significant associations between students learning outcomes and their classroom environment in their study.

Gayathri's study (1983) showed that college students perceived the academic environment in different ways, viz., as having moderately preparatory to moderately exploratory characteristics. There was significant variation in students' perceptions of environment by boys and girls.

Moses and Mayuri (1984) attempted to find out the association, if any, between the types of schooling (progressive and non progressive) and learning abilities and academic achievement of primary children and the findings demonstrated that the scholastic pattern did not contribute to children's learning abilities and academic achievement; however, type of schooling appeared to facilitate .

Upadhyaya (1984) found: (1) Each of three aspects of classroom environment- interpersonal relationship, goal orientation, system maintenance and change were significantly correlated with academic achievement. (2) Of the three dimensions comprising interpersonal relationships, involvement and affiliation were positively correlated with achievement, while teacher support was not. (3) Task orientation and competition, the two dimensions of goal orientation, were highly correlated with academic achievement. (4) Order and organization, a dimension of system maintenance, which implied policed and orderly student behavior in classroom as well as outside classroom activities was not related to academic achievement. (5) The dimension of system maintenance. (6) Teacher control implying strictness of teachers in implementing and enforcing rules and magnitude of punishment on violation of rules was positively correlated with academic achievement.

Mansuri (1986) found that students with high motivation to school were better in achievement motivation than those with a low level of motivation to school. the children in their disposition towards attending the schools.

Butter (1991) intended to examine the effectiveness of four non-ability factors (self-concept of ability, self-esteem, and locus of control and school climate) as predictors of success. He found a sub-scale of the school climate inventory, emerged as the best predictors of academic productivity.

1. 3. 4. Relationship between Study Habit and Academic Achievement

In a number of studies some form of measuring techniques were used to assess study skills or different features of study habits and the factors related to it. These studies have also shown that giving instruction in study techniques can be useful to college students.

In an early study, for example, L.C. Pressey (1928) showed that college students who were having difficulty and were given instruction in study techniques were much more likely to do passing in work than similar students who received no help. In a later study, Ranson (1955) showed that a group of students who spent between 10 to 15 hours in study skills clinic had a significantly higher grade-point average than an equated group of students who had not made use of the clinic.

Working with children in grades four to eight, Howell (1950) was able to demonstrate that a year of intensive emphasis on work --study skills produced considerable improvement in achievement.

Factor analytic study of Finger and Schlessner (1965) in the USA showed that a factor of "academic motivation" covering 'aspiration', attitude to school, and 'study habits' was clearly related to grades.

Verma (1966) found that students expressing high degree of ego involvement (persistence) and have good study habits had comparatively secured better marks in their final examination.

By applying his first generation 'Aberdeen Academic Motivation inventory' in Britain Entwistle (1968) found that academic motivation was highly and significantly correlated with academic performance, and underlying dimensions of academic motivation, according to him were academic aspiration, attitude to school and study habits.

Srivastava (1975) studied effects of academic motivation on academic achievement of boys studying in class X and reported that academic motivation consisting of three dimensions e.g. - academic aspiration, attitude towards school and study habits of students had significant positive correlation with academic achievement.

Wolf (1979) found that in the surveys done in various countries by the International Association for the Evaluation of Educational Achievement (IEA), the number of hours of home work per week is substantially related to achievement.

Girija (1980) attempted to investigate to what extent the intellectual (verbal and non-verbal intelligence) and non-intellectual factors (e.g., study habits and skills, personality, value, motivation, anxiety, non-academic accomplishments and biographical factors) contributed to

the predictions of academic performance (cumulative grade point average-CGPA). Results revealed that of the 62-predictor variables, 32 were potential contributors to CGPA. The potential predictors were Pre-University marks, general mental ability, study habits, leadership qualities performance, anxiety, desire for recognition, planning work, competitiveness, dependency, practical mindedness, need for support, conformity, source of income, guidance to select vocation, parental aspiration etc.

Shivappa (1980) found that factors that contributed to predicting academic achievement were I.Q., n-ach, manifest anxiety, educational aspiration and study habits and intelligence made the maximum contribution and n-ach the next.

Chopra (1982) designed an experiment to study the effect of some non-intellectual correlates on academic achievement of tenth grade school children and found that nearly 76% of variance of criterion could be explained by the predictors like intelligence, socio-economic status, study habits, home adjustment, emotional adjustment and attitude to education taken together and the beta coefficients in order of magnitudes were attitude to education, SES, Intelligence, study habits, home adjustment and social adjustment.

Bhatnagar (1983) found positive correlation between involvement in studies and academic achievement.

Kohli and Joshi (1984) Conducted a multivariate co relational study to predict scholastic achievement of over-achiever, under achiever, and total sample with the help of 34 predictors classified under 5 headings Viz, adjustment, personality trait (HSPQ), SES, study habits and attitude and achievement motivation and found income, spatial environment, rejection of home making role, harsh punitive control and intelligence explained about 2% of the variance of the criterion.

When students form internal connections (i.e. relations) among lecture ideas, learning is facilitated (Mayer, 1984).

In 32 study reported by Hartley (1983) and Kiewra (1985) or both results of 24 studies showed that students who reviewed their notes had higher achievement on performance tests than those not permitted to review. Eight other studies reported no differences between reviewers and non-reviewers, no study indicated that review was dysfunctional.

Yeh (1991) investigated the relationship between academic achievement and achievement motivation and stages of intellectual development. Findings and conclusions of this investigation were as follows

- (i) A weak but positive correlation was found between achievement motivation and academic achievement and achievement motivation interacted with study habits when predicting academic achievement.
- (ii) Study habits were the most important predictor of academic achievement but good student preferred to study hard rather than have better study method.

Karim and Banu (2000) found that correlation between study habit and academic achievement was low and the findings suggested that study habit sharply discriminate between high achievers and low achiever group.

1.3.5. Relationship between Socio-economic status (SES) and Academic Achievement

Demographic structure is largely influenced by economic opportunity structure and other resources, and it has strong impact on students' achievement rate. With regard to social class, relevant research tells us that one's results and expectations for the future are better the higher one belongs on the higher social ladder.

Studies showed that other non-cognitive variables affecting student grades socio-economic background (Ting & Robinson, 1998; Chopra, 1982; Kohli and Joshi, 1984;). Also, students' motivation to study, decision to involve in college life, and their responses to different physical and cultural environment can be examined to bear new ideas and items for the NCQ. (Non-Cognitive Questionnaire). For example, Ting and Robinson (1998) found that socio-economic background, planned working hours, financial needs, and personal development and general education goals affected freshmen' GPA and retention. The research done by Lubinski (2002) found that SES (Socio-economic status) influences students' achievement; students from higher SES families tend to get higher achievement compared to students with lower SES.

English (2002) found that nearly 50% of the variance in test passing rates was determined by the demographic opportunity structure such as financial capital (status and expectancy), and geographic capital (level of urban influence), rather than the opportunity structure provided within schools (economic opportunity structure).

One of the latest studies carried out on performance in secondary school in Spain (Marchesi & Martin, 2002) revealed that upper-class student show a better use of meta cognitive strategies than those of lower social class. The influence of social class is mediated by cultural

level, which in turn determines family expectations, value, and attitudes regarding education. In other words, motivation to achieve depends more on the parents' level of learning than on their level of income (Llorente Guardione, 1990).

Castejon and Perez (1998) found that the child's perception of family support directly affects performance, while the mother's level of education does so indirectly.

Wright (1991) found that following variables were significantly related to academic achievement: peer, home, school and general self-esteem, scholastic competence, global self-worth, commitment to class work, and achievement orientation. The young males achieved significant differences in academic achievement than older males based on the level of formal education completed by the guardian.

Khader (1985) found that achievement, types of school, manifest anxiety, social involvement and parental socio-economic status explained jointly about 36% of variance of college achievement.

Jagannathan (1985) found that school environment had positive and significant relationship with SES, academic motivation, role expectations, and home environment

Singh (1986) found that achievement in mathematics was positively and significantly related with SES, and study attitudes.

In a study conducted by Roquia (1995) in Bangladesh found that the effect of sex, SES and family size on the school performance but the effect of SES was significant. Children of Lower SES obtained the lowest and the children of upper SES obtained the highest score on school performance

Roy (1997) suggested that the good and independent noncognitive predictor for the boys and the girls do not contain the same predictors. The same research have also shown that the capacity for predicting academic achievement from 24 non-cognitive predictors i.e school motivation, classroom social climate and family environment of the tenth grade boys and the girls were 18.87% and 13.14%. The relationship of academic achievement and academic motivation may also be mediated by sex (Kreitler et al. 1995). Kreitler et al. (1995) studied cognitive and motivational determinants of academic achievement and found in girls motivational factors played a larger role than cognitive factors absolutely relative to boys. Mitra (1985) found that achievement motivation and extraversion positively and significantly

correlated with academic achievement for both sexes (preadolescent school children). Salunk (1979) found that educational climate as well as emotional climate of home was related with academic achievement of students but male and female students differed so far as their home environment was concerned. Gayathri's study (1983) showed that college students perceived the academic environment in different ways, viz., as having moderately preparatory to moderately exploratory characteristics. There was significant variation in students' perceptions of environment by boys and girls. The findings of the several studies have shown contradictory results between academic achievement and selected non-cognitive variables in respect of sex of the students. So the present research also focused to concern the sex difference on academic achievement based on the selected non-cognitive variables.

The preceding review of related studies has revealed that very few studies have attempted to deal with i) relationship of factors of school motivation, classroom social climate, and family environment with academic achievement. ii) Prediction of academic achievement from the factor of school motivation, classroom social climate, family environment, socio-economical status and some demographic variables, iii) prediction of academic achievement from only some selective non-cognitive factors (academic achievement from the factor of school motivation, classroom social climate, family environment, socio-economical status and some demographic variables). Some studies however showed negligible correlations between some non-cognitive factors and academic achievement or lack of relationship between the two. In spite of these few contradictory findings, majority of the studies indicated the influence of several non-cognitive factors on students' achievement.

Bangladesh is a developing country and literacy rate of our country has been rapidly increased during the last few. In Bangladesh, there are four stages in our education system. which are:

1. Primary education (class1 to 5th)
2. Secondary education (6th to 10th)
3. Higher secondary education (11th to 12th)
4. Higher education (Graduate and above)

Secondary education program is the most important educational process in the total educational system. If the proposal to extend primary education up to 8 years is implemented, then secondary education would encompass the next four years. Currently it refers to five year after fifth grade. S.S.C Examination is the first board examination for the student that give a standard certificate for higher education. To evaluate the academic performance, achievement tests are applied to the student at the end of the certain courses. Achievement test is one of the important criteria to assess the educational objectives. The examination system at each level of education usually emphasizes the cognitive aspects of educational objectives than other legitimate objectives. In Bangladesh, highest numbers of schoolchildren appear in S.S.C examination and majority of the students fails in the examination at each level of education. It is observed that the results of the Secondary School Certificate (S.S.C) examination were frustrating in the last few years. In 2002 and 2003, the average failure rate among the students in S.S.C examination were about 59.34 % (Attended total 1005937 and passed 408969) and 64.09% (Attended total 921024 and passed 330740) respectively (BENBEIS - 2004, P- 70).

From the failure rate among the students at the secondary level as well as lack of scientifically investigated predictors which may describe and explain the underlying process of school success for the ninth and ten grade secondary school students in Bangladeshi context inspired the present investigator to conduct this study to extend the boundary of body of knowledge of educational psychology and also to suggest some practical recommendations for promotion of students' academic achievement in terms of some non-cognitive predictors.

Again it is found that in a classroom where all the students are studying same subject and are taught by the same teacher some students secure good marks or grades in the classroom examination and achievement test and other do not. From the first grade, a number of students drop out because of the failure in academic achievement. In recent years there is growing

tendency of the students to take unfair means for passing in the public examinations. Now the question arises what are the facts behind problems like, school failure or dropout?. Therefore, research is needed to understand the problems and to take necessary steps to minimize educational casualties.

A schematic model of determination of academic achievement was proposed by Ameerjan (1981) mentioned earlier. In that model he assumed that academic achievement is a dependent variable resulting from the dynamic interaction of five measurable class of variables, such as, intelligence, personality, motivation, study habit skills and attitude toward school and classroom climate. In this model it is proposed that home environment has no direct influence on academic achievement but it is mediated through development of pupil.

In simple way, academic achievement of the students depends on two broad classes of variables –cognitive and non-cognitive. Bishton (1957) said that intelligence is significant determinant of scholastic achievement but many other personal, social, psychological and emotional factors too affect the nature and extent of school achievement. To get possible answer to the questions very clearly, question such as, Why do two individuals having nearly the same measure of intelligence, one topping the list of academic achievement and the other coming at the lower rung of the ladder?. There is, however, no ready-made answer to this question. Review of relevant research studies, also showed controversial findings. Therefore, it needs to be answered to find out probable answer to this question.

The present study has been designed to deal with prediction from the non-cognitive factors, such as, school motivation, family environment, classroom social climate, study habits and socio-demographic variables on academic achievement. No systematic study has yet been done in Bangladesh to see the effect of non-cognitive variables on academic achievement of schoolchildren at secondary level in Bangladesh. This lack of knowledge has inspired the investigator to carry out this study to extend the boundary of body of knowledge of education for promotion of students' academic achievement in terms of some non-cognitive (school motivation, classroom social climate, family environment and socio-economic status) predictors.

1.5. Significance of the study

The study will examine the predictive capacity of selected non-cognitive predictors such as, school motivation, social climate of the family, classroom social climate, study habits and SES in determining academic achievement of secondary school in Bangladesh.

This new knowledge will have both theoretical and practical implications to the teachers, educators, curriculum designers, future researchers in education and psychology in numerous ways with respect to nature of academic achievement as a function of these non-cognitive predictors. This effort will also identify good predictors of non-cognitive variance of academic achievement that can be contributed to explain the academic achievement of the secondary school students in Bangladesh.

The out come of this research on the whole perhaps will portrait the factor-structure of school motivation, as multi-dimensional view of academic motivation. This factor-structure will be the more appropriate structure of school motivation in the Bangladeshi context.

Factor structure of this concept can be highlighted to describe the social climate of the family and classroom perceived and study habits by the Bangladeshi students which has never yet been scientifically explored and this new factor structure of perceived social climate may be used in explaining possible influences of it on behaviors of all sorts particularly academic achievement.

Finally, findings of this study as a whole will be of much use to the future researchers, teachers, parents, educators, social planners or any one interested in promotion of school attainment of secondary school education which in turn will help providing quality education to the school going children of Bangladesh.

1.6. Objectives of the study

The objectives of the study with respect secondary school students were

1. To find out the relationship between non-cognitive factors such as school motivation, family environment, classroom social climate, study habits and SES and academic achievement.
2. To find out the extent to which dimension of school motivation are related to academic achievement.
3. To find out the extent to which dimension of perceived social climate of the family are related to academic achievement.
4. To find out the extent to which dimension of social climate of the classroom are related to academic achievement.
5. To investigate how far the non-cognitive variables e.g. school motivation, family environment, classroom social climate, study habits and SES, taken together can predict academic achievement.
6. To see how far the non-cognitive variables e.g. school motivation, family environment, classroom social climate, study habits and SES, taken together can predict academic achievement in respect of sex of the students.

1.7. Hypotheses of the Present Study

The present study on the main, intended to test the following hypotheses formulated in null form with respect to secondary school students.

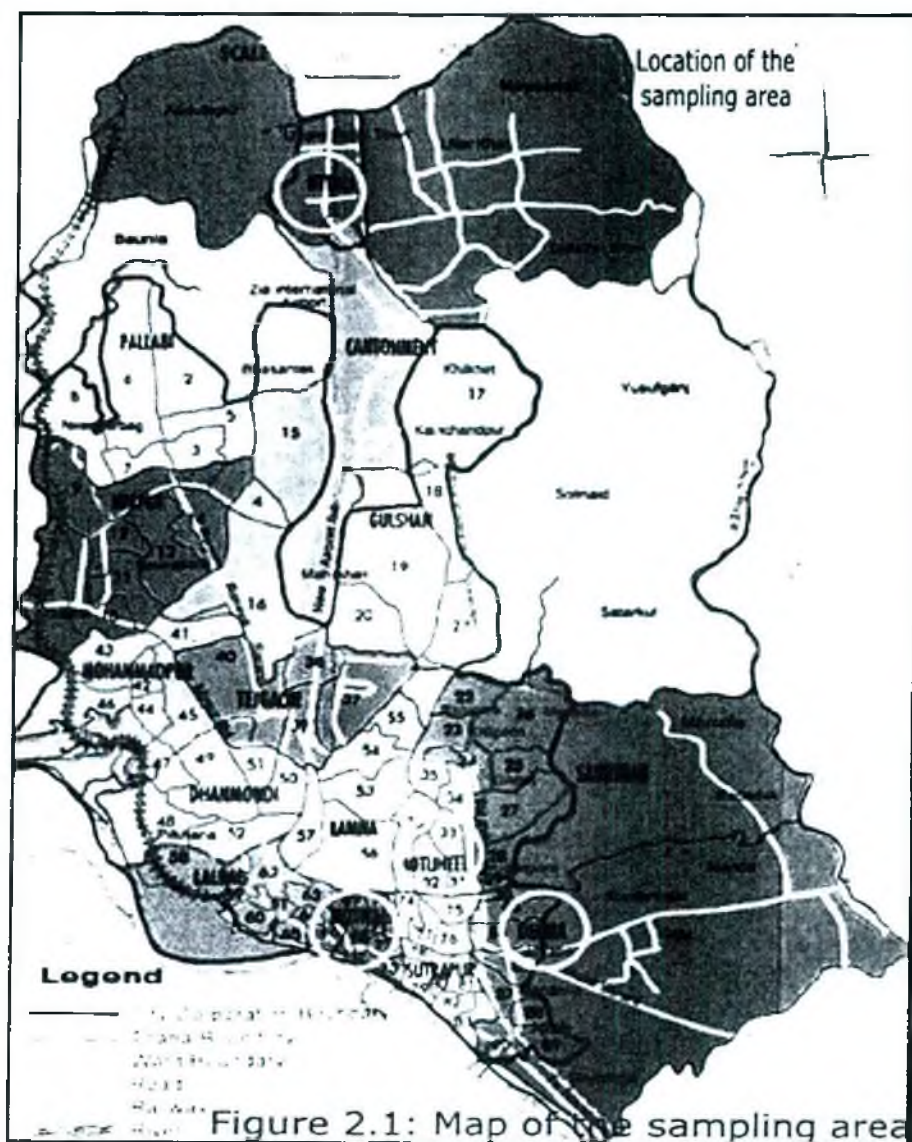
- H_0 1: There is no significant correlation between non-cognitive variables such as school motivation, family environment, classroom social climate, study habits and SES and academic achievement.
- H_0 2: There is no significant correlation between dimensions of school motivation and academic achievement.
- H_0 3: There is no significant correlation between dimensions of family environment and academic achievement.
- H_0 4: There is no significant correlation between dimensions of classroom social climate and academic achievement.
- H_0 5: Non-cognitive factors of school motivation, classroom social climate, family environment, study habits and SES taken together do not predict significantly academic achievement.
- H_0 6: Non-cognitive factors of school motivation, family environment, classroom social climate, study habits and SES taken together do not predict significantly academic achievement in respect of sex of the students.

