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# Academic Achievement as Related to Adjustment of the Undergraduate Students

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University of Rajshahi

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# **ACADEMIC ACHIEVEMENT AS RELATED TO ADJUSTMENT OF THE UNDERGRADUATE STUDENTS**

*A Dissertation Submitted to the University of Rajshahi, Bangladesh,  
in Fulfillment of the Requirements for the Degree of Doctor of  
Philosophy in Psychology*

Submitted by

**Parimol Kumar**

**Roll No.142**

**Session: July, 2003**

**Department of Psychology**

**University of Rajshahi**



**University of Rajshahi**

June, 2011

## DECLARATION

Except where full references have been given, the thesis contains the independent original work of the author.

This Dissertation has not been submitted before, nor is it being submitted anywhere else at the same time for award of any degree or diploma.

Rajshahi University



(Parimol Kumar)

The Author

## CERTIFICATE

Certified that the thesis entitled ACADEMIC ACHIEVEMENT AS RELATED TO ADJUSTMENT OF THE UNDERGRADUATE STUDENTS has been completed by Mr. Parimol Kumar, and submitted to the University of Rajshahi for attaining Ph.D. degree in Psychology.

I went through the thesis and found it suitable to be submitted to the University of Rajshahi, Bangladesh for awarding of Ph.D. degree to the candidate, and that I now recommended the thesis for examination.

*Chamla*

29.06.11

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The Author

## Abstract

The study was designed to investigate the relationship between academic achievement and adjustment of the undergraduate students. The independent variables were home, health, submissiveness, emotionality and hostility adjustments. The dependent variable was academic achievement of the respondents. Randomly selected two hundred and eighty undergraduate students from three faculties (science, arts and commerce) of Rajshahi University were respondents of the study. All the respondents were the students of first year honours course and their age ranged from eighteen to twenty.

Five hypotheses were formulated to test in this study: i) Academic achievement of excellent/better home adjusted group of students would be higher than that of the poor home adjusted group of students. ii) Academic achievement of excellent/better health adjusted group of students would be higher than that of the poor health adjusted group of students. iii) Academic achievement of the highly submissive respondents would be higher than that of the poorly submissive respondents. iv) Academic achievement of the better emotionally adjusted group of students would be higher than that of the poor emotionally adjusted group of students. v) Academic achievement of the better hostility adjusted group of students would be higher than that of the poor hostility adjusted group of students.

To collect data for the present study an adapted Bangla version of the Bell Adjustment Inventory was administered on the respondents. In order to analyze the relationship of academic achievement with adjustment the correlation coefficients were computed by employing Pearson Product Moment Method. For further analysis of these relationships, one way analysis of variance and t-test

were applied on academic achievement scores of the various levels of adjustment areas.

The results indicate that there is a significant negative correlation between academic achievement and adjustment. This negative correlation does not suggest negative relationship between the adjustment and academic adjustment. Because, in all the five areas of adjustment, low score indicates excellent/better adjustment and high scores of academic achievement indicate highly academic performance. The results of ANOVA and t-tests also suggest that academic achievement of the excellent/better adjusted students is significantly higher than that of the good, average, poor and unsatisfactory adjusted students in all the five area of adjustment.

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# CHAPTER- 1

## INTRODUCTION

### 1.1 Concept of Adjustment

The concept of adjustment is as old as human race on earth. Systematic emergence of this concept starts from Darwin. In those days the concept was purely biological and he used the term adaptation. The adaptability to environmental hazards goes on increasing as we proceed on the phylogenetic scale from the lower extreme to the higher extreme of life. Insects and germs, in comparison to human beings, cannot withstand the hazards of changing conditions in the environment and as the season changes, they die. Hundreds of species of insects and germs perish as soon as the winter begins.

Man, among the living beings, has the highest capacities to adapt to new situations. Man as a social animal not only adapts to physical demands but he also adjusts to social pressures in the society.

Biologists used the term adaptation strictly for physical demands of the environment but psychologists use term adjustment for varying conditions of social or inter-personal relations in the society. Thus, we see that adjustment means reaction to the demands and pressures of social environment imposed upon the individual. The demand may be external or internal to whom the individual has to react. Observe the life of a child; he has to follow certain beliefs and set of values which the family follows. His personality develops in the continuous process of interaction with his family environment. There are other demands which may be termed as internal as hunger, water, oxygen and sleep etc. If we do not fulfill these internal demands, we feel discomfort. With the development of the child, these physiological demands go on increasing and become more complex.

These two types of demands sometimes come into conflict with each other and resultantly make the adjustment a complicated process for the individual. Conflicts among the various needs or demands of a person present special problems of adjustment. If we gratify one of the conflicting needs, the need which is not gratified will produce frustration and leads sometimes to abnormal behavior. It is pertinent here to discuss some definitions and other related terms of adjustment.

## **1.2 Definitions of Adjustment**

There is no agreed definition of adjustment and it also is not as simple as adaptation. Psychologists and scholars differ considerably in interpreting its meaning and nature as can be seen from the following definitions:

James Drever (1952) states that, adjustment means the modification to compensate for or meet special conditions. On the other hand, adjustment is the establishment of a satisfactory relationship, as representing harmony, conformance, adaptation or the like, according to Webster (1951).

In another definition Carter V. Good (1959) expresses that, adjustment is the process of finding and adopting modes of behaviour suitable to the environment or the changes in the environment. But, Warren (1934) describes, adjustment refers to any operation whereby an organism or organ becomes more favorably related to the environment or to the entire situation, environment and internal.

Adjustment is the process by which a living organism maintains a balance between its needs and the circumstances that influence the satisfaction of these needs (Shaffer, 1961). Again, Adjustment is a continual process in which a person varies his behaviour to produce a more harmonious relationship between himself and his environment (Gate's and Jersild, 1970). Vonhaller (1970) states that, 'we can think of adjustment as psychological survival much the same way as the biologists uses the term adaptation to describe

physiological survival.' But in the word of Crow and Crow (1956), an individual's adjustment is adequate, wholesome or healthful to the extent that he has established harmonious relationship between himself and the conditions, situations and persons who comprise his physical and social environment.

For better understanding the meaning and nature of the term adjustment, Mangal (1997) has analyzed these definitions elaborately:

In the first definition, James Drever, takes adjustment to be the ways and means to help the individual to meet the demands of changed conditions by adapting or modifying his previous ways of doing or facing things. The other three definitions also agree with this opinion that one is required to change one's mode of behavior to suit the changed situations so that a satisfactory and harmonious relationship can be maintained keeping in view the individual and his needs on the one hand, and the environment and its influence on the individual, on the other. In doing so, as Good's (1959) definition states, the individual can either change himself according to the needs of the environment or change his environment to suit his own needs.

On the other hand Shaffer's (1961) definition underlines one's needs and their satisfaction. Human needs are vital, indispensable and urgently requisite. One feels adjusted to the extent that one's needs are gratified or are in the process of being gratified. The individual tries to bring about changes in his circumstances in order to overcome the difficulties in the fulfillment of his needs. Sometimes, he reduces his needs and as a result he may feel satisfied within the limits of his environment. He, thus, tries to maintain a balance between his needs and his capacity of realizing these needs and as long as this balance is maintained, he remains adjusted. As soon as this balance is disturbed, he drifts towards maladjustment.

Gates and Jersild (1970) as also Crow and Crow (1956) define adjustment as the maintenance of a harmonious relationship between man and his environment. An individual needs to change or modify himself in some way or

the other to fit into or accommodate himself with his environment. As the conditions in the environment are changing all the time, adjustment is also a continuous process. For instance, if a girl from the city marries into a rural family and has to live in a village, she would have to change her behavior, her habits and her attitudes in order to accommodate herself to the changed environment.

Again, Vonhaller's (1970) definition takes the clue from Darwin's theory of evolution. Darwin maintained that only those organisms most fitted to adapt to changing circumstances survive. Therefore, the individuals who are able to adjust themselves to changed situations in their environment can live a harmonious and happy life. Adjustment as a psychological term may thus be said to be another name for the term 'adaptation' used in the biological world. Adjustment, in all its meanings implies a satisfactory adaptation to the demands of day-to-day life. From the foregoing discussion it may be concluded that adjustment is a process that helps a person to lead a happy and contented life while maintaining a balance between his needs and capacities to fulfill them. It enables him to change his way of life according to the demands of the situation and gives him the strength and ability to bring about the necessary changes in the conditions of his environment.

In addition to his own basic needs, an individual is also subject to certain demands of society. If he thinks only in terms of satisfying his own needs without thought of the norms, ethics and cultural traditions of society, he will not be adjusted to his environment. Adjustment does not cater only to one's own demands but also to the demands of society. It may, therefore, be stated that in its comprehensive connotation, adjustment is a condition or state in which the individual's behaviour conforms to the demands of the culture or society to which he belongs and he feels that his own needs have been, or will be fulfilled.

Adjustment involves the gratification of a person's needs as governed by the demands of various environmental situations. This is not, however, a one-way process: an individual maintains the balance between himself and his surroundings either by modifying his own behaviour or by modifying the environment. In this context, as Arkoff (1968) states: Adjustment is the interaction between a person and his environment. How one adjusts in a particular situation depends upon one's personal characteristics as also the circumstances of the situation. In other words, both personal and environmental factors work side by side in adjustment. An individual is adjusted if he is adjusted to himself and to his environment.

In the field of adjustment, psychology ranging from child through adolescent to gerontology and also including abnormal and clinical psychology, the term 'adjustment' has been used with different connotations. Psychologists have interpreted adjustment from two important points of views. One adjustment as achievement and another, adjustment as a process.

**a) Adjustment as an achievement:** Adjustment as an achievement means how efficiently an individual can perform his duties in different circumstances.

Business, military, education and other social activities need efficient and well-adjusted men for the progress of the nation.

If we interpret adjustment as achievement, then we will have to set the criteria to judge the quality of adjustment.

### **1.3 Criteria for Good Adjustment**

No universal criteria can be set for all times to come because criteria involve values judgment which differ from culture to culture and from generation to



generation within the same culture. Four criteria have been evolved by psychologists to judge the adequacy of adjustment. They are as follows:

**(i) Physical health:** The individual should be free from physical ailments like headache, ulcers, indigestion and impairment of appetite. These symptoms in individual have sometimes psychological origin and may impair his physical efficiency.

**(ii) Psychological comfort:** One of the most important facts of adjustment is that individual has no psychological disease as obsession, compulsion, anxiety and depression etc. These psychological diseases if occur excessively cause to seek professional advice.

**(iii) Work efficiency:** The person, who makes full use of his occupational or social capacities, may be termed as well adjusted in his social set up.

**(iv) Social acceptance:** Everybody wants to be socially accepted by other persons. If a person obeys social norms, beliefs and set of values, he is called well adjusted but if he satisfies his needs by antisocial means then he is called maladjusted. But we see that societies differ in deciding the universally acceptable criteria of good behavior, for example, in our country smoking and drinking are supposed to be antisocial but there are societies where these activities are quite normal for social adjustment.

**b) Adjustment as process:** Adjustment as a process is of major importance for psychologists, teachers and parents. To analyze the process we should study the development of an individual longitudinally from his birth onwards. The child, at the time of his birth, is absolutely dependent on others for the satisfaction of his needs, but gradually with the age he learns to control his needs. His adjustment largely depends on his interaction with the external environment in which he lives. When the child is born, the world, for him, is a big buzzing, blooming confusion. He cannot differentiate among the various objects of his

environment but as he matures he comes to learn to articulate the details of his environment through the process of sensation, perception and conception. The child in his infancy can respond and think about only concrete objects of his environment. The process of abstraction comes afterwards. Lack of the capacity of self control the young children try to get everything they see bright. Their development is purely on instinctive level. The nature of adjective process is decided by a number of factors, particularly, internal needs and external demands of the child.

When a conflict occurs between internal needs and external demands, in such conditions, there are three alternatives, first, the individual may inhibit or modify his internal need or demand and second, he can alter the environment, and can satisfy his demands and last alternative is that he can use some mental mechanism to escape from the conflicting situation and may be able to maintain the balance of his personality.

Piaget (1952) has studied the adjective process from different angles. He used the term accommodation and assimilation to represent the alternation of oneself or environment as a means of adjustment. A person, who carries his values and standard of conduct without any change and maintains these in spite of major changes in the social climate, is called assimilator. The man, who takes his standard from social context and changes his beliefs in accordance with the altered values of the society, is called accommodator.

#### **1.4 Needs and Goals in Adjustment**

A need is a state of tension in the person which tends to direct his behavior towards goals which will relieve the tension. A goal is an activity which satisfies the need. There are various needs, for example, (i) organic needs i.e., food; (ii) personality needs, i.e., affection and belongingness; (iii) achievement; (iv) independence; and (v) social approval. Essential aspects of adjustment process are listed in the next page:

1. Existence of motive.
2. Circumstances leading to thwarting.
3. Varied response.
4. Discovery of solution.

As an example, it may be said that an individual usually proceeds first in the direction of the goal; secondly, when he is blocked by an obstacle and makes varied response; thirdly, until he discovers some response and finally removes the obstacles and reaches the goal. It is a matter of common experience that adjustments are often complex and frustrative. When progress towards a goal is checked and there is unresolved tension, we have frustration. The consequences of frustration are many and varied. It may breed hostility and anger, destructive and aggressive impulses, delinquent and anti-social behaviour or it may lead to silence, restraint and withdrawal. Frustration breeds tense emotional states. Thwarting means non-fulfillment of aroused motive.

Frustration or thwarting may arise from various factors namely: (1) Physical factors in the environment; (2) social and societal factors; (3) economic factors; (4) personal defects; (5) incompatible goals; and (6) the person's normal standards.

Physical factors are obstacles from the environment which results in thwarting and frustration. In famine-stricken areas people are compelled to go without food and their hunger needs are frustrated by the lack of food. A prisoner in solitary confinement is frustrated as his need for company is not fulfilled. Frustrations from the social environment are strong and persistent and all desire to be appreciated, loved and respected. If this desire for love and respect is not met, the result is frustration. Unemployment, lack of security in employment, inadequate wages and harsh treatment by employers and lack of opportunities cause widespread frustration. Poverty also causes frustration. Krech and Crutchfield (1984) stress the role of society and cultural moods as the causal factors of frustration. They point out that often "the very needs which a

particular culture itself induces are thwarted by the structures and the institutions of that society.”

A person with bad features is not usually liked. This causes in him frustration. Incompatible goals which a person is not able to fulfill also cause of frustration. The last factor is the person's normal standard. Sometimes the high moral standard of the family causes frustration.

### **1.5 Areas of Adjustment**

Adjustment in the case of an individual should consist of personal as well as environmental components. These two aspects of adjustment can be further subdivided into smaller aspects of personal and environmental factors. Adjustment, although seeming to be a universal characteristic or quality may have different aspects and dimensions.

Through the numerous efforts at measuring adjustment through inventories and other techniques, these aspects have been identified and various tests have been constructed to assess their dimensions. For example, Bell (1958) has taken five areas or dimensions in his adjustment inventory namely, home, health, social emotional and occupational.

Arkoff (1968) in his book: ‘Adjustment and Mental Health’ has enumerated the family, school or college, vocation and marriage as the important areas of adjustment.

Joshi and Pandey (1964) in their research study covering school and college students have given 11 areas or dimensions of an individual’s adjustment:

1. Health and physical development.
2. Finance, living conditions and employment
3. Social and recreational activities.
4. Courtship, sex and marriage.
5. Social psychological relations.

6. Personal psychological relations.
7. Moral and religious.
8. Home and family.
9. Future–vocational and educational.
10. Adjustment to school and college work.
11. Curriculum and teaching.

In this way, adjustment of a person is based on the harmony between his personal characteristics and the demands of the environment of which he is a part. Personal and environmental factors work side by side in bringing about this harmony.

### **1.6 Measurement of Adjustment**

Measurement as an instrument of inquiry is now frequently used in behavioural sciences. At a general level of classification in behavioural science, the following five different types of measuring techniques are used:

1. Testing techniques;
2. Projective techniques;
3. Inventory techniques;
4. Socio-metric techniques; and
5. Scaling techniques.

In the area of measurement of adjustment, inventory techniques are the most popular because they have many advantages compared to other techniques. Testing techniques can only be used to assess the characteristics of individuals at the conscious and projective techniques only at the unconscious level. The adjustment behaviour, the adaptation to changed circumstances involves both conscious as well as unconscious behaviour. Therefore, the two techniques separately are unable to give a proper assessment of an individual's adjustment.

Socio-metric techniques are used in the measurement of social relationships. They can provide clues to the level of social adjustment. Social adjustment is only one part of an individual's total adjustment. The other aspects of his adjustment like physical, mental, emotional, social and occupational are not explored by the socio-metric techniques and they cannot, therefore, be used for the accurate assessment of an individual's total adjustment.

In scaling techniques opinions are collected from some other person or persons about the adjustment pattern of a particular individual known to the respondents. Adjustment as a wide phenomenon carries so many things with it that one cannot judge the adjustment pattern of another individual from his overt behaviour and the inner private world or reactions of an individual cannot be assessed by the use of scaling techniques. Considering the advantages of inventory techniques, the author decided to use one of the widely administered and most concern adjustment inventory as a measuring tool of the study, some well-known adjustment inventories are:

1. Bell's adjustment inventory developed by Hugh M. Bell.
2. Edward's personal preference schedule (EPPS) published by Psychological Corporation, New York.
3. The Heston personal adjustment inventory developed by Joseph C. Heston.
4. The Mooney problem checklist.
5. Asthana's adjustment inventory developed by H.S. Asthana.
6. Vyaktitva parakha prashnavali developed by M.S.L. Saxena.
7. Sinha's adjustment inventory developed by A.K.P. Sinha and R.P. Singh.
8. Joshi's adjustment inventory developed by M.C. Joshi and Jagdish Pandey.

9. Adjustment inventory for older people revised by P.V. Ramamurti.

In the present, the researcher decided to administer the Bell adjustment inventory to collect the data. Because, the inventory was adapted in Bangla earlier (Faruk, T. 1980) for use in this country, and also administered in various study (Faruk, T. 1980; Mondal, P. C.2004)

### **1.7 Characteristics of a Well-adjusted Person**

A well-adjusted person is supposed to possess the following characteristics:

1. Awareness of own strengths and limitations: A well adjusted person knows his own strengths and weaknesses. He tries to make capital out of his assets in some areas by accepting his limitations in others.
2. Respecting him and others: The dislike for one-self is a typical symptom of maladjustment. An adjusted individual has respect for himself as well as for others.
3. An adequate level of aspiration: Level of aspiration of a well-adjusted person is neither too low nor too high in terms of his own strengths and abilities. He does not try to reach for the stars and also does not repent over selecting an easier course for his advancement.
4. Satisfaction of basic needs: Basic organic, emotional and social needs of a well-adjusted person are fully satisfied or in the process of being satisfied. A well-adjusted person does not suffer emotional cravings and social isolation. He feels reasonably secure and maintains himself-esteem.
5. Absence of a critical or fault-finding attitude: A well-adjusted person appreciates the goodness in objects, persons or activities. He does not try to look for weaknesses and faults. His observation is scientific rather than critical or punitive. He likes people, admires their good qualities, and wins their affection.

6. Flexibility in behaviour: A well-adjusted individual is not rigid in his attitude or way of life. He can easily accommodate or adapt himself to changed circumstances by making necessary changes in his behaviour.
7. The capacity to deal with adverse circumstances: He is not easily overwhelmed by adverse circumstances and has the will and the courage to resist and fight odds. He has an inherent drive to master his environment rather than to passively accept it.
8. A realistic perception of the world: He holds a realistic vision and is not given to flights of fancy. He always plans, thinks and acts pragmatically.
9. A feeling of ease with his surroundings: A well-adjusted individual feels satisfied with his surroundings. He fits in well in his home, family, neighborhood and other social surroundings. If a student, he likes his school, school-mates, teachers, and feels satisfied with his daily routine. When he enters a profession, he has a love for it and maintains his zeal and enthusiasm despite all odds.
10. A balanced philosophy of life: A well-adjusted person has a philosophy which gives direction to his life while keeping in view the demands of changed situations and circumstances. This philosophy is centered on the demands of his society, culture, and his own self so that he does not clash with his environment or with himself.

## **1.8 Theories or Models of Adjustment**

There are several theories or models describing the pattern of adjustment. These are described in below:

**1.8.1 The moral model:** This represents the oldest view-point about adjustment or maladjustment. According to this view, adjustment or maladjustment should be judged in terms of morality i.e. absolute norms of expected behaviour. Those who follow the norms are adjusted (virtuous or good people) and those who violate or do not follow these



norms are maladjusted (sinners). Evil supernatural forces like demons, devils etc. were blamed for making one indulge in behaviour against the norms (committing sins) while the religious gods, goddess and other saintly great souls were responsible for making one a happy, healthy, prosperous and pious person (adjusted in the modern sense). However, as the medical and biological sciences advanced and scientific reasoning gained a firm footing in the nineteenth century, the moral model was replaced by the medico-biological model.

**1.8.2 The medico-biological model:** This model holds genetic, physiological and biochemical factors responsible for a person being adjusted or maladjusted to his self and environment. Maladjustment, according to this model, is the result of disease in the tissues of the body, especially the brain. Such disease can be the result of heredity or damage acquired during the course of a person's life by injury, infection, or hormonal disruption arising from stress, among other things. In the opinion of Lazarus (1976), the correction of adjustive failures or disorders requires correction of the tissue defect through physical therapies such as drugs, surgery and the like.

This model is still extant and enjoys credibility for rooting out the causes of adjustive failure in terms of genetic influences, biochemical defect hypotheses, and disease in the tissues of the body. However, it is not correct to assign physiological or organic causes to all maladapted and malfunctioning behaviour, especially when there is no evidence of physiological malfunction. Such a situation certainly calls for other explanations, viewpoints or models.