Chapter Two

METHOD

2.1 Description of Participants

The sample consists of a total 504 students from 12 secondary schools (10 non-govt. and 2 govt.) in Dhaka City, representing in turn the ninth and tenth class. The sample was collected from four Thana of Dhaka City. The students were sampled through stratified sampling procedure. At first, four Thana out of twenty-one were selected randomly and the list of secondary schools from District Education Office (DEO) of Dhaka was collected. From the listed school of DEO, 3 school of each thana was randomly selected out of average 25 to 30 schools. In the consideration of Government and Non-government school, two Government schools were selected from two respective thana (Motijheel and Kothowaly). The selected thana areas are shown in the figure 2.1 and the name of the thana and the number of the selected Government and non-Government schools; and the number of



students from each selected thana are shown in the Table 2.1 and 2.2 respectively.

Table:2.1 Sampling distribution according to Thana and types of school

Types Of School		Demra	Uttara	Kothowaly	Motijheel
Secondary	Govt:	0	0	1	1
	Non-Govt:	3	3	2	2
Total		3	3	3	3

Table: 2.2 Number of students according to Thana and types of school

Types Of School		Demra	Uttara	Kothowaly	Motijheel	Total
Secondary	Govt:	0*	0*	50	50	100
	Non-Govt:	126	126	76	76	404
Total		126	126	126	126	504

* There is no Government school in that selected thana

Table: 2.3 Sampling distribution according to sex and grade of the student (%)

Sex / Grade	Ninth	Ten	Total
Girls	25% (126)	25% (126)	50% (252)
Boys	25% (126)	25% (126)	50 % (252)
Total	50% (252)	50% (252)	100 % (504)

There were equal number of boys and girls and the classes (252) in the sample while only 100 students came from the Government schools and the remaining 404 students came from the non-government schools. That is of the total sample the representation of the Government and non-government were not comparable to that of the number of Government schools in Bangladesh.

Sampling distribution of sex and group of the students

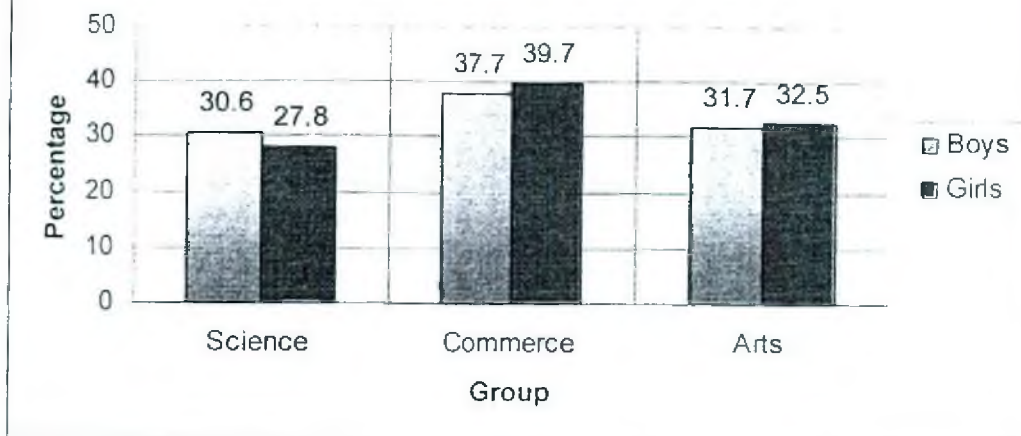


Figure: 2.2. Sampling distribution according to sex and group of the students (%)

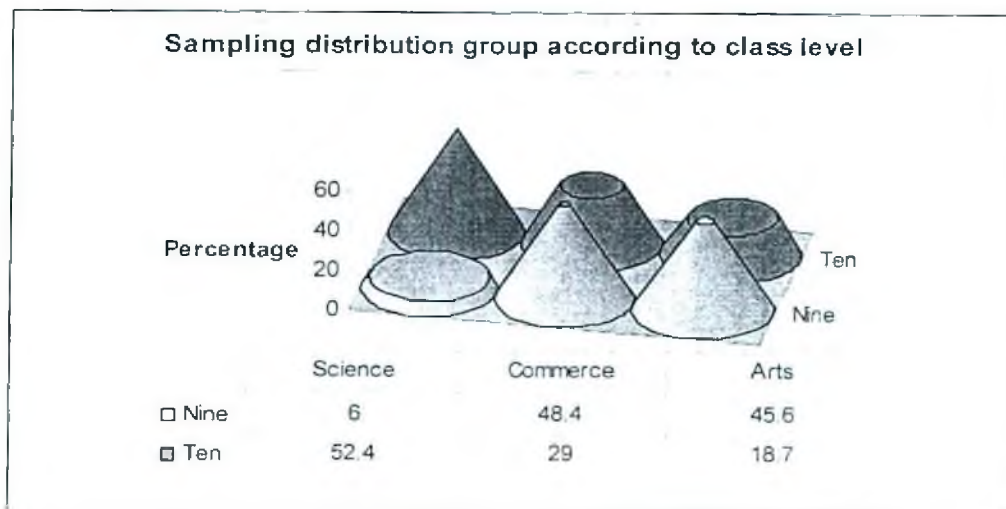


Figure: 2.3. Sampling distribution according to class level and group of the students (%)

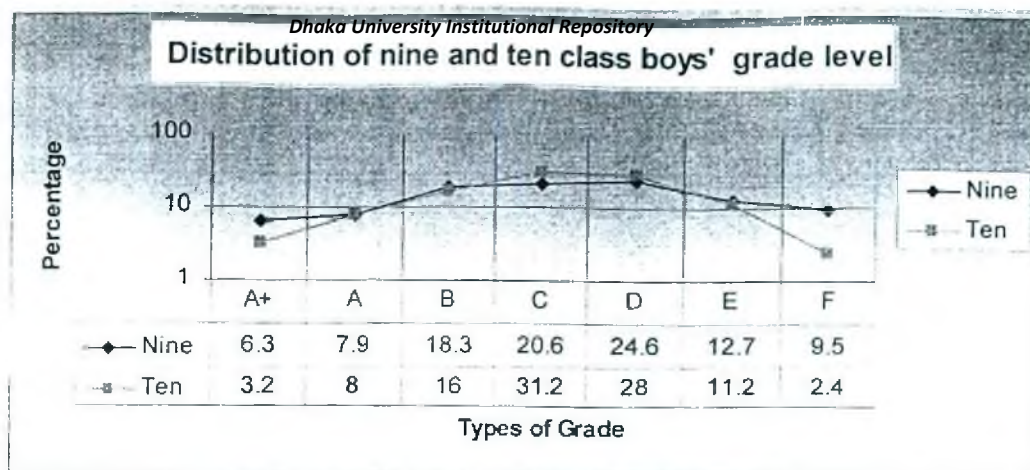


Figure: 2.4 Grade of the boy students according to level of class (Nine and Ten)

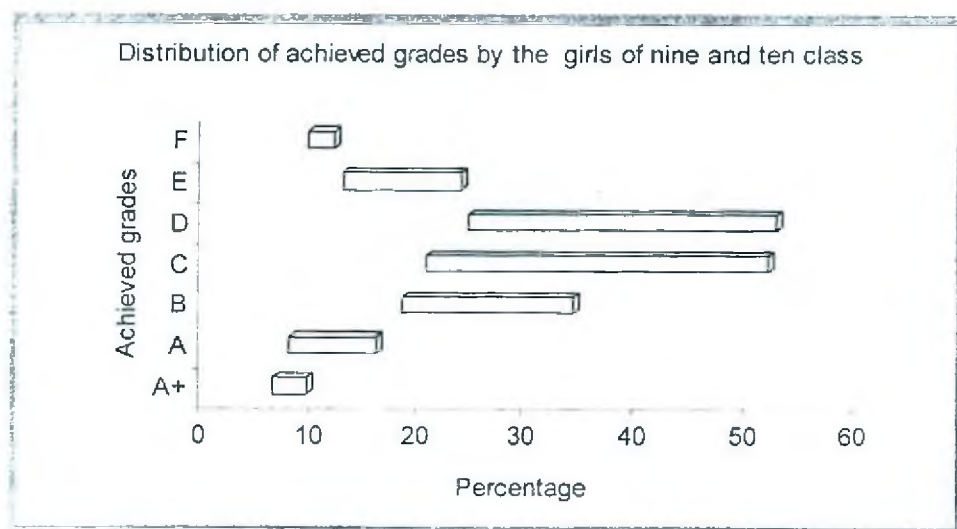


Figure 2.5 Grade of the girl students according to level of class (Nine and Ten)

Table: 2. 4 Description of some personal and family variables of the students

SL No	Description	Girls (N=252)	Boys (N=252)
1.	Mean age	14.56	14.47
	St. Deviation of age	0.949	1.116
	Median of age	15.00	14.00
2.	Mean income of the head of the family	7701.19	8459.05
	St. Deviation	9532.120	10099.392
	Median	5500.00	6000.00
3.	Having reading table (%)	242	231
4.	Mean of having room in the family	3.24	3.2
	St. Deviation	1.491	1.528
	Median	3.00	3.00
5	Having own home (%)	75.0	77.38
6	Keeping newspaper in daily at home (%)	23.80	20.63
7.	Having TV (%)	93.65	91.27
	Freeze (%)	61.11	54.78
	Computer (%)	7.93	9.21
	Car (%)	4.76	0.79

Table: 2.5 Parents' education level of the total sample (%)

Educational Level	Father (N=504) (%)	Mother (N=504) (%)
Class eight and below	21.2	41.3
S.S.C	25.2	42.5
H.S.C	20.2	13.5
Graduate	25.6	2.4
Post Graduate	7.7	.4
Total	100.0	100.0

2.2. Variables

2.2.1. Independent variables

- i) School Motivation.
- ii) Perceived Social Climate (Family and School).
 - a) Social climate of the family
 - b) Classroom social climate
- iii) Study Habit
- iv) Socio-Economic Status

i) Academic Achievement:

Average composite score obtained by the ninth and ten-class students on the immediate school final examination are taken to measure their academic achievement.

2.3. Measures used

Following scales were used for measuring school motivation, perceived social climate in the school and family, study habit, and socio-economic status of the subjects included in the present study.

2.3.1. School Motivation Inventory (SMI)

School motivation was assessed by administering the adapted Bengali version of the School Motivation Inventory of Roy (1995). The SMI was a scale of Kozeki and Entwistle (1984 & 1948) which was originally developed by Kozeki (1975) in Hungary. Over a period of 10 years, Kozeki (1975) researched upon to identify a set of motivational dimensions which would have a sound theoretical and rational basis, but which was believed to be firmly rooted in the everyday experiences of pupils, teachers and parents. Kozeki established nine categories, which spanned three separate motivational domains such as affective, cognitive, and moral. Each domain has three dimensions which are i) Warmth, ii) Identification, iii) Sociability (affective domains); iv) Independence, v) Competence, vi) Interest (cognitive domain); vii) Trust, viii) Compliance and ix) Responsibility (Moral domain).

The SMI consists of Likert-type 60 items encapsulate in the following nine dimensions which are described in the introduction chapter:

1. Warmth and Empathy from parents
2. Identification of Teachers
3. Affiliation with peers
4. Independence and self-confidence
5. Competence in knowledge and skills
6. Interest and Enthusiasm in Activity
7. Trust, conscience and self-esteem
8. Need for Order and compliance with Norms
9. Responsibility and Anticipating Consequences

The Alphas (0.48 to 0.69) were moderately high in magnitude, which ensured satisfactory internal consistency of each dimension of SMI. . Beside content validity, concurrent validity of each item (correlation between English and Bengali ranged 0.74 to 0.97) and the total - items correlation ranged 0.23 to 0.72).

The SMI has both positive and negative items. There were 26 negative items and the remaining 34 items were positive. Each item has five response alternatives, from “Strongly agree” to “strongly disagree.” For scoring of positive items, scores of 5,4,3,2, and 1 are assigned respectively to “strongly agree,” “agree”, “undecided,” “disagree” and “strongly disagree” while for a negative item reverse scoring is made. The total score was computed by adding the total weightage and higher score indicated higher classroom social climate and lower score indicated lower school social climate. The total score of the scale ranged from 60 to 300.

2. 3. 2. Family Environment Scale (FES)

The present tool was a new Bengali adapted version of a previous Bengali Family Environment Scale of DasGupta and Bose (1985) originally developed by Moos and Moos (1975). Therefore, the theoretical and conceptual foundations of the present tool were similar to those of the original scale which focuses on the “ measurement and description of the inter-personal relationships among family members, on the direction of personal growth emphasized within the family and on the basic organizational structure of the family” (Moos an Moos, 1975, p.270) and derived its rationale for the development of it from the theoretical contributions made by Murray (1938). Like the original FES this tool assumed “the consensus of individuals characterizing their environment constitutes a measure of environment climate”, (Moos and Moos, 1975, p.270).

The Bengali Adapted Version of FES (Roy, 1997) contained 39 items subsumed under 8 dimensions as shown in the following and already discussed in chapter-I.

A). Relationships

1. Cohesion
2. Conflict

B) Personal Growth Dimensions

3. Achievement Orientation
4. Intellectual-cultural orientation
5. Active Recreational Orientation
6. Moral Religious Emphasis

7. Organization

8. Control

Among the 39 items, 18 items describe the underlying trait of social climate in favorable manner (True) and the remaining 21 items described the underlying trait of social climate in unfavorable manner (False). FES item total correlations were ranged from 0.22 to 0.59 which ensure that items validity of tests were from moderate to high. FES had sufficient internal consistency within each dimensions of the test. The alpha coefficient of the FES was ranged from 0.51 to 0.74. This tool had sufficient content validity as the items of the present test was selected from the Bengali adapted version of the FES (Dasgupta and Bose).

A score of 1 (one) was assigned to “yes” response to the item which described the underlying trait of social climate dimension in favorable manner, while a score of 0 (zero), was assigned to ‘No’ response to the item that described the underlying trait of social climate dimension relatively. The total score was computed by adding the total weightage and higher score indicated higher positive family environment and lower score indicated poor family environment. The total score of the scale ranged from zero(0) to 39.

2.3.3. Classroom Social Climate Scale (CSCS)

The present instrument was a new Bengali adapted version of the Classroom Social Climate Scale (CSCS) of Dasgupta and Bose (1986), a previous modified Bengali Version of the Classroom Climate Environment Scale originally developed by Trickett and Moos (1973). Therefore, the theoretical and conceptual foundations of this tools remain the same as those advocated by Trickett and Moos (1973) in their own words, “it focuses explicitly on the psychosocial environment of the high school classroom and conceptualizes that environment as a dynamic social system which induces not only teacher behavior and teacher student interaction but student-student interaction as well” (Trickett and Moos, 1973, p.94).

The present Bengali Adapted version of the CSCS contained 86 Liker-type items, both favorable and unfavorable encompassing all the nine dimensions (Sub-scale) which constituted the CSCS of Dasgupta and Bose (1986). The nine dimensions are in the following and were described in Chapter-I.

1. Cohesion

2. Competition

3. Innovation
4. Involvement
5. Order and Organization
6. Rule clarity
7. Task Orientation
8. Teacher Control
9. Teacher Support

Validity of each item of the Bengali CSCS was estimated by examining product moment correlation between items score and total score of each sub-scale. The correlation was ranged from 0.33 to 0.66. For the reliability, Corenbach Alpha for the item-total correlation determined internal consistency. The correlation ranged from 0.53 to 0.75.

The new Bengali CSCS contains 86 Likert –type items with five response alternatives from ‘Strongly agree’ to ‘Strongly disagree’ touching all the nine dimensions of the CSCS of Dasgupta and Bose (1986). The five responses alternatives, ‘Strongly agree’, ‘Agree’, ‘Undecided’, ‘Disagree’ and ‘Strongly disagree’ are assigned score of ‘4’, ‘3’, ‘2’, ‘1’ and ‘0’ respectively for favorable items while reversed scoring is done for the unfavorable items. It has 55 favorable items and 31 unfavorable items. The total score was computed by adding the total weightage and higher score indicated higher positive perception on classroom social climates and lower score indicated lower less positive perception on classroom social climate. The total score of the scale ranged from 86 to 344.

2.3.4. Study Habits Scale (SHS)

The Study Habit Scale (SHS) developed by Karim, R & Banu, S. (2000) is a Likert type scale consisting of 77 items for measuring the study habit of secondary school students. However, the constructed items covered five elements or dimensions of study habits such as ‘schedule for studying’, ‘definite place of study’, ‘techniques and strategies for studying’, ‘preparation for examination and examination strategies’ and ‘reward for study’. The items in the form of statements are written in Bengali. The scale may be used individually or in group setting

The co-efficient alpha for the whole scale was found to be extremely high in magnitude (0.91) and the coefficient Alphas for the five components or dimensions of study habits such as ‘schedule for studying’, ‘definite place of study’, ‘techniques and strategies for studying’,

preparation for examination and examination strategies' and 'reward for study' were 0.80, 0.50, 0.88, 0.47 and 0.48 respectively. These internal consistency coefficients indicate that the internal consistency of the dimensions of study habits ranged moderate to high. The test-retest reliability of the scale was 0.78.

The face validity of the scale, concurrent validity and a criterion-related validity were found. The correlation between the study habit scale and the School Motivation Inventory was 0.47 and the correlation with academic achievement was 0.31. Karim and Banu (2000) developed percentile norm based upon 243 cases from three secondary school of Dhaka City.

The study habit Scale has both positive and negative items. It has 64 positive items and 13 negative items. For scoring of the positive items, scores of 1, 2, 3, 4 and 5 are to be assigned to the responses 'Rarely', 'Sometimes', 'Frequently', 'Generally' and 'Almost Always' respectively. For the scoring of the negative items, reversed scoring is made. The total score earned by each student on the scale by adding the scores over all the individual items i.e. by the method of summated rating. The possible range of score would be 92- 460. A higher score of an individual would indicate his/her sound study habits and a low score would indicate poor study habits.

2.3.5. Measurement of Socio Economic Status (SES)

To ascertain the effect of socio-economic discrimination for students as an influential factor for academic achievement, the present study intended to achieve a measure of socio-economic status of family. The Social Index of Family (SIF) developed by Islam (1995) was used for this purpose. Income, education of the parents of the students and other house hold information have taken to measure the socio-economic status of the students.

The information regarding housing condition and possessions were included as items for determining the socio-economical status of students. The housing condition included the ownership of house, land and numbers of rooms. Possessions included various items such as radio, TV, refrigerator, computer car etc owned by the household.

All the items considered in Social Index of Family were scored giving lowest to highest value depending on the number of alternative answer to the items. Table 2.6 documented the items considered for the socio-economic status with their values.

2.6. Variables considered as socio-economical status (SES) of students

Variables	Value label	Value
Parental Education	1= below S.S. C. 2= S.S.C. 3= H.S.C. 4= Graduate 5= Post graduate	1 to 5
Ownership of House	Own	1
	Rented	0
Room	Number	Numeric
keep Newspaper Regularly	yes	1
	No	0
Possessions (TV, refrigerator computer and car)	No	0
	Yes	1
Income of the family head	Every one thousand	1

2.3.6. Academic Achievement

In the present study, dependent measure was academic achievement. The last annual examination was considered as academic achievement. Results of the students were collected. The results of the students were marked by GPA (Grade Point Average).

2.4 Procedure

Before administering the questionnaires, permission was sought from each of the head of the selected schools. The researcher was introduced to selected classes (9th or 10th Grade) by the head of the school in the classroom.

For establishing necessary rapport, the students were instructed that they will be participating in a research. Then they were also assured that the information gathered from them would be used only for research purpose and their answers would be kept confidential and their names will not be published. Standard instructions for administering each questionnaire are given in Appendixes (I, II, III, IV and V).

In the beginning, the set of the questionnaire along with answer sheets were distributed to the students of the whole class and were asked not to open the booklet until they were told to do so. The printed instructions were read out to the students and they were asked to read it in silently. The students were allowed to ask any questions and the researcher tried to answer every question raised by the students. Before answering the questionnaire, students were asked

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to write personal information e.g. age, sex, types of school parental educational level and profession, family information and result of the last annual examination in the space provided on the answered sheet.

For the Non-Government schools, the four scales were presented into two different sessions. In each session, two scales were given to students. The four scales or questionnaires were presented in each student through counter balancing because of avoiding of taking more time and loss of attention to answer the questions. There was no time limit. It took about 60 to 90 minutes in each session. . After completion of their task, the questionnaires were collected from them and they were given thanks for their co-operation.

It was observed that most of the school authorities were given permission to the researcher to allocate the last two periods of the class schedules. The data were collected in classroom setting and time of the data collection depended on the schooling time either morning shift or day shift. Classroom teacher of selected schools helped the researcher in distributing and collecting the questionnaires. They also encouraged the students to answer the questions according to instruction.

For the Government schools, the set of four scales was given to each student for taking home so that they could answer all the questions. The authority of Government School did not agree to provide much time in the classroom setting for filling the questionnaires through two sessions. The authority only agreed to permit the researcher for giving and instructing to answer the questionnaire to the students in one day and collecting the data from the students in another selected day.

2.5. Data analysis

Obtained data were stored in Two Database files. Before analyzing data, it was essential to check all the data thoroughly; necessary correction and recording were made. Several descriptive and influential statistical procedures were followed in the present study. Frequencies and percentage were calculated to furnish description of the sample and the variables under investigation. The correlation and regression analyses for identifying the relationship among the non-cognitive measures (, School Motivation, Family Environment, Classroom Social Climate, and Study Habit) with the academic achievement were calculated. Besides these, other necessary calculation were done through the computer using the Program of SPSS (Statistical Package of Social Science).

Chapter Three

RESULTS

The objectives of the present study involve to find out relationships of academic achievement with some non-cognitive factors and to predict academic achievement from school motivation, classroom social climate, and family environment, study habits and socio-economic status (SES). The results of the present research presented in two categories; I) to see the correlation relationships among the academic achievement and selected non-cognitive variables e.g. school motivation, family environment, classroom social climate, study habits and SES, to apply zero-order correlation. Zero-order correlation has been used to see the relationship between academic achievement and dimension of school motivation, classroom social climate and family environment. II) To find out the predictive relationship between academic achievement and selected non-cognitive variables through multiple regression analysis were used

I) Correlation

In order to confirm results found in the regression analyses, and to explore interaction and relationship between the variables and academic achievement analyses were carried out. For these purposes, zero-order correlation analyses were used to assess the relationship between selected non-cognitive variables, and academic achievement of the secondary school students. Correlation co-efficient between dependent variable school motivation, social climate of the family and social climate of the school, study habits and SES, and are shown in Table 3.1 for satisfying the objectives No- 1. Another correlational analyses for identifying the relationship between independent variables school motivation, social climate of the family and social climate of the school: and academic achievement is presented in table 3.2, 3.3., 3.4 which are satisfying the investigator's Objective No-1(a, b and c).

Table: 3.1

Product Moment (Zero Order) Correlations between Achieved Results by the Students and Selected Non-Cognitive Factors such as School Motivation, Perceived Social Climate of Family, Perceived Social Climate of School, Study Habits and SES

Factors		1	2	3	4	5
1	Academic Achievement	1				
2	School motivation	.194**	1			
3	Social climate of the family	.122**	.350**	1		
4	Social climate of the classroom	-.046	-.037	-.040	1	
5	Study habits	.229**	.538**	.305**	.029	1
6	SES	.198**	.087	.072	-.062	.127**

** Significant at the 0.01 level (2-tailed).

*** Significant at the 0.05 level (2-tailed)

In Table 3.1 reveals that academic achievement has been found significant and positive correlation with some non-cognitive factors' such as school motivation ($r = 0.194$), perceived social climate of the family ($r = 0.122$), study habits ($r = 0.229$) and SES ($r = 0.198$). It is also found that academic achievement has been found negative correlation with perceived social climate of the classroom which is not significant.

Table: 3.2
Product Moment (Zero Order) Correlations between Academic Achievement and Dimensions of School Motivation

Factors	1	2	3	4	5	6	7	8	9	10
1 Academic achievement	1.00									
2 Warmth and Empathy From Parents	.059	1.00								
3 Identification with Teachers	.201**	.373**	1.00							
4 Affiliation with Peers	.083	.415**	.323**	1.00						
5 Independence and Self-Confidence	.081	.330**	.259**	.017	1.00					
6 Competence in Knowledge and Skill	.124**	.338**	.235**	.228**	.233**	1.00				
7 Interest and Enthusiasm	.119**	.393**	.249**	.133**	.216**	.276**	1.00			
8 Trust, Competence and Self Esteem	.119**	.474**	.307**	.315**	.217**	.236**	.372**	1.00		
9 Need for Order and Compliance with Norms	.158**	.374**	.292**	.142**	.106*	.242**	.373**	.439**	1.00	
10 Responsibility and Anticipatory	.065	.378**	.238**	.102*	.340**	.246**	.368**	.413**	.272**	1.0
11 Pressure and Excessive Demands from Adults	.043	.345**	.361**	.251**	.148**	.237**	.217**	.261**	.341**	.176**

** Significant at the 0.01 level (2-tailed).

* Significant at the 0.05 level (2-tailed)

The correlation matrix presented in Table- 3.2 shows that all the ten dimensions of school motivation are positively correlated with academic achievement. Among them five dimensions such as (i) Identification with Teachers ($r = 0.201$); (ii) Competence in Knowledge and Skill ($r = 0.124$); (iii) Interest and Enthusiasm ($r = 0.119$); (iv) Trust, Competence and Self Esteem ($r = 0.119$); (v) Need for Order and Compliance with Norms ($r = 0.185$) were significant and positively correlated with the students' academic achievement.

Table: 3.3

Product Moment Correlations between Academic Achievement and Dimensions of Perceived Social Climate of the Family

Factors	1	2	3	4	5	6	7	8	9
1 Academic Achievement	1.00								
2 Cohesion	.038	1.00							
3 Conflict	.040	.184**	1.00						
4 Achievement Orientation	-.010	.104*	.000	1.00					
5 Intellectual-Cultural Orientation	.104*	.108*	.128**	.040	1.00				
6 Active-Recreational Orientation	-.043	.039	-.089*	.090*	.161**	1.00			
7 Moral-Religious Emphasis	.033	.223**	.193**	.013	.146**	.072	1.00		
8 Organization	.137*	.098*	.270**	.049	.023	.020	.169*	1.00	
9 Control	-.034	.065	.127**	.117**	.005	.049	.167*	.108	1.0

* Significant at the 0.05 level (2-tailed).

** Significant at the 0.01 level (2-tailed).

Results shown in Table- 3.3 reveal that all eight dimensions of perceived social climate of the family are either positively or negatively correlated with academic achievement. Dimension of social climate of the family such as Cohesion ($r = 0.038$) Conflict ($r = 0.040$), Intellectual-Cultural Orientation ($r = 0.104$), Moral-Religious Emphasis ($r = 0.033$), and Organization ($r = 0.137$) are positively correlated with academic achievement. Achievement Orientation ($r = -0.010$), Active-Recreational Orientation ($r = -0.043$) and Control ($r = -0.034$) are negatively correlated with academic achievement. Intellectual –cultural orientation ($r = 0.104$) and organization ($r = 0.137$) had significant positive correlation with the students' academic achievement. Achievement orientation, active recreational orientation and control are negatively correlated with academic achievements which are not significant.

Product Moment Correlations between Achieved Results and Dimension of Perceived Social Climate of the Classroom

Factors		1	2	3	4	5	6	7	8	9	10
1	Academic achievement	1.00									
2	Cohesion	.019	1.00								
3	Competition	-.073	.080	1.00							
4	Innovation	-.062	-.036	.275**	1.00						
5	Involvement	.045	-.026	.173**	.228**	1.00					
6	order or organization	-.025	-.044	-.024	.168**	.217**	1.00				
7	Rule clarity	-.100*	.038	.196**	.075	.186**	.222**	1.00			
8	Task orientation	.001	.223**	.072	.174**	.211**	.109*	.080	1.00		
9	Teacher control	.016	.151**	.153**	.160**	.216**	.146**	.087	.221*	1.00	
10	Teacher support	-.021	-.070	.087	.219**	.297**	-.040	.098*	.229*	.335**	1.0

* Significant at the 0.05 level (2-tailed).

** Significant at the 0.01 level (2-tailed).

Table- 3. 4 reveals that four out of nine dimensions of perceived social climate of the school e.g. Cohesion($r = 0.0.19$), Involvement($r = 0.045$), Task orientation($r = 0.001$) and Teacher control($r = 0.016$) have positively correlated with academic achievement. Rest of the five dimension of perceived social climate of the school such as Competition($r = - 0.073$), Innovation($r = - 0.062$), order or organization($r = - 0.025$), Rule clarity($r = - 0.10$) and Teacher support($r = -0.021$) are negatively correlated with academic achievement. Only rule clarity($r = - 0.100$) among nine dimensions of the perceived social climate of the classroom climate had significant negative correlation with the students' academic achievement.

II) Predictive relationships

The results of the regression analysis used for the purpose of satisfying the second objective which are given in the table no 3.5, 3.6, and 3.7. In Table 3.5 showed that the power for academic achievement by means of the selected non-cognitive variables e.g. School motivation, Social climate of the family, Social climate of the classroom, Study habits and SES for total sample. The regression analysis also presented for the boys and girls respectively in the table 3.6 and 3.7.

A) Results for the Total Sample

Table: 3.5

Multiple Regression Analysis for Total Sample by Taking Some Selected Predictors

Predictors	b coefficient	SE of b coefficient	β wt	t- value	R	R^2	F 8, 495
School motivation	.030	.002	.084	1.611	0.30	.091	9.86**
Social climate of the family	.007	.010	.033	.709			
Social climate of the classroom	-.002	.002	-.036	-.831			
Study habits	.003	.001	.154	2.98**			
SES	.030	.008	0.166	3.84**			

* $P < 0.05$ ** $P < 0.01$

N.B a denotes B wt. is less than 0.01

From the contents of Table 3.1 following trends have emerged:

- i) The 5 independent variables such as school motivation, perceived social climate of family, perceived social climate of school study habits and SES taken together have predicted significantly academic achievement of total sample. The obtained R equals to 0.30 which is found significant at 0.01 level ($F = 9.86.207$, $df = 8, 495$).
- ii) It is found that 9.1% ($R = 0.30$) of the variance of academic achievement in total sample of 504 students due to and school motivation, social climate of the family, social climate of the classroom, study habits and SES and remaining of the variance of the students' may be attributed to factors not included in this regression model.
- iii) The partial regression coefficients of two variables out of 5 selected variables, viz., study habits and SES are found to be significant. The results tend to suggest that the unique contributions of these two factors to the regression equation are found significant. It means that level of SES and having sound study habits are found to promote significantly academic achievement of secondary students.

Table: 3.6

Multiple Regression Analysis for Boys by Taking Some Selected Predictors

Predictors	b coefficient	SE of b coefficient	β wt	t- value	R	R ²	F 8, 495
School motivation	.006	.002	.175	2.329*	.268	.072	3.803**
Social climate of the family	-.010	.014	-.047	-.713			
Social climate of the classroom	-.001	.003	-.019	-.313			
Study habits	.001	.001	.065	.884			
SES	.028	.011	.159	2.563*			

* P< 0.05

** P< 0.01

*** P< 0.001

B) Results for Boys

From the contents of Table 3.6 it emerges:

- i) The 5 independent variables e.g. school motivation, perceived social climate of family, perceived social climate of school, study habits and SES taken together have significantly predicted academic achievement of the secondary school boys. Here, the value of R equals to 0.268 which is found significant ($F = 3.803$, $df = 8, 495$) at 0.01 level.
- ii) All the above mentioned variables have also jointly predicted 7.2% (Lower than that of the total sample) of the total variance of academic achievement of secondary school boys ($N = 252$) and remaining 92.8% of the variance of boys academic achievement be attributed to factors not included in the regression model.
- iii) The partial regression of 2 variables viz., school motivation and SES have found significant. Again, the partial regression of 2 factors perceived social climate of the family and study habits are found to be negative but not significant. It also appears that high positive motivation of students towards school and levels of SES have promoted secondary school boys' academic achievement.