**1.8.3 The psychoanalytic model:** This model owes its origin to the theory of psychoanalysis propagated by Sigmund Freud (1938) and supported by psychologists like Adler, Jung and other neo-Freudians. Their views, in brief, are given below:

**Freud's views:** Freud's system of psychology and psychoanalysis has described those factors which are relevant to success or failure in adjustment.

i) The human psyche or mind consists of three layers, the conscious, the sub-conscious and unconscious. The unconscious holds the key to our behaviour. It decides the individual's adjustment and maladjustment to his self and to his environment. It contains all the repressed wishes, desires, feelings, drives and motives many of which are related to sex and aggression. One is adjusted or maladjusted to the degree, extent or the ways in which these are kept dormant or under control.

ii) According to Freud, man is a pleasure seeking animal by nature. He wants to seek pleasure and avoids pain or anything which is not in keeping with his pleasure loving nature. The social restrictions imposed by the morals of society and his own moral standards dictated by his superego come in conflict with the unrestricted and unbridled desires of his basic pleasure seeking nature. These pleasures are mostly sexual in nature. One remains adjusted to the extent that these are satisfied. An individual drifts towards malfunctioning of behaviour and maladjustment in case such satisfaction is threatened or denied. Freud postulated the imaginary concepts of 'id', 'ego' and 'super ego' for the adjustive and non-adjustive behaviour patterns and formulated the following conclusion:

A person's behaviour remains normal and in harmony with his self and his environment to the extent that his ego is able to maintain the balance between the evil designs of his id and the moral ethical standard dictated by his superego. In case the ego is not strong enough to exercise proper control over one's id and superego, malfunction of behaviour would result. Two different situations could then arise. Firstly, if the superego dominates then there is no acceptable outlet for expression of the repressed wishes, impulses and appetites of the id. Such a situation may give birth to neurotic tendencies in the individual. Secondly, if the id dominates, then the individual pursues his

unbridled pleasure seeking impulses, without care for the social and moral norms. In such a situation the individual may be seen to be engaged in unlawful or immoral activities resulting in maladaptive, problem or delinquent behaviour.

iii) Freud also uses the concept of libido, i.e., a flow of energy related to sex gratification. He equates it with a flowing river and maintains - firstly, if its flow is outward causing sex gratification and pleasurable sensation from outside objects, the individual remains quite normal and adjusted to his self and the environment. Secondly, its inward flow leads to self-indulgence and narcissism. Thirdly, if its path is blocked, this results in its arrest leading to regressive behaviour, a kind of abnormality. And finally, if the flow of the libido is dammed up, condemned or repressed through the authority exercised by the ego in association with the superego, it may cause severe maladjustment. When the ego is weak and the superego is rigid, this may lead to psychotic personality disorders. However, when the ego is weak and the superego also is not too rigid it may result in relatively simple disorders like neurosis or still simpler maladaptive behaviour characterized by restlessness, sleeplessness, headache; stomachache, backache, vomiting, lack of appetite etc.

iv) Freud also argued that adjustment or maladjustment should not be viewed only in terms of what the individual may be undergoing at present and what happened to him in his earlier childhood is even more important. What he may have experienced as a child, what types of gratification to his sex urge he has achieved, what has been repressed in his unconscious, how he has passed through the distinct stages of sexual development etc. are, thus, quite important for making him adjusted or maladjusted to his self and the environment.

**Adler's views:** Adler disagreed with the views of Sigmund Freud and substituted the sex motive with the power motive or desire to attain superiority and perfection to explain human behaviour. He maintained that:

i) There is an inherent strong urge in all human beings to seek power and attain superiority. Besides this as a child, one is helpless and dependent which makes one feel inferior and in order to make up for the feelings of inferiority, one takes recourse to compensatory behaviour, i.e. indulges in a struggle for power. Environmental situations, constitutional deficiency and many other factors may also make one feel inferior and to get away from these feelings one learns to struggle for achieving power. An individual's efforts for seeking power or attaining perfection may also be the result of his need for creative expression, the urge to do something new, to enhance his status in the eyes of his colleagues and others.

ii) Stimulated thus by the urge to seek power or attain superiority and perfection, one adopts a distinctive lifestyle suited to one's environmental situations. One continues to strive for superiority by emulating and exploiting the ways and means provided by one's lifestyle. Adjustment or the lack of it would depend on whether one's efforts end in success or failure to achieve one's goal. Thus, the following three situations may arise:

(a) Success in seeking gratification of one's power motive or attaining superiority may lead to good adjustment to one's self and the environment.

(b) In the case of partial failure, if one is successful in bringing about a slight modification in one's life's goals or style of life one may be able to reconcile with one's self and the environment and may feel adjusted and remain normal.

(c) In case of failure to obtain gratification of the power motive and to changing one's goal or style of life, one may drift towards non-adjustive or maladjustive behaviour leading to mild or severe mental illness.

**Jung's views:** Jung's system of analytical psychology advocated the idea of the self-actualization motive instead of Freud's sex gratification motive and Adler's power seeking motive for explaining the why and how of human behaviour. According to him, one has a strong inner urge or motive to exhibit

one's talents or abilities or seek self-actualization. Accordingly one utilizes one's life energy, i.e. the flow of libido as a channel for self-expression to satisfy the urge for self-actualization. The degree of adjustment of one's personality depends on the extent to which one is successful in actualizing oneself. Libido, the life energy as Jung maintains may flow both ways-inward and outward, turning an individual into an introvert or extrovert personality. In the introvert, thinking is predominant while sensations and feelings are suppressed. In the extroverts, on the other hand, the feelings or sensations are more predominant and the thinking is suppressed. Generally speaking, however, an individual is neither purely introvert nor a purely extrovert. He is ambivert, i.e. while showing the symptoms of an introvert; he possesses some characteristics of the extrovert and vice versa. As long as a person can maintain a proper balance between his thinking and feeling he remains adjusted to his self and the environment. But lopsided behaviour, i.e. laying too much emphasis on thinking at the cost of feelings or giving too much consideration to feelings at the cost of thinking may disturb the balance of one's psyche. It may lead to maladaptive behaviour causing mild or severe mental illness.

Another criterion for normal or properly adaptive behaviour according to Jung's theory is the reconciliation between one's conscious and unconscious behaviour. Failure on one's part to maintain or achieve such reconciliation may lead to maladaptive behaviour and mental illness. When one's conscious is not in tune with the unconscious or when the unconscious turns hostile on account of being not properly understood by the conscious it is bound to create imbalances in one's mind and make one's behaviour quite hostile to one self and to one's environment. If this hostility or aggression is directed inward, one becomes neurotic but when it overflows outwards, one turns into a psychotic or delinquent character. In some severe forms of insanity, as claimed by Jung, we find a complete autonomy of the unconscious, a type of complete control or bombardment of the conscious mind by the unconscious contents in the shape of disturbing and unusual ideas. Harmony or discord between one's conscious

and unconscious may thus prove to be a deciding factor for one's personality to be termed as adjusted or maladjusted to one's self and the environment.

**The views of other neo-Freudians and later psychoanalysis:** The other followers of the psychoanalysis school also tried to put forward their own viewpoints explaining the why and how of human behaviour. Notable among them were Karen Horney, Erich Fromm, Wilhelm Reich and Erik H. Erickson, their views are described below:

**Karen Horney's views:** While Adler thought the need for power (to counter the feelings of inferiority) to be the root cause of human behaviour, Horney (1937) placed emphasis on the need for security (to offset the feelings of anxiety). She postulated that an individual as a child feels helpless and isolated in a potentially hostile world. This creates some basic feelings of anxiety and the craving for security in him. A reasonable concern with security is normal. But if an individual is obsessed with security to the exclusion of self-development, he is likely to drift towards maladaptive or abnormal behaviour.

The anxious child, she further theorizes, may ultimately move towards people and become dependent upon them, move against people and become hostile and rebellious, or move away from people and withdraw into himself. If a person can integrate these three attitudes or responses, sometimes giving, sometimes fighting and sometimes keeping to himself, he may remain adjusted to his self and his environment. But in case he turns too much to one of these directions, regardless of the appropriateness in specific circumstance, he is bound to become maladjusted ending up with mild or severe mental illness or delinquent behaviour.

The other reason for maladjustment, according to Horney's theory, may be the denial or obstruction in the way of realizing one's need for self-esteem or self-realization. Anxiety is the result of situations where one starts by not valuing oneself highly enough. A conflict then arises between one's ideal self and the real self. An individual can remain adjusted and normal to the extent that the

balance between these two selves is satisfactorily maintained and may drift towards abnormal or maladaptive behaviour if this is disturbed.

**Erich Fromm's views:** Like Horney, Fromm also emphasizes the need of security and feels that as a child one may feel the necessity for belonging to offset the fear of isolation and aloneness. Consequently, the individual in his childhood may desire to live in the family, belonging to the members of the family and provided with love, affection and security by them. In due course, however, when he attains maturity he is impelled by an inner craving for freedom and as a result he tries to escape from the very bonds which provided him the security he needed. In this kind of situation he may be confronted with the inner conflict of being dependent for the satisfaction of his need for security and his urge for freedom. This conflict is further heightened when parents and other members are also caught in the situation in the form of allowing independence to their progeny to play their roles as mature persons or trying to hold them back as a guarantee of their own future security. The extent to which this crisis of dependence versus independence or security versus freedom is resolved by the children with the help of their parents and elders, governs the degree to which their behaviour and functioning remain adjusted and normal. In case this crisis is not resolved satisfactorily, maladjustment and maladaptation followed by mental illness and delinquent character formation may result.

**Wilhelm Reich's views:** In agreement with Freud's views on the importance of sexuality, Reich firmly believed that an individual's health both physical and psychological depends on the liberation of the sex drive, all the way to orgasm. However, from the day of birth, the release of libido or sexual energy is blocked by parents, teachers and society in general. Reich considers the term "sexual energy" in a wider connotation calling it "orgone energy" a life force energizing the total behaviour of an individual and responsible for all types of self expression. If this energy is properly analyzed and flows along

*normal and natural ways, the individual remains adjusted and enjoys good*

physical and mental health; but in case the flow of this energy is blocked it may lead first to somatic or physical discomfort and then to the physiological and psychological disorders leading to mild or severe maladjustment and mental illness.

**Erickson's view:** According to this views adjustment as a function of the conflict between inborn instincts and societal demands. He has divided the entire human life span into eight distinct stages. At each stage, the society characterized by a particular culture puts up a specific demand which may or may not suit the urges or instincts manifested at that specific stage by the individual. In this way, at each stage of life one is faced with a crisis the resolution of which can have either a good or bad effect on one's adjustment. For example, during the stage of infancy, the individual is confronted with the problem of resolving the crisis peculiar to this stage, i.e. trust (enabling him to form intimate relationships) versus mistrust (enabling him to protect himself in the hostile world) for his proper growth and development. The outcome of his behaviour depends upon the success or failure of the satisfactory resolution of this crisis and consequently he may grow into a wholesome healthy personality or a defective and deviant personality.

**1.8.4 The sociogenic or cultural model:** According to this model, the society in general and culture in particular affects one's ways of behaving to such an extent that behaviour takes the shape of adaptive or non-adaptive behaviour turning one into an adjusted or maladjusted personality. The society and culture to which one belongs does not only influence or shape one's behaviour but also sets a standard for its adherents to behave in the way it desires. Individuals behaving in the manner that society desires are labeled as normal and adjusted individuals while deviation from social norms and violation of role expectancy is regarded as the sign of maladjustment and abnormality. Although, society or



culture plays a significant role in shaping and influencing human behaviour, yet it should not be regarded as the only factor in the adjustment process. Moreover, the societies or cultures may themselves, rather than the individual be maladaptive and sometimes even destructive to the individual's adjustment like Nazi Germany. It is not proper, therefore, to depend solely on the sociogenic or cultural model for the labeling of one's behaviour as adjusted or maladaptive.

**1.8.5 The socio-psychological or behaviouristic model:** The socio-psychological or behaviouristic model in general emphasizes that:

- i) Behaviour is not inherited. Competencies required for successful living are largely acquired or learned through social experience by the individual himself.
- ii) The environmental influences provided by the culture and social institutions are important but it is the interaction of one's psychological self with one's physical as well as social environment which plays the decisive role in determining adjustive success or failure.
- iii) Behaviour, whether normal or abnormal is learned by obeying the same set of learning principles or laws. Generally, every type of behaviour is learned or acquired as an after-effect of its consequences. The behaviour once occurred, if reinforced, may be learned by the individual as normal. As a result, one may learn to consider responses which are labeled normal, as abnormal.
- iv) Not only is normal and abnormal behaviour learned, the labeling of behaviour as normal or abnormal is also learned. Whether or not an individual is considered abnormal or maladjusted for a particular type of behaviour depends upon the observer of the behaviour and also upon the social context of the behaviour.
- v) Maladaptive behaviour may be treated by applying the principle of behaviour modification, unlearning, deconditioning and correcting environmental situations responsible for its occurrence.

## **Conclusion about the Models**

All the models described above are true to certain extent (except the primitive moral model) for providing explanation for one's adjustive success or failure. But none of them is complete or adequate in itself for providing satisfactory explanation. Although Medical or biological model, provides a sufficient basis for understanding mental illness or maladaptive behaviour resulting through organic causes, physical damage to the brain and genetic factors, yet it cannot be applied to the disorders due to psychological causes and societal factors. Adjustment must always be considered as a continuing product of one's interaction with the biological and social determinants lying in one's biological and genetic make-up and environmental set up. It is, therefore, innate as well as learned. For its analysis the analyst has to probe into not only how an individual is interacting with his environment at present but also in the past and how he has resolved his conflicts and crises in the past. It is, therefore, feasible to take a synthetic view of the above models for explaining and understanding one's success or failure in adjustment. All the factors, biological as well as social, the past as well as the present experiences, innate as well as learned patterns of behaviour, societal influence on the individual and vice-versa should be taken into consideration for understanding adjustment or maladjustment of the individual with his 'self' or environment.

### **1.9 Methods of Adjustment**

In order to lead a healthy, happy and satisfying life one has to learn the various ways of adjustment, i.e. coping with one's environment as effectively as possible. Also he has to safeguard his self against turning into a maladjusted and abnormal personality.

There are two methods of adjustment; one is direct and the other is indirect. These methods are used in an attempt to restore harmony between the individual and his environment. When a person has been frustrated, deprived or

humiliated, he is likely to reduce the tension of the need by taking certain kinds of actions. These methods are also known as methods of tension reduction. These methods are always pointed out towards the relief of a feeling of distress.

**Direct methods:** Direct methods are those methods which are employed by the individual intentionally at the conscious level. They are rational and logical and help in getting permanent solution of the problem faced by the individual in a particular situation. These methods include the following:

(a) Increasing trials or improving efforts: When one finds it difficult to solve a problem or faces obstacles in the path, to cope with his environment he can attempt with a new zeal by increasing his efforts and improving his behavioural process.

(b) Adopting compromising means: For maintaining harmony between his self and the environment one may adopt the following compromising postures:

(i) He may altogether change his direction of efforts by changing the original goals, i.e. an aspirant for I.A.S. may direct his energies to become a probation officer in a nationalized bank.

(ii) He may seek partial substitution of goal like selection for the provincial civil service in place of the I.A.S.

(iii) He may satisfy himself by an apparent substitute for the real thing, e.g., in the case of a child, by a toy car in place of a real car and in the case of a young boy desirous of getting married by a doll in his arms.

(c) Withdrawal and submissiveness: One may learn to cope with one's environment by just accepting defeat and surrendering oneself to the powerful forces of environment and circumstances.

(d) Making proper choices and decisions: A person adapts himself to, and seeks harmony with, his environment by making use of his intelligence for the proper choices and wise decisions particularly when faced with conflicting

tries to extend lame excuses for his failure. He may blame the teacher or parents or his poor health and thus try to disguise his own weakness and deficiency.

(e) Projection: Through projection one tries to see or attribute one's own inferior impulses and traits in other persons or objects. An awkward person sees and criticizes awkwardness in others. Similarly, a student who has been caught in the examination for cheating may satisfy himself by saying that others had also cheated. A person with strong unsatisfied sexual impulses may denounce others for their sexual aims or may try to think in terms of sex for every thing in the world around him. In this way one tries to overlook or defend one's shortcomings and inadequacies by emphasizing that others are worse than he is.

(f) Identification: In using this mechanism an individual is found to achieve satisfaction from the success of other people, groups or institutions by identifying himself with them. An artist who has not yet achieved success in his field may identify himself with a well-known, well-established artist. One may identify oneself with one's school and feel proud of its fame and reputation. Similarly, hero worship is also a sort of identification where an individual identifies himself with a popular leader or cine actor. He imitates his characteristics, dress and mannerisms and tries to revel in his accomplishments and successes.

(g) Seclusiveness or withdrawal: In using this mechanism an individual tends to withdraw himself from the situation that causes frustration or failure. He makes himself feel safe and secure by running away from the problem. For example, a child may refuse to participate in games for fear of failure and deceive himself by believing that he could have done well if he had participated. Daydreaming or fantasy also is a sort of withdrawing behaviour in which one withdraws oneself into a world of fantasy or make believe. Thus, instead of feeling threatened by the realities one may become satisfied with unreal, imaginary success in the world of make-believe and imagination.

(h) Sympathism: Sympathism is a defense mechanism in which an individual tries to get satisfaction by seeking sympathy and pity for his own failures and inadequacies. Such persons always magnify the difficulties or obstacles in the path of their success and thus convince others to feel sorry for them. For example, a housewife who is not bringing up her children well may try to evoke others sympathy by telling them how overworked she is because the members of her family do not cooperate with her or how the family is passing through hard times.

All the foregoing defense mechanisms are used unconsciously by a person to protect himself (although only for the time being), against psychological dangers. They are not permanent cures of the trouble as Morgan (1961) observes, "They merely conceal or disguise the real problem. It is still there; ready to produce anxiety again and again". A defense mechanism may thus be regarded as a temporary defense against anxiety and inadequacies. Moreover, the use of such a mechanism may create new difficulties for the individual who uses it. It is a situation similar to the one in which a person tells a lie to save him from a difficult situation and obtains a temporary respite, but subsequently finds himself in an awkward situation because of his false statement. Therefore, we must keep a close watch on our children to see that they do not make frequent use of such defense mechanisms.

### **1.10 Nature of Maladjustment**

Maladjustment is a complex problem of human behavior. The concept of maladjustment is used as opposite adjustment. Maladjustment refers to the failure of the individual to adjust to a situation. Adjustment or maladjustment is inferred from the behaviour an individual shows in a given situation. Behaviour that is in conformity with the demands and expectations of others, peers, teachers, parents, siblings and community members is called adaptive

behaviour. Behaviour that fails to conform to the social and cultural patterns is called maladjusted behaviour.

James Drever (1965) defines, "Maladjustment is the condition of an individual who is unable to adapt or adjust himself adequately to his physical, occupational, or social environment, usually with repercussions in his emotional life and behavior."

According to John Atkinson, Eric Berne, and R. S. Woodworth (1988), "Maladjustment is the inability of the individual to develop patterns of behaviour, making for success in his environment".

### **1.11 Symptoms of Maladjustment**

There is a difference of degrees between maladjustment and adjustment. It is difficult to differentiate adjusted and maladjusted children only on the basis of observation in the classroom or in the school. There are certain symptoms which give some indication of maladjustment if excessively used by children. These symptoms can be divided into the following three categories.

(a) Physical symptoms: Stuttering, stammering, scratching head, facial twitching, biting nails, rocking feet, restlessness, drumming with fingers and vomiting.

(b) Behavior deviations: Aggression, lying, bullying, poor school achievement, hyperactivity, negativism and sex disturbances.

(c) Emotional symptoms: Excessive worries, fear, inferiority, hatred, extreme timidity, temper tantrum, persistent anxiety, conflicts and tension.

### **1.12 Detection of Maladjustment**

Though detection of maladjustment requires professional skills of a Psychiatrist which we cannot expect from a teacher but the teacher at the preliminary stage can help in detecting maladjustment in the following ways:

- (1) Observation and interview: The teacher can observe the behavior of children in the classroom, outside the classroom, on the playground, library and dramatics etc. He can hold interview with those whom he suspects maladjusted and can reach definite conclusions regarding individual cases of maladjustment.
- (2) Use of tests: There are a number of psychological tests, inventories and rating scales which have been developed by psychologists to screen maladjusted children. The teacher and/or counselor may use any of the following tests to detect maladjustment.
  - a) **Haggerty-Olson Wickman behavior rating schedules.** It may be used to rate various traits of the behavior.
  - b) **The Bell Adjustment Inventory.** The teacher can use the Bell's Adjustment Inventory adapted to Bangladeshi conditions. This inventory measures the adjustment of an individual in major life situations such as home, physical, emotional, school and social situations.
  - c) **The Mooney Checklist.** The teacher on the basis of observation may find out maladjusted children in his class. He can use the checklist.
  - d) **The Roger's test personality adjustment.** The teacher can also use the Roger's test to screen adjusted and maladjusted children.
  - e) **Taylor anxiety scale.** The scale may be used to screen children who have excessive anxiety. There is a great need for developing inventories or other measures that can screen adjusted and maladjusted children and adults in Bangladeshi condition. The tests used at present were developed mostly in foreign countries where the socio-economic conditions are quite different from ours.

### 1.13 Causes of Maladjustment

Maladjustment is a Complex problem of human behavior, no single factor can be pin-pointedly named as its cause. It is the outcome of multifactor interacting with the developing personality of the child. There are numerous factors in home, society and school which lead to maladjustment. These are:

**(1) Physique:** The Physique and appearance play an important role in the social development of the child. If the child is physically weak, ugly, and has some sensory handicaps he may be shunned by others. Even the parents, make comparison in their children. Comments by parents, siblings and strangers affect the behavior of ugly, weak-handicapped children. They develop a number of problems resulting in maladjustment.

**(2) Long sickness and injury:** Long sickness of a child affects his social development and academic achievement in school.

**(3) Poverty:** There is a positive correlation between poverty and maladjustment in children. Highest percentage of maladjusted children comes from low socio-economic conditions. But it is not necessarily true that all children who come from under privileged class are maladjusted. The crucial factor in poor home is that parents can not even fulfill the legitimate needs of their children. Frustration of needs leads to maladjusted behavior.

**(4) Broken home:** All research studies have established beyond doubt that children who come from homes that have been broken by death of parents, divorce, separation etc. Physical or mental handicaps, of parents are often more maladjusted than children from more stable homes. Children in broken homes do not get the affection, love, sympathy and security. They are emotionally disturbed. Homes which are not broken but in which there is constant conflict between parents or other members of the family also provide conditions which



affect the security, affection, mental stability and fulfillment of needs of children.

**(5) Personal inadequacies:** In addition to physical appearance, there are certain other inadequacies in children which frustrate their needs and create constant anxiety. The parents, who are ambitious and set high goals for their children irrespective of their physical and mental abilities, create frustration in their children.

**(6) Parental attitudes:** The important factor which affects the adjustment is the attitude of parents towards their children. The parents may reject the child. The rejected child develops feelings of insecurity, helplessness and loneliness. Rejection and lack of affection may lead to maladjusted behavior. Over-protection of the child may lead to lack of responsibility, lack of socialization, aggressiveness, selfishness and general infantile behavior which may put the child into trouble in social environment.