Multiple Regression Analysis for Girls by Taking Some Selected Predictors

Predictors	b coefficient	SE of b coefficient	β wt	t- value	R	R ²	F 8, 495
School motivation	.000	.002	-.003	-.040	.362	.131	7.407***
Social climate of the family	.022	.014	.104	1.607			
Social climate of the classroom	-.003	.003	-.056	-.932			
Study habits	.005	.001	.249	3.404***			
SES	.026	.011	.140	2.287**			

* P < 0.05

** P < 0.01

*** P < 0.001

C) Results for Girls

From the results of Table 3.7 following trends have emerged

- The 5 independent variables which are school motivation, perceived social climate of family, perceived social climate of school, study habits and SES taken together have significantly predicted academic achievement of the secondary school girls. The obtained value R equals to 0.362 which is found significant (F = 7.407, df = 8, 495) at 0.001 level.
- All these variables like school motivation, social climate of the family, social climate of the classroom, study habits and SES have also jointly predicted 13.4% (higher than that of the total sample and for boys) of the total variation in academic achievement of secondary school girls' (N = 252) and remaining 86.6% of the variance of girls academic achievement be attributed to factors not included in the regression model. It is noticeable that for girls the selected variables of the study have predicted near about 10% more than that of boys.
- The partial regression of 2 factors viz., study habits and SES are found to be significant. Again the partial regression of 2 factors - perceived social climate of the family and study habits are found to be negative but not significant. It also appears that higher level SES and study habits have promoted secondary school girls' academic achievement.
- It also appears that school motivation appeared as predictor of boys' academic achievement and study habits appeared as predictor for girls' academic achievement. However, here, SES is predictor of academic achievement for both boys' and girls' students.

Chapter Four

DISCUSSION & CONCLUSION

DISCUSSION

The objective of the study was to predict academic achievement of the secondary school students based on some selected non-cognitive variables e.g. school motivation, social climate of the family, classroom social climate, study habits and socio-economic status of the family of the students. To see the relationship between academic achievement and selected non-cognitive variables, product moment correlation was applied and to predict the academic achievement in combination of selected variables, multiple regression analysis was used.

In the following sections the findings have been discussed to see the relationship of the academic achievement and selected non-cognitive factors to satisfy the objective No-1.

Results of the present study showed (Table: 3.1) that school motivation, social climate of the family, study habits and socio-economic status (SES) have positive relationship with academic achievement of the secondary school students in Bangladeshi sample.

School motivation had a positive relationship with academic achievement. It means the students who have high motivation about school achieve higher academic success in the secondary school. Like, Roy's (1995) finding, the present study showed that school motivation was positively and significantly correlated with academic achievement of tenth grade children though the value of 'r' was found to be very low ($r=0.194$). The researchers suggested that these surprisingly very poor correlations reflected cultural variations in establishing relationships between these two sets of variables. This finding is consistent with a number previous (Dey and Singh, 1970; William, 1965; Johnston, 1974 and Sinha and Sharma, 1975) studies and the reason for this finding remains the same as discussed earlier.

From the correlation matrix it was also found that perceived social climate of the family had positive and significant relationship with academic achievement in secondary school students. Perceived social climate of family refers to a directional force or tendency resulting from interactions of interpersonal relationships among the family members, direction of the personal growth emphasized within the family and basic organizational structure of the family. From practical point of view, consensus of individuals (students) characterizing this directing force of tendency constitutes a measure of perceived social climate of family and this climate gets manifested in the family in terms of cohesion, expressiveness, conflict, independence, achievement orientation, intellectual cultural orientation, active recreational orientation, moral religious emphasis, organization, and control. So positive family climate may be assumed

congenial in personal development including academic motivation which in turn becomes functionally related with academic achievement in children. The present finding has been supported by Pyari (1980), Shah (1981), Fraser and Fisher (1982), Sarkar (1983), Pal (1984), Zaidi (1986) and directly supported by Entwistle and Kozeki (1985), Gupta (1985), Cassidy and Lynn (1991), Desai (1979), Wright (1991), Ginsburg, Golda and Bronstein (1993), Li Preti, Peter (1993).

Significant relationship between classroom climate and academic achievement was found in the present study. This finding is supported by the previous findings. For example, De Sales (1978) found no significant correlation between class room climate and academic performance of pupils and others. In Bangladesh, traditional approach is followed and the school and community relationship is poor. The teacher and student ratio is very high (1:60, BENBEIS - 2004), As a result the teachers can not concentrate extensively to the students and they adopt more strict controlling techniques to manage the classroom situation.

In the present study, study habits had a low positive but significant correlation with academic achievement, SES, school motivation, and family environment. Study habits generally refers to pupils' repeated actions to study from the beginning to the end of an educational program. Study habit is thought to be of paramount importance for them for a variety of reasons. This finding is similar as recent Bangladeshi study conducted Karim and Banu (2000). Therefore, the present findings is in right direction and previous studies supported this result too (Finger and Schlessor, 1965; Srivastava, 1975; Kohli and Joshi, 1984; Entwistle, 1968; Shivappa, 1980; and Bhatnagar, 1983).

The results present study is relevant to the Bangladeshi study in relation to academic achievement and SES conducted by Roquia (1995). She found the effect of sex, SES and family size on the school performance but the effect of SES was significant. The children of Lower SES obtained the lowest and the children of upper SES obtained the highest score on school performance. Socio-economic status is an amalgam of a series of interrelated variables, such as occupation, income, wealth, power, prestige, and educational achievements, each of which goes some way toward determining the position of an individual within society. According to Bank and Finlayson (1973) indicators that have been used for determining socio-economic status are usually income, education, occupation, or a combination of at least two of these factors. Income may be used as an indicator for socio-economic status because it is highly and closely related to the economic status or material conditions of the family. Linke,

Oertel and Kelsey (1988) ^{Dhaka University Institutional Repository} claimed that the direct measure of income is the weakest indicator for socio-economic status.

Results of the present study revealed further some interesting findings as well such as, i) a low positive but significant correlation between study habits and socio-economic status (SES); ii) A high significant positive correlation was found between school motivation and study habits; iii) Study habits have a positive correlation with positive family environment.

To satisfy the objective No-2 it has shown from Table -3.2 that all the ten dimensions of school motivation have been positively correlated with academic achievement. Among the ten dimensions of school motivation, identification with teachers, competence in knowledge and skill, interest and enthusiasm, trust, competence and self-esteem, need for order and compliance with norms had significant positive correlation with academic achievement.

Identification with teachers was found significant and positively correlated with academic achievement. This means the secondary school students feeling empathy with teacher and they are willing to please them, which has motivated them to stretch out academic achievement.

Competence in knowledge and skill has been found significant and positively correlated with academic achievement. It refers to pupils' competition with other student for gathering knowledge about curriculum and extra curriculum and skills in daily life activities and school performance has led to attenuate with academic achievement.

The third significant relationship in the area of school motivation is found Interest and enthusiasm with academic achievement which refers to pupils' desire to seek satisfaction by doing school work of interest with vigour. This motive actually implies some aspect of pupils interest, competence, and compliance and of course pupils' desire to get involved in schoolwork. As without interest, without competence and without involvement no achievement can be thought of which are some essentials of learning.

Results also showed that trust, competence and self-esteem have been significantly correlated with academic achievement. Trust, competence and self-esteem refer to pupils' desire to trust others and the school system, positive feeling of self-strength and skill, and the value pupil places on their own characteristics, abilities and behavior. Therefore, having trust in oneself implies that the student is morally responsible to perform schoolwork with personal

inclination. Entwistle and ~~Rezeki~~ ^{Okaka University Institutional Repository} (1985) found that trust was positively correlated with academic achievement. Students with high self-esteem were likely to perform well academically (Crowl, T. K., Kaminsky, S., Podell, D.M, 1997). Therefore the findings of the present study is consistent with those findings.

Need for order and compliance with norms ($r = 0.185$) had significant positive correlation with the students' academic achievement. Need for order and compliance with norms refers to maintain the social values and norms and adult guidance (teacher and peer) which is the important factor to acquire and knowledge about the life and surroundings that of course contributed to students' academic achievement.

It has been found from Table- 3.3 that intellectual –cultural orientation and organization of social climate of the family are positively and significantly correlated with academic achievement. Achievement orientation, active recreational orientation, and control are negatively correlated with academic achievement, but it is not significant. This finding call for on explanation.

Intellectual-cultural orientation in the present study as described earlier refers to intellectual-cultural orientation of the family involves concerned about political, social, intellectual and cultural activities and the children of the family are exposed with such activities and which helps the children to build knowledge. The involvement of such activities by the family have impact on children's cognitive ability and thereby contribute to academic achievement. Many researchers have established the fact that intelligence, the most important measure of cognitive ability, is positively and highly correlated with academic achievement irrespective of age group, sex, socio-economic status etc of students (e.g Agarwal, 1973; Das, 1975; Kreitler et al., 1995; Patil, 1984; Das, 1986; Bhatnagar, 1968; Mitra, 1985; Carter, 1959; Wellman, 1975, etc). Because learning is clearly cognitive act designed to improve cognitive performance, it is therefore natural to expect that it could depend on cognitive abilities of the general kind called intelligence or more specific types called abilities (Ackerman, 1989). This finding of the present study is partly supported by Wright (1991) who found that following variables were significantly related to academic achievement, intellectual cultural orientation and achievement orientation

Results showed that organization of the family environment has positive but low correlation with academic achievement. Organization refers to measure how important order and organization are in the family in terms of structuring the family activities related to financial planning and the explicitness and clarity regarding family rules and responsibility. The responsible children of the family are concerned about the family benevolence and show

respect to family rules. Therefore, the children feel a high anticipation through achievement and it turn into academic success.

It has also found from the Table- 3.4 (objective No-4) that all the dimensions of classroom social climate have either positive or negative correlations with academic achievement. But it is observed that of the nine dimension of classroom only social climate or one dimension is correlated with academic achievement. Incase of rule clarity, the relationship is very low and negative but significant. That means lower the rule clarity of the classroom climate, higher is the students' academic achievement. Rules clarity reflects students' conformity to classroom norms and code of conducts. This finding is indirectly supported by the other researchers (Lulla et al., 1966; Walker, 1964; and Sharma, 1968).

In short the findings also suggest that social climate of the school do not create any impact on the secondary students' academic achievement. Further the measure of academic achievement was found to be significantly correlated with socio-economic status (SES) of the students, school motivation, social climate of the family and study habits.

For the dimensions of school motivation , the measure of Identification with Teachers, Competence in Knowledge and Skill, Interest and Enthusiasm, Trust, Competence and Self Esteem, Need for Order and Compliance with Norms were found to be related with corresponding increase of the measure in academic achievement of the secondary school students. Therefore, the findings tend to suggest that an increase of the measure of Intellectual-Cultural Orientation and Organization of social climate of the family may be associated with corresponding increase in the measure of academic achievement of the secondary school students, whereas increase in the measure of Rule clarity of social climate of the school may be associated with corresponding decrease in the measure of academic achievement.

To satisfy the objectives no-5 of the study, the regression model consisting of 5 variables independent variables viz. school motivation, social climate of the family, classroom social climate, study habits and SES were considered as predicting factors. The selected predictors have done a pleasing job in predicting academic achievement of the secondary school children although there are some slight differences in magnitude of explained variance when it was studied for boys and girls separately. The study has revealed that the academic achievement can be predicted from independent variables selected for investigation.

Findings of the study suggest that all the selected 5 variables taken together have explained 9.1% ($R = 0.30$) of the variance of academic achievement and remaining 90.9% of the total variance of academic result has remained unexplained. It is observed that the combined predictive strength of all the selected non-cognitive variables was not so high. This low predictive capacity of the selected non-cognitive predictors calls for an explanation. First academic achievement theoretically shared with cognitive variables (Bloom, 1976) on the main. Secondly, the first reason also leads to another fact that a very small amount of variance of academic achievement is likely to be accounted for by these selected parental and non-cognitive variables.

It has been observed that all 5 selected predictors consisting of non-cognitive variables (school motivation, social climate of the family, social climate of the classroom, study habits and SES.) have jointly predicted significantly on academic achievement of the total sample. The explained variances of the criterion are 9.1% for the total sample. Again, for the boys and girls the explained variances of the criterion are 7.2% and 13.1% respectively. The findings tend to suggest that these selected non-cognitive predictors have better explained the criterion for the girls than those for boys. Moreover, for the boys sample, the amount of explained variance is the least of these three percentages of explained variance and for the girls it is highest than that of other group of sample. Therefore, it may be said that the girls' academic achievement is found to be more affected by these predictors than that of boys in this study. The study also revealed that for the boys' academic achievement has been found to be least effected.

For the total sample (objective-5), only two predictors are found to make significant contributions to the regression equation. These are SES ($\beta = 0.166$) and study habits ($\beta = 0.154$). The β values show that all the significant factors have promoted academic achievement.

Results showed that SES is one of the predictor to academic achievement for the secondary school students. A Canadian study by Fotheringham and Creal (1980) showed that levels of academic performance varied significantly with the socio-economic status of the students. Socio-economic status is an amalgam of a series of interrelated variables, such as occupation, income, wealth, power, and prestige which goes some way toward determining the position of an individual within society. This finding is relevant to past studies (Ting and Robinson, 1998; Lubieniski, 2002; English, 2002; Marchesi & Martin, 2002; Llorente Guardione, 1990; Khader, 1985; Jagannathan, 1985; and Roquia, 1995)

Ting and Robinson (1998) found that socio-economic background, planned working hours, financial needs, and personal development and general education goals affected freshmen' GPA and retention and Lubienski (2002) found that SES (Socio-economic status) influences students' achievement; students from higher SES families tend to get higher achievement compared to students with lower SES. English (2002) found that nearly 50% of the variance in test passing rates was determined by the demographic opportunity structure such as financial capital (status and expectancy). Achievement; types of school manifest anxiety, social involvement and parental socio-economic status explained jointly about 36% of variance of college achievement. (Khader 1985)

For the total sample, Study habits is the reflection of school motivation because the motivated students look for the strategies to achieve good results in the examination and they also designing the subject matter, select appropriate study place and setting the time schedule for studying, rewarded by themselves involving in play activities, by visiting the house of loved ones or gossiping as well as singing a song. The motivated students find out the techniques and strategies for studying. Study habits generally refer to pupils' repeated actions to study from the beginning to the end of an educational program. Study habits is thought to be of paramount importance for them for a variety of reasons. The operational definition of study habit in the present study is considered as a systematic and organized study program. In the present research, study habits is found to promote significantly academic achievement. In Bangladeshi sample, Karim and Banu (2000) found that correlation between study habit and academic achievement was low and the findings also suggested that study habit sharply discriminate between high achievers and low achievers group. The finding of other researchers have supported this finding such as Girija (1980), Shivappa (1980), Chopra (1982), Bhatnagar (1983), Kohli and Joshi (1984) Yeh (1991).

The diagram of various non-cognitive and parental variables as well as obtained values for total sample may be presented in figure 4.1.

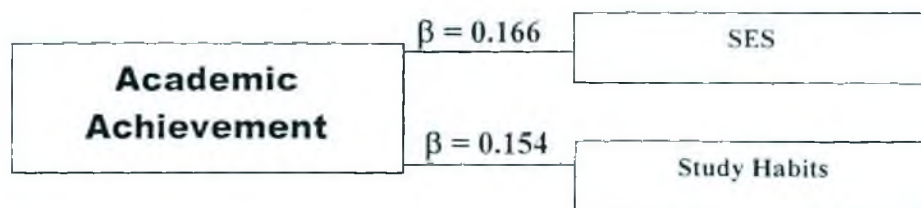


Figure 4.1: Prediction of Academic Achievement for Total Sample

To see the power of prediction based on sex (objective No-6) of the students together with selected non-cognitive factors on academic achievement, the results are going to be discussed for the boys and for the girls separately in the followings paragraphs.

For the boys' sample, only two predictors were found to make significant contribution to the regression equation. These are SES ($\beta = 0.159$) and school motivation ($\beta = 0.175$). The obtained β values for SES and school motivation have promoted academic achievement that all are significant.

SES has contributed to academic achievement of the secondary school students. This findings is similar in character as was found in regression analysis for total sample, though here the β -weight is slightly less. .

The findings of the present study tend to suggest that school motivation factor promote academic achievement for the boys' sample. School motivation refers to psychological forces (such as. motives, attitudes, etc) spanning over affective, cognitive and moral domains of behavior that draws or impel students to do school work. The underlying rational of this multi-dimensional concept depends on the fact that student's experience in relation to learning, different types of rewards and punishment. These depend essentially on relationships with others, developing competencies in knowledge and skill, and the feelings derived from living up to the expectations of self and others. It means that the students, who have positive attitude towards school, and conscious about the school activities, will follow the school rules and regulation; and attend the structure of school and system of school. As a consequence of positivism toward school system and acceptance of school activities, the students achieved good performance in formative and normative evaluation by the schools.

Kozeki (1975) believe that in place of single dimension of academic motivation, namely cognitive, there are at least three motivational domains e.g. affective, cognitive and moral . through which operation of several motives in school learning and attainment could best be determined These depend essentially on relationships with others (the affective domain) and the feelings of competencies in knowledge and skill (the cognitive domain) and the feeling of satisfaction derived from living up to the expectations of self and others (the moral domain). Entwistle and Kozeki (1985) found significant effect of the variables but small correlations of those ten motives with the British as well as with the Hungarian children. In the Hungarian children many motives were found not to reach the significant level. Roy (1995) found that only independency among the ten conceptualized motives engulfed in the theoretical model of

school motivation correlated significantly with academic achievement of tenth grade school children. The present findings is in right tract and has also been supported by the findings of Kohli (1984); Mitra (1985); Mansuri(1986); Puri (1987); Colon (1991); Kreitler et al., (1995); Gottfried (1985); Boggiano et.al.(1992); Niebuhr(1995); Whang and Hancock (1994); and Covington (2000).

The diagram of various non-cognitive and parental variables as well as obtained values for boys sample may be presented in the following diagram 4.2.