**(7) Value placed on sex of the child:** It is very unfortunate that in Bangladeshi parents differentiate between their son and daughter. Sons are preferred to daughters in our society. This partial treatment of girls may lead to maladjustment.

**(8) Adoption:** Generally, adopted children are maladjusted when they come to know the fact. If a child is adopted in early infancy and problem of adoption is psychologically dealt with, then adopted children resemble to their foster parents in many qualities. In addition to the above factors, there are many other factors which contribute to the problem of maladjustment such as relationship among brothers-sisters, position of the child in the family.

**(9) Emotional shock:** Children, who experience emotional shocks such as death, accident, riots, flood etc., may manifest maladjustment in their behavior.

**Social Conditions:** The following social conditions have great influence on adjustment of an individual.

**(1) Religious beliefs:** Bangladesh is a country where several religions classes and creed exist who follows different faiths. Traditional religious beliefs are critically examined by adolescents in present scientific era, when they do not find rational principles in religious beliefs, they are frustrated.

**(2) Lack of clubs playgrounds and libraries:** Children need physical and mental recreational activities to fulfill their physical and mental needs. If these needs are not catered, they lead to emotional tensions which are manifested in maladjusted behavior.

**(3) Mobility:** Children, whose family moves from one place to another, have to face a number of problems. This territorial migration may be one of the factors which cause maladjustment.

**(4) Class differences:** In Bangladesh there are many classes and class difference are very wide. There are some privileged and socio-politically empowered classes and some underprivileged classes. On the basis of these class differences, differential treatment is given to the children of different communities and socio-economic groups. All this leads to conflicts in the minds of adolescents and consequently results in maladjusted behavior of many young men and women.

**(5) Employment insecurity:** Adolescents are very ambitious for their future career. They look ahead to eventual economic independence in the form of a job but when they find no opportunity to get a job they become restless, anxious and sometimes rebellious against the society out of frustration.

### **Maladjustment and educational institution conditions**

No doubt, adjustment is life long process starting from the birth of a child and home can develop good habits which may help in future adjustment of the child, but there are many conditions in school also which may lead to maladjustment of children. The important conditions are listed below:

- (1) Inadequate training of teachers:** Teachers who are not properly trained in educational psychology and mental hygiene commit such blunders in handling children and their problems, out of ignorance of child behavior, which may lead to maladjustment. Partiality and autocratic attitudes of a teacher are also important factors which create tension and anxiety in children.
- (2) Inadequate curriculum:** Children have several physiological, social and psychological needs at different developmental stages. Needs of children are not met in our present day curriculum.
- (3) Lack of recreational facilities:** Children, who do not get facilities after classroom in the forms of play, library, debates, discussions etc., may manifest maladjustment.
- (4) Class-room climate:** If the social climate of the classroom is charged with emotions because of the relationship between the teacher and the students and students-students, it may lead to a number of problems. The authority once came across a class where the students belonged to two communities, one privileged and the other underprivileged. There was always constant quarrelling between the two groups, resulting in leaving the school by six students. There are numerous examples when students form cliques and groups on the basis of caste and creed and try to insult each other in school and outside the school.
- (5) Restrained relationship between administrator-teachers, teacher-teacher and student teacher:** The pattern of relationship among the inmates of school plays an important role in creating conducive environment on the campus. If there is

co-operation, mutual understanding and brotherhood then definitely it will improve the mental health of the inmates. Hardly, there are schools where such climate exists. There is favor partial treatment on the basis of caste, creed, region and religion, open criticism, leg pulling and authoritarian administration, the mental health of the child is affected in negative direction.

**(6) Examination system:** Examination is a necessary evil in our education, but it has persisted since long. The present system of examination does harm to our students. It creates strain and stress in the mind of the students. A constant anxiety is produced by it. Students work under excessive strain and stress during examination. The system of examining scripts does not do justice to the examinees. Many students commit suicide because of failure in the examination.

### **1.14 Academic Achievement**

Achievement refers to what a person has acquired or achieved after the specific training or instruction has been imparted. In other words, achievement tests are primarily designed to measure the effects of a specific programmed of instruction or training (Anastasi, 1956). The performance on the achievement test indicates the performance under known and controlled conditions. The primary purpose of an achievement test in academic institution is to evaluate what a student has learned. Academic achievement is to acquire knowledge from educational institution. In the field of education, the instructors give specific training of a group of students during a specific time. After completing the classes they make some questions to measure their academic performance.

The individual's score of that subject is to be considered his academic achievement. If he achieves high score, he is evaluated as a good student. The teacher would like to finish his assigned subjects attentively so that the learner can understand the lesson easily. In educational institutions achievement tests are generally applied for measuring academic performance of the students. To

success in his life is needed teachers' good behavior, parents' co-operation, social, political and financial support. To learn something he has to be an adjusted individual. That's way we should know the students' school environment, family environment, physical and mental health etc., because these variables act as significant factors for achieving good marks.

### **1.15 Academic achievement in school and college**

The school and college govern the activity of an adolescent student, a teenager, for six or more of the most energetic hours daily excepting the vacations and holidays. So, this institution plays a highly significant role in their lives, particularly in the formative years. In these institutions their planned learning's go on, they learn here skills for future life and gains experiences for their future preparations. Here they enjoy the services of the professionals and lives in the adolescent society for meaningful transactions of group life. The schools are the social world which provides the transactions from the life within the home, intimate and protective, the life within the community of interpersonal and competitive. Many of the adolescent students most seriously feel responsibility and most serious problems are those concerned with school work and school living. In brief home and school lives cover the major part of the total field of an adolescent students, when their major needs are found to grow centering around the advantages and achievements of the grown up adults as seen as heard or may be as dreamt of "around ego and its defenses" (Freud, 1948).

Our society places heavy emphasis on achievement and success of the college students and there in for many Bangladeshi lies the value of abstract thinking, logical analysis, and effective writing, Before adolescence, students understand the importance of achievement, fear, failure, and feel nervous during examination (Feed, 1965). But the issue of achievement of the students is especially important because significant and often irrevocable-educational and career choices are made during adolescence, and students have to comprehend

the implications of these choices and of the possibilities before them. Students in this stage of life have the cognitive capacities to understand and to explore systematically the long-term consequences of their educational and career choices. Of course things besides the quality and quantity of instruction received in school also affect how much an adolescent student achieves. The adolescent student's personal characteristics, for example, are extremely important ingredient in this mix.

Underachievers are adolescent students whose achievements in school and sometimes in other areas fall short of what could be expected of them, given their high level of abilities, underachievers are likely to have I.Qs over 120 but school grades of Cs and below. Although children may not perform up to their potential in elementary school, underachievers usually are first identified in junior high; perhaps because that is when academic demands intensify, underachievers shirk their homework, do not finish assignments, do not attend the classes regularly, do not seem to want to do anything academic and are socially and intellectually immature (McCall, 1986).

But socialization is unlikely to provide a complete explanation of gender differences in achievement. Among high-achieving adolescent students although girls achieve less than boys in science and math, they achieve more than boys in verbal tasks, especially writing (Benbow and Stanley, 1980; National center for educational statistics, 1985). Another explanation for boy's higher achievement rests on what happens in the classroom. As one recent study showed, boys dominate class discussion, call out answers more often, and get more of their teachers' attention than girls (Sadker and sadker, 1985). Girls are encouraged to sit quietly and raise their hands, boys to assert themselves actively. Teachers often do things for girls but instruct boys how to do things for themselves. They tended to criticize boys' wrong answers, to help them to find the correct answer, and praise them for answering correctly. But when girls answered incorrectly, teachers tended to move on to another student.

No doubt many factors contribute to observe gender differences in achievement aptitudes, ability, interests, experience, socialization, motivation and attention. These differences remain a focus of investigation and concern for researchers and educators. Most upsetting, despite attempts by feminists and equality minded parents and teachers, the 1985 SAT figures showed girls falling further behind boys in verbal as well as mathematical and scientific tests.

Very bright children do better work in school, enjoy their work more, and are better adjusted to the school situation than those of lesser abilities. They excel in language facility, resourcefulness, creative imagination, sustained attention, and breadth of attention. They possess greater intensity of mind than less intelligent students.

When very bright students are critical of their schools or colleges and dislike their work, it is generally because they find the work dull or unchallenging. They are often bored, especially in classes where they are held back by less able students or where teachers discourage creative work by rewarding memory work.

In adult life, very bright people are more likely to be successful and to achieve fame than their less intelligent contemporaries. There is little evidence to justify the traditional belief that "early ripe, early rot" or that the very bright burn themselves out quickly and develop post adolescent mediocrity. However, both in school and in business, they may fall short of achieving what they are capable of. As Terman and Oden have pointed out. "Intellect and achievement are far from perfectly correlated". The failure of very bright people to reach their full potential may be due to lack of motivation caused by insufficient emotional satisfaction from achievement, an unstimulating home and school environment.

Unfavorable social attitudes toward achievement which encourage bright people to work below capacity in the hope of gaining acceptance, encouragement by parents and teachers to concentrate on intellectual activities at the expense of social and emotional development, and unfavorable self concepts which result in lack of self confidence, perseverance and integration toward goals. In addition, some set unrealistically high levels of aspiration for them and if they fail to reach the goals, feel inadequate and inferior. Strange has remarked "If their ego involvement is great, the threat of failure may have a disorganizing effect on their performance".

In educational institutions, those who are bright and academically successful have little in common with many of their classmates; they limit their close friendships to those whose abilities are similar to theirs. They are however, on amiable terms with their less able class mates and are, on the whole liked and respected. In fact moderately bright boys and girls are generally significantly above the average in social acceptance. Strong writes that "It is the typical gifted child who withdraws markedly from social contacts". In high school and college, bright students are usually, socially and emotionally more mature than their classmates. They not only make good social adjustments but are often selected as leaders. This enables them to acquire social skills and social insight. Both of which contribute to popularity and leadership roles in adult life. It has been found that those who are bright hold more positions of leadership and responsibility in adult life than do college graduates as a group. By contrast those who are dull make poor social adjustments. They are generally unpopular and rarely play leadership roles. The brighter member of the group with which they are associated, the more unpopular they are. Their handling of interpersonal relationship is poor because of their limited social and self insight, and their emotional behavior is immature as compared with that of their peers. They tend to be egocentric and emotionally uncontrolled, giving way to emotional outbursts at unpredictable times. Thus, expectation of success



and of failures are powerful determinant of achievement behavior of the students who expect to achieve usually do, where as those who expect to fail may spend little time and effort perusing goals they believe to be “out of reach.”

### **1.16 Review of literature**

The purpose of this chapter is to provide an overview of the main findings of important empirical studies related to five areas of adjustment and academic achievement. It is expected that a review of the previous research in this field would provide a useful background for the planning and development of the present study.

Several researchers have studied the influence of family environment on adolescents' adjustment and their academic achievement. Paul (1996) revealed that there is significant degree of conflict with less cohesion and organization in the emotionally disturbed families. Family members of successful students showed high achievement orientation and organization in the family regardless of social class (Paul, 1988). Steven (1990) showed a concomitant relationship between family environment and school outcome variables. The results of Whitehead and Deborah (1991) study indicated that best predictor of grade point average was the intellectual cultural orientation of the family environment. In India, several investigations have assessed the differential effects of family interactions on psychiatric disorders. Preet (1992) studies of family environment of psychiatric patients in comparison to a control group resulted in significant differences in the psychiatric group and the control group. Nihiral et al., (1985) revealed significant influences of changes in home environment on social adjustment in adolescent. This study explored the relationship between family environment, home adjustment and academic achievement. The objective of the study was to focus on the perception of

family environment and its influence on home adjustment and academic performance in adolescents.

The findings reveal that a significant relationship exists between specific family environment factors on home adjustment and academic achievement. When compared to the standardized norms available on American normative sample majority (60%) of the present sample, perceive their families as supportive, and helpful (cohesiveness), exhibiting a desire to achieve (achievement orientation), participating in religious activities (moral religious emphasis), planning family activities and responsibilities (organization) and low in arguments and fights (conflict). The lower scores on expressiveness and independence may be due to the influence of culture. Culture curtails us to openly express feelings and discuss personal problems, the freedom to think things for ourselves and make our own decisions. The sample perceived moral religious emphasis as more in the family. The stress on ethical and religious issues and values is more in our culture and this could be the reason. High achievement orientation is a clear indication of the middle and high middle class families stress in the importance of success in schoolwork. Based on the family environment scores it can be inferred that the present sample of adolescence have high self-esteem. This is based on the fact that self-esteem is closely related to high cohesion independence and low conflict in the family (Hirsch and Moos, 1985). Family environment factors on home adjustment revealed that home adjustment is influenced by degree of support and help and commitment in the family. This is in accordance with the study of Enos and Handal (1985), which states that adolescent psychological adjustment, and satisfaction is significantly related to level of perceived conflict in the family. They also found that factors of independence and conflict emerged as predictors of academic achievement. Independence positively contributes to academic achievement. When adolescents perceive their families as self sufficient, having freedom to make their own decisions then academic

performances increases. Conflict on the other hand negatively contributes to academic performance. When adolescents perceive more anger, criticism and arguments in the family their academic performance goes down (Bernard, 1991).

Results prove that home atmosphere influences academic achievement. Home atmosphere should be conducive to academic performance. Parents who create home atmosphere, which fosters learning have children who are academically inclined (White, 1982). On gender comparison, girls perceived more conflict than boys. This may be due to role expectations. At adolescence, girls are subjected to more heavy sex role constraints and must contend with culturally created values in the family. They are more vulnerable to social criticism. Boys, on the other hand perceived more control i.e., they perceived that their family has set rules and emphasize on following rules in the family. The boys are more sensitized than girls by control in the family. Parent-adolescent relationship is a dynamic continually one and the adjustments that each makes to accommodate the changes will play a critical part in determining the adolescent's development, his home adjustment and academic achievement. This study established that family factors play an important role in adolescent's adjustment and academic performance.

The study aimed to investigate the relationship between family environment, the home adjustment and academic achievement in adolescents (Mohanraj and Lata, 2005). The adolescents (106-Boys and 86 girls) were assessed using the Moos and Moos Family Environment Scale and Bell adjustment inventory. Academic scores were taken from the school records. Results suggested that academic performance was significantly related to independence and conflict domains of family environment.

In their study they mentioned that boys and girls differed in perception of the home and environment. The image of adolescence is a time of storm and stress,

intense moodiness and preoccupation with the self has permeated both professional and lay perspectives on this developmental period. The families in general and parents in particular, have often been deemed to be the most important support system available to the child. The strongest factor in molding a child's personality is his relationship with his parents. If his parents love him with a generous, even flowing, non possessive affection and if they treat him as a person who likes themselves, has both rights and responsibilities, then his chances of developing normally as well and good. But if they diverge from this, the child's development may be distorted (Cox & Cox, 1979). Adolescents have a poor reputation of getting along poorly with their families. The teenage boy or girl may be faced with serious problems of adjustment when there is a difference of opinions, ideals and attitudes with their parents. Conflicts may arise between the adolescent and the parents that are difficult to resolve if neither is willing nor able to compromise. It takes all the tact and understanding of parents to handle their teenage son or daughter (Coleman, 1974). Families of delinquent or uncontrollable adolescents are characterized by poorer family relationships and less social connectedness. In general, these families are lower on cohesion and independence and higher on conflict and control (Fox et al., 1983). The family environment also affects the academic achievement, which is the product of maturational forces within the adolescent and the experiences provided by the environment (Bernard, 1971).

A large number of studies have been conducted to investigate the relationship between parenting styles and (a) academic achievement and (b) adjustment of traditional college freshmen (Hickman et al.; 2000). Multiple regression models demonstrated that authoritative parenting style was positively related to student's academic adjustment. Moreover, Self-esteem was significantly predictive of social, personal-emotional, goal commitment-institutional, academic, and overall adjustment of traditional college freshmen. Implications are drawn for parents as well as educational institutions. Parenting style

typology has dominated the field as a conceptualization and method of describing parental characteristics (Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987). This typology consists of three parenting styles: authoritarian, authoritative, and permissive.

Authoritarian parenting style refers to childrearing techniques characteristic of harsh disciplinary actions and rigid boundaries, expressed both emotionally (i.e., parental support, bidirectional communication, and interactions) and psychologically (i.e., parental acceptance or rejection and discipline strategies) toward children. Such parents tend to be strict, harsh, punitive, and demanding and tend to discourage verbal give-and-take within the family setting. These parents demand obedience and uphold fundamental beliefs that a child's will must be broken. Permissive parenting style refers to child-rearing techniques that place few, if any, rules upon children. In extreme cases, children encounter complete freedom to make life decisions without referring to parents for advice, they come and go as they please, and their whereabouts are generally unknown to their parents. Communication has a tendency to be nonexistent or minimal at best as evidenced by a hands-off approach to child rearing. Finally, authoritative parenting style refers to child-rearing techniques in which parents exercise firm yet fair discipline. Despite firm discipline, parents display warmth, love, and affection toward children and are "democratic" in that they participate in bidirectional communication exchanges with children while using induction as a major form of discipline.

Parenting styles have been associated with academic successes (Dornbusch et al., 1987; Hurrelmann, Engel, Holler, & Nordlohne, 1988; Paulson, 1994; Steinberg, Elmen, & Mounts, 1989). More specifically, authoritarian and permissive parenting styles have been associated with (a) poor academic grades, (b) college adjustment, and (c) self-esteem of adolescents. In addition, high-achieving students, more often than underachieving students, described their parents as understanding, approving, trusting, affectionate, encouraging

achievement, and not overly strict in disciplining (Masselam, Marcus, & Stunkard, 1990). Conversely, underachievers described their parents as very strict and demanding, lax, or punitive in their disciplinary techniques (Dornbusch, Ritter, Mont-Reynaud, & Chen, 1990). Finally, Lamborn et al. (1991) found that adolescents from authoritative home environments demonstrated greater levels of academic competence and adjustment than adolescents reared by authoritarian parents. Thus, adolescents reared in authoritarian or permissive home environments appear to be at greater risk for negative academic outcomes.

Chen and Fan (1995) found that parental involvement has positive influence on students' academic achievement is so intuitively appealing that society in general, and educators in particular, have considered parental involvement an important ingredient for the remedy for many problems in education. The vast proportion of the literature in this area, however, is qualitative and not empirical. Among the empirical studies that have investigated the issue quantitatively, there appear to be considerable inconsistencies. A meta-analysis was conducted to synthesize the quantitative literature about the relationship between parental involvement and students' academic achievement. The findings reveal a small to moderate, and practically meaningful, relationship between parental involvement and academic achievement. Through moderator analysis, it was revealed that parental aspiration/expectation for children's education achievement has the strongest relationship, whereas parental home supervision has the weakest relationship, with students' academic achievement. In addition, the relationship is stronger when academic achievement is represented by a global indicator (e.g., GPA) than by a subject-specific indicator (e.g., math grade). Limitations of the study are noted, and suggestions are made for future studies.

Ibtesam (2006) designed a study to find out the effect of motivation, family environment, and student characteristics on academic achievement. The study

was conducted on 388 high school students (193 males and 195 females) from Abu Dhabi District, United Arab Emirates (UAE). A Likert-type instrument that consisted of three parts (scales) was used to measure students' level of motivation, parental influences, and students' characteristics, while academic achievement was measured using student's GPA. Calculations were also breakdown by gender to assess differences between male and female. The results indicate that family environment, students' motivation and their characteristics are related to their academic achievement. The Adolescent Health and Academic Achievement (AHAA) study provides an opportunity to examine the effects of education on adolescent behavior, academic achievement, and cognitive and psychosocial development (Jennifer et al., 1990).

A Longitudinal Study was explored by DeBerard, Spielmans & Julka (2004) regarding the potential psychosocial predictors of freshman academic achievement and retention. College students were assessed on various dimensions, (i.e., demographics, prior academic record, smoking, drinking, health-related quality of life, social support, coping) during the first week of their freshman year, and at the beginning of the next academic year. A multiple linear regression equation predicting cumulative GPA using 10 predictors accounted for 56% of the variance in academic achievement while a logistic equation predicting retention rates was not statistically significant. The amount of variance accounted for in first year cumulative GPA (56%) represents a substantial improvement in prediction over using highschool GPA and SAT scores alone 25%. However, similar to past research, some health and psychosocial variables (e.g., smoking, drinking, health-related quality of life, social support, and maladaptive coping strategies) were related to retention. This model may be used as a tool to proactively identify students at high risk for poor academic performance during their freshman year and to provide direction regarding proactive intervention strategies for maladaptive behaviors

predictive of poor academic performance (e.g., smoking, binge-drinking, social support, coping).

According to the President's New Freedom Commission on Mental Health (2003), approximately 5-9% of children have a "serious emotional disturbance." This term refers to any diagnosable mental disorder (in a child under age 18) that severely disrupts social, academic, and emotional functioning. This means that in our schools, there are one to two children in every classroom who are suffering from a serious mental disability, yet nearly 80% of these children do not receive the mental health services they require. According to the Department of Education, 50% of children with serious emotional and/or behavioral disorders drop out of high school, compared to 30% of students with other disabilities –making it the highest drop-out rate of any disability group (U.S. Dept. of Education, 2001).

The No Child Left behind Act of 2001 created a competitive climate in which our children are expected to rise to increasing levels of academic pressure while their mental health needs go largely underestimated and underserved. Research over the last decade has demonstrated that children who are suffering with serious emotional disturbances such as depression, anxiety disorders, suicidal behavior, substance and alcohol abuse, and post-traumatic stress disorder do not perform well academically compared to their non-mentally ill peers. The following is a discussion of ten studies conducted on the topic of mental illness and academic functioning.

The results of the National Comorbidity Survey presented very important data on the effects of early onset psychiatric disorders on educational attainment. The initial National Comorbidity Survey (NCS) was a nationally representative survey of over 8,000 respondents in the age range 15-54 years with a sub sample of almost 6,000 respondents completing a psychiatric assessment. The



baseline NCS was carried out in 1990-1992 and additional data from baseline and new respondents were collected 10 years later.

The authors of a report of the NCS data (Kessler et al., 1995) looked at the relationships between early onset mood, anxiety, substance, and conduct disorders on failure to complete high school among eighth grade graduates, failure to enter college among high school graduates, and failure to complete college among college entrants. All four types of disorders are significant predictors of failure in all three educational transitions. There is also a clear "dose-response" relationship between the number of prior disorders and dropping out of high school.

The authors found that over 14% of high school dropouts, 5% of high school graduates who do not enter college, and almost 5% of college entrants who do not complete college have histories of mental illness. Based on the results of the survey, it was conservatively estimated that 7.2 million people in the United States prematurely terminated their education because of early-onset psychiatric disorders, with only a small fraction later completing either high school or college.

The data further suggest that in 1995, 3.5 million people aged 15-54 would have completed high school and 4.3 million would have graduated from college if they had not suffered from mental disorders.

Stoep et al. (2003) analyzed data from the longitudinal Children in Community Study, looking specifically at the relationship between school failure and adolescent psychiatric disorder. The Children in Community Study has followed almost 1,000 people (predominantly Caucasian) in two upstate New York counties who entered the study as children in 1975. This report focuses on the 180 subjects who were under age 18 in 1983 and over age 18 at the time of the next interview about three years later. Almost 40% of the youth with mental illness did not complete high school compared to 7% of students

without mental illness who did not graduate. Based on these data, the authors estimated that the proportion of failure to complete school that was attributable to psychiatric disorder was 46%.

A 21-year longitudinal study carried out in New Zealand looked at the life course outcome of young people with anxiety disorders (Woodward & Fergusson, 2001). This study examined associations between the extent of anxiety disorder in adolescence (14-16 years) and young people's later risks of a range of mental health, educational, and social-role outcomes (16-21 years).

Significant linear associations were found between the number of anxiety disorders and a range of adverse outcomes in early adulthood. Even after taking into account the effects of confounding factors, significant associations remained between the presence of anxiety disorders reported in adolescence and failure to attend college or a training program after high school.

Kessler (2003) notes that social phobia is a very common disorder that typically begins in childhood or early adolescence and generally persists through adulthood. The condition is strongly associated with reduced educational attainment and highly predictive of failure to enter college after high school.

Stein and colleagues (2000) analyzed data from the Ontario Mental Health Supplement, a survey of over 8,000 residents in Ontario aged 15-64, to investigate the effects of social phobia on functioning and life satisfaction independently of major depression, a very common co-occurring condition, and other factors such as age, gender, and social class. Social phobia was a very common condition in the community and significantly more common in the young (aged 15-24) and in females.

On virtually every index of functional impairment and life satisfaction, people with social phobia fared worse than people without the condition, even after

accounting for the impairment associated with major depression. The effects of social phobia on academic achievement were particularly striking. After adjusting for age, gender, and social class, people who had a lifetime occurrence of social phobia were almost twice as likely to fail a grade or not complete high school compared to those who never had the condition. The presence or absence of major depression did not affect this outcome.

A study reported by Asarnow et al., (2005) examined the unique association of depression and role impairment among adolescents in primary care, controlling for the presence of common medical conditions. The sample included about 3,500 primary care patients aged 13-21 drawn from six sites including public health, managed care, and academic health center clinics. The sample included a large number of ethnic minority youth. Youth self-report questionnaires assessed probable depressive disorder, depressive symptoms, and common medical problems. Role impairment was defined as not in school or working full time and low educational attainment was defined as more than two years behind in school or not having graduated high school by age twenty.

Depression was uniquely associated with clinically meaningful and statistically significant decrements in school and work productivity and in educational attainment. Both measures of depression were significant predictors of role impairment and low educational attainment. Moreover, the presence of a medical condition, which was more common among depressed adolescents, was not associated with role impairment once depression was controlled, underscoring the strong links between depression and role impairment in this age group.

Marmorstein and Iacono (2001) conducted a study of about 90 adolescent girls with major depression (MD) and/or conduct disorder (CD) and 125 controls in Minnesota. The results of this study suggest that both MD and CD are related to significant difficulties in functioning and school adjustment. Each disorder

alone is related to an increased number of negative school related events such as suspension and failing grades. A dual diagnosis of MD and CD was associated with the highest level of school impairment, which is consistent with previous research indicating that depression and disruptive behavior together are related to more school problems than disruptive behavior alone (Lewinsohn et al., 1995).

In their two-year longitudinal study, Chen et al. (1995) reported that Chinese youth aged eight to ten who scored high on the Children's Depression Inventory (Kovacs, 1985) were found to have significantly lower academic achievement scores than their non-depressed counterparts.

A study carried out at a school-based health center (SBHC) of a public high school with a large population of low-income and Hispanic students (Gall et al., 2000) showed that students with mental health problems had a much higher rate of absenteeism, tardiness, and lower grades than those without mental health problems. The SBHC in this study averaged 1,000 visits per year with 30-50% of students enrolled at any given time. All students registering at the SBHC over four academic years (383 totals) were given a brief mental health screening questionnaire. Information about absences and tardiness was collected for the two months before and after the screening.

Students who scored positive on the screen (showed signs of mental illness) were almost five times more likely to have poor grades (by self-report) than those who scored negative. In addition, the students who scored positive on the screen had more than three times the absentee and tardiness rates than those who scored negative. Two months after the screen, those that were positive and received services at the SBHC decreased their days absent by half and days tardy by one-quarter. This last result is evidence that a program of screening

and referral to services can have demonstrable effects on school attendance and academic achievement as it relates to attendance.

The research briefly reviewed here shows that there is not only a clear link between mental illness and academic achievement but also between mental illness and every aspect of healthy functioning in youth. The directionality of this link remains difficult to prove, but we can certainly argue that the presence of an underlying mental illness has a detrimental affect on young people's ability to over seven million people in the United States prematurely terminated their education because of early-onset mental illness, 14% of high school dropouts have histories of mental illness (Kessler et al., 1995). Roughly half of the premature terminations of education are due to mental illness (Stoep et al., 2003). Educational disparities caused by mental illness persist through life (Miech et al., 2005). Anxiety disorders are associated with lower academic achievement (Stein & Kean, 2000; Woodward & Fergusson, 2001; Kessler 2003). Depression is associated with lower academic achievement (Asarnow et al., 2005; Chen et al., 1995; Marmorstein and Iacono, 2001). Depression in combination with behavior problems results in the highest level of school impairment (Marmorstein and Iacono, 2001; Lewinsohn et al., 1995). Youth with symptoms of mental illness have increased absenteeism and school lateness (Gall et al., 2000).

Rummel et al.; (1999) conducted a study where there are a number of issues raised by this research. First, attrition within a University can be good. Second, high performing students and low performing students are leaving for different reasons. Third, this research also raises the issue of how students, even while they attend a particular University, still are comparatively shopping. Fourth, as the social and financial pressures increase on University's to retain students, there must be a clear picture of those who are leaving and those who should be retained. Efforts on part of the University should be directed towards programming which will enhance the retention rates of those students who can

be academically and socially successful. Finally, University's should devote every effort towards succinctly obtaining and classifying reasons why students are leaving. In this particular study approximately 34% of those leaving, left without citing a reason. Universities have little chance of developing and specifically targeting program efforts if the issues are not clearly identified. Less than 1% (0.6%) listed medical problem as a reason for leaving the university.

Another study indicates that there are dynamic relations among depressed mood, frequency of alcohol use, and academic achievement across the adolescent life course (Owens et al.; 2007). We use 9th-12th grade data from the longitudinal Youth Development Study and multi group full-information maximum-likelihood structural equation modeling. Gender comparisons are emphasized. Drawing on health vulnerability and delinquency theories, four hypotheses are posed and tested. (i) Drinking as an emotional distress catalyst hypothesis is generally confirmed but the expectation of a stronger effect for girls is not. (ii) Emotional distress as a drinking catalyst hypothesis is confirmed and the effect is stronger for boys than for girls, as predicted. (iii) Normative success as a mitigator of emotional distress hypothesis is also confirmed, especially for girls. (iv) Normative success as a drinking prophylactic hypothesis is only partially confirmed, but high achieving 12th grade boys are especially less likely to drink than their female counterparts, as predicted.

For many years, it seemed that schools' obligations in the realm of student health were limited to treating playground injuries, conducting head-lice searches, and providing a central location for children's vaccinations. Today, in part because of rising rates of obesity, diabetes, and asthma among adolescents, schools are being asked to take a much more active role in promoting students' physical well-being. Attention has been focused in particular on physical

activity, nutrition and health education, and environmental conditions in school buildings.

In the past 20 years, the percentage of American adolescents who are overweight has tripled to 15 percent, according to the federal Centers for Disease Control and Prevention (Centers for Disease Control and Prevention, 2002-A). Experts often cite lack of physical activity as a leading cause of the rising obesity rate among children, pointing to the increasingly prevalent roles of cars, television, and computers in children's lives (U.S. Department of Health and Human Services, 2001; CDC, Feb. 2003).

While much of this sedentary time is passed outside of school, many look to schools to fix the problem. In a recent survey sponsored by the National Association for Sport and Physical Education, for example, three in four parents said more school-based physical education could help control or prevent childhood obesity. Providing opportunities for daily physical activity is also at the core of the recommendations for schools made in a 2001 report on obesity by the U.S. Surgeon General (U.S. Department of Health and Human Services, 2001).

While physical education is not viewed as a core academic subject in many states, adequate physical activity by students has been linked to higher academic achievement. Some studies show that students who devote a significant amount of time to physical activity exceed the academic achievement of those who do not; active students often exhibit higher energy and greater concentration (Dwyer et al., 2001; Shepherd, 1997).

The success of schools in promoting physical activity among children and adolescents has so far been mixed. A national survey conducted by the CDC (2000) shows that some 95 percent of schools required students to take physical education courses. In addition, more than 99 percent of coed middle, junior high, and high schools offered interscholastic sports, while more than 71

percent of elementary schools provided regularly scheduled recess (CDC, 2000). However, in a separate document, the CDC warns that more than one-third of high school students still "do not regularly engage in vigorous physical activity and only 32 percent of high school students attend physical education class daily" (CDC, July 2003). Likewise, a recent analysis by the National Institute of Child Health and Human Development found that a sample of 3rd graders got an average of only 25 minutes a week of moderate to vigorous activity in school (National Institute of Child Health and Human Development, 2003). Some observers have contended that school systems have had to reduce recess time and limit after-school sports because of rising pressures to meet state academic demands (Borja, 2002).

High obesity rates and a growing concern about student nutrition have also caused schools to reconsider their cafeteria menus. A U.S. Department of Agriculture study (2001) found that, in the 1990s, schools participating in the National School Lunch Program are the federal government's subsidized-meals program for student is made significant improvements in the nutritional value of the lunches they provided, including reductions in fat and saturated fat levels. Other schools appear to be following suit (U.S. Department of Agriculture, 2001; Borja, 2002).

While school-sponsored meals manifest a commitment to better nutrition, other sources of food in schools fall short, observers say. In particular, vending machines and school-run shops frequently offer students enticing selections of junk foods and high-sugar sodas, which have been linked to an increased risk of childhood obesity (U.S. General Accounting Office, 2003; Harvard School of Public Health, 2001.)

Administrators are often reluctant to give up the use of vending machines, since schools routinely rely on sales and licensing contracts from vendors to supplement budgets for supplies and student activities. But some schools have



recently established policies to limit unhealthy food products available on their campuses. Food-group representatives have objected that, rather than restrict students' choices, schools should educate students about making sensible eating decisions (Borja, 2002).

In addition to providing adequate nutrition with their meals, schools increasingly must be vigilant in ensuring the safety of the food. In the 1990s, 16,000 children were reported to be affected by food-borne illnesses. Controversy has recently emerged over a May 2003 decision by the U.S. Department of Agriculture to allow irradiated ground beef into the National School Lunch Program. While Bush administration officials say the process will help prevent food-borne illnesses, other scientists maintain that the risks of irradiated food are a greater threat (U.S. Food and Drug Administration, 2000; Epstein and Hauter, 2001).

While food-borne disease poses a significant health risk to students, the most common chronic illness among students by far is asthma, with nearly 5 million children affected (National Center for Environmental Health, June 2003). Environmental irritants found in schools are particularly mold, cockroaches, and dander—can cause asthma attacks in students to be more pronounced and common. According to the U.S. Environmental Protection Agency, asthma accounts for more than 14 million missed school days per year. It can also disrupt students' sleep and daily routines (U.S. Environmental Protection Agency, 2000).

To combat the problem, the EPA advises schools to take systematic action to rid their buildings of asthma "triggers" and to develop comprehensive "asthma management plans" that coordinate treatment for affected children. Calling attention to the complexity and breadth of the epidemic, meanwhile, a panel of national experts on asthma has called for a greater national coordination of efforts to treat and prevent the illness (including programs for schools), as well

as a greater commitment of resources (U.S. Environmental Protection Agency, 2000; Lara et al., 2002).

School environments can also affect students through allergens, poor ventilation, and dangerous chemicals. Citing a 1999 U.S. Department of Education finding that 43 percent of schools in the United States reported at least one unsatisfactory environmental condition, the EPA has launched a large-scale public-awareness campaign to help school employees and parents prevent, identify, and correct air-quality problems. The agency has found that poor air quality can have measurable effects on both student health and academic performance (U.S. Environmental Protection Agency, 2002).

In approaching all of these student health issues, a common recommendation has been the adoption of comprehensive school health policies. Under this approach, physical and health education are brought into regular classroom instruction, encouraging healthy choices as part of academic learning. Healthy physical environments, significant support-service staffing, and community outreach are also recommended as part of such programs. While many school health professionals favor the model, however, budget constraints have limited its application in schools (CDC, 2002-B; National Association of State Boards of Educations, 2002).

Obsessive-compulsive features contribute to academic failure in children and adolescents. Yet, only limited research of such features and academic performance has been conducted with college students. This study examined how obsessive-compulsive complaints, as measured by the Maudsley- Obsessional-Compulsive Inventory. Students who indicated a higher level of obsessive-compulsive complaints earned a significantly lower course grade, despite having enrolled in fewer credit hours.

Another study relating to adjustment problems and academic achievement among dental students at two universities, one located in the capital city of

Thailand (Mahidol University) and the other in southern Thailand (Prince of Songkla University), were studied. All respondents were the students of first to sixth semester of both the university and completed the Mooney Problem Checklist Thai version, by Supapan, which covers eleven areas of adjustment problems. The most severe adjustment problems at both schools were related to adjustment to college work. Problems relating to health and physical development, social and recreational activities, and moral and religious adjustment of MU dental students were significantly higher than those of PSU dental students. The checklist showed that, in both universities, the most important adjustment problem was the need for advice from staff concerning clinical experience. Stepwise regression indicated that four variables are adjustment to college work, sex; secondary education system and university (MU or PSU) were associated with the academic achievement of dental students.

Several models have been developed in order to categorize the numerous expressions that people use in order to describe their emotional experiences. The focus of the present study is on one of these theoretical classifications proposed by Pekrun (1992) specifically concerning emotions which are directly related to learning and achievement in mathematics. In his model, emotions are classified according to their valence (positive vs. negative) and their level of activation. In testing the assumptions of this model, students' enjoyment, anxiety, anger and boredom experienced before, during, and after the completion of a mathematical test was investigated. Correspondence analyses which were used to generate a graphical illustration of structural interrelationships between these emotions provide empirical support for the theoretical classification.

There exist numerous theoretical criteria according to which emotional experiences can be classified. Criteria which are often utilized include the concepts of valence, activation, intensity, duration and frequency (Shaver,

Schwartz, Kirson, & O'Connor, 1986). Different research domains and empirical findings on the structure of emotions have led to various classification schemas (Tellegen, Watson, & Clark, 1999). These classification schemes correspond to specific research domains, for instance, in fields involving clinical practice, learning and achievement environment, the workplace, as well as leisure time. In this respect, theoretical classifications of emotions are determined to a large extent by the specific contexts in which they are developed. For example, Plutchik (1980) as well as Watson and Tellegen (1985) used the concept of "contrasting" couples to describe emotional experiences varying in valence and activation in what they refer to as a "Circumplex model." In this model, enjoyment and sadness would be represented "opposite" emotions. That study focus on academic emotions in mathematics, that is, emotions which are directly related to learning and achievement (Goetz, Zirngibl, Pekrun, & Hall, 2003; Pekrun, Goetz, Titz, & Perry, 2002). To this end, we adopted Pekrun's (1992) conceptual model of emotions which specifically pertains to emotions experienced in an academic achievement context (Pekrun et al., 2002). This classification schema takes the traditional criteria of valence (positive vs. negative) and activation (activating vs. deactivating) into account and classifies academic emotions according to these criteria. While valence is considered as a bipolar dimension (positive vs. negative), activation is understood as unipolar in nature, and indicates the extent to which a given emotion is activating.

Deactivating relief boredom relaxation hopelessness in Pekrun's (1992) model, discrete academic emotions are assumed to have specific effects on learning and achievement based on how they are classified within this conceptual schema. This model distinguishes between emotions that are positive-activating (enjoyment, pride, hope), positive-deactivating (relief, relaxation), negative activating (anxiety, anger, shame/guilt), and negative deactivating (boredom,

hopelessness, disappointment). In terms of achievement, one would mainly expect positive consequences from positive-activating emotions.

Nonetheless, it remains unclear how negative-activating and positive-deactivating emotions influence learning and achievement. Thus, it cannot assume a simple positive effect of positive emotions (Aspinwall, 1998) or a simple negative effect of negative emotions. However, negative deactivating emotions may be detrimental for learning and achievement. The research question at the center of this study concerns the extent to which the theoretically postulated classification scheme outlined by Pekrun (1992) reflects students' emotional experiences during the actual process of test performance in mathematics, particularly with respect to the dimensions of academic emotions proposed in this conceptual paradigm (Pekrun et al., 2002).

Furthermore, they wanted to explore whether emotions experienced during a mathematical achievement test differ according to students' performance level and whether these different emotional experiences are in line with the theoretical assumptions of Pekrun's (1992) classificatory model.

Based on empirical evidence in support of their domain specific nature, many psychosocial constructs such as valence and control have been conceptualized primarily in a domain-specific manner (Marsh & Hattie, 1996).

This approach has also been used in recent research on emotions in students (Goetz, 2004). In a similar manner, that study focused specifically on students' academic emotions related to mathematics. More specifically, they examined students' emotions as experienced during the completion of a mathematics test.

Thus, they did not assess students' trait emotions, rather, their emotional states. Mathematics was selected based on the assumption that mathematics is typically an emotionally intense subject for students due to its difficult nature, and as such, its implications for students' overall performance.

The data on which the following analyses were conducted consisted of German students assessed at the end of the 5th grade as part of the "Project for the Analysis of Learning and Achievement in Mathematics" (Pekrun, Kleine, & Götz, 2002; Pekrun, Goetz, Perry, Kramer, Hochstadt, & Molfenter, 2004); a longitudinal expansion of the OECD-PISA study (OECD, 2000). The entire representative sample included 83 school classes (N = 2070 students) from 42 schools in the German three-track education system. In the following analyses on students' emotional experiences during the actual performance process, only students who completed all items administered during the completion of the mathematics test were assessed (n = 1660; age: M = 11.68, SD = 0.48; female: 49.8%). In order to examine the relationships between achievement levels and emotional experiences, students were divided into three groups based on their observed test performance (bottom third; middle third; top third). To assess students' performance in mathematics, a test instrument (63 items) based on the course curriculum was constructed to specifically evaluate students' ability to apply the mathematics principles learned in class to real-life situations (i.e., "mathematical literacy"; vom Hofe et al., 2002). The mathematics achievement test was scaled according to the Rasch model (LRT:  $\lambda = 2.14 * 10^{-21}$ , n.s.; cf., Anderson, 1973; Embretson & Reise, 2000; Kleine, 2004). With respect to the assessment of students' academic emotions, it concentrated on self-reported experiences of enjoyment, anxiety, anger, and boredom. These emotions were selected based on previous researching showing these specific emotions to be strongly associated with academic achievement outcomes (Pekrun et al., 2002). Emotions were assessed at four points during the test completion process: immediately before the test (Time 1), twice during the test after one-third and two thirds of test had been completed (Times 2 and 3), and after the completion of the entire test (Time 4). Students' responses to the self-report emotion measures were recorded on a Likert-style scale (1 = strongly disagree, 5 = strongly agree).

The emotional items included in the questionnaire were as follows. Students experiences of enjoyment were assessed using the following items: "I am looking forward to the test" (Time 1); "I am enjoying the tasks" (Times 2, 3); and "I have enjoyed the tasks" (Time 4). Feelings of anxiety were measured using two items: "I am anxious" (Times 1, 2, 3); and "I was anxious" (Time 4). Anger was also assessed using two items: "I am angry" (Times 1, 2, and 3); and "I was angry" (Time 4). Finally, students' experiences of boredom during the test were also measured: "I am bored" (Times 1, 2, 3); and "I was bored" (Time 4). These items were preceded at each point in the test completion process by the following instructions: "How do you feel at the moment?" (Times 1, 2, 3) and "How did you feel while working on the test?"

To investigate the empirical structure of emotions experienced during the completion of the mathematics test, investigator used correspondence analysis as a dimension-reducing method. This method is primarily intended to assist in the interpretation of multidimensional data by transforming numeric information into a graphical format (Greenacre & Blasius, 1994). Therefore, each row and each column of a cross-tabulation (e.g., achievement groups in rows and their levels of enjoyment, anger, anxiety, and boredom in the columns) can be interpreted as the profile or vector in a multidimensional space. For example, the high achievement group (first row) would likely have a profile of academic emotions (four columns) consisting of high enjoyment, low anger, low anxiety, and low boredom. Similarly, the emotion of enjoyment (first column) may have a profile across the levels of academic achievement (three rows) where the high performing students report the greatest enjoyment, moderate-performing students report lower enjoyment, and low-performing students report the lowest levels of enjoyment. Thus, for each achievement group there would exist a four-dimensional profile, and for each academic emotion a three-dimensional profile; each of which can be represented as a vector in a multidimensional plane.

In the above mentioned study, however, each academic emotion was examined at four points during the completion of a test, which means that each achievement group has a specific profile of academic enjoyment, anger, anxiety, and boredom, with each emotion assessed at four points in time (i.e., a profile consisting of 16 dimensions).

Correspondence analysis reduces the dimensionality of these profiles to a two-dimensional plane, by calculating the Euclidian distances between these profiles, allowing them to be presented graphically and interpreted more easily in terms of their structural interrelationships (Greenacre & Blasius, 1994). For the current analyses, students' test performance and emotions were plotted on a grid as points on a plane. The distances between these points represent the degrees to which these constructs are similar, that is, having a common underlying dimension. Specifically, a small distance between two points on this grid indicates a strong dimensional similarity between these constructs (cf., Benzécri, 1992; Greenacre, 1993).

Upon comparing the locations of these constructs on the grid with the a priori classifications of this achievement related emotions based on the dimensions of valence and activation, the present correspondence analysis does appear to support Pekrun's theoretical classification (1992). Looking first at the horizontal dimension, the negative emotions of anxiety, anger, and boredom are located at one pole, and the positive emotion of enjoyment is found at the opposite pole.