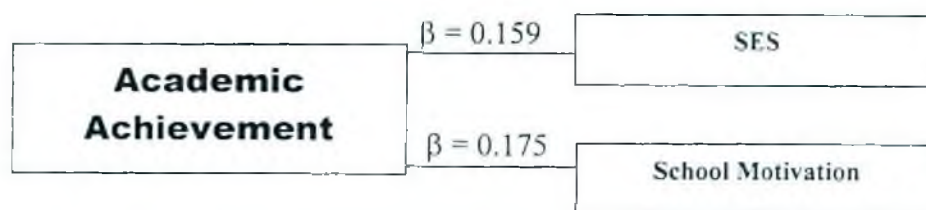


Figure 4.2: Prediction of Academic Achievement for Boys sample.

For the girls, only two factors of selected non-cognitive predictors have emerged as independent and significant predictors of their academic achievement. These are SES ($\beta = 0.140$) and study habits ($\beta = .249$). The β value for the father's educational level was higher than that of boys β - weight and was found to be positive.

In case of girls' SES has been found to promote academic achievement significantly. The findings of the present study is similar in character to that found in boys regression analysis, though here the β - weight is slightly lower (For boys $\beta = 0.159$ and for girls = 0.140).In Bangladeshi perspective, gender violation is common. Girls are most vulnerable and their rights are violated in every aspect of life, like Physical, psychological, economical, and sexual. They are subjected to various form of injustice such as, dowry, social stigma, religious and moral obligations. The parents in the present have realized and they are more conscious about female education. They have felt that female education is the only way to come out from this injustice, deprivation and humiliation. Government has taken a lot of effort such as, free studentship up to ten in the village level and scholarship in the primary level to increase the female educational rate. Again, NGOs have also initiated a lot of program to empower the women and adolescent girls.

Findings of the study tend to show the influence of study habits on academic achievement of girls. This finding is similar to the findings total sample. It is surprising that study habits has not been found to promote academic achievement for boys. It means that for girl students study

habits contributed to their academic performance. The reason for such reverse trend in the influence of study habit on academic achievement relating to boys and girls has been explained earlier.

The diagram of various non-cognitive and parental variables as well as obtained values for girls sample may be presented in 4.3.

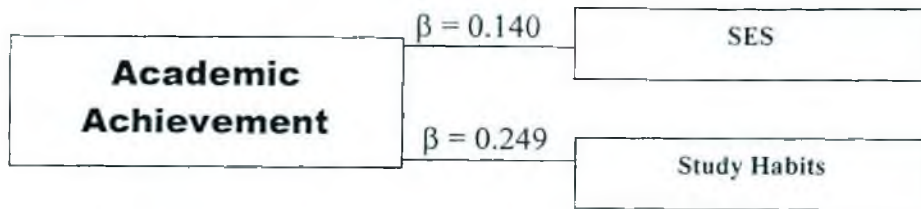


Figure 4.3: Prediction of Academic Achievement for Girls sample

Academic achievement, which generally refers to scholastic achievement of the student at the end of an educational program, is thought to be of paramount importance to the students, parents, teachers, and society for various reasons. The Non-cognitive factors were found to have effective predictability of academic performance and student retention for different student populations: Asian Americans (Fuertes, Sedlacek, & Liu, 1994). It was also found that correlations with college grades and retention were significantly higher when the non-cognitive variables were used in conjunction with standardized test scores and earlier grades. After an extensive survey of research studies on relation between different variables and academic achievement, a schematic model of determinants of academic achievement was proposed by Ameerjan (1981) in which he assumed that academic achievement as an dependent variables resulting from the dynamic interactions among personality, motivation, study habits, skills and attitudes and school or college climate. Following this approach, the present study has been designed to deal with prediction from a number of prominent non-cognitive factors, such as, school motivation, family environment, classroom social climate, study habits and socioeconomic status (SES) on academic achievement.

The objectives of the study were

1. To find out the relationship between non-cognitive factors such as school motivation, classroom social climate, family environment, study habits and SES and academic achievement.
2. To find out the extent to which dimension of school motivation are related to academic achievement.
3. To find out the extent to which dimension of perceived social climate of the family are related to academic achievement.
4. To find out the extent to which dimension of social climate of the classroom are related to academic achievement.
5. To investigate how far the non-cognitive variables e.g. school motivation, classroom social climate, family environment, study habits and SES, taken together can predict academic achievement.
6. To see how far the non-cognitive variables e.g. school motivation, classroom social climate, family environment, study habits and SES, taken together can predict academic achievement in respect of sex of the students.

Description of Participants

The sample consists of a total 504 students from 12 secondary schools (10 non-govt. and 2 govt.) in Dhaka City, representing in turn the ninth and tenth class. The sample were collected from four Thana of Dhaka City.

Variables**Independent variables**

- i) School Motivation
- ii) Perceived Social Climate of the family
- iii) Perceived Classroom Social Climate
- iv) Study Habit
- v) Socio-Economic Status(SES)

Dependent Variable

- i) Academic Achievement

Measuring Instrument of independent variables

1. School Motivation Inventory (Adapted Bengali version Roy (1995) of the School Motivation Inventory of Kozeki and Entwistle (1984 & 1948) which was originally developed by Kozeki (1975) in Hungary).
2. Family Environment Scale (Bengali adapted version of a previous Bengali Family Environment Scale of DasGupta and Bose, 1985 which was originally developed by Moos and Moos, 1975).
3. Classroom Social Climate Scale (Bengali adapted version of the Classroom Social Climate Scale of Dasgupta and Bose, 1986; which was originally developed by Trickett and Moos, 1973).
4. Study Habit Scale (Developed by Karim, R & Banu, S, 2000, in Bangladesh).
5. Measurement of Socio Economic Status through the partial section of "The Social Index of Family" (SIF) developed by Islam, 1995.

Academic Achievement

Result achieved by the students in the last annual Examination.

Multiple regression analysis was used to find out the predictive relationship between academic achievement and selected non-cognitive factors. To find out correlation among the independent and dependent variables to apply zero-order correlation was applied.

Results and Discussion

In the conclusion of the correlation analyses, the study has found that selected non-cognitive variables such as SES, school motivation, social climate of the family and study habits have been found to be associated with corresponding increase in the measure of academic achievement that is also valid by the regression analysis. . It is also found that the measure of academic achievement significantly correlated with of the students, school motivation, social climate of the family, study habits and socio-economic status (SES). Again, social climate of the school do not create any impact on the secondary students' academic achievement.

For the dimensions of school motivation, the measure of Identification with Teachers, Competence in Knowledge and Skill, Interest and Enthusiasm, Trust, Competence and Self Esteem, Need for Order and Compliance with Norms has been found to be related with corresponding increase of the measure of academic achievement of the secondary school students. Thus an increase in the measure of Intellectual-Cultural Orientation and Organization of social climate of the family has been found to be associated with corresponding increase in the measure of academic achievement of the secondary school students, while increase in the measure of Rule clarity of social climate of the school has been found to be associated with corresponding decrease in the measure of academic achievement.

In the regression analyses, the study revealed that all the selected 5 variables taken together have explained 9.1% ($R = 0.30$) of the variance of academic achievement and remaining 90.9% of the total variance of academic result has remained unexplained as a whole. It is observed that the combined predictive strength of all the selected non-cognitive variables are not so high. This low predictive capacity of the selected non-cognitive variable predictors is justifiable for two reasons: first academic achievement theoretically shared with cognitive variables (Bloom, 1976) on the main; secondly, the first reason also leads to another fact that a very small amount of variance of academic achievement is likely to be accounted for by these non-cognitive variables.

For the boys' only two predictors are found to make significant contribution to the regression equation. These are SES ($\beta = .159$) and school motivation ($\beta = 0.175$). The β values for the SES and school motivation have promoted academic achievement that all are significant.

For the girls, only two factors of selected non-cognitive have emerged as independent and significant predictors of their academic achievement. These SES ($\beta = 0.140$) and study habits ($\beta = .249$). The β value for SES has lower than that of boys β - weight to the prediction and it is of course positive.

Conclusion

In the conclusion of the present study, it can be said that the selected non-cognitive variables, such as school motivation, social climate of the family, classroom social climate, study habits and socio-economic status (SES) can predict academic performance in the secondary school students in Bangladesh. The present study also suggest that Identification with Teachers, Competence in Knowledge and Skill, Interest and Enthusiasm, Trust, Competence and Self Esteem, Need for Order, Compliance with Norms, Intellectual-Cultural Orientation and Organization of social climate of the family were positively correlated with academic achievement of the school going students but Rule clarity of social climate of the school was found to be significantly negative. The findings of the present study would have a say to consider the effective domains of education to the policy makers, educationist, curriculum developers, and researchers. Results of the study also will be helpful to the teachers and parents/guardian to understand the importance of motivational concern about school, social interactions within the family of the students, social measures of the classroom and the study habits practices by the students while considering grade achieved by the school children in Bangladesh.

From the above discussion of the present research, some recommendations and suggesting can be made for further studies which are given in the below

1. The present study has taken some non-cognitive predictor of academic achievement, however, in order to broaden the spectrum of cognitive predictor important variables of cognitive domain of academic achievement need to be studied in future research.
2. Much more non-cognitive predictors from the area of personality, motivation, ecology or environmental may be included to increase the likelihood of predicting much more variance of academic achievement.
3. Similarly many other variables, approaches of studying, learning style, attitude to school, teacher and/or subject, cognitive preference and cognitive style may be incorporated in the predictor battery to explain the variance of academic achievement in future studies.
4. Taking family structure, peer-group cohesion, community related variables, etc. in predicting contributions of these variables to the variance of academic achievement may be broaden the spectrum of environmental predators.
5. Study may be done carried out by utilizing various domains of academic achievement, such as, cognitive, affective, perceptual-motor, etc. as set of criterion scores.
6. This study may be replicated over students of other grades, stages, of education, other geographical or cultural sets-up, ability levels, etc. to examine possible contributions of school motivation, perceived social climate, study habits, intelligence across such groups of pupils.
7. More validation studies such as the tools used in the study are suggested to reduce errors of measurement involving these tools.
8. Suitable case studies are suggested to go deep in to the differential patterns of good predictors of non-cognitive variables found in the study for the boys and the girls.
9. Further study may be undertaken to explore relations of teacher and parent variables with school motivation, study habits, and perceived social climate.

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APPENDIX

শিক্ষার্থীদের জনমিতিক ও পারিবারিক তথ্যাবলী

- ১। আমি ছেলে/মেয়ে।
- ২। আমি নবম/দশম শ্রেণীতে পড়ি।
- ৩। আমার বয়স --- বছর।
- ৪। আমার জন্মক্রম -----তম।
- ৫। আমার পরিবারের মোট সদস্য -----।
- ৬। বাবার শিক্ষাগত যোগ্যতা
(ক) অষ্টম শ্রেণী বা তার নীচে (খ) এস.এস.সি. (গ) এইচ.এস.সি (ঘ) স্নাতক (বি.এ),
(ঙ) স্নাতকোত্তর(এম.এ).
- ৭। মাতার শিক্ষাগত যোগ্যতা
(ক) অষ্টম শ্রেণী বা তার নীচে (খ) এস.এস.সি. (গ) এইচ.এস.সি (ঘ) স্নাতক (বি.এ),
(ঙ) স্নাতকোত্তর(এম.এ).
- ৮। বাবার পেশা
(ক) সরকারী চাকুরী করে (খ) বেসরকারী চাকুরী করে (গ) শিক্ষক (ঘ) ব্যবসা (ঙ) অন্যান্য
- ৯। মাতার পেশা
(ক) সরকারী চাকুরী করে (খ) বেসরকারী চাকুরী করে (গ) শিক্ষক (ঘ) ব্যবসা (ঙ) গৃহিনী (চ) অন্যান্য
- ১০। পরিবারের প্রধানের আয় -----টাকা।
- ১১। আমার পড়ার জন্য নিজস্ব টেবিল আছে/নেই।
- ১২। আমার বাড়ীতে কামরা আছে -----টি।
- ১৩। আমার বাসস্থান সম্পর্কে তথ্য
(ক) নিজস্ব বাড়ী আছে। (খ) নিজস্ব বাড়ী নেই।
- ১৪। আমার বাড়ীতে নিয়মিত দৈনিক পত্রিকা রাখে---- হ্যাঁ/না।
- ১৫। আমার বাড়ীতে নিম্নলিখিত জিনিসপত্র আছে
(ক) টেলিভিশন i) হ্যাঁ ii) না
(খ) ফ্রিজ i) হ্যাঁ ii) না
(গ) কম্পিউটার i) হ্যাঁ ii) না
(ঘ) ডিস-সংযোগ i) হ্যাঁ ii) না
(ঙ) অন্যান্য (গাড়ী) i) হ্যাঁ ii) না
- গত বার্ষিক পরীক্ষার ফলাফল :-----
- প্রাপ্ত নম্বর (জিপিএ) :

SCHOOL MOTIVATION INVENTORY (SMI)**নির্দেশনা**

এই অভীক্ষাপত্রে বিদ্যালয় এবং বিদ্যালয়ের লেখাপড়া সংক্রান্ত বিষয়ে ছাত্র-ছাত্রীদের মতামত আছে। এই বক্তব্যগুলির উত্তর শুধুমাত্র তোমার অভিজ্ঞতার উপর নির্ভর করবে। উত্তর দেওয়ার জন্য প্রতিটি বক্তব্যের পাশে ৫টি নির্দিষ্ট উত্তর দেওয়া আছে।

যেমনঃ

১। সর্বদাই মানা যায় ২। মাঝে মাঝে মানা যায় ৩। বুঝতে পারছি না ৪। মাঝে মাঝে মানা যায় না ৫। কখনই মানা যায় না

প্রতিটি বক্তব্য ভালো করে দেখ এবং উত্তর দেওয়ার জন্য যে নির্দিষ্ট ৫টি উত্তর দেওয়া রয়েছে তার যে টি তোমার ক্ষেত্রে সবচেয়ে বেশী প্রযোজ্য (অথবা যেটির সঙ্গে তুমি সম্পূর্ণ একমত) তার নীচে একটা টিক চিহ্ন (✓) দাও। উত্তর দেওয়ার সুবিধার জন্য দুটি উত্তর দেওয়া হলঃ-

উদাহরণ**উত্তর**

বিবৃতি	সর্বদাই মানা যায়	মাঝে মাঝে মানা যায়	বুঝতে পারছি না	মাঝে মাঝে মানা যায় না	কখনই মানা যায় না
ক) আমাদের শিক্ষা ব্যবস্থায় জাঁকজমক বড় বেশী।		✓			
(খ) খুব সহজেই আমি বক্তৃতা দিতে পারি।				✓	

মনে রাখবে, তোমার নিজের অভিজ্ঞতা থেকে উত্তর দিচ্ছ। সুতরাং প্রত্যেকটি বক্তব্যের উত্তর আমাদের কাছে মূল্যবান।

বিবৃতি	সর্বদাই মানা যায়	মাঝে মাঝে মানা যায়	বুঝতে পারছি না	মাঝে মাঝে মানা যায় না	কখনই মানা যায় না
১। বিদ্যালয়ে প্রতিদিন যা যা ঘটে সমস্তই পিতামাতাকে বলে আনন্দ পাই।					
২। অধিকাংশ শিক্ষকই সব ছাত্রদের কাছে নিরপেক্ষ।					
৩। সহপাঠীদের সাথে প্রতিযোগিতামূলক সম্পর্ক স্থাপনের চেয়ে বন্ধুত্ব বজায় রাখা বেশী গুরুত্বপূর্ণ মনে করি।					
৪। আমি কোন কাজে গভীরভাবে মনোনিবেশ করে থাকলে পিতামাতা আমাকে তাতে বাধা দেন না।					
৫। পাঠ্য বিষয়ের কোন কোন অংশে এত বেশী মানসিক ভারের জুড়িয়ে যাই যে তা নিয়ে নিজে দীর্ঘ সময় কাটাই।					

বিবৃতি	সর্বদাই মানা যায়	মাঝে মাঝে মানা যায়	বুঝতে পারছি না	মাঝে মাঝে মানা যায় না	কখনই মানা যায় না
৬। বিদ্যালয় একঘেয়ে জায়গা।					
৭। বিদ্যালয়ে ভালো কাজ করতে না পারলে আমার নিজের লজ্জা করে।					
৮। আমি শিক্ষকদের জানাতে চাই তারা আমার উপর নির্ভর করতে পারেন।					
৯। বিদ্যালয়ে শান্তি দেওয়া সর্বদাই পক্ষপাতদুষ্ট।					
১০। কঠোর পরিশ্রম করেও আমি যা করি শিক্ষক তাতে সন্তুষ্ট হন না।					
১১। আমি বিদ্যালয়ে কোন ভালো কাজ করলে পিতা মাতা প্রকৃতই সুখী হন এবং পিতা মাতার সুখে আমি নিজে ও সুখী হই।					
১২। শিক্ষকদের হতাশ করলে আমার নিজের খারাপ লাগে।					
১৩। বিদ্যালয়ে পড়াশুনার ব্যাপারে অন্য ছাত্রদের সাহায্য করে আমি আনন্দ পাই।					
১৪। নিজের কাজ নিজে করতে হলে সুখী হইনা।					
১৫। কেবলমাত্র শেষ মুহূর্তে গৃহকাজে হাত লাগাই।					
১৬। বিদ্যালয়ের বেশীরভাগ পাঠই একঘেয়ে এবং আকর্ষণ বিহীন।					
১৭। কোন ভুল করলে সেটা চাপা দেওয়ার চাইতে তা স্বীকার করা বেশী পছন্দ করি।					
১৮। ছাত্র-ছাত্রীরা যা করতে চায় শিক্ষকেরা যদি তা করার অনুমতি দেন তবে বিদ্যালয় আমার আরো ভালো লাগত।					
১৯। ক্রটিপূর্ণভাবে কাজ করতে দেওয়ার চেয়ে আমার ভুল সংশোধন করে দেওয়া হোক বলে মনে করি।					
২০। ছোটদের কাছ থেকে বড়রা বেশী চান বিনিময়ে কম দেন।					
২১। বিদ্যালয়ে আমি কি করি বা না করি তাতে পিতামাতার কোন আগ্রহ আছে বলে আমার মনে হয় না।					
২২। বিদ্যালয়ে খুব কম সংখ্যক শিক্ষকই আছেন যাদের সত্যিকারের প্রশংসা আমি করতে পারি।					
২৩। আমার কোন ভালো কাজ বন্ধুদের নজরে এলে আমি সত্যিই আনন্দ পাই।					
২৪। ছাত্র-ছাত্রীরা নিজেরা তাদের সুচিন্তা-ধারণার নাগাল পাবে এটা প্রত্যাশা করা উচিত নয়।					
২৫। জীবন সম্বন্ধে অনেক প্রয়োজনীয় জ্ঞান বিদ্যালয় ছাত্র-ছাত্রীদের সরবরাহ করে।					

বিবৃতি	সর্বদাই মানা যায়	মাঝে মাঝে মানা যায়	কখনো পারছি না	মাঝে মাঝে মানা যায় না	কখনই মানা যায় না
২৬। অবসর সময়ের অনেকটাই নিজে নিজে নানা জ্ঞানমূলক কর্মের কথা ভাবি।					
২৭। আমাকে কোন কাজ করতে বলা হলে সর্বদাই চেষ্টা করি যতটা ভালো করা আমার পক্ষে সম্ভব তা করা।					
২৮। বিদ্যালয়ের নিয়মকানুন খুবই বোধগম্য - আমি সর্বদা সেটা মেনে চলার চেষ্টা করি।					
২৯। যদি কিছু ভুল কাজ করি তবে তার ফল ভোগ করার জন্য প্রস্তুত থাকি।					
৩০। শিক্ষকরা ছাত্রদের উপর যে পরিমাণ চাপ দেন তাতে আমি ক্ষুব্ধ।					
৩১। বিদ্যালয়ের কাজে আমার পিতা-মাতা আমাকে সর্বদাই সাহায্য করেন ও উৎসাহ দেন।					
৩১। বিদ্যালয়ের কাজে আমার পিতা-মাতা আমাকে সর্বদাই সাহায্য করেন ও উৎসাহ দেন।					
৩২। বেশীর ভাগ শিক্ষক বিষয়বস্তু ভালোভাবে ব্যাখ্যা করার জন্য মনোযোগী না।					
৩৩। অন্যরা আমার সম্বন্ধে কি ভাবছে সে নিয়ে আমি মাথা ঘামাই না।					
৩৪। আমার পিতা-মাতা সর্বদাই আমার মতামতের গুরুত্ব দেন।					
৩৫। বিদ্যালয়ে যা শিখি তা প্রয়োজনীয় নয়।					
৩৬। নতুন পাঠ যখন শুরু হয় তখন আমি খুশি ও সক্রিয় হই।					
৩৭। যতি হোমটাস্ক না করি তবে তা না করার জন্য আমি সব সময় কোন না কোন কারণ দেখিয়ে দিই।					
৩৮। হোমটাস্ক কঠিন হলে আমি তা ছেড়ে দিই।					
৩৯। আমি প্রায় সময়ই অজুহাত দেখাই।					
৪০। আমার কাছ থেকে আমার পিতা-মাতা অনেক কিছু আশা করেন এবং আমার ওপর চাপ দেন।					
৪১। ছোটদের অনুভূতি বোঝার জন্য গুরুজনেরা একেবারে অগ্রহীণ।					
৪২। কোন ছাত্র-ছাত্রী বিদ্যালয়ে অসুবিধায় পড়লে প্রায়শঃই তা হয় শিক্ষক - শিক্ষিকার দোষে।					
৪৩। অন্যরা আমার সাথে মর্নিংয়ে চলতে অসুবিধা বোধ করে বলে মনে করি।					
৪৪। আমি সর্বদা নিজের কাজ নিজে করে নেওয়া পছন্দ করি।					
৪৫। যদি নতুন পাঠ আমার কাছে কঠিন মনে হয় তাহলে একটু পরেই তাতে অগ্রহ থাকে না।					

বিবৃতি	সর্বদাই মানা যায়	মাঝে মাঝে মানা যায়	বুঝতে পারছি না	মাঝে মাঝে মানা যায় না	কখনই মানা যায় না
৪৬। পাঠ্য বিষয়ে অনেক পাঠই আছে যেগুলি সত্যি সত্যিই রোমাঞ্চকর এবং কঠোর পরিশ্রমের জন্য উদ্বুদ্ধ করে।					
৪৭। বিদ্যালয়ে যা করার জন্য প্রত্যাশা করা হয় আমি তা করি।					
৪৮। বিদ্যালয়ে আমাকে কোন কাজ করতে বলা হলে আমি সেটা সম্পন্ন করার জন্য যথাসাধ্য চেষ্টা করি।					
৪৯। যে রকম কাজই হউক না কেন আমি ভাতে দায়িত্ব নেওয়ার চেষ্টা করি।					
৫০। বিদ্যালয়ে বিদ্যার্জনের জন্য পিতা-মাতা যা আশা করেন তা বাস্তব সম্মত নয় বলে আমার মনে হয়।					
৫১। যদি বিদ্যালয়ে ভালো কিছু করি, আমার পিতা-মাতা সর্বদাই আনন্দ প্রকাশ করেন।					
৫২। অধিকাংশ শিক্ষকই ছাত্র-ছাত্রীদের সাহায্য করার জন্য বিশেষভাবে চেষ্টা করেন।					
৫৩। বিদ্যালয়ে ছাত্র-ছাত্রীদের মধ্যে সহ-মর্মিতা আছে বলে মনে করি।					
৫৪। প্রত্যাশা করা হয় আমার সাধ্যাতিরিক্ত কাজ যেন নিজেই করে নিই।					
৫৫। যদি সত্যিই কিছু শিখি তবে পরিশ্রমে বিমুখ নই।					
৫৬। বিদ্যালয়ের কাজকর্ম গুলো আমাকে বেশী আগ্রহী করে তোলে।					
৫৭। আমার প্রতি আমার পিতা-মাতার যে বিশ্বাস সেটা সবসময় বজায় রাখার চেষ্টা করি।					
৫৮। কেবলমাত্র দুর্বল লোকেরাই নিয়ম-কানুন পছন্দ করে এবং তাদের জন্য প্রয়োজন শৃঙ্খলা।					
৫৯। কঠোর শাস্তি পাওয়ার চাইতে নিজেকে দোষী ভাবা বেশী কষ্টকর।					
৬০। বড়রা সবসময় ছোটদের কাছ থেকে বেশী আশা করে থাকেন।					

FAMILY ENVIRONMENT SCALE (FES)

নির্দেশনা

এই অভীক্ষাপত্রে পরিবার সম্পর্কীয় কয়েকটি বিবৃতি দেওয়া হয়েছে। আপনার পরিবারের ক্ষেত্রে এই বিবৃতিগুলি কতখানি প্রযোজ্য তা নির্ধারণ করাই এই গবেষণার মূল উদ্দেশ্য। আপনার পরিবারের ক্ষেত্রে যেগুলি “সত্য” বা “প্রায় সত্য” সেগুলিকে (✓) চিহ্ন দ্বারা চিহ্নিত করুন। আপনার পরিবারের ক্ষেত্রে যেগুলি “অসত্য” বা “প্রায় অসত্য” সেগুলিকে (x) চিহ্ন দ্বারা চিহ্নিত করুন। পরিবারের পরিবেশ সম্পর্কীয় এই মতামতগুলি যদি আপনার পরিবারের কারো কারো ক্ষেত্রে “সত্য” হয় অথবা কয়েকজনের ক্ষেত্রে “অসত্য” হয় তবে অধিকাংশের ক্ষেত্রে যা প্রযোজ্য হবে তাতেই যথাক্রমে (✓) অথবা (x) চিহ্নিত করবেন।

মনে রাখবেন, শুধুমাত্র আপনার সঙ্গে আপনার পরিবারের অন্যদের কেমন সম্পর্ক তা জানাই আমাদের বিশেষভাবে প্রয়োজন। অতএব, প্রতিটি ক্ষেত্রে আপনার নিজস্ব অভিজ্ঞতাই ব্যক্ত করুন। আপনার উত্তরগুলি কেবলমাত্র গবেষণার কাজেই ব্যবহার করা হবে এবং অন্য কেউই এগুলি জানতে পারবে না।

বিবৃতি	মতামত
(১) বাড়ীতে থাকাকালীন মনে হয় যে আমার কিছুই করণীয় নেই।	- ()
(২) পরিবারের কলহ আমাদের নিত্য নৈমিত্তিক ঘটনা।	- ()
(৩) আমাদের পরিবারে ব্যক্তিগত অর্থ সঞ্চয়কে গুরুত্ব দেওয়া হয় না।	- ()
(৪) আমাদের পরিবারে রাজনৈতিক ও সামাজিক সমস্যা সম্পর্কে আলোচনা করা হয়।	- ()
(৫) পারিবারিক বন্ধুরা-বান্ধবেরা প্রায় নৈশভোজে বা দেখা সাক্ষাতের জন্য আপ্যায়িত হয়ে থাকেন।	- ()
(৬) পরিবারে লোকেরা প্রায় মন্দির, মসজিদ বা গীর্জায় যাতায়াত করেন।	- ()
(৭) পারিবারিক কাজকর্ম পূর্ব পরিকল্পিত উপায়ে সম্পন্ন হয়।	- ()
(৮) সাধারণতঃ আমাদের পরিবারের কেউ কাউকে হুকুম করেন না।	- ()
(৯) আমাদের পরিবারে মাত্র একজনের মতামতই প্রাধান্য পায়।	- ()
(১০) মাঝে মাঝে পরিবারের কেউ কেউ রেগে গিয়ে জিনিস পত্র ভাঙচুর করে থাকেন।	- ()
(১১) আমাদের পরিবার প্রতিযোগিতায় বিশ্বাসী এবং প্রকৃত বিজয়ীকে গ্রহণ করে।	- ()
(১২) জনসভা, বক্তৃতা ইত্যাদিতে আমাদের পরিবারে কেউ অংশ গ্রহন করেন না।	- ()
(১৩) আমাদের পরিবারের কেউই ক্লাব, খেলাধুলা, ব্যায়াম ইত্যাদিতে অংশ গ্রহন করেন না।	- ()
(১৪) আমাদের পরিবারে সমবেত প্রার্থনা বা পূজার্চনা হয় না।	- ()
(১৫) আমাদের বাড়ীতে প্রয়োজনীয় বস্তু প্রায়ই প্রয়োজনের সময় পাওয়া যায় না।	- ()
(১৬) আমাদের পরিবারে খুব কম নিয়ম কানুনই পালন করা হয়।	- ()
(১৭) প্রায় কেউই স্বেচ্ছায় পরিবারের কোন কাজে এগিয়ে আসেন না।	- ()
(১৮) আমাদের পরিবারের লোকেরা মাঝে মাঝে একে অন্যের সমালোচনা করে থাকেন।	- ()

বিবৃতি	মতামত
(১৯) আমরা সর্বদাই প্রতিটি কাজকে আগের চেয়ে আর একটু ভালোভাবে করার চেষ্টা করি।	- ()
(২০) সাধারণতঃ সামাজিক, দার্শনিক ও রাজনৈতিক ইত্যাদি জটিল সমস্যা নিয়ে আমরা বাড়ীতে আলোচনা করি।	- ()
(২১) ধর্মগ্রন্থ পাঠ এবং ধর্মীয় উৎসবের তাৎপর্য নিয়ে আমাদের পরিবারে আলোচনা করা হয়।	- ()
(২২) সময়ানুবর্তিতা আমাদের পরিবারে বিশেষ গুরুত্ব পেয়ে থাকে।	- ()
(২৩) আমাদের পরিবারের সবাই ঐক্যবদ্ধ এবং সূত্রে গাঁথা	- ()
(২৪) আমরা পরিবারে প্রত্যেকেই প্রত্যেককে যথাসাধ্য সাহায্য করে থাকি।	- ()
(২৫) পরিবারের কয়েকজন মাঝে মাঝেই মারামারি করে থাকেন।	- ()
(২৬) চাকরীর উন্নতি, পরীক্ষার নম্বর ইত্যাদি নিয়ে পরিবারের লোকজন খুব কমই সচেতন।	- ()
(২৭) গান শোনা, ঘরে বসে খেলাধুলা করা ইত্যাদিকে পড়াশুনার চেয়ে বেশী গুরুত্ব দেওয়া হয়ে থাকে।	- ()
(২৮) স্বর্গ, নরক অথবা ধর্মতে আমাদের বিশ্বাস নেই।	- ()
(২৯) আমাদের পরিবারে প্রায় প্রত্যেকেই মতামত পরিবর্তন করে থাকেন।	- ()
(৩০) আমাদের পরিবারে আমরা ইচ্ছানুযায়ী কাজ করতে পারি।	- ()
(৩১) আমাদের পরিবারে দলাদলি বা রেয়ারেখি খুবই কম।	- ()
(৩২) চড়াগলায় কথা বলে পরিবারের কেউই কোন কিছু আদায় করতে পারে না।	- ()
(৩৩) সাফল্য অর্জনের জন্য আমাদের পরিবারের কেউই কোন কিছু আদায় করতে পারেন না।	- ()
(৩৪) আমাদের পরিবারের লোকেরা সত্যাসত্যই সঙ্গীত, শিল্প এবং সাহিত্য সম্পর্কে আগ্রহী।	- ()
(৩৫) পবিত্র ধর্মরাজি যে ধর্ম সম্পর্কে সঠিক শিক্ষা দেয়, তা আমরা বিশ্বাস করি।	- ()
(৩৬) অর্থনৈতিক বা আয়ব্যয়ের পরিকল্পনা এবং হিসাব রক্ষনাবেক্ষনকে আমাদের পরিবারে তেমন গুরুত্ব দেওয়া হয়না।	- ()
(৩৭) পরিবারের অনুমতি ছাড়া আমরা ইচ্ছানুযায়ী কোন কাজ করতে পারি না।	- ()
(৩৮) আমাদের পরিবারে সাধারণতঃ গীতা, বাইবেল, কোরাণ ইত্যাদির মতো ধর্ম পুস্তক পাঠ করা হয়।	- ()
(৩৯) প্রত্যেক বার খাওয়ার পরেই খালাবাসন ধুয়ে মুছে রাখা হয়।	- ()

CLASSROOM SOCIAL CLIMATE SCALE (CSCS)**নির্দেশনা**

তুমি যে শ্রেণীর ছাত্র/ছাত্রী সেই শ্রেণীর পঠন-পাঠন, প্রতিদিন বিদ্যালয়ের রুটিন অনুযায়ী হয়ে থাকে। ঐ রুটিন মত, প্রতিটি পিরিয়ডে একটি করে পাঠ্য বিষয়বস্তু সম্পর্কে নির্দিষ্ট কোন শিক্ষক/শিক্ষয়ত্রী শিক্ষা দান করে থাকেন। এই অভীক্ষাটি যে পিরিয়ডে তোমাকে উত্তর দেওয়ার জন্য দেওয়া হবে সেই পিরিয়ডে যে বিষয়টি পড়ানো হয় এবং যিনি পড়ান তা নিশ্চয় তোমার মনে আছে। আমাদের এই অভীক্ষার উদ্দেশ্য হল এই পিরিয়ডে যে ভাবে পড়ানো হয় সেই সম্পর্কে তোমার মতামত কি সেটা জানতে চেষ্টা করা। এখানে যে বিবৃতিগুলি দেওয়া আছে সেগুলি মন দিয়ে পড় এবং এই পিরিয়ডের পটভূমিকায় প্রতিটি বিবৃতির উত্তর দাও। উত্তর কি হবে, তা তোমাকে পাঁচটি বিকল্প উত্তরের মধ্যে নির্বাচন করে-নির্দিষ্ট স্থানে (✓) চিহ্নিত করতে হবে। সব সময় মনে রাখবে, এখানে “ক্লাস” বলতে এই পিরিয়ডে যে বিষয়টি পড়ানো হয় সেই “ক্লাস” কে বোঝানো হয়েছে। অনুরূপভাবে, এখানে “শিক্ষয়ত্রী” বলতে উক্ত ক্লাসের শিক্ষয়ত্রীকে বোঝানো হয়েছে। যেমন, পিরিয়ডটি “পিরিয়ডটি” “অংকের” হলে তোমাকে বুঝতে হবে “অংকের ক্লাস” এবং অংকর শিক্ষয়ত্রী সম্পর্কে জানতে চাওয়া হয়েছে। মনে রেখো তোমার ব্যক্তিগত অভিজ্ঞতাই আমাদের সবচেয়ে বেশী প্রয়োজন। উত্তর দেওয়ার পক্ষে সহায়ক একটি উদাহরণ দেওয়া হল। উত্তর দেওয়ার আগে এই উদাহরণটি মনোযোগ দিয়ে পড়ার পর তোমার মতামত ব্যক্ত কর।

উদাহরণ :