Students' emotions throughout the test completion process provide empirical support for the proposed theoretical classification of academic emotions outlined by Pekrun (1992). Beyond the dimensional structure of the emotions, our correspondence analyses also provides information concerning the location for the four emotions according to the three levels of achievement observed in our student sample. Considering first students' feelings of enjoyment, this



emotion was located between the top and middle performance levels, with enjoyment items assessed later in the testing period being more closely related to the top level of test performance. Consequently, these results indicate that students who performed average or well on the test (middle third and top third) experienced more enjoyment while working on the test than students who did poorly (bottom third). Furthermore, students who did very well on the test (top third) reported the highest level of retrospective enjoyment. In contrast, the emotions of anxiety and anger were located between the middle and bottom performance levels.

Feelings of boredom were found to lie between the bottom and top tests scores, indicating that students may be bored for different reasons. This finding suggests that while boredom may be the result of a lack of challenge for high-performing students, their poor-performing counterparts may experience boredom due to the overly taxing nature of the test situation. Altogether, the predominant emotions of students in the bottom third were found to be anxiety, anger, and boredom, those for students in the middle third were anxiety, anger, and enjoyment, and those of students in the top third were primarily enjoyment and boredom. However, as a more detailed analysis of this account is not possible within the scope of the present study, this issue remains an intriguing topic for future investigations. On a related note, future research on whether emotional experiences are the result of achievement outcomes or vice versa is also warranted.

The results of the correspondence analysis presented in the present study provide empirical support for Pekrun's (1992) theoretical classification of students' emotions as experienced in academic settings (Pekrun et al., 2002). In this respect, the criteria of valence and activation proved to be useful dimensions along which achievement-related emotions experienced during the course of test completion could be differentiated.

Furthermore, these results indicate that students do experience different levels of positive and negative emotions according to their level of academic achievement in mathematics. Anxiety, anger, and boredom seem to be found predominantly in students with poor achievement outcomes, whereas students who do well experience better levels of overall enjoyment and boredom. These results also give rise to important questions to be addressed in future research. Specifically, future research should seek more directly examine the causal direction of the relationship between achievement related emotions and academic performance.

A summary of research findings show that children who receive lessons in social and emotional behavior do better in school and later in life. In fact, developing self confidence and effective strategies to cope with everyday life are so important for children that research indicates they improve in an academic environment once they have these strategies. Basic human patterning is emotional therefore by learning how to cope with emotional situations children can expand their academic skills. We need to be helping students develop the ability to think critically and analytically while creating innovative solutions to problems. Educators must to more to raise academic achievement by using knowledge of emotions and how they work. Academic achievement and student behaviour improve in schools with programs that teach EQ skills.

Laura Mirsky (2002) found in a recent study that students who participate in school-based programs that focus on social and emotional learning, compared to students who do not, improve significantly in terms of social and emotional skills; attitudes about themselves, others and school; social and classroom behavior; emotional distress such as stress, anxiety and depression; achievement test scores (11 percentage points higher); and school grades. Positive social, emotional and behavioral outcomes did not occur apart from academic performance, the study showed, but rather enhanced it.

Wentzel et al.; (1991) investigated two nonintellectual factors that may partly explain the relation between parenting and academic achievement-sons' self-restraint and emotional adjustment-in a sample of 85 sixth-grade boys. Results of multiple regression techniques indicated that sons' reports of mothers' harsh and inconsistent discipline were related both directly and negatively to sons' classroom grades and indirectly via sons' global distress and low cognitive self-worth. Fathers' harsh and inconsistent discipline was related only indirectly to sons' grades by way of its independent association with sons' distress and low self-restraint. In general, these results were replicated when standardized test scores were substituted into the model. These findings underscore the critical contribution of social and emotional development to academic and intellectual achievements, and the key role of parent-child relationships in influencing such development.

Daniel et al.; (1999) conducted a study to examine the degree to which parent and sibling behavior (i.e., warm/supportive and hostile) uniquely, and in combination, were related to adolescents' academic achievement, problem behavior, and association with delinquent friends. Participants provided self-reports of their own, their parents', and their siblings' behavior, their own and their friends' problem behavior, and their own academic achievement. For both seventh graders and their siblings, parents' behavior predicted more variability in problem behavior and association with delinquent friends than it did in academic achievement. Across models, fathers' hostile behavior emerged as a significant predictor of both problem behavior and friends' problem behavior. Siblings' hostile behavior was a significant predictor of academic achievement for both groups of adolescents; however, it was a significant predictor of problem behavior and association with delinquent friends only for the older siblings. For the older siblings, the seventh graders' warm/supportive behavior predicted academic achievement. When parents' and siblings' behavior were considered in combination, seventh graders' and fathers' hostile behavior

emerged as significant, unique predictors of the older siblings problem behavior. Moreover, the seventh graders' warm/supportive and hostile behaviors emerged as significant, unique predictors of the older siblings' academic adjustment.

Mailan (2006) explored the correlation relationship between academic achievement and adjustment problems among international undergraduate students at West Virginia University. Michigan International Student Problem Inventory (M.I.S.P. Inventory) was used to measure the adjustment problems that international students have encountered. GPA scale was used to measure academic achievement. Thirty-three international undergraduate students participated in this study. Students were asked to complete the survey and self-report GPA in the survey. The correlations were found statistically significant between Academic Record problems and GPA, and between Social Personal problems and GPA. The Academic Record problems and Social Personal problems were both negatively correlated with GPA.

### **1.17 Objective of the study**

The preceding review of the literature reveals that the relationship of academic achievement with adjustment has been studied elaborately by different investigators in different context. Studies have been conducted to relate academic achievement with personal adjustment such as home, health, submissiveness, emotionality and hostility. Different investigators reported that there is no significant relationship between family adjustment and academic achievement. In a large number of studies positive relationship have been found between home adjustment and academic achievement (Ibtesam, 2006; Hickman et al., 2000; Bernard, 1971; Nihiral et al.; 1985). On the other hand, Mohanraj and Lata (2005) have also found that a positive relationship exists between home adjustment and academic achievement of the adolescents.

Learners' health adjustment has been found to be positively related to their academic performance (Michael, K., 1996; Jennifer et al., 1990). Although some researchers have found a negative relationship exists between health and academic achievement among high school students after controlling sex, race/ethnicity and grade level (Gall et al., 2000; Chen et al., 1995).

Studies have also been conducted to investigate the relationship between emotionality adjustment and academic achievement of the adolescent students. Pekrun, 1992; Pekrun, Goetz, Titz and Perry, 2002; findings suggest that there is positive relationship between emotion and academic achievement. Results also suggest that emotional problems have negative impact on students' academic performance. On the other hand socio-personal problems of the learner are negatively correlated with academic achievement (Mailan, 2006).

Daniel et al., (1999) conducted a study to examine the effects of hostile behaviour on academic achievement of the respondents. They found that the impact of hostile behaviour of academic performance is negative. They also found that there is a significant relation of hostile behaviour between parents and their children.

Hinshaw's (1992) research findings indicate that there is a strong relation between academic achievement and social adjustment. Several researchers have also shown that academic achievement can be predicted from the indicators of social adjustment. In their longitudinal study of the prosocial foundations of children's academic achievement, Caprara, Barbaranelli, Pastorelli, Bandura, and Zimbardo (2000) used children's third-grade social behavior to predict their eighth-grade academic achievement.

However, the findings of the above study provide some inconclusive results. Therefore, in order to draw clear-cut conclusion, a further study is needed to investigate the relationship between the adjustment status and academic achievement. Moreover, it is mentionable that adequate study has not been

conducted so far in Bangladesh to investigate this relationship. In this study, the author intends to conduct an investigation on academic achievement and adjustment status of the undergraduate students. Thus, the main objective of the study is to investigate the relationship between the academic achievement of the undergraduate students of Rajshahi University as related to their adjustment in different areas (i.e. home, health, submissiveness, emotionality and hostility).

### **1.18 Hypotheses**

On the basis of the findings of previous studies, theoretical perspective and above discussion, the following hypotheses are formulated to test in this empirical study:

- i) Academic achievement of excellent/better home adjusted group of students would be higher than that of the poor home adjusted group of students.
- ii) Academic achievement of excellent/better health adjusted group of students would be higher than that of the poor health adjusted group of students.
- iii) Academic achievement of the highly submissive respondents would be higher than that of the poorly submissive respondents.
- iv) Academic achievement of the better emotionally adjusted group of students would be higher than that of the poor emotionally adjusted group of students.
- v) Academic achievement of the better hostility adjusted group of students would be higher than that of the poor hostility adjusted group of students.

### **1.19 Rationale of the present study**

Quality education is the key to national development. There is no alternative to developing the sixteen crore population of Bangladesh into human resources except through self-development and effective education. The Government of Bangladesh has taken various steps to improve the educational quality (Haque and Karim, 2011). Students' academic achievement or quality education depends on their personal adjustment (Mohanraj and Lata, 2005; Hickman et al.; 2000; Bernard, 1991; Ibtesam, 2006; Jennifer et al.; 1990). Nonetheless, all the studies investigating the relationship of adjustment problems with academic achievement have been conducted in Western countries. Whereas a very few studies have been conducted about this link in the eastern countries. In general cultures in eastern countries differ from that of western countries. For understanding academic achievement, its relation with five areas of adjustment should be studied. This is why the current study is undertaken for studying relations between academic achievement with home, health, submissiveness, emotionality and hostility adjustment. It is assumed that significant features will be revealed through this study, which may be helpful to all concern with the education system (i.e. students, parents, teacher's educators and researchers etc.) and also to device appropriate measures of quality education. Thus, the present study bears much important applied significance.

## Chapter- 2

### Method and Procedure

#### 2.1 Design of the study

The study was conducted to investigate the relationship between adjustment and academic achievement. The independent variables were five areas of adjustment viz. home, health, and submissiveness, emotionality and hostility adjustment of the respondents. The dependent variable was academic achievement of the respondents.

An adapted Bangla version of the Bell Adjustment Inventory (Faruk, 1980) was administered on two hundred and eighty undergraduate students. Each of the five dimensions' scores of Bell Adjustment Inventory was computed separately in the study. The students' 1<sup>st</sup> year honors examination grade point average was considered as academic achievement (dependent variable). The relationship between academic achievement and each of the five areas of adjustment was determined by employing Pearson Product Moment Method. In order to analyze these relationships between adjustment and academic achievement of the respondents, the subjects were divided into five categories i.e., excellent, good, average, poor and unsatisfactory adjusted groups on the basis of the scores of each area of adjustment. Then, the academic scores of five categories (in each area of adjustment) were separated and finally, one way analysis of variance as well as t-test was applied on academic achievement scores of the respondents.

#### 2.2 The sample

Two hundred and eighty undergraduate students were used as subjects in the present study. They were randomly selected from three faculties of Rajshahi University. All respondents were 1<sup>st</sup> year honors students and their age ranged



from eighteen to twenty years. All the respondents were Bangla speaking. The sample distribution is shown in the following tables:

**Table- 1:** The distribution of sample according to academic achievement with respect to various levels of home adjustment

<b>Home adjustment</b>	<b>A-</b>	<b>B+</b>	<b>B</b>	<b>B-</b>	<b>C+</b>	<b>C</b>	<b>Total</b>
Excellent	15	17	3	1	2	1	39
Good	7	33	6	2	4	2	52
Average	8	36	29	7	6	3	89
Poor	2	4	10	10	7	11	44
Unsatisfactory	1	8	8	9	12	18	56
<b>Total</b>	<b>33</b>	<b>96</b>	<b>56</b>	<b>29</b>	<b>31</b>	<b>35</b>	<b>280</b>

**Table-2:** The distribution of sample according to academic achievement with respect to various levels of health adjustment.

<b>Health adjustment</b>	<b>A-</b>	<b>B+</b>	<b>B</b>	<b>B-</b>	<b>C+</b>	<b>C</b>	<b>Total</b>
Excellent	15	17	4	2	2	2	42
Good	7	30	6	1	4	3	51
Average	6	30	27	5	6	7	81
Poor	1	4	5	11	10	17	44
Unsatisfactory	1	2	5	35	15	28	62
<b>Total</b>	<b>30</b>	<b>83</b>	<b>47</b>	<b>52</b>	<b>37</b>	<b>57</b>	<b>280</b>

**Table-3:** The distribution of sample according to academic achievement with respect to various levels of submissiveness adjustment.

<b>Submissiveness adjustment</b>	<b>A-</b>	<b>B+</b>	<b>B</b>	<b>B-</b>	<b>C+</b>	<b>C</b>	<b>Total</b>
Excellent	12	15	5	3	2	4	41
Good	8	25	7	2	3	6	51
Average	6	43	25	4	2	1	81
Poor	3	5	7	5	8	11	39
Unsatisfactory	2	3	8	13	10	32	68
Total	33	91	52	27	25	54	280

**Table-4:** The distribution of sample according to academic achievement with respect to various levels of emotionality adjustment.

<b>Emotionality adjustment</b>	<b>A-</b>	<b>B+</b>	<b>B</b>	<b>B-</b>	<b>C+</b>	<b>C</b>	<b>Total</b>
Excellent	10	14	3	1	4	5	37
Good	8	38	7	2	4	2	61
Average	8	29	22	5	7	6	77
Poor	1	4	8	6	11	12	42
Unsatisfactory	1	2	5	8	20	27	63
Total	28	87	45	22	46	52	280

**Table-5:** The distribution of sample according to academic achievement with respect to various levels of hostility adjustment.

<b>Hostility adjustment</b>	<b>A-</b>	<b>B+</b>	<b>B</b>	<b>B-</b>	<b>C+</b>	<b>C</b>	<b>Total</b>
Excellent	17	19	3	1	1	3	44
Good	6	34	7	2	2	4	44
Average	6	24	23	5	8	8	74
Poor	2	4	7	9	10	11	43
Unsatisfactory	1	2	5	7	20	29	64
Total	32	83	45	24	41	55	280

### 2.3 Measuring Tools

1. Students' personal information
2. An Adapted Bangla Version of Bell adjustment Inventory (BAI).

### 2.4 Bangla Version of Bell Adjustment Inventory

The Bell Adjustment inventory (1962) was first translated in Bangla by Faruk (1980). This Bangla version of Bell Adjustment Inventory was checked by several distinguished persons in education and administration of Rajshahi and Dhaka University, to find out the correlation co-efficient the Bangla version of the Bell Adjustment Inventory and the original Bell Adjustment Inventory were administered on twenty students (10 male and 10 female) with an interval of six weeks. The results show that both versions are highly correlated. To verify the reliability of the Bangla Version of Bell Adjustment Inventory, a test retest method was followed at an interval of three months. Correlation co-efficients

of the Bangla Version with the English original version and the test- retest scores were all significant at 0.05 levels. Bagla version of Bell Adjustment Inventory was published and used/administerde earlier on various studies (Faruk, T.1990; Mondal, P. C. 2004)

## **2.5 Original Bell Adjustment Inventory**

**Description of the scale:** The questionnaire of the Bell Adjustment Inventory was first published in 1934 by Hugh. M. Bell. Then the improved revision of this inventory was administered on the students of secondary classes in 1936. The Adult form of the inventory was developed, standardized and published in 1938. The Adult form contained measures of Home, Social and Emotional adjustment, and in addition, a section on occupational adjustment to determine a worker's job satisfaction. The last revision of the Bell Adjustment inventory was published in 1962. The 1962 revision of the Bell adjustment inventory provides six measures of personal and social adjustment. These areas are:

### **a) Home Adjustment**

Home adjustment contains 35 questions. High scores on home adjustment tend to be associated with one or more of these conditions in the family: i) Inability to live up the expectations of one or both parents, ii) Role reversals of parents, iii) Feelings of parental rejection, iv) Persistent tensions in the home, v) Arbitrary restrictions and non- affectionate discipline, vi) Sibling rivalries, vii) Inability to identify with of relate to one or both parents, viii) Divorce or separation in the home, ix) Possessive parents, x) Fear of parents.

On the contrary, low scores mean that the individual is getting along well at home and that this phase of his adjustment is satisfactory to him. However, occasionally a low score indicates that the individual is too dependent upon his home to get parental love and protection rather than to seek to merit the acceptance and affection of his peers outside the home.

### **b) Health Adjustment**

Eleven health problems are covered in this section of the inventory: i) frequent colds, nose and throat discharge ii) diseases, operations, or accidents with residual effects iii) visual difficulties iv) fatigue, v) sleeplessness, vi) weight problems, vii) digestions and elimination difficulties, viii) headaches and pains, ix) a history of medical attention, x) skin diseases. High scores indicate unsatisfactory health adjustment whereas low scores indicate satisfactory health adjustment.

### **c) Submissiveness**

Individuals scoring high tend to be submissive and retiring in their social contacts. Individuals with low scores tend to be self-confident and assertive. On the contrary, individuals who make high scores on submissiveness labeled social adjustment in the earlier edition tend to lack confidence several of these social situations or roles: i) Meeting people in groups or introduction one person to another, ii) conversing easily with different types of people, iii) Taking the initiative in different social situation, iv) Speaking before groups, v) Accepting leadership roles, vi) Reciting orally in class, vii) Entering groups by one self, viii) Having the social spotlight turned on them, ix) Making friends easily, x) Avoiding feelings of self-consciousness and shyness.

### **d) Emotionality**

Individuals with high score tend to be unstable emotionally, with low score to be emotionally secure. High scores on emotionality (formerly called emotionality adjustment) suggest that the respondents have concerns in one or more of the following areas: i) A tendency to live in a world of daydreams and to imagine things, ii) Volatile feelings such as fear, anger, and excitement, iii) Depressive feelings coming from isolation and from feelings of inferiority, iv) The feeling that one is the victim of fate and misfortune, v) Feelings of guilt, vi) Feelings of self-consciousness, and easily hurt feelings, vii) Worry, anxiety, and nervousness.

### **e) Hostility**

Individuals with high scores tend to be hostile and critical in social relationships; with low scores, to be friendly and accepting of people. The terms included in this scale cover the following attitudes toward relationship with others. i) The feeling that people, in general, are stupid, dull, bore some, trite, gullible, and irrational, ii) The belief that one can not afford to trust people, even his friends, lest they may a “ Sucker” of him, iii) The feeling that other are unfriendly toward him, don’t understand him, iv) That it is foolish to tell the truth, it’s better to cover up a bit, v) Belief that one should not hesitate to tell people off and criticize them openly, vi) Belief that others fell he is critical of them and dislike them, vii) The belief that the fear of being punished is all that restrains most people from doing wrong and that every one has his price, viii) Belief that if one does not look out for himself no one else will, ix) That altruism is basically selfish and that good deeds are useless, x) That our convictions and more practices are stupid and xi) A feeling of superior isolation from the mass of mankind. Friendliness is opposed to hostility.

### **f) Masculinity-femininity**

Females who score high tend to have strong masculine interests. Females who score low tend to have strong feminine interests; Males who score high tend to be strongly masculine in their interests. Males who score low tend to have the interests of females. Questions included in this section of the inventory are items on which there is a marked difference between the answers of men and women. The questions tend to fall under these heading: i) Items which refer to fear-arousing experience, e.g. fires, earthquakes, insane persons and burglaries, ii) leisure time activities such as sports, reading, dancing and dramatics, iii) leisure time activities such as sports, reading, dancing and dramatics, iii) Uncouth an vulgar activities which feeling of disgust, iv) occupations which are particularly masculine or feminine, e.g., Social worker, engineer, etc., v)

Interests and taste in clothing and jewelry, vi) Vocabulary habits, vii) cruelty to animals.

But in the present study first five areas of adjustment out of six were considered (i.e. home, health, submissiveness, emotionality and hostility) and sixth areas of adjustment (i.e. masculinity- femininity) were excluded from the study. Because, item of this area are mostly related to some western culture, which are mostly inconsistent to our culture. So, the measurement of this adjustment was left out.

### 2.5.1 Reliability

The coefficients of reliability for each six areas of the inventory are reported below. These were determined by correlating the odd-even items and applying the spearman Brown-prophecy formula. The subjects were college freshmen, sophomore, and juniors. All corrected coefficients are above .80 and details are shown in the boxes given in the next page.

Detail Coefficients of reliability of Bell adjustment inventory.

	r	P.E.
1) Home Adjustment	.89	.008
2) Health Adjustment	.80	.015
3) Submissiveness	.89	.008
4) Emotionality	.85	.012
5) Hostility	.83	.012
6) Masculinity- femininity	.84	.011

### 2.5.2 Validity

Cross validation studies were made of each of the six scales by having high school and college counselors nominate students who they considered would exemplify six opposite extremes of each variable. Such counselors were

supplied with descriptions prepared by the author of the prototypes of high and low scorer and they then submitted names for each group.

## **2.6 Procedure of data collection**

In the present study twenty departments among three faculties of the Rajshahi University were selected randomly to collect data three months before of the examinations of the respondents. For collecting data the researcher went to the selected departments and met the respondents and had an informal talk with them in order to ensure a good rapport. After establishment of rapport, the researcher expresses the objectives of the study and also assures them the confidentiality of the responses. After that the respondents were requested to fill up personal information blank (A specimen of personal information blank is attached with the thesis as appendix- 1). When the personal information blank was filled up, the booklet of the Bangla version of the Bell adjustment inventory was given to them (A specimen of Bangla Bell adjustment inventory is attached with the thesis as appendix- 2). As the given adjustment inventory is self-administering no specific instruction was given to the respondents. The respondents went through the instructions given on the front page of the booklet. Then the respondents were advised to start the task without wasting time. There was no limitation of response time. But, one and half hours to two hours were needed to complete the total task. After the respondents had completed the task according to the instructions, the inventory booklets were collected from the respondents. Data from all the respondents were collected in individual session. On the other hand, information about academic achievement, the respondents was provided their marks sheet after the results were published.

## **2.7 Scoring**

There were five different scoring keys to count scores of the five adjustment areas. Each key had definite holes for definite answers of an item. When the



key was properly placed over the answer sheet the marked responses appeared through the holes of the key. These responses were taken as the scores. Every answer appeared through the holes carried one numerical weightage. The inclusion of the small letters a, b, c, d and e corresponding to the five measures of adjustment in the manual enabled the researcher to determine quickly the particular adjustment state relating to each measure. So, the maximum possible score for a respondent in the mentioned five areas is 170 and the minimum is zero. Low total scores indicate excellent level of adjustment and high total scores indicate poor level of adjustment in all the adjustment areas mentioned earlier.