উত্তর

বিবৃতি	খাঁটি	মানা	বলা	মানা	বাজে
	কথা	যায়	মুক্তিল	যায় না	কথা
(ক) ক্লাসের ছাত্র/ছাত্রীরা পড়াশুনা নিয়ে খুব কমই মাথা ঘামায়।					
(খ) নিয়মানুবর্তিতার জন্য ক্লাসটি ছাত্র/ছাত্রীদের কাছে আদর্শ-স্থানীয়।					

উত্তর

বিবৃতি	খাঁটি	মানা	বলা	মানা	বাজে
	কথা	যায়	মুক্তিল	যায় না	কথা
১। সমবেতভাবে কাজের জন্য ছাত্র/ছাত্রীদের বেশ আগ্রহ দেখা যায়।					
২। এই ক্লাসে প্রকৌশলগতমূলক কাজে উৎসাহদান করার জন্য বিশেষভাবে পরিচিত।					
৩। শিক্ষক/শিক্ষয়ত্রী এই ক্লাসের ছাত্র/ছাত্রীদের আচার-ব্যবহার সম্পর্কে উদাসীন।					
৪। ছাত্র/ছাত্রীরা নিয়মিতভাবে তাদের ক্লাসের পড়াশুনা না করে থাকে।					
৫। এই ক্লাসের অধিকাংশ ছাত্র/ছাত্রী অব্যাহত এবং অনিয়মিত।					
৬। ছাত্র/ছাত্রীরা এই ক্লাসের বিশেষ বিশেষ নিয়মকানুন গুলো সম্পর্কে সজাগ।					

বিবৃতি	খাঁটি কথা	মানা যায়	বলা মুক্তি	মানা যায় না	বাজে কথা
৭। শিক্ষক/শিক্ষয়িত্রী পাঠ্যক্রম ব্যতীত অন্যান্য বিষয় নিয়ে প্রায়ই আলোচনা করেন।					
৮। এই ক্লাসের শিক্ষক/শিক্ষয়িত্রী শান্তিদানের ব্যাপারে পক্ষপাতিত্ব করেন।					
৯। শিক্ষক/শিক্ষয়িত্রী ছাত্র/ছাত্রী দের আচার ব্যবহার সম্পর্কে উদাসীন।					
১০। কিছু সংখ্যক ছাত্র/ছাত্রী জোরজুলুম করে ক্লাসে অপর ছাত্র/ছাত্রীদের বিরক্ত করে।					
১১। এই ক্লাসের ছাত্র/ছাত্রীদের মধ্যে প্রতিযোগিতার কোন সুযোগ নেই।					
১২। এই ক্লাসের বিভিন্ন পরিকল্পনার মাধ্যমে ছাত্র/ছাত্রীদের বিশেষ আগ্রহ ও দক্ষতাকে উৎসাহ দান করা হয়।					
১৩। আলোচ্য পাঠ্য বিষয় সম্পর্কে স্বতঃস্ফূর্তভাবে ছাত্র/ছাত্রীরা বেনী জনবার অগ্রহ প্রকাশ করে।					
১৪। এই ক্লাসের ছাত্র/ছাত্রীদের মধ্যে অনেকেই হৈচৈ করতে দ্বিধাবোধ করে না।					
১৫। যাতে ভুল না হয় সেই বিষয়ে ছাত্র/ছাত্রীরা ক্লাসে সচেতন হয়ে থাক।					
১৬। শিক্ষয়িত্রী ক্লাসে প্রধানতঃ পাঠ্যবিষয় ব্যতীত অন্যান্য বিষয় নিয়ে সমালোচনা করেন।					
১৭। সমস্যা সম্পর্কে যে কোন আলোচনা শিক্ষক/শিক্ষয়িত্রীর অভিরুচির উপর নির্ভর করে।					
১৮। ক্লাসের প্রাত্যহিক পঠন-পাঠনের মান শিক্ষক/শিক্ষয়িত্রীর দৈনন্দিন মেজাজের উপর নির্ভরশীল থাকে।					
১৯। ব্যক্তিগত স্বার্থ ছাড়া ক্লাসে পঠন-পাঠনে ছাত্র/ছাত্রীরা পরস্পরকে সাহায্য করে না।					
২০। অন্যদের পরীক্ষার ফলাফল দেখে ক্লাসের অপর ছাত্র/ছাত্রীরা নিজেদের মান উন্নত করতে সাধ্যমত চেষ্টা করে।					
২১। ছাত্র/ছাত্রীদের দক্ষতা উন্নততার মান উন্নত করতে এই ক্লাসটি সহায়ক নয়।					
২২। এই ক্লাসের আকর্ষণীয় পরিবেশের ছাত্র/ছাত্রীদের মাঝে মাঝেই অলসভাবে হাই তুলতে দেখা যায়।					

বিবৃতি	খাঁটি কথা	মানা যায়	বলা মুক্তি	মানা যায় না	বাজে কথা
২৩। ছাত্র/ছাত্রীরা ক্লাসের মধ্যে পরস্পর পরস্পরকে বোকা বানাতে চেষ্টা করে।					
২৪। এই ক্লাসের নিয়মশৃংখলা ভঙ্গ করলে ছাত্র/ছাত্রীদের জবাবদিহি করতে হয়।					
২৫। শিক্ষক/শিক্ষয়িত্রী গতানুগতিক ভাবে পাঠ্য বিশ্লেষণ ব্যতিত ছাত্র/ছাত্রীদের স্বতন্ত্র জিজ্ঞাসা ওলোর উপর কোন সুযোগ দেন না।					
২৬। শিক্ষক/শিক্ষয়িত্রী ক্লাসে স্বীয় অভিরুচি অনুযায়ী ছাত্র/ছাত্রীদের নিয়মশৃংখলা পালন করতে বাধ্য করেন।					
২৭। শিক্ষক/শিক্ষয়িত্রী তার সঠিক প্রশ্নের উত্তর না বলতে পারলে ছাত্র/ছাত্রীদের সম্পর্কে পরিহাসপূর্ণ মন্তব্য করেন।					
২৮। এই ক্লাসে কয়েকজন ছাত্র/ছাত্রী পরস্পরকে অপছন্দ করে।					
২৯। এই ক্লাসের পঠন-পাঠনের ধারা ছাত্র/ছাত্রীদের প্রতিযোগিতামূলক মনোভাব এনেছে।					
৩০। শিক্ষক/শিক্ষয়িত্রী গতানুগতিক পদ্ধতিকে উন্নত করার পক্ষপাতি।					
৩১। ছাত্র/ছাত্রীরা এই ক্লাসে শিক্ষক/শিক্ষয়িত্রীদের পড়ানো মনোযোগ দিয়ে শুনে।					
৩২। এই ক্লাসে নিয়মকানূনের ব্যাপারে কেউ মাথা ঘামায় না।					
৩৩। এই ক্লাসে নির্দিষ্ট নিয়ম কানূনের বালাই নেই।					
৩৪। এই ক্লাসের পরিবেশ পড়াশুনার চেয়ে গল্পগুজব করার পক্ষেই প্রস্তুত।					
৩৫। শিক্ষক/শিক্ষয়িত্রী ক্লাসে নিয়ম শৃংখলা মেনে চলার ব্যাপারে তেমন গুরুত্ব দেন না।					
৩৬। ছাত্র/ছাত্রীদের জন্য অনেক সময় এই ক্লাসের শিক্ষক/শিক্ষয়িত্রী তার সাধের অতীত করে থাকেন।					
৩৭। এই ক্লাসের কোন একজনের ভুল ত্রুটি হলেও তা সকলের বলে স্বীকার করে নেয়।					
৩৮। ছাত্র/ছাত্রীরা পরস্পরের পরীক্ষার নম্বর সম্পর্কে উদাসীন।					
৩৯। এই ক্লাসের কাজকর্মে নতুন কোন পরিকল্পনার চেষ্টা দেখা যায় না।					
৪০। ক্লাসের আলোচনায় ছাত্র/ছাত্রীরা নিয়মিত ভাবে অংশগ্রহণ করে।					
৪১। শিক্ষক/শিক্ষয়িত্রী ক্লাস নেয়ার সময় ছাত্র/ছাত্রীরা মাঝে মাঝে বাধার সৃষ্টি করে।					
৪২। শিক্ষক/শিক্ষয়িত্রী এই ক্লাসের পালনীয় নিয়মকানুন গুলি ছাত্র/ছাত্রীদের ভালভাবে বুঝিয়ে দেন।					
৪৩। এই ক্লাসের ছাত্র/ছাত্রীদের দোষ না দিয়ে শিক্ষক/শিক্ষয়িত্রী তাদের ভুলত্রুটি সংশোধন করে দেন।					

বিবৃতি	খাঁটি কথা	মানা যায়	বলা মুক্তি	মানা যায় না	বাজে কথা
৪৪। এই ক্লাসের শিক্ষক/শিক্ষয়ত্রী ছাত্র/ছাত্রীদের সঙ্গে বন্ধুসুলভ আচরণ করে।					
৪৫। বাড়িতে পাঠ্য বিষয় পড়াশুনা করতে ক্লাসের ছাত্র/ছাত্রীরা পরস্পরকে সাহায্য করে।					
৪৬। ক্লাসে পড়া ধরলে কে আগে উত্তর দিবে এই নিয়ে ছাত্র/ছাত্রীদের প্রতিযোগিতা চলে।					
৪৭। এই ক্লাসের হোম অরার্কের মধ্যে ছাত্র/ছাত্রীরা কোন বৈচিত্র্য খুঁজে পায় না।					
৪৮। এই ক্লাসের বিশেষ বিশেষ কাজকর্মগুলি নিয়মিত প্রদর্শনী হয়ে থাকে।					
৪৯। ক্লাসে ছাত্র/ছাত্রীদের থাকার জন্য শিক্ষক/শিক্ষয়ত্রীকে বার বার বলতে হয়।					
৫০। এই ক্লাসের সাধারণ নিয়মকানুন গুলি ক্লাসের পরিবেশের পক্ষে প্রযোজ্য নয়।					
৫১। নিয়ম ভঙ্গ করলেই এই ক্লাসের ছাত্র/ছাত্রীদের কঠোর শাস্তি পেতে হয়।					
৫২। বিশৃঙ্খল ছাত্র/ছাত্রীদের প্রতি শিক্ষক/শিক্ষয়ত্রী কঠোর ব্যবস্থা নেন।					
৫৩। এই ক্লাসের শিক্ষক/শিক্ষয়ত্রী ছাত্র/ছাত্রীদের নিষ্ঠা সম্পর্কে সন্দেহ প্রকাশ করেন।					
৫৪। শিক্ষক/শিক্ষয়ত্রী এই ক্লাসের ছাত্র/ছাত্রীদের অবজ্ঞার চোখে দেখেন।					
৫৫। এই ক্লাসের ছাত্র/ছাত্রীরা যৌথ ভাবে কাজ করে আনন্দ পায়।					
৫৬। অন্যদের পরীক্ষার ফলাফল দেখে ক্লাসের অপর ছাত্র/ছাত্রীরা নিজেদের মান উন্নত করতে সাধ্যমত চেষ্টা করে।					
৫৭। এই ক্লাসের ছাত্র/ছাত্রীদের নতুন ধরনের কাজ দেওয়া হয়ে থাকে।					
৫৮। ছাত্র/ছাত্রীরা পড়ানার সময় ক্লাসে বসে দিবা স্বপ্ন দেখে।					
৫৯। ছাত্র/ছাত্রীরা শান্ত ভাবে ক্লাসে বসে থাকে।					
৬০। এই ক্লাসে পঠন-পাঠন বিষয়ে উচিত এবং অনুচিত সম্পর্কে শিক্ষক/শিক্ষয়ত্রীর ছাত্র/ছাত্রীদের বিষয়ভাবে বুঝিয়ে দিয়েছেন।					
৬১। বিশৃঙ্খল ছাত্র/ছাত্রীদের উপর শিক্ষক/শিক্ষয়ত্রী সতর্ক দৃষ্টি রাখেন।					

বিবৃতি	খাঁটি কথা	মানা যায়	বলা মুক্তিল	মানা যায় না	বাজে কথা
৬২। শিক্ষক/শিক্ষয়ত্রী ক্লাসের ছাত্র/ছাত্রীদের সৃষ্টি চিন্তাধারাকে সমর্থন করেন এবং উৎসাহ দান করেন।					
৬৩। শিক্ষক/শিক্ষয়ত্রী ছাত্র/ছাত্রীদের সাথে অকপটে মেনামেশা করেন।					
৬৪। এই ক্লাসের সামগ্রিক পরিবেশ ছাত্র/ছাত্রীদের পরস্পরকে বুঝতে সামান্যই সুযোগ দেয়।					
৬৫। এই ক্লাসের পাঠ্য বিষয়ে বেশী নম্বর পাওয়ার টেস্ট করে থাকে।					
৬৬। এই ক্লাসের কৃতি ছাত্র/ছাত্রীদের পুরস্কৃত করা হয়।					
৬৭। এই ক্লাসের ছাত্র/ছাত্রীরা নিয়মিতভাবে উপস্থিত হতে অগ্রহী।					
৬৮। ছাত্র/ছাত্রীরা স্কুল কতৃপক্ষের সমালোচনা করে থাকেন।					
৬৯। এই ক্লাসটি কদাচিৎ সঠিক সময়ে শুরু হয়ে থাকে।					
৭০। এই ক্লাসে শৃংখলা ভঙ্গ করার ফলে কি হতে পারে সে বিষয়ে ছাত্র/ছাত্রীরা সজাগ।					
৭১। শিক্ষক/শিক্ষয়ত্রী দ্বারা এই ক্লাসটি সুষ্ঠুভাবে পরিচালিত হয়ে থাকে।					
৭২। ক্লাসে কোন সমস্যা সৃষ্টি হওয়ার মুখে শিক্ষক/শিক্ষয়ত্রী তা দৃঢ়তার সঙ্গে সমাধান করেন।					
৭৩। ক্লাসে ছাত্র/ছাত্রীদের উপর কোন দায়িত্ব দিতে শিক্ষক/শিক্ষয়ত্রীর দ্বিধা বোধ করে থাকেন।					
৭৪। এই ক্লাসের শিক্ষক/শিক্ষয়ত্রী মাঝে মাঝে ছাত্র/ছাত্রীদের প্রশংসা করে তাদের উৎসাহিত করেন।					
৭৫। এই ক্লাসের ছাত্র/ছাত্রীরা প্রত্যেকেই পরস্পরকে ভালভাবে জানবার সুযোগ পায়।					
৭৬। ছাত্র/ছাত্রীদের ভাবনা চিন্তার গতিপ্রকৃতি অনুসারে শিক্ষক/শিক্ষয়ত্রী এই ক্লাসের জন্য নতুন নতুন পরিকল্পনা করেন।					
৭৭। ছাত্র/ছাত্রীদের যে কোন নতুন পরিকল্পনাই শিক্ষক/শিক্ষয়ত্রী উৎসাহ দেন।					
৭৮। এ ক্লাসে চলাকালীন ছাত্র/ছাত্রীদের ঘনঘন ঘড়ি দেখতে দেখা যায়।					

বিবৃতি	খাঁটি কথা	মানা যায়	বলা মুক্তিল	মানা যায় না	বাজে কথা
৭৯। এই ক্লাস চলাকালীন ছাত্র/ছাত্রীরা নিজেদের খেয়াল খুশি মতো চলবার অবকাশ পায়।					
৮০। এই ক্লাসে শিক্ষক/শিক্ষয়ত্রী শৃংখলা রক্ষার ক্ষেত্রে দৃঢ় ও কঠিন।					
৮১। এই ক্লাসে ভাল আচরণের জন্য ছাত্র/ছাত্রীদের প্রসংসা করা হয়ে থাকে।					
৮২। শিক্ষক/শিক্ষয়ত্রী সর্বদাই এই ক্লাসের ছাত্র/ছাত্রীদের দোষত্রুটি বের করতে চেষ্টা করেন।					
৮৩। এই ক্লাসের শিক্ষক/শিক্ষয়ত্রী যে সমস্ত কাজ গুলি দেন সেগুলি দলগত প্রচেষ্টায় করতে হয়।					
৮৪। এই ক্লাসের নিয়ম শৃংখলা রক্ষার নাম করে শিক্ষক/শিক্ষয়ত্রী ভুল পথে পরিচালিত করেন।					
৮৫। এই ক্লাসের ছাত্র/ছাত্রীরা নিয়মানুগ।					
৮৬। শিক্ষক/শিক্ষয়ত্রী ক্লাসের পাঠ্যক্রমের উপর বেশী জোর দেন।					

THE STUDY HABIT SCALE (SHS)

নির্দেশনা

এই প্রশ্নপত্রে পাঠ্যাভ্যাস বা লেখাপড়া সংক্রান্ত কিছু বক্তব্য বা বিবৃতি রয়েছে। এই বক্তব্য বা বিবৃতিগুলোর উত্তর শুধুমাত্র তোমার নিজের পাঠ্যাভ্যাস বা লেখাপড়ার ধরনের উপর নির্ভর করবে। প্রতিটি বক্তব্য বা বিবৃতির জন্য উত্তরপত্রে নিম্নলিখিত ৫ টি উত্তর দেওয়া আছে :

- ১) খুব কম (সপ্তাহে ০-১ দিন) । ২) মাঝে মাঝে (সপ্তাহে ২ দিন) । ৩) প্রায়ই (সপ্তাহে ৩-৪ দিন) । ৪) সাধারণতঃ (সপ্তাহে ৫ দিন) । ৫) প্রায় সবসময় (সপ্তাহে ৬-৭ দিন) ।