## Chapter- 3

### Results

The study was designed to conduct an empirical investigation on academic achievement of the undergraduate students with relation to their different areas of adjustment. The independent variables were home, health, submissiveness, and emotionality and hostility adjustments. The dependent variable was academic achievement of the students. To collect data for the present study an adapted Bangla version of Bell Adjustment Inventory (Faruk, 1980) was administered on two hundred and eighty undergraduate students of Rajshahi University. In order to analyze the relationships of academic achievement and adjustment the correlation co-efficients were computed by employing Pearson Product Moment Method. For further analysis of these relationships one way analysis of variance as well as t-test was applied on the scores of their academic achievement scores.

**Table-6:** Correlation co-efficient between home adjustment and academic achievement scores of the respondents

Variables compared	r-value	Level of Significance
Home adjustment and academic achievement	-0.76	0.001

The table-6 indicates that there is significant negative correlation between home adjustment and academic achievement at 0.001 levels of significance. This correlation does not suggest negative relationship between home adjustment and academic achievement. Because according to home adjustment inventory scores it is clear that low score means excellent adjustment at home environment and in case of academic achievement, high scores indicate that his academic achievement is higher. So it can be mentioned that academic

achievement of the excellent/better home adjusted students is higher and academic achievement of poor adjusted students is lower.

For analyzing these relationships one way analysis of variance and t-test were applied on academic achievement scores of the undergraduate students. Results of these analyses are presented in table-7 and table-8.

**Table-7:** ANOVA for academic achievement with respect to various levels of home adjusted groups

Source of Variations	df	Sum of squares	Mean Squares	F-ratio
Between Groups	4	29.16	7.29	40.5*
Within Groups	275	48.87	0.18	
Total	279	78.03		

\*p <0.01

Table-7 indicates that there is a significant difference (F=40.5, df=4,275; p<0.01) among academic achievement of the various home adjusted groups.

**Table-8:** Statistical comparisons among academic achievement scores of the various home adjusted groups

Variables compared	Mean	SD	t
Excellent & Good	3.32	.58	2.65*
	3.02	.46	
Excellent & Average	3.32	.58	4.53**
	2.84	.48	
Excellent & Poor	3.32	.58	6.32**
	2.58	.47	
Excellent & Unsatisfactory	3.32	.58	9.27**
	2.31	.43	
Good & Average	3.02	.46	2.10*
	2.84	.48	
Good & Poor	3.02	.46	4.63**
	2.58	.47	
Good & Unsatisfactory	3.02	.46	8.26**
	2.31	.43	
Average & Poor	2.84	.48	2.99*
	2.58	.47	
Average & Unsatisfactory	2.84	.48	6.09**
	2.31	.43	
Poor & Unsatisfactory	2.58	.47	2.97*
	2.31	.43	

\*p <0.05; \*\*p <0.01

From 1<sup>st</sup> row of the table-8 it can be said that in case of academic achievement, there is significant difference between excellent and good home adjusted groups at 0.05 levels. Second row of the table suggests that there is significant difference between excellent and average home adjusted groups with respect to academic achievement at 0.01 levels. Third row of the table-8 indicates that significant difference exists between excellent and poor home adjusted group students' academic achievement at 0.01 levels. It can be said from table-8 that 't' value of excellent and unsatisfactory (4<sup>th</sup> row) home adjusted respondents' academic achievement is 9.27, which is significant at 0.01 levels. So, there is significant difference of academic achievement between excellent and unsatisfactory home adjusted group students. Table-8 also suggests that academic achievement of the good and poor home adjusted groups (6<sup>th</sup> row), good and unsatisfactory home adjusted groups (7<sup>th</sup> row) and average and unsatisfactory home adjusted groups (9<sup>th</sup> row) was found significant at 0.01 levels, and their 't' ratios were 4.63; 8.26 and 6.09 respectively. On the other hand, it is also found that 't' ratios of good and average home adjusted groups (5<sup>th</sup> row) and average and poor home adjusted groups (8<sup>th</sup> row) are 2.10 and 2.99 respectively, which are means the differences between home adjustment and academic achievement of these groups are significant at 0.05 levels. Finally, last row of the table-8 also suggests that significant difference in academic achievement exists between the poor and unsatisfactory home adjusted groups at 0.05 levels.

**Table-9:** Correlation co-efficient between health adjustment and academic achievement scores of the respondents

Variables compared	r-value	Level of Significance
Health adjustment and academic achievement	-0.72	0.001

The table-9 indicates that there is significant negative correlation between health adjustment and academic achievement at 0.001 levels of significance.

This correlation does not suggest negative relationship between health adjustment and academic achievement. Because low scores of health adjustment means excellent health adjustment and in case of academic achievement, high scores indicate that his academic achievement is higher. So it is easy to say that academic achievement of the excellent/better health adjusted respondents is higher and academic achievement of the poorly adjusted respondents is lower.

**Table-10:** ANOVA for academic achievement scores of the various health adjusted groups

Source of Variations	df	Sum of squares	Mean Squares	F-ratio
Between Groups	4	30.08	7.52	30.08*
Within Groups	275	68.32	0.25	
Total	279	98.40		

\* $p < 0.01$

Table-10 indicates that there is significant difference ( $F=30.8$ ,  $df=4,275$ ;  $p < 0.01$ ) among academic achievement of the various health adjusted groups.

**Table-11:** Statistical comparisons among academic achievement scores of the various health adjusted groups

Variables compared	Mean	SD	t
Excellent & Good	3.31	0.62	2.21*
	3.06	0.43	
Excellent & Average	3.31	0.62	4.39**
	2.84	0.44	
Excellent & Poor	3.31	0.62	6.69**
	2.54	0.43	
Excellent & Unsatisfactory	3.31	0.62	8.49**
	2.35	0.47	
Good & Average	3.06	0.43	2.89**
	2.84	0.44	
Good & Poor	3.06	0.43	5.90**
	2.54	0.43	
Good & Unsatisfactory	3.06	0.43	8.35**
	2.35	0.47	
Average & Poor	2.84	0.44	3.70**
	2.54	0.43	
Average & Unsatisfactory	2.84	0.44	6.36**
	2.35	0.47	
Poor & Unsatisfactory	2.84	0.43	5.57**
	2.35	0.47	

\*  $p < 0.05$ ; \*\*  $p < 0.01$

From 1<sup>st</sup> row of the table-11, it can be said that in case of academic achievement, there is significant difference between excellent and good health adjusted group at 0.05 levels. Second row of the table suggests that there is significant difference between excellent and average health adjusted groups with respect to academic achievement at 0.01 levels. Third row of the table-11 indicates that significant difference exists between excellent and poor health adjusted group students' academic achievement at 0.01 levels. It can be said from table-11 that 't' value of excellent and unsatisfactory health adjusted group of students' (4<sup>th</sup> row) academic achievement is 8.49, which is significant at 0.01 levels. So, there is significant difference between excellent and unsatisfactory health adjusted group of students' academic achievement. Again,

the table-11 suggests that academic achievement of the good and average health adjusted groups (5<sup>th</sup> row), good and poor health adjusted groups (6<sup>th</sup> row), good and unsatisfactory health adjusted groups (7<sup>th</sup> row) was found significant difference at 0.01 levels and their 't' ratios were 2.89; 5.90 and 8.35 respectively. Again, the 't' value of average and poor health adjusted groups (8<sup>th</sup> row), average and unsatisfactory health adjusted groups (9<sup>th</sup> row) are 3.70 and 6.36 respectively with respect to academic achievement, which are significant at 0.01 levels. Finally, last row of the table-11 also suggests that significant difference exists between the academic achievement of poor and unsatisfactory health adjusted groups at 0.01 levels.

**Table-12:** Correlation co-efficient between submissiveness adjustment and academic achievement scores of the respondents

Variables compared	r-value	Level of Significance
Submissiveness adjustment and academic achievement	-0.73	0.001

The table-12 indicates that there is significant negative correlation between submissiveness adjustment and academic achievement at 0.001 levels of significance. This correlation does not suggest negative relationship between submissiveness adjustment and academic achievement. Because submissiveness adjustment inventory scores indicate that low score means excellent submissiveness adjustment and in case of academic achievement, high scores indicate that his academic achievement is higher. So it can be mentioned that excellent/better submissiveness adjusted students' academic achievement is higher and poor adjusted students' academic achievement is lower.

**Table-13:** ANOVA for academic achievement scores with respect to various submissiveness adjusted groups

Source of Variations	df	Sum of squares	Mean Squares	F-ratio
Between Groups	4	24.47	6.12	24.48*
Within Groups	275	67.49	0.25	
Total	279			

\*  $p < 0.01$

Table-13 indicates that there is significant difference ( $F=24.48$ ,  $df=4,275$ ;  $p < 0.01$ ) among academic achievement of the various submissiveness adjusted groups.

**Table-14:** Statistical comparisons among academic achievement scores of the various submissiveness adjusted groups

Variables compared	Mean	SD	t
Excellent & Good	3.21	0.64	1.33
	3.05	0.48	n.s.
Excellent & Average	3.21	0.64	2.690*
	2.92	0.38	
Excellent & Poor	3.21	0.64	4.66**
	2.60	0.53	
Excellent & Unsatisfactory	2.21	0.64	8.14**
	2.38	0.47	
Good & Average	3.05	0.48	1.64
	2.92	0.38	n.s.
Good & Poor	3.05	0.48	4.17**
	2.60	0.53	
Good & Unsatisfactory	3.05	0.48	7.70**
	2.38	0.47	
Average & Poor	2.92	0.38	3.36**
	2.60	0.53	
Average & Unsatisfactory	2.92	0.38	7.71**
	2.38	0.47	
Poor & Unsatisfactory	2.60	0.53	2.18*
	2.38	0.47	

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; n.s. = non-significant



From 1<sup>st</sup> row of the table-14 it can be said that in case of academic achievement, there is no significant difference between excellent and good submissiveness adjusted group. Table-14 (second row) suggests that there is significant difference between excellent and average submissiveness adjusted group with respect to academic achievement at 0.05 levels. Third row of the table-14 indicates that significant difference exists between excellent and poor submissiveness adjusted group students' academic achievement at 0.01 levels. Again, it can be said that 't' value of academic achievement of the excellent and unsatisfactory submissive respondents (4<sup>th</sup> row) is 8.14, which is significant at 0.01 levels. So, there is significant difference between the academic achievement of the excellent and unsatisfactory submissiveness adjusted group of respondents. The table-14 also suggests that in case of good and average submissively adjusted groups (5<sup>th</sup> row) found no significant difference between their adjustment status and academic performance. Again, in case of academic achievement of the good and poor (6<sup>th</sup> row), good and unsatisfactory (7<sup>th</sup> row), average and poor (8<sup>th</sup> row) and average & unsatisfactory submissiveness adjusted groups was found significant at 0.01 levels and their t-ratios were 4.17; 7.70; 3.36 and 7.71 respectively. Finally, last row of the table-14 also suggests that significant difference exists between the academic achievement of poor and unsatisfactory submissiveness adjusted groups at 0.05 levels.

**Table-15:** Correlation co-efficient between emotionality adjustment and academic achievement scores of the respondents

Variables compared	r-value	Level of Significance
Emotionality adjustment and academic achievement	-0.75	0.001

The table-15 indicates that there is significant negative correlation between emotionality adjustment and academic achievement at 0.001 levels of significance. This correlation does not suggest negative relationship between emotionality adjustment and academic achievement. Because low scores of

emotionality adjustment inventory means excellent emotionality adjustment and in case of academic achievement, high scores indicate that his academic achievement is higher. So it can be said that academic achievement of the excellent/better emotionally adjusted students is higher and poorly adjusted students is lower.

**Table-16:** ANOVA for academic achievement scores of the various emotionally adjusted groups

Source of Variations	df	Sum of squares	Mean Squares	F-ratio
Between Groups	4	76.11	19.03	86.49*
Within Groups	275	61.72	0.22	
Total	279	137.83		

\*  $p < 0.01$

Table-16 indicates that there is significant difference ( $F=86.49$ ,  $df=4,275$ ;  $p < 0.01$ ) among academic achievement of the various emotionally adjusted groups.

**Table-17:** Statistical comparisons among academic achievement scores of the various emotionally adjusted groups

Variables compared	Mean	SD	t
Excellent & Good	3.34	0.59	2.73*
	3.04	0.44	
Excellent & Average	3.34	0.59	4.32**
	2.86	0.49	
Excellent & Poor	3.34	0.59	6.84**
	2.54	0.43	
Excellent & Unsatisfactory	3.34	0.59	9.01**
	2.34	0.43	
Good & Average	3.04	0.44	2.28*
	2.86	0.49	
Good & Poor	3.04	0.44	5.75**
	2.54	0.43	
Good & Unsatisfactory	3.04	0.44	9.09**
	2.34	0.43	
Average & Poor	2.86	0.49	3.68**
	2.54	0.43	
Average & Unsatisfactory	2.86	0.49	6.75**
	2.34	0.43	
Poor & Unsatisfactory	2.54	0.43	2.35*
	2.34	0.43	

\*  $p < 0.05$ ; \*\*  $p < 0.01$

It can be said that on the basis of the results shown in 1<sup>st</sup> row of the table-17, there is significant difference between of academic achievement of the excellent and good emotionally adjusted groups at 0.05 levels. Table-17 (2<sup>nd</sup> row) also suggests that there is significant difference between excellent and average emotionally adjusted groups with respect to academic achievement at 0.01 levels. Third row of the table-17 indicates that significant difference of academic achievement exists between excellent and poor emotionally adjusted group of students at 0.01 levels. Again, the table-17 suggests that 't' value of academic achievement of the excellent and unsatisfactory emotionally adjusted groups (4<sup>th</sup> row) is 9.01, which is significant at 0.01 levels. So, there is

significant difference between excellent and unsatisfactory emotionally adjusted groups on their academic achievement. The table-17 also suggests that academic achievement of the good and average emotionally adjusted groups (5<sup>th</sup> row) and poor & unsatisfactory emotionally adjusted groups (last row) was found significant difference at 0.05 levels. The 't' value of good and poor (6<sup>th</sup> row), good and unsatisfactory (7<sup>th</sup> row), average & poor (8<sup>th</sup> row) and average & unsatisfactory (9<sup>th</sup> row) emotionally adjusted groups are 5.75; 9.09; 3.68 and 6.75 respectively with respect to academic achievement, which are significant at 0.01 levels.

**Table-18:** Correlation co-efficient between hostility adjustment and academic achievement scores of the respondents

Variables compared	r-value	Level of Significance
Hostility adjustment and academic achievement	-0.69	0.001

The table-18 shows that there is significant negative correlation between hostility adjustment and academic achievement at 0.001 levels of significance. This correlation does not suggest negative relationship between hostility adjustment and academic achievement. Because hostility adjustment inventory scores indicate that low score means excellent hostility adjustment and high scores of academic achievement indicate that his academic achievement is higher. So it can be mentioned that academic achievement of the excellent/better hostility adjusted students is higher and poor hostility adjusted students is lower

**Table-19:** ANOVA for academic achievement scores of the various hostility adjusted groups.

Source of Variations	df	Sum of Squares	Mean Squares	F-ratio
Between Groups	4	29.64	7.39	43.44*
Within Groups	275	47.65	0.17	
Total	279			

\*  $p < 0.01$

Table-19 indicates that there is significant difference ( $F=43.44$ ,  $df=4,275$ ;  $p<0.01$ ) among academic achievement of the various hostility adjusted groups.

**Table-20:** Statistical comparisons among academic achievement scores of the various hostility adjusted groups

Variables compared	Mean	SD	t
Excellent & Good	3.35	0.58	3.24**
	3.01	0.43	
Excellent & Average	3.35	0.58	5.20**
	2.83	0.43	
Excellent & Poor	3.35	0.58	6.92**
	2.56	0.48	
Excellent & Unsatisfactory	3.35	0.58	9.80**
	2.35	0.43	
Good & Average	3.01	0.43	2.34*
	2.83	0.43	
Good & Poor	3.01	0.43	4.79**
	2.56	0.48	
Good & Unsatisfactory	3.01	0.43	8.35**
	2.35	0.43	
Average & Poor	2.83	0.43	3.03**
	2.56	0.48	
Average & Unsatisfactory	2.83	0.43	6.58**
	2.35	0.43	
Poor & Unsatisfactory	2.56	0.48	2.31*
	2.35	0.43	

\*  $p<0.05$ ; \*\*  $p<0.01$

From 1<sup>st</sup> row of the table-20 it can be said that in case of academic achievement, there is significant difference between excellent and good

hostility adjusted group. Table-20 (2<sup>nd</sup> row) suggests that there is significant difference between excellent and average hostility adjusted group with respect to academic achievement. Third row of the table-20 indicates that significant difference exists between excellent and poor hostility adjusted group students' academic achievement. It can be said from table-20 that 't' value of excellent and unsatisfactory (4<sup>th</sup> row) hostility adjusted group students' academic achievement is 9.80, which is significant at 0.01 levels. So, there is significant difference between excellent and unsatisfactory hostility adjusted groups students' academic achievement. The table-20 also suggests that good and average (5<sup>th</sup> row), good and poor (6<sup>th</sup> row), good and unsatisfactory (7<sup>th</sup> row) hostility adjusted group's academic achievement was found significant difference at 0.01 levels. The 't' value of the average and poor (8<sup>th</sup> row) and average & unsatisfactory (9<sup>th</sup> row) hostility adjusted groups are 3.03 and 6.58 respectively with respect to academic achievement, which are significant at 0.01 levels. Finally, last row of the table-20 also suggests that significant difference exists between the academic achievement of poor and unsatisfactory hostility adjusted group.

## Chapter- 4

### Discussion and Conclusion

The purpose of the present study was designed to investigate the relationship between academic achievement and personal adjustment of the undergraduate students. The independent variables were five areas of adjustment (i.e. home, health, submissiveness, emotionality and hostility) and dependent variable was academic achievement of the respondents. For collecting data an adapted Bangla version of Bell Adjustment Inventory (Faruk, 1980) was administered on two hundred and eighty undergraduate students of Rajshahi University. In order to analyze the relationship of academic achievement and adjustment Product Moment Correlation Method was applied on the scores of academic achievement and each of the five areas of adjustment. As a further means of analyzing these relationships one way analyses of variance as well as t-test were administered on the scores of their academic achievement.

Five hypotheses were formulated to test in the present study. The first hypothesis states that academic achievement of excellent/better home adjusted group of students would be higher than that of the poor home adjusted group of students. It was expected that the poor home adjusted students' academic grade would be lower than that of the better home adjusted students. It can be seen from table-6 that there is a negative correlation between home adjustment and academic achievement. The results (table-7) indicate that there is significant difference among academic achievement of the various levels of home adjusted groups. The results reported in table-8 indicate that significant means difference exists among every comparison of the various levels of home adjusted groups with respect to academic achievement scores. These results suggest that excellent home adjusted students' academic performance is significantly higher than that of good, average, poor and unsatisfactory home adjusted students' academic performance. So, it can be said that academic

performance of the excellent or better home adjusted groups is significantly higher than that of the poor or unsatisfactory home adjusted groups. Thus, the results confirm the first hypothesis.

In explaining these findings, it can be mentioned here that the poor/unsatisfactory home adjusted students are not able to live up the expectations of parents; they feel parental rejection and persistent tension at home; they fall in arbitrary restrictions and non affectionate discipline as well as they may be the divorce or separation homes members (Bell, 1962). As a result, they do not perform well in case of academic excellence. On the other hand, better home adjusted students get warm sunlight of their parents love and protection; they can not seek the acceptance and affection of their peers. They would like to stay with their parents at home due to friendly environment that can help them to be high achievers in the field of education. Previous studies results suggest that students' home or family adjustment is related to their academic performance (Bites, 2006; Hickman et al., 2000; Bernard, 1971; Nihiral et al.; 1985). Their findings also indicate that students who are suffering from home adjustment problems their academic performance is lower. Mandura (2003) found that children from authoritarian homes tend to more aggressive, less independent, more depressed, and have lower academic achievement. On the other hand, Shilkert & Vecchiotti (1997) mentioned that authoritarian parenting style was generally associated with good adjustment to a college environment have significant effect on students academic achievement. So, the finding of the present study in home adjustment is fully supported by the above mentioned findings.

The second hypothesis of the present study was academic achievement of excellent/better health adjusted group of students would be higher than that of the poor health adjusted group of students. At the beginning of the study it was anticipated that academic grade of the poor health adjusted students would be lower than that of the better health adjusted students. It will be observed from



table-9 that a significant negative correlation exists between academic achievement and health adjustment. The result presented in table-10 indicates that there is significant difference among academic achievement of the various levels of health adjusted groups. Results of further analysis (table-11) suggest that significant differences have been found, in case of every comparison, of the various healths adjusted groups with respect to academic achievement scores.

To interpret this finding according to Michel (2003) who found in his study that health related factors such as hunger, physical and emotional abuse, and chronic illness can lead to poor school performance. Health risk behaviors such as substance use, violence, and physical inactivity are consistently linked to academic failure and often affect students' school attendance, grades, test scores and ability to pay attention in class. Shephard (1997) explained that physical activity is also consistently related to higher levels of self-esteem and lower levels of anxiety and stress, each of which is associated with enhanced academic performance. According to Bell (1962) low achievers are frequently attacked by cold, nose and throat discharge, have visual, digestions and elimination difficulties, feel fatigue, headaches and pains as well as they have skin disease that can affect their academic performance. Scientific reviews have documented that school or college health programs can have positive impacts on educational outcomes. It is argued that the reported findings in health adjustment are supported by the above mentioned study and thus, the second hypothesis is fully confirmed.

Third hypothesis posits that academic achievement of the highly submissive respondents would be higher than that of the poorly submissive respondents. It was expected that better submissiveness adjusted students' academic grade would be higher than that of the poor adjusted groups. Table-12 recommends that there is negative correlation between academic achievement and submissiveness adjustment. It can be seen from table-13 that significant

difference exists among various levels of submissiveness adjustment with reference to their academic achievement. To find out the difference of academic achievement among various submissiveness adjusted groups, t-test was plotted on academic grades (table-14). Results indicate that in case of every comparison of academic achievement, there is significant difference among various submissiveness groups. On the basis of the above results it can be said that excellent submissiveness adjusted groups' academic achievement is found to be significantly higher than that of the poorly adjusted groups at every comparison (table-14). In favor of this finding it can be said that there is a strong relation between academic achievement and social adjustment (Hinshaw, 1992). Several researchers have also shown that academic achievement can be predicted from indicators of social adjustment. In their longitudinal study of the prosocial foundations of children's academic achievement, Caprara, Barbaranelli, Pastorelli, Bandura, and Zimbardo (2000) used children's third-grade social behavior to predict their eighth-grade academic achievement..Thus, the reported results confirm the third hypothesis.

Fourth hypothesis states that academic achievement of the better emotionally adjusted group of students would be higher than that of the poor emotionally adjusted group of students. The result presented in table-15 shows that a negative correlation has been found between academic achievement and emotional adjustment. Result of one way analysis of variance presented in table-16 indicates significant difference exists among various levels of emotionally adjusted groups with respect to their academic performance. To analyze the nature of the difference t-test was applied between two groups separately on academic grade point average (table-17). It will be observed from table -17 that there is significant difference exists between excellent and good emotionally adjusted groups with respect to academic scores, between excellent and average, and so on. Thus, the results confirm the fourth hypothesis.

These results are supported by previous researchers' outcomes. For example, Pekrun (1992) found in his studies that emotions such as anger, enjoyment, depression, boredom etc. are directly related to students' learning and academic achievement. Goetz (2004) conducted a similar study and found that students' emotions have negative impact on mathematical test. The finding also can be explained according to Bell (1962) that poor emotionally adjusted learners' tendency is to live in a world of daydreams and to imagine things. They feel fear, anger, excitement, guilt, worry, anxiety and nervousness that may reduce their academic performance.

Last hypothesis of the present study was that academic achievement of the better hostility adjusted group of students would be higher than that of the poor hostility adjusted group of students. Table-18 indicates that a negative correlation exists between academic achievement and hostility adjustment. The result of the study suggests that significant difference has been found among various levels of hostility adjusted groups with respect to academic achievement (table-19). The results (table-20) also suggest that significant means difference exists among every levels of hostility adjustment compared to other levels with respect to academic achievement scores. These results suggest that excellent hostility adjusted students' academic performance is significantly higher than that of the good, average, poor and unsatisfactory hostility adjusted students' academic performance. So, it can be said that excellent or better hostility adjusted students' academic performance is significantly higher than that of the poor or unsatisfactory hostility adjusted students' performance. Thus, the results confirm the fifth hypothesis.

This result is supported by the findings of Daniel et al., (1999). They conducted a study to examine the effects of hostility behaviour on academic achievement of the respondents. They found that the impact of hostility behaviour on academic performance is negative. They also found that there is a significant relation of hostility behaviour between parents and their children.

In favor of this finding it can be explained, according to Bell (1962), that individuals with high scores tend to be hostile and critical in social relationship and with low scores, tend to be friendly and accepting to people. High scorers feel that people, in general, are stupid, dull, boresome, trite, gullible and irrational. Their belief that they cannot afford to trust people, even their friends. They believe in fear of being punished for doing wrong work. The feeling that others are unfriendly towards them, do not understand them, others dislike them and feeling of superior isolation from the mankind. Bell also mentioned low scores on the hostility scale may include students who come from homes where they have been highly protected from contacts with people from a wide range of social, economic and educational backgrounds. Or, on the other hand, they may come from homes where they have had extensive contacts with people and have been taught to feel secure in their social relationships. In the first group, one finds the more innocent, somewhat native students who have not had sufficient experience with different kinds of people to test their capacity for significant social relationships. The second group usually enjoyed homes where has been a warm, accepting, and affection relationship among the family members and where the parents have evidence a feeling of respect and affection for people generally. Sullivan (1953) found that hostile student express negative attitude to themselves which may be responsible for lowering the academic achievement.

On the basis of the above discussion it can be concluded that academic achievement of undergraduate students depends on their personal adjustment. That means, academic achievement of better adjusted students is higher than that of poor adjusted group students. Parents, teachers, and guardians must be careful about the five areas of adjustment to develop the student's academic achievement. Those who are suffering in various adjustment problems, they need proper counseling for being adjusted students that will help to develop themselves as high achievers.

Nevertheless, there were some limitations in the present study that would also facilitate to other researchers for conducting the relevant researches in this area.

These are:

- i) In the present study the sample size was small. Further studies may be conducted on a large sample to take decision regarding these issues.
- ii) The author did not see the association of other demographic variables with adjustment and academic achievement
- iii) Simply undergraduate students took part in the present study as respondents. Further research may be carried out on the various levels of students studying at different educational institutions
- iv) Instead of ANOVA and t-test, Multiple Regression Analysis may be applied on obtained data to find out the significant predictors among five adjustment areas of academic achievement

In fine it can be pointed out that in order to draw a clear cut conclusion about the relationship pattern between academic achievement and adjustment further researches are needed to carry out in road and abroad respectively.

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## Appendix 01

### Students' information blank

- ১। ছাত্র/ছাত্রীর নাম : .....
- ২। বয়স : .....
- ৩। লিঙ্গ : .....
- ৪। শিক্ষা প্রতিষ্ঠানের নাম : .....
- ৫। শ্রেণী : .....
- ৬। বিভাগ : .....
- ৭। শিক্ষামূলক কৃতিত্ব : .....
- (ক) ১ম বর্ষ (সম্মান) : 

গ্রেড	গ্রেড পয়েন্ট
- ৮। পরিবারের পেশা : .....
- (ক) পিতার পেশা : .....
- (খ) মাতার পেশা : .....
- ৯। পিতা-মাতার শিক্ষাগত যোগ্যতা : .....
- (ক) পিতার শিক্ষাগত যোগ্যতা : .....
- (খ) মাতার শিক্ষাগত যোগ্যতা : .....
- ১০। পিতা মাতার মাসিক আয় : .....
- (ক) পিতার মাসিক আয় : .....
- (খ) মাতার মাসিক আয় : .....
- ১১। পরিবারের ভাই-বোনের সংখ্যা : .....
- (ক) ভাইএর সংখ্যা : .....
- (খ) বোনএর সংখ্যা : .....
- (গ) জন্ম ক্রম (ভাই বোন এর মধ্যে তাঁর অবস্থান) : .....

## Appendix 02

### An Adapted Bangla Version Bell Adjustment Inventory

বেল উপযোজন অভীক্ষা  
রিভাইজড ১৯৬২ঃ ছাত্র ফর্ম  
বাংলা সংস্করণ

### নির্দেশ

আপনাকে কতকগুলো প্রশ্ন দেওয়া হলো। প্রতিটি প্রশ্ন মনোযোগ দিয়ে পড়ুন এবং উত্তর পত্রের নির্দিষ্ট ঘরে আপনার উত্তর চিহ্নিত করুন। উত্তর হ্যাঁ হলে হ্যাঁ ঘরে, এবং উত্তর না হলে না ঘরে (X) চিহ্ন দিন। যদি কোন প্রশ্নের উত্তরে সম্পূর্ণ হ্যাঁ বা না বলায় দ্বিধা থাকে তবে (?) এর ঘরে (X) চিহ্ন দিন। প্রশ্নমালার উত্তর দানের জন্য কোন নির্দিষ্ট সময় সীমা নাই। কিন্তু যথাসম্ভব তাড়াতাড়ি উত্তর দেবার চেষ্টা করুন। পিতা-মাতা ছাড়া যদি অন্য কারও সাথে আপনি বসবাস করেন তাহলে পিতা-মাতার স্থানে তাদের কথা মনে করে উত্তর দেবেন।

- ১। আপনি কি প্রায়ই দিবাস্পু দেখেন?
- ২। আপনি কি অন্যের সাদিকারি থেকে আক্রান্ত হন?
- ৩। আপনি কি খুব বেশী নাটকীয়তা পছন্দ করেন?
- ৪। আপনি কি মনে করেন যে অনেক ব্যক্তিই বোকার মতন কথা বার্তা বলেন?
- ৫। রোগাসংক্রান্ত ব্যাপারে ডাক্তারের সংগে দেখা করতে আপনি কি ভয় পান?
- ৬। কোন আনুষ্ঠানিক সামাজিক সমাবেশে উপস্থিত নামকরা ব্যক্তির সংগে আপনি কি দেখা করতে চেষ্টা করেন?
- ৭। আপনার চোখ কি আলোর প্রতি বেশী সংবেদনশীল?
- ৮। কোন সময়ে আপনার কি বাড়ী ছেড়ে পালিয়ে যাবার প্রবল ইচ্ছা হয়েছিল?
- ৯। আপনি কি রং এর প্রতি অতিরিক্ত আগ্রহী?
- ১০। আপনি কি কোন সময়ে এটা সম্ভব বলে মনে করেন যে, সারা বিশ্বের সকল মানুষ শান্তিপূর্ণ ভাবে একত্রে বসবাস করতে পারবে?
- ১১। আপনি কি কোন পার্টিতে লোকজনদের একে অপরের সঙ্গে পরিচয় করিয়ে দেবার দায়িত্ব গ্রহণ করেন?
- ১২। আপনার কি কখনো মনে হয় যে আপনার পিতা-মাতা আপনার ব্যাপারে নিরাশ হয়ে পড়েছেন?
- ১৩। আপনার কি প্রায়ই মনমরা ভাব হয়?

- ১৪। আপনার কি পাণ্ডু রোগ বা হাঁপানী রোগ আছে?
- ১৫। আপনি দেখেছেন যে পৃথিবীতে এমন অনেক ব্যক্তি আছে যাদের উপরে বিশ্বাস স্থাপন করা একেবারে সম্ভব নয়?
- ১৬। আপনি কি রং চঙে পোশাক পরতে ভালবাসেন?
- ১৭। দলের মধ্যে কথা বলার সময়ে আপনি উপযুক্ত মন্তব্য ভেবে বের করতে প্রায়ই কি খুব অসুবিধা বোধ করেন?
- ১৮। আপনার কি কখনো হামজুর বা ডিপথেরিয়া হয়েছিল?
- ১৯। আপনি গোসল খানায় গোসল করার চাইতে কি পুকুরে গোসল করতে বেশী পছন্দ করেন?
- ২০। সবকিছু খোলাখুলি বলে নিজেকে বিব্রতকর পরিস্থিতিতে ফেলার চেয়ে কিছুটা রেখে ঢেকে বলার পছাটিকে কি আপনি ভাল পছা বলে মনে করেন?
- ২১। আপনি কি কখনো নিষ্প্রাণ পার্টিকে প্রাণবন্ত করতে নেতৃত্ব দিয়েছেন?
- ২২। আপনার মা-ই কি বাড়িতে অধিকতর কর্তৃত্ব দেখান?
- ২৩। আপনি কি সমাজ কর্মী হতে চান?
- ২৪। শুধুমাত্র মানুষের সঙ্গে একত্র হবার জন্যই কি আপনি সামাজিক অনুষ্ঠানকে উপভোগ করেন?
- ২৫। অনেক ব্যক্তিই কি আপনার সঙ্গে অবক্ষুত্ব সুলভ আচরণ করেছেন?
- ২৬। আপনার পিতা-মাতার মধ্যে কেউ কি আপনাকে প্রায়ই অন্যায়ভাবে সমালোচনা করেন?
- ২৭। কোন জনসমাবেশে সবাই আসন গ্রহণ করার পরে প্রবেশ করতে আপনি কি বিব্রতবোধ করেন?
- ২৮। লোকজনের মাঝে থেকেও আপনি কি প্রায়ই নিজেকে নিঃসঙ্গ অনুভব করেন?
- ২৯। আপনি কি গৃহের আভ্যন্তরীণ সাজের শিল্পী হতে চান?
- ৩০। আপনি কি কোনও সময়ে যে কোন প্রকার দুর্ঘটনায় গুরুতরভাবে আহত হয়েছেন?
- ৩১। আপনার বাড়িতে প্রকৃত স্নেহ ভালবাসার অভাব আছে বলে কি আপনি বোধ করেন?
- ৩২। ক্লাসে মৌখিক কিছু বলতে আপনার কি অসুবিধা হয়?
- ৩৩। আপনার কি প্রায়ই মাথা ব্যথা হয়?
- ৩৪। কখনও কি আপনার মনে হয় যে কেউ হয়তো আপনার ক্ষতি করার চেষ্টা করছে?
- ৩৫। আপনি কি “প্রাইভেট সেক্রেটারী” হতে চান?
- ৩৬। আপনি কি প্রায় মনে করেন যে লোক আপনাকে ঠিক বুঝতে পারছে না?
- ৩৭। পিতার সংগে কি আপনার মধুর সম্পর্ক আছে?
- ৩৮। ঘুমের ব্যাঘাতের কোন কারণ না থাকা সত্ত্বেও আপনার কি কোন কোন সময়ে ঘুম আসতে অসুবিধা হয়?

- ৩৯। ট্রেনে অথবা বাসে যাত্রাকালীন আপনার সহযাত্রীদের সঙ্গে আপনি কখনও আলাপে রত হন?
- ৪০। আপনি কি প্রায়ই দিনের শেষে খুব ক্লান্ত বোধ করেন?
- ৪১। কখনও কি ভূমিকম্প বা আগুন লাগার চিন্তা আপনাকে ভীত করে তোলে?
- ৪২। আপনি কি অধিকতর সময় অপ্রিয় সত্য বলাতেই বিশ্বাসী?
- ৪৩। আপনি কি কথায় কথায় “চমৎকার” শব্দটি ব্যবহার করতে পছন্দ করেন?
- ৪৪। রাত্রে আপনার ঘরে চোর ঢুকেছে এমন চিন্তা কি আপনাকে ভীত করে তোলে?
- ৪৫। সম্প্রতি আপনার দৈনিক ওজন কি হ্রাস পেয়েছে?
- ৪৬। বিবেচনাপূর্ণ হোক বা না হোক এমন কোন আদেশ পালনের জন্য আপনার পিতা-মাতার কেউ কি আপনার উপরে জোর করেছেন?
- ৪৭। অপরের কাছ থেকে কি আপনি সহজেই সাহায্য প্রার্থনা করতে পারেন?
- ৪৮। সাংসারিক ও গৃহকর্ম সংশ্লিষ্ট কোন পত্রিকা আপনি কি পড়েন?
- ৪৯। আপনার নিকট আত্মীয়ের মৃত্যু বা অসুস্থতা আপনার গৃহজীবনকে কি অশান্তিময় করে তুলেছে?
- ৫০। প্রায় আপনার মাথা ঘুরে কি?
- ৫১। অতিরিক্ত সমালোচক বলে লোকজন আপনাকে কি দোষারোপ করে?
- ৫২। অর্থাভাব আপনার গৃহজীবনকে কি অশান্তিময় করে তোলে?
- ৫৩। আপনি কি সহজেই কেঁদে ফেলেন?
- ৫৪। আপনি কি আপনার লাজুকতার জন্য অসুবিধা বোধ করেন?
- ৫৫। আপনি কি বড় অগ্নিকান্ড দেখে ভীত হন?
- ৫৬। স্বল্প পরিচিত লোকের কাছে কিছু চেয়ে আপনি কি চিঠিতে বা চিরকুটে লিখে চান, না তার কাছে নিজে যান?
- ৫৭। আপনার বাবা-মা কি প্রায়ই আপনার স্বভাবে খুঁত ধরে থাকেন?
- ৫৮। কখনও কি আপনার শরীরে অস্ত্রোপচার হয়েছে?
- ৫৯। একদল লোকের মধ্যে আলোচনার শুরুতে আপনাকে কোন ধারণা দিতে হলে আপনি কি বিব্রত হয়ে পড়েন?
- ৬০। আপনি কি সাপ দেখে ভয় পান?
- ৬১। আপনি কি মাঝে মাঝে মনে করেন যে এই জগতে হাবাগবা লোকের একটি বড় সমষ্টি আছে?
- ৬২। আপনি কি উন্মাদ ব্যক্তিকে ভয় করেন?
- ৬৩। যে সব সঙ্গী সাথীদের সঙ্গে আপনি ঘুরে বেড়ান, তাদের প্রতি আপনার বাবা-মা কি প্রায়ই আপত্তি করেন?

- ৬৪। আপনার নিজের কোন দোষ না থাকা সত্ত্বেও কি আপনার প্রচেষ্টাগুলি প্রায় ব্যর্থ হয়?
- ৬৫। আপনার কি খুব সর্দিকাশি হয়?
- ৬৬। অন্যের কার্যবলী, পরিকল্পনা এবং পরিচালনা করার কোন অভিজ্ঞতা কি আপনার আছে?
- ৬৭। আপনার বাবা পরিবারের ভরনপোষনের জন্য যে পেশা অবলম্বন করেছেন তার জন্য আপনি কি বিব্রত বোধ করেন?
- ৬৮। আপনার বন্ধুবান্ধব আপনার সংগে বিশ্বাসঘাতকতা করেছে এ রকম অভিজ্ঞতা আপনার কি প্রায়ই হয়েছে?
- ৬৯। আপনি কি সংবাদপত্রের খেলাধুলার অনুচ্ছেদটি পড়েন?
- ৭০। আপনার কি 'টন সিল' বা "ল্যারিংজাইটিস" আছে?
- ৭১। আপনি কি বিদ্যুৎ দেখে ভয় পান?
- ৭২। আপনার পিতা মাতার মধ্যে কেউ কি সহজেই রেগে যান?
- ৭৩। আপনার কি ইনফ্লুয়েঞ্জা হবার প্রবণতা আছে?
- ৭৪। স্কুলে কম নম্বর পাওয়ার জন্য আপনি কি প্রায়ই বিমর্ষ হয়ে পড়েন?
- ৭৫। সদ্য পরিচিত কোন ব্যক্তির সঙ্গে আলাপ শুরু করতে আপনি কি অসুবিধা বোধ করেন?
- ৭৬। আপনি কি মনে করেন যে, মেয়েরা ছলনামূলক আচরণ করবে বলে আপনি তাদের সাধারণতঃ বিশ্বাস করেন?
- ৭৭। কেহ অশ্লীল ব্যবহার করলে আপনি কি ঘৃণা বোধ করেন?
- ৭৮। কখনও কি আপনার মনে হয়েছে যে কেউ আপনাকে সম্মোহন করে আপনার ইচ্ছার বিরুদ্ধে আপনাকে কাজ করিয়েছে?
- ৭৯। গত দশ বছরের মধ্যে আপনার কি কোন বড় রকমের অসুখ হয়েছিল?
- ৮০। বাড়ীর কাজ কেমন হওয়া উচিত এ নিয়ে বাবা-মার কারোর সংগে কি আপনার মতান্তর হয়?
- ৮১। অন্যেরা যে সুখ উপভোগ করে তা দেখে আপনার মনে প্রায়ই কি ঈর্ষার উদ্রেক হয়?
- ৮২। প্রশ্নের জবাব জানা সত্ত্বেও যখন ক্লাসে বলতে বলা হয় তখন বলতে প্রায়ই ব্যর্থ হন কারণ আপনি ক্লাসের সম্মুখে কিছু বলতে ভীত হন তাই নয় কি?
- ৮৩। পেটে গ্যাস হবার দরুন আপনি কি প্রায়ই অস্বস্তি বোধ করেন?
- ৮৪। একেবারে গৈয়ো অজ্ঞ লোক কি আপনার বিরক্তির উদ্রেক করে?
- ৮৫। আপনি কি "নাড়িভুড়ি" ও "সাইরেন" এই দুটি শব্দ অপছন্দ করেন?
- ৮৬। অনেক উঁচু স্থানে উঠলে আপনার সেখান হতে নীচে ঝাপিয়ে পড়তে পারেন, এমন ভয় কি আপনার কখনও হয়েছে?

- ৮৭। আপনার নিকট আত্মীয়দের মধ্যে কি প্রায়ই পরিবারিক কলহ হয়?
- ৮৮। বিপরীত লিঙ্গের ব্যক্তির সংগে বন্ধুত্বপূর্ণ সম্পর্ক গড়তে আপনি কি সহজেই পারেন?
- ৮৯। আপনি কি সহজেই হতাশ হয়ে পড়েন?
- ৯০। আপনি কি আপনার ভাই এবং বোনের সংগে প্রায়ই ঝগড়াঝাটি করেছেন?
- ৯১। আপনি কি এমন অনেক লোক দেখেছেন যাদের তীব্রভাবে আপনি অপছন্দ করেন?
- ৯২। কেউ পানের পিক থুথু করে ফেললে আপনি কি ঘৃণা বোধ করেন?
- ৯৩। আপনার পিতা-মাতা কারও কাজকর্ম কোন সময়ে আপনার মনে কি ভীতির সঞ্চার করেছে?
- ৯৪। আপনি কখনও আপনার কৃতকার্যের জন্য প্রায়ই দুঃখ বোধ করেন?
- ৯৫। কোন গুরুত্বপূর্ণ ভোজ অনুষ্ঠানে কারো কাছে কোন বিশেষ আহার্য চেয়ে নে'য়ার বদলে সেটা ছাড়াই কি আপনি খাওয়া শেষ করেন?
- ৯৬। আপনি কি মনে করেন আপনার পিতা-মাতা আপনাকে পরিনত ব্যক্তি হিসাবে গণ্য না করে আপনাকে এখনও ছেলে মানুষ মনে করে আপনার সংগে আচরণ করে?
- ৯৭। আপনার চোখ ব্যাথার প্রবনতা আছে কি?
- ৯৮। ধরা পড়ে শাস্তি পাবার ভয় যদি না থাকতো, তবে জগতের অধিকাংশ লোকই দুষ্ট চরিত্রের হতো বলে কি আপনি মনে করেন?
- ৯৯। ঘামের তীব্র গন্ধে আপনার কি বিরক্তি আসে?
- ১০০। লোকে আপনার ভাবনা চিন্তা সবকিছু বুঝতে পারছে—এই উপলদ্ধি কি আপনাকে ভাবিয়ে তোলে?
- ১০১। জনসমাবেশে উপস্থিত হবার একাধিক অভিজ্ঞতা কি আপনার আছে?
- ১০২। সকালে উঠলে আপনি কি প্রায়ই অবসাদগ্রস্থ বোধ করেন?
- ১০৩। আপনি কি মনে করেন যে, আপনার পিতা-মাতা আপনার প্রতি অস্বাভাবিক কড়া ছিলেন?
- ১০৪। আপনি কি সহজেই রেগে যান?
- ১০৫। প্রায়ই কি আপনার ডাক্তার দেখাবার প্রয়োজন হয়?
- ১০৬। আপনার সহকর্মীর কোনো নির্বাক মন্তব্য কি আপনার মনোযোগ আকর্ষণ করে?
- ১০৭। মাতাল লোক আপনাকে কি বীতশ্রদ্ধ করে তুলে?
- ১০৮। জনসমাবেশে বলতে কি আপনি খুব অসুবিধা বোধ করেন?
- ১০৯। প্রায়ই কি আপনি অত্যন্ত দুঃখীবোধ করেন?
- ১১০। আপনার পিতা-মাতার ব্যক্তিগত কোন অভ্যাস কি আপনার বিরক্তির উদ্রেক করে?
- ১১১। জীবনের নিত্য প্রয়োজনীয় দ্রব্যের সরবরাহ সব সময়ে কি আপনার বাড়ীতে থাকে?