প্রতিটি বক্তব্য বা বিবৃতি ভাল করে এবং উত্তরপত্রে প্রদত্ত ৫টি উত্তরের মধ্যে যেটি তোমার ক্ষেত্রে সবচেয়ে বেশী প্রযোজ্য তার ঘরে টিক চিহ্ন (✓) দাও। উত্তর দেওয়ার জন্য নিম্নে দু'টি উদাহরণ দেওয়া হলোঃ

উদাহরণ

বিবৃতি	উত্তর				
	খুব কম (সপ্তাহে ০-১ দিন)	মাঝে মাঝে (সপ্তাহে ২ দিন)	প্রায়ই (সপ্তাহে ৩-৪ দিন)	সাধারণতঃ (সপ্তাহে ৫ দিন)	প্রায় সবসময় (সপ্তাহে ৬-৭ দিন)
(ক) আমি রাতে লেখাপড়া করতে ভালোবাসি না।	✓				
(খ) লেখাপড়ার চেয়ে আমি ছবি আঁকতে বেশী পছন্দ করি।				✓	

মনে রেখ, তোমার নিজের অভিজ্ঞতা থেকে উত্তর দিচ্ছ। তুমি কিভাবে লেখাপড়া কর বা সে সম্পর্কে ভাবতে অভ্যস্ত তাই জানতে চাওয়া হয়েছে। কি করা বা ভাবা উচিত বলে তুমি মনে কর, অথবা অন্যেরা কি করা উচিত মনে করে থাকে বলে তোমার ধারণা তা জানতে চাওয়া হয় নি। সুতরাং, প্রত্যেকটি বক্তব্যের বা বিবৃতির উত্তর আমাদের কাছে মূল্যবান।

কোন বক্তব্যের বা বিবৃতির ভুল বা শুষ্ক উত্তর বলতে কিছু নেই এবং উত্তর দেওয়ার জন্য কোন নির্দিষ্ট সময় সীমাও নেই। তবে সতর্কতার সহিত যত তাড়াতাড়ি সম্ভব উত্তর দিবে এবং একটি বিবৃতির ক্ষেত্রেই যেন অনেক সময় কাটিয়ে না দাও। কোন বক্তব্য বা বিবৃতির উত্তর যেন বাদ না পড়ে। পরস্পর আলোচনা না করে খোলাখুলি মনে তোমার উত্তর লিপিবদ্ধ কর।

উত্তর

বিবৃতি	খুব কম (সপ্তাহে ০-১ দিন)	মাঝে মাঝে (সপ্তাহে ২দিন)	প্রায়ই (সপ্তাহে ৩-৪ দিন)	সাধারণত (সপ্তাহে ৫দিন)	প্রায় সব সময় (সপ্তাহে ৬-৭ দিন)
১। আমি নির্দিষ্ট সময়সূচী অনুসারে লেখাপড়া করি।					
২। সারাদিন আমাকে যেসব কাজ করতে হয় সেগুলি আগে থেকে পর্যালোচনা করে কখন পড়তে বসা যাবে সে সময়টা নির্ধারণ করি					
৩। পড়ার সময় ভাগ করতে গিয়ে মনে রাখি যে, সম্পূর্ণ সজাগ ও তৎপর হয়ে নির্দিষ্ট সময় পড়তে হবে।					
৪। লেখাপড়ার সময়সূচী পড়ার টেবিলের পাশের দেয়ালে ঝুলিয়ে রাখি।					
৫। লেখাপড়ার সময়সূচী লিখে রাখি বলে পড়ার কথা মনে পড়ে যায় এবং তাতে আমার রুটিন মেনে চলার প্রবণতা অক্ষুণ্ণ থাকে।					
৬। বছরের শুরুতে ৩ / ৪ মাসের জন্য একটি সাধারণ সময়সূচী নির্ধারণ করে থাকি।					
৭। প্রত্যেক সপ্তাহের শুরুতে প্রত্যেক দিন বাড়ির কাজ বা যেকোন একটি বিষয় পড়ার পরিকল্পনা করে থাকি।					
৮। যে কোন একটি পড়ার বিষয় নিয়ে একটি নির্দিষ্ট সময় কাজ করি।					
৯। অনেক আগে থেকেই লেখাপড়ার পরিকল্পনা করার মাধ্যমে আমি মনোযোগ অক্ষুণ্ণ রাখার চেষ্টা করি।					
১০। আমি দৈনিক কমপক্ষে ২ / ৩ ঘন্টা লেখাপড়া করি (ক্লাসের লেখাপড়া বাদে)					
১১। কোন বিষয় পড়তে বসলে তা শেষ না করে উঠি না।					
১২। পড়ার স্থানটিকে আমি পড়ার সময়ের মতই গুরুত্ব দিই।					
১৩। বাড়ীতে আমি একটি নির্দিষ্ট স্থান বা কক্ষে লেখাপড়া করি।					

বিবৃতি	খুব কম (সপ্তাহে ০- ১ দিন)	মাঝে মাঝে (সপ্তাহে ২দিন)	প্রায়ই (সপ্তাহে ৩-৪ দিন)	সাধারণত (সপ্তাহে ৫দিন)	প্রায় সব সময় (সপ্তাহে ৬-৭ দিন)
১৪। নিরিবিবি বা নির্জন পরিবেশে আমি লেখাপড়া করতে পছন্দ করি।					
১৫। আমি লাইব্রেরীতে পড়তে পছন্দ করি।					
১৬। লাইব্রেরী লেখাপড়ার উপযুক্ত স্থান সত্যি; কিন্তু বখাটে ছেলেমেয়ের আড্ডার কারণে আমার ভীষন অসুবিধা হয়।					
১৭। ভাল পঠ্যভ্যাস গড়ে তোলার লক্ষ্যে আমার লেখাপড়ার কক্ষটি লেখাপড়া ব্যতীত অন্যকোন কাজে ব্যবহার করি না বা বাড়ীর অন্য কেউ করে না।					
১৮। পড়ার টেবিলে বই পুস্তক এবং পড়ার কক্ষটি সাজিয়ে গুছিয়ে রাখি না।					
১৯। কোন বিষয় পড়তে শুরু করার আগে বইয়ের যে অধ্যায়ে সেটি রয়েছে সূচীপত্র থেকে তার শিরোনাম ও পৃষ্ঠা নং জেনে নিই।					
২০। কোন বিষয় বস্ত্র পড়তে শুরু করার আগে সূচীপত্র পড়ে নেটা সম্পর্কে একটি সাধারণ ধারণা গ্রহন করি।					
২১। পঠনীয় বিষয়ের বিভিন্ন অধ্যায়ের অনুচ্ছেদগুলো কিতাবে সম্পর্কযুক্ত তা বুঝার চেষ্টা করি।					
২২। পাঠ্য বিষয় পড়ার সময় বিভিন্ন স্থানের গুরুত্বপূর্ণ লাইন গুলোর নীচে দাগ দিয়ে পড়ি (কারণ এতে মনে রাখা সুবিধা হয়)।					
২৩। বিষয়বস্ত্র স্মরণ রাখার জন্য বইয়ের গল্প/কবিতা/রচনার শিরোনামকে আমি তেমন গুরুত্বপূর্ণ মনে করি না।					
২৪। যদি নির্দিষ্ট বিষয়ের সারাংশ বা বিশেষ বিশেষ পয়েন্ট দেওয়া থাকে, তবে সমগ্র অধ্যায় সম্পর্কে ধারণা অর্জনের জন্য সেইগুলি প্রথমে পড়ি।					

বিবৃতি	খুব কম (সপ্তাহে ০-১ দিন)	মাঝে মাঝে (সপ্তাহে ২দিন)	প্রায়ই (সপ্তাহে ৩-৪ দিন)	সাধারণত (সপ্তাহে ৫দিন)	প্রায় সব সময় (সপ্তাহে ৬-৭ দিন)
২৫ কোন বিষয়ের শিরোনামকে প্রশ্নে রূপান্তর করে সেই উত্তর খুঁজে বের করার চেষ্টা করি (যেমন :- "আধুনিক যুগ মানেই বিজ্ঞানের যুগ" শিরোনামকে এভাবে প্রশ্নে রূপান্তর করি- " আধুনিক যুগকে কেন বিজ্ঞানের যুগ বলা হয়" এবং এরপর বিষয়বস্তু পড়ে এর উত্তর পাবার চেষ্টা করি)।					
২৬ কোন প্রশ্নের উত্তর না পাওয়া পর্যন্ত বিষয়টি বার বার ভালভাবে পড়তে থাকি।					
২৭ নতুন কোন বিষয়ের শিরোনাম দেখলে সেটির আলোচনা বিষয় বুঝতে চেষ্টা করি।					
২৮ বাবা-মা আমাকে পড়তে বসতে বললে তাকে আমি একঘেয়েমী ছাড়া কিছুই মনে করি না।					
২৯ পাঠ করতে গিয়ে একটি বিষয়ের (Topic) প্রধান ভাব না বুঝে অন্য আরেকটি বিষয় পড়তে শুরু করি না।					
৩০ কোন বিষয়ের প্রধান ভাবগুলো লিখে রেখে পরবর্তীতে সেগুলো পর্যালোচনা করি।					
৩১ কোন বিষয় পড়া হয়ে গেলে বা নোটি না দেখে আমি প্রশ্নের উত্তর লিখতে চেষ্টা করি এবং পরে বই বা নোটের সঙ্গে মিলিয়ে দেখি।					
৩২ বিষয়বস্তুর বিভিন্ন অনুচ্ছেদ পড়া হয়ে গেলে সেটির গুরুত্বপূর্ণ পয়েন্টগুলো পুনরায় মনে করার মাধ্যমে স্মৃতিকে উজ্জীবিত করি।					

বিবৃতি	খুব কম (সপ্তাহে ০-১ দিন)	মাঝে মাঝে (সপ্তাহে ২দিন)	প্রায়ই (সপ্তাহে ৩-৪ দিন)	সাধারণত : (সপ্তাহে ৫দিন)	প্রায় সব সময় (সপ্তাহে ৬-৭ দিন)
৩৩। এক এক দিন এক এক বিষয় পড়ি।					
৩৪। বড় এবং জটিল বিষয়গুলো ছোট ছোট খন্ডে ভাগ করে পড়ি।					
৩৫। কোন বিষয় সংক্রান্ত বাড়ীর কাজ তৈরীর পূর্বে কি চাওয়া হয়েছে সে সম্পর্কে প্রথমে পরিস্কার ধারণা গ্রহন করি।					
৩৬। শিক্ষকের দেওয়া বাড়ীর কাজ না বুঝলে ভাই-বোন, বাবা-মা বা গৃহ শিক্ষকের সাহায্য নেই।					
৩৭। স্কুলের পড়া নিয়মিত তৈরি করি।					
৩৮। যা পড়ি তা বুঝে পড়ি।					
৩৯। প্রত্যেক বিষয়ের জন্য আমি পৃথক খাতা ব্যবহার করি।					
৪০। রচনা নিজে নিজে লিখতে চেষ্টা করি।					
৪১। গণিত বা বিজ্ঞান বিষয়ের বিভিন্ন সূত্র লিখে পড়ার টেবিলের পাশের দেওয়ালে কুলিয়ে রাখি এবং মাঝে মাঝে মনে আছে কিনা তা পরখ করি					
৪২। নতুন কোন শব্দ পেলে অভিধন () দেখে অর্থ বুঝতে চেষ্টা করি।					
৪৩। পাঠ্য বইয়ের পদ্য পড়ে গুরুত্বপূর্ণ অংশগুলো চিহ্নিত করি এবং ব্যাখ্যা করতে চেষ্টা করি					
৪৪। প্রত্যেক বিষয়েই যথাসাধ্য ভালো করার চেষ্টা করি।					
৪৫। একজন ছাত্র ভালো নম্বর পাবে কি না তা তার সৃজনশীল ক্ষমতার চেয়ে মুখস্ত বিন্যাস ও পদ্ধতি বেশী নির্ভর করে বলে আমি মনে করি।					
৪৬। পত্র পত্রিকায় লেখাপড়া বিষয়ক কোন তথ্য পেলে তা লিখে রাখি।					
৪৭। রেডিও বা টেলিভিশনে পড়াশুনা বিষয়ক অনুষ্ঠান শুনি বা দেখি।					

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৪৮। শিক্ষক পড়ের দিন যে বিষয়ে বক্তৃতা দিবেন বই পড়ে সে সম্পর্কে একটু পূর্ব ধারণা নিয়ে তার ক্লাসে উপস্থিত হই।					
৪৯। কোন সমস্যার সম্মুখীন হলে শিক্ষকের সহায়তায় তা সমাধা করি।					
৫০। কোন বিষয়ের উপর নোট করলে তা শিক্ষককে দিয়ে যাচাই করে নিই।					
৫১। ক্লাসে নোট করার সময় কোন কিছু বাদ পড়লে শিক্ষককে পুনরাবৃত্তি করার জন্য অনুরোধ করি।					
৫২। ক্লাসে পড়া না বুঝলে শিক্ষককে জিজ্ঞেস করি।					
৫৩। ক্লাসে শিক্ষক প্রশ্ন করলে উত্তর দিতে চেষ্টা করি।					
৫৪। আমি প্রতিদিনই কিছু প্রশ্নের উত্তর লিখি বা রিভিশন দেই।					
৫৫। একটি বিষয় পরিপূর্ণভাবে বুঝার জন্য নিয়মিত ক্লাস করি।					
৫৬। ভাল ছাত্রদের ক্লাসের পড়টুকু বাসায় গিয়ে পুনরায় পড়ার দরকার আছে বলে আমি মনে করি না।					
৫৭। কোন অধ্যায় মোটামুটি আয়ত্ত হলে যে প্রশ্নগুলো আসতে পারে তা নির্বাচন করি।					
৫৮। একটি প্রশ্নের উত্তর পড়া শেষ হলে তৎক্ষণাৎ দু'এক মিনিট চিন্তা করে দেখি যা পড়লাম তার কতটুকু মনে আছে।					
৫৯। লেখা ও পড়া দু'টি কাজ আমি নিয়মিত যথাযথভাবে করি।					
৬০। রেজাল্ট ভালো করার জন্য দৃঢ় প্রত্যয় ও প্রচলিত অধ্যবসায়ের সাথে আমি লেখাপড়া করি।					

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৬১। পরীক্ষায় ভালো করার জন্য দীর্ঘ মেয়াদী পরিকল্পনার দরকার নেই বলে মনে করি।					
৬২। পরীক্ষার কিছুদিন পূর্বে আমার শিক্ষণীয় বিষয়গুলো যুক্তি ও গুরুত্বের ক্রমানুসারে সাজাই।					
৬৩। পরীক্ষার মাত্র কিছুদিন পূর্ব থেকে যদি খুব যত্ন সহকারে পড়া যায় তবে ভালো রেজাল্ট করা সম্ভব বলে মনে করি।					
৬৪। পরীক্ষার পুরো সময়কে প্রত্যেক প্রশ্নের জন্য সমানভাবে বন্টন করি।					
৬৫। পরীক্ষার আগের রাতে পড়া মুখস্ত করাকে আমি একটি কার্যকর পদ্ধতি বলে মনে করি।					
৬৬। কোন প্রশ্নের উত্তর দেওয়ার সময় সে সম্পর্কে আমার জ্ঞান, সময় ও বিশেষ বিশেষ পয়েন্ট একত্রে বিবেচনা করে উত্তর দিই।					
৬৭। শুধুমাত্র দ্বিতী লাভের আশায় পরীক্ষার হস্তান্তর নিয়ে থাকি।					
৬৮। পরীক্ষার কোন প্রশ্ন বুঝতে না পারলে শিক্ষককে দিয়ে বুঝে নিই।					
৬৯। পরীক্ষার হলে আমি বিচলিত হয়ে পড়ি এবং আমার ক্ষমতা অনুযায়ী প্রশ্নের উত্তর দিতে পারিনা।					
৭০। সব প্রশ্নের উত্তর দেওয়ার পর যে সময়টুকু বাঁচে তখন উত্তরগুলো পুনরায় যাচাই করে দেখি এবং কোন ভুলত্রুটি পেলে তা সংশোধন করি।					
৭১। পরীক্ষার সময় আমি বিভিন্ন সন, তারিখ ও সূত্রের কথা ভুলে যাই।					
৭২। লেখাপড়ার মাধ্যমে শিক্ষার্থী তার সোনালী ভবিষ্যৎ নির্মাণ করার সুযোগ পায় বরে লেখাপড়া করি।					

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৭৩। লেখাপড়ার প্রতি অনুপ্রানিত হওয়ার জন্য মাঝে মাঝে চিত্তবিনোদনমূলক অনুষ্ঠান উপভোগ করি।					
৭৪। নিয়মিত ভাবে লেখাপড়া করার পুরস্কার (যেমন ভাল ফলাফল) অনেক দেরীতে পাওয়া যায় বলে প্রত্যেকদিন লেখাপড়া করাকে আমি অর্থহীন মনে করি।					
৭৫। আমি একটি নির্দিষ্ট লক্ষ্যকে সামনে রেখে পড়ি এবং তা অর্জিত হলে নিজেতে পুরস্কৃত করি (যেমন- গান শুনি, খেলাধুলা করি, সিনেমা দেখি, বেড়াতে যাই)।					
৭৬। যেসব বিষয় আমি পড়ছি সেগুলোর কোন ব্যবহারিক মূল্য নেই বলে মনে করি।					
৭৭। শিক্ষাকে আমি সম্মানজনক মনে করি এবং এ কারণেই আমি স্কুলে যাই।					