- ১১২। আপনি কি মনে করেন যে অধিকাংশ লোক আপনার কাছ থেকে সুযোগ পেলেই সুবিধা আদায় করে নেবে?
- ১১৩। আপনি কি পোশাকের নতুন স্টাইল সম্বন্ধে জানতে পছন্দ করেন?
- ১১৪। আপনি কি হীনমন্যতা বোধ করেন?
- ১১৫। প্রায় সময়ই কি আপনি ক্লান্ত বোধ করেন?
- ১১৬। আপনি কি আপনার গায়ের রং এবং হাতের যত্ন নেবার জন্য বেশ সময় ব্যয় করেন?
- ১১৭। জীবনের চলার পথে এগিয়ে যেতে হলে, সর্বাত্মে নিজের সার্থের প্রতি লক্ষ্য রাখতে হবে- এটা কি আপনি সত্য বলে মনে করেন?
- ১১৮। আপনি কি নিজেকে একজন নার্সাস ব্যক্তি বলে মনে করেন?
- ১১৯। আপনি কি সামাজিক নৃত্য বেশী পছন্দ করেন?
- ১২০। আপনার চেহারার দরুন আপনি প্রায়ই বিব্রত বোধ করেন?
- ১২১। আপনি কি আপনার বাবার চেয়ে মাকে বেশী ভালোবাসেন?
- ১২২। আপনার বদ হজম হবার প্রবনতা আছে কি?
- ১২৩। ফুল সাজাতে কি আপনি আনন্দ পান?
- ১২৪। আপনি প্রায় বোধ করেন কি যে লোকে আপনার আড়ালে আপনার সম্বন্ধে বলছে?
- ১২৫। আপনি কি মনে করেন যে আমাদের সামাজিক রীতিনীতি এবং নৈতিক চাল চলনের অনেকগুলি মূল্যহীন?
- ১২৬। আপনি কি সহজেই লজ্জায় লাল হয়ে উঠেন?
- ১২৭। আপনার বাড়ীর শান্তি রক্ষার্থে আপনাকে কি চুপ থাকতে হয় বা বাড়ীর বাইরে চলে যেতে হয়?
- ১২৮। স্বল্পপরিচিত যে সমস্ত ব্যক্তিদের আপনি প্রশংসা করেন তাঁদের উপস্থিতিতে নিজেকে নিয়ে কি বিব্রত হয়ে পড়েন?
- ১২৯। আপনার কি তীব্র মাথা ব্যাথ্যা আছে?
- ১৩০। আপনি কি স্বীয় সেক্সের সংগীদের সংঙ্গে নাচতে আনন্দ বোধ করেন?
- ১৩১। আপনার চার পাশের কিছুই বাস্তব নয়- এইরূপ বোধ কি কোন সময়ে আপনাকে উতলা/উদ্বিগ্ন করে?
- ১৩২। আপনার কি মাঝে মাঝে বমির ভাব, বমি বা ভেদ হবার অভিজ্ঞতা প্রায়ই হয়?
- ১৩৩। কোন সামাজিক ব্যাপারে আপনি কি নেতার ভূমিকা নেন?
- ১৩৪। আপনার মন কি সহজেই আঘাত পায়?
- ১৩৫। যাদের সাথে পরিচয় হয়েছে তাদের অনেককেই কি আপনি আবিবেচক বলে মনে করেন?



- ১৩৬। আপনি কি গহনা পরতে ভালবাসেন?
- ১৩৭। কাউকে এড়িয়ে যাবার জন্য আপনি কি কখন রাস্তা বদল করেন?
- ১৩৮। পরিবারের সদস্যবৃন্দের প্রতি কি আপনি মাঝে মাঝে ভালবাসা ঘনামূলক ভাব পোষণ করেন?
- ১৩৯। আপনার মনে যে আদর্শ মানুষের ছবি আছে, আপনার পিতা কি সেইরূপ ছিলেন?
- ১৪০। অপরের দোষ ধরিয়ে দেয়াটাকে আপনি কি ভাল মনে করেন?
- ১৪১। কোনও সমাবেশে দেৱী করে প্রবেশ করলে সামনের আসনে বসার চাইতে আপনি দাঁড়িয়ে থাকা বা চলে যাওয়া কি পছন্দ করেন?
- ১৪২। আপনার শৈশবকালের অধিকাংশ সময়ে কি আপনি অসুস্থ ছিলেন?
- ১৪৩। আপনি কি সম্ভাব্য দুর্ভাগ্য নিয়ে দুশ্চিন্তাগ্রস্ত হন?
- ১৪৪। আপনি কি সহজেই বন্ধুত্ব করতে পারেন?
- ১৪৫। আপনি কি বিমান এবং যুদ্ধ জাহাজ গঠন সম্বন্ধে পড়াশোনায় আগ্রহী?
- ১৪৬। আপনার দশ থেকে পনেরো বছর বয়সের মধ্যে আপনার পিতা-মাতা কি প্রায় আপনাকে শাস্তি দিয়েছেন?
- ১৪৭। আপনার বন্ধু সাদৃশ কোন ব্যক্তি হতে কোনও কিছু দ্বারা আঘাত হাবার অভিজ্ঞতা আপনার আছে কি?
- ১৪৮। আপনার নাক দিয়ে নিঃশ্বাস নিতে প্রায়ই কি কষ্ট হয়?
- ১৪৯। সামাজিক সমাবেশে আপনি কি প্রায়ই মনোযোগের কেন্দ্রস্থল হন?
- ১৫০। আপনার পিতা-মাতা কেউ কি খুব অল্পতেই রেগে যান?
- ১৫১। অনেক মুখচেনা বন্ধু-বান্ধবের চেয়ে অল্পসংখ্যক ঘনিষ্ঠ বন্ধু রাখা কি আপনি পছন্দ করেন?
- ১৫২। রাস্তায় লোকেরা আপনাকে লক্ষ্য করেছে- এ চিন্তা কি আপনাকে পীড়া দেয়?
- ১৫৩। আপনি কি সূচশিল্প, বুনোনি ইত্যাদি হস্তশিল্প ভালবাসেন?
- ১৫৪। শুধু মজার জন্য খরগোশকে গুলি করে মারা আপনি কি অন্যায় বলে মনে করেন?
- ১৫৫। সর্দিকাশি সারাতে আপনার কি কষ্ট হয়?
- ১৫৬। আপনার চেহারা সমালোচনা করে আপনার পিতা-মাতা কি আপনাকে অসুখি করে তুলেন?
- ১৫৭। সমালোচনা কি আপনাকে অতিরিক্ত বিব্রত করে তুলে?
- ১৫৮। কোন সমবেত লোকজন থেকে বিদায় নেবার জন্য অনুমতি নিতে হলে আপনি কি খুব বিব্রত বোধ করেন?
- ১৫৯। আপনি কি মনে করেন যে মানুষ অন্যের কল্যাণ সাধনের নিমিত্তে সংভাবে সময় ও শক্তি উপভোগ করেন?

- ১৬০। একশো গজ দৌড় দল্লফ বা একমাইল দৌড়ে যে বিশ্বরেকর্ড আছে তা আপনি কি জানেন?
- ১৬১। আপনার ওজন কি বেশ কম?
- ১৬২। ক্ষুধার্ত না হওয়া সত্ত্বেও কি আপনি প্রায়ই আপনার দৈনন্দিন খাবার খান?
- ১৬৩। আপনার পিতা-মাতার মধ্যে কি চিরস্থায়ীভাবে বিচ্ছেদ ঘটেছে?
- ১৬৪। আপনি কি প্রায়ই উত্তেজিত অবস্থায় থাকেন?
- ১৬৫। সামাজিক অনুষ্ঠান সমূহে আপনি কি পেছনে থাকেন?
- ১৬৬। আপনি কি চশমা পরেন?
- ১৬৭। আপনি কি মনে করেন যে, তথাকথিত যে সব ভাল কাজ আমরা লোকের জন্য করতে চাই তা প্রায়ই তাদের ভালোর বদলে খারাপই করে?
- ১৬৮। আপনার পিতা-মাতার মধ্যে কেউ কি খুব নার্ভাস?
- ১৬৯। কোনও একটি বিশেষ অপ্রয়োজনীয় চিন্তা আপনার মনে বারবার এসে কি আপনাকে বিরক্ত করে?
- ১৭০। কোনও শিক্ষক অপ্রত্যাশিতভাবে আপনাকে ডাকলে আপনি কি বেশ বিমূঢ় হয়ে পড়েন?
- ১৭১। আপনি কি আপনার স্বাস্থ্যের প্রতি সযত্ন নজর রাখা প্রয়োজনীয় বোধ করেন?
- ১৭২। আপনি কি খুব সহজেই বিমূঢ় হয়ে যান?
- ১৭৩। আপনার কর্মজীবন সম্পর্কে পিতা-মাতার সাথে আপনার কি মতবিরোধ হয়েছে?
- ১৭৪। আপনি কি উৎসবপূর্ণ সমাবেশে কোন উৎফুল্লজনক পার্টিতে অংশ গ্রহণ করতে পছন্দ করেন?
- ১৭৫। আপনি কি দেখেছেন যে অনেক লোক সম্পর্কে আপনাকে সাবধানে পদক্ষেপ নিতে হয় নতুবা তারা আপনার উপরে সুযোগ নেবে?
- ১৭৬। সুস্পষ্ট কারণ ছাড়াই কি আপনার মেজাজের তারতম্য হয়?
- ১৭৭। আপনি কি কোন অপরিচিত ব্যক্তির সাথে আলাপ শুরু করতে অসুবিধা বোধ করেন?
- ১৭৮। অপমানজনক অভিজ্ঞতার জন্য আপনি কি দীর্ঘক্ষণ ধরে চিন্তাক্রিষ্ট থাকেন?
- ১৭৯। অসুস্থতার দরুন আপনি কি প্রায়ই স্কুলে অনুপস্থিত থেকেছেন?
- ১৮০। আপনার কোনও ক্ষতি করতে পারবে না এমন কোন জিনিস নিয়ে আপনি কি কোন সময়ে অতিরিক্ত ভীত হয়েছেন?
- ১৮১। আপনি কি কোষ্ঠবদ্ধতায় অতিরিক্ত ভোগেন?
- ১৮২। আপনি কি মনে করেন যে আপনার বন্ধু-বান্ধবদের আপনার চেয়ে অধিকতর সুখী গৃহ আছে?
- ১৮৩। গৃহস্থালী ও খাবার তৈরীর কাজ কি আপনি উপভোগ করেন?
- ১৮৪। সাধারণতঃ আপনার মায়ের সঙ্গে কি আপনার মধুর সম্পর্ক আছে?
- ১৮৫। কালো মাকড়সাগুলিকে কি আপনি ভয় পান?

- ১৮৬। আপনার কি এমন কোন দাঁত আছে যার চিকিৎসার প্রয়োজন?
- ১৮৭। ক্লাসে আবৃত্তি করার সময় আপনি কি বিব্রত বোধ করেন?
- ১৮৮। আপনার পিতা মাতার কেউ কি আপনার উপর অধিক মাত্রায় প্রভুত্ব করেছে?
- ১৮৯। আপনার চারিপাশের সবার থেকে আপনি কোন না কোন বিষয়ে শ্রেষ্ঠ বলে কি আপনি প্রায়ই বোধ করেন?
- ১৯০। আপনি কি বোধ করেন যে মাঝে মাঝে উন্মাসিক লোকদের মুখের উপরে কথা বলাটা কি আপনি প্রয়োজনীয় বলে মনে করেন?
- ১৯১। আপনার হৃৎপিণ্ড, মুত্রাশয় বা ফুসফুসে কোনো অসুবিধা/ রোগ আছে কি?
- ১৯২। “অর্থ দিয়ে প্রায় সব মানুষকে বশ করা যায়” - এই উক্তিটির সঙ্গে আপনি কি একমত?
- ১৯৩। প্রায়ই কি আপনার মাথায় এমন সব চিন্তা কিলবিল করে যার ফলে আপনার ঘুম হয় না?
- ১৯৪। আপনার কি প্রায় মনে হয়ে যে আপনার পিতা-মাতার কেউ আপনাকে ঠিক বুঝতে পারেনি?
- ১৯৫। আপনি কি ব্যাখ্যামূলক নৃত্যে আগ্রহী?
- ১৯৬। অন্ধকারে একা থাকতে আপনি কি ভয় পান?
- ১৯৭। পরম নিঃস্বার্থ কোন কাজই হয় না বলে কি আপনি মনে করেন?
- ১৯৮। ক্লাসে আবৃত্তিতে সেচ্ছায় অংশ নিতে কি আপনি ইতঃস্তত করেন?
- ১৯৯। আপনার কি কখনো চর্মরোগ হয়েছে অথবা ফোঁটক হয়েছে যেমন “কারবাংকলস্” অথবা ফোড়া?
- ২০০। যখন কোন ঘরে একদল লোক আলাপে রত থাকে তখন সেখানে প্রবেশ করতে আপনি ইতঃস্তত করেন?

Appendix-03  
বেল উযোজন অভীক্ষার উত্তরপত্র

নাম	বয়স																		
	হ্যাঁ	না	?	হ্যাঁ	না	?	হ্যাঁ	না	?	হ্যাঁ	না	?	হ্যাঁ	না	?				
1	0	0	0	2	0	0	0	3	0	0	0	4	0	0	0	5	0	0	0
6	0	0	0	7	0	0	0	8	0	0	0	9	0	0	0	10	0	0	0
11	0	0	0	12	0	0	0	13	0	0	0	14	0	0	0	15	0	0	0
16	0	0	0	17	0	0	0	18	0	0	0	19	0	0	0	20	0	0	0
21	0	0	0	22	0	0	0	23	0	0	0	24	0	0	0	25	0	0	0
26	0	0	0	27	0	0	0	28	0	0	0	29	0	0	0	30	0	0	0
31	0	0	0	32	0	0	0	33	0	0	0	34	0	0	0	35	0	0	0
36	0	0	0	37	0	0	0	38	0	0	0	39	0	0	0	40	0	0	0
41	0	0	0	42	0	0	0	43	0	0	0	44	0	0	0	45	0	0	0
46	0	0	0	47	0	0	0	48	0	0	0	49	0	0	0	50	0	0	0
51	0	0	0	52	0	0	0	53	0	0	0	54	0	0	0	55	0	0	0
56	0	0	0	57	0	0	0	58	0	0	0	59	0	0	0	60	0	0	0
61	0	0	0	62	0	0	0	63	0	0	0	64	0	0	0	65	0	0	0
66	0	0	0	67	0	0	0	68	0	0	0	69	0	0	0	70	0	0	0
71	0	0	0	72	0	0	0	73	0	0	0	74	0	0	0	75	0	0	0
76	0	0	0	77	0	0	0	78	0	0	0	79	0	0	0	80	0	0	0
81	0	0	0	82	0	0	0	83	0	0	0	84	0	0	0	85	0	0	0
86	0	0	0	87	0	0	0	88	0	0	0	89	0	0	0	90	0	0	0
91	0	0	0	92	0	0	0	93	0	0	0	94	0	0	0	95	0	0	0
96	0	0	0	97	0	0	0	98	0	0	0	99	0	0	0	100	0	0	0
101	0	0	0	102	0	0	0	103	0	0	0	104	0	0	0	105	0	0	0
106	0	0	0	107	0	0	0	108	0	0	0	109	0	0	0	110	0	0	0
111	0	0	0	112	0	0	0	113	0	0	0	114	0	0	0	115	0	0	0
116	0	0	0	117	0	0	0	118	0	0	0	119	0	0	0	120	0	0	0
121	0	0	0	122	0	0	0	123	0	0	0	124	0	0	0	125	0	0	0
126	0	0	0	127	0	0	0	128	0	0	0	129	0	0	0	130	0	0	0
131	0	0	0	132	0	0	0	133	0	0	0	134	0	0	0	135	0	0	0
136	0	0	0	137	0	0	0	138	0	0	0	139	0	0	0	140	0	0	0
141	0	0	0	142	0	0	0	143	0	0	0	144	0	0	0	145	0	0	0
146	0	0	0	147	0	0	0	148	0	0	0	149	0	0	0	150	0	0	0
151	0	0	0	152	0	0	0	153	0	0	0	154	0	0	0	155	0	0	0
156	0	0	0	157	0	0	0	158	0	0	0	159	0	0	0	160	0	0	0
161	0	0	0	162	0	0	0	163	0	0	0	164	0	0	0	165	0	0	0
166	0	0	0	167	0	0	0	168	0	0	0	169	0	0	0	170	0	0	0
171	0	0	0	172	0	0	0	173	0	0	0	174	0	0	0	175	0	0	0
176	0	0	0	177	0	0	0	178	0	0	0	179	0	0	0	180	0	0	0
181	0	0	0	182	0	0	0	183	0	0	0	184	0	0	0	185	0	0	0
186	0	0	0	187	0	0	0	188	0	0	0	189	0	0	0	190	0	0	0
191	0	0	0	192	0	0	0	193	0	0	0	194	0	0	0	195	0	0	0
196	0	0	0	197	0	0	0	198	0	0	0	199	0	0	0	200	0	0	0

## Home adjustment এর scoring key

	হ্যাঁ	না	?	হ্যাঁ	না	?	হ্যাঁ	না	?	হ্যাঁ	না	?	হ্যাঁ	না	?	হ্যাঁ	না	?	
1	0	0	0	2	0	0	0	3	0	0	0	4	0	0	0	5	0	0	0
6	0	0	0	7	0	0	0	8	0	0	0	9	0	0	0	10	0	0	0
11	0	0	0	12	0	0	0	13	0	0	0	14	0	0	0	15	0	0	0
16	0	0	0	17	0	0	0	18	0	0	0	19	0	0	0	20	0	0	0
21	0	0	0	22	0	0	0	23	0	0	0	24	0	0	0	25	0	0	0
26	0	0	0	27	0	0	0	28	0	0	0	29	0	0	0	30	0	0	0
31	0	0	0	32	0	0	0	33	0	0	0	34	0	0	0	35	0	0	0
36	0	0	0	37	0	0	0	38	0	0	0	39	0	0	0	40	0	0	0
41	0	0	0	42	0	0	0	43	0	0	0	44	0	0	0	45	0	0	0
46	0	0	0	47	0	0	0	48	0	0	0	49	0	0	0	50	0	0	0
51	0	0	0	52	0	0	0	53	0	0	0	54	0	0	0	55	0	0	0
56	0	0	0	57	0	0	0	58	0	0	0	59	0	0	0	60	0	0	0
61	0	0	0	62	0	0	0	63	0	0	0	64	0	0	0	65	0	0	0
66	0	0	0	67	0	0	0	68	0	0	0	69	0	0	0	70	0	0	0
71	0	0	0	72	0	0	0	73	0	0	0	74	0	0	0	75	0	0	0
76	0	0	0	77	0	0	0	78	0	0	0	79	0	0	0	80	0	0	0
81	0	0	0	82	0	0	0	83	0	0	0	84	0	0	0	85	0	0	0
86	0	0	0	87	0	0	0	88	0	0	0	89	0	0	0	90	0	0	0
91	0	0	0	92	0	0	0	93	0	0	0	94	0	0	0	95	0	0	0
96	0	0	0	97	0	0	0	98	0	0	0	99	0	0	0	100	0	0	0
101	0	0	0	102	0	0	0	103	0	0	0	104	0	0	0	105	0	0	0
106	0	0	0	107	0	0	0	108	0	0	0	109	0	0	0	110	0	0	0
111	0	0	0	112	0	0	0	113	0	0	0	114	0	0	0	115	0	0	0
116	0	0	0	117	0	0	0	118	0	0	0	119	0	0	0	120	0	0	0
121	0	0	0	122	0	0	0	123	0	0	0	124	0	0	0	125	0	0	0
126	0	0	0	127	0	0	0	128	0	0	0	129	0	0	0	130	0	0	0
131	0	0	0	132	0	0	0	133	0	0	0	134	0	0	0	135	0	0	0
136	0	0	0	137	0	0	0	138	0	0	0	139	0	0	0	140	0	0	0
141	0	0	0	142	0	0	0	143	0	0	0	144	0	0	0	145	0	0	0
146	0	0	0	147	0	0	0	148	0	0	0	149	0	0	0	150	0	0	0
151	0	0	0	152	0	0	0	153	0	0	0	154	0	0	0	155	0	0	0
156	0	0	0	157	0	0	0	158	0	0	0	159	0	0	0	160	0	0	0
161	0	0	0	162	0	0	0	163	0	0	0	164	0	0	0	165	0	0	0
166	0	0	0	167	0	0	0	168	0	0	0	169	0	0	0	170	0	0	0
171	0	0	0	172	0	0	0	173	0	0	0	174	0	0	0	175	0	0	0
176	0	0	0	177	0	0	0	178	0	0	0	179	0	0	0	180	0	0	0
181	0	0	0	182	0	0	0	183	0	0	0	184	0	0	0	185	0	0	0
186	0	0	0	187	0	0	0	188	0	0	0	189	0	0	0	190	0	0	0
191	0	0	0	192	0	0	0	193	0	0	0	194	0	0	0	195	0	0	0
196	0	0	0	197	0	0	0	198	0	0	0	199	0	0	0	200	0	0	0

## Health adjustment এর scoring key

	হ্যাঁ	না	?	হ্যাঁ	না	?	হ্যাঁ	না	?	হ্যাঁ	না	?	হ্যাঁ	না	?	হ্যাঁ	না	?	
1	0	0	0	2	✓	0	0	3	0	0	0	4	0	0	0	5	0	0	0
6	0	0	0	7	✓	0	0	8	✓	0	0	9	0	0	0	10	0	0	0
11	0	0	0	12	0	0	0	13	✓	0	0	14	✓	0	0	15	0	0	0
16	0	0	0	17	0	0	0	18	0	0	0	19	0	0	0	20	0	0	0
21	0	0	0	22	0	0	0	23	0	0	0	24	0	0	0	25	0	0	0
26	0	0	0	27	0	0	0	28	✓	0	0	29	0	0	0	30	✓	0	0
31	0	0	0	32	0	0	0	33	✓	0	0	34	0	0	0	35	0	0	0
36	0	0	0	37	0	0	0	38	0	0	0	39	0	0	0	40	✓	0	0
41	0	0	0	42	0	0	0	43	0	0	0	44	0	0	0	45	✓	0	0
46	0	0	0	47	0	0	0	48	0	0	0	49	0	0	0	50	✓	0	0
51	0	0	0	52	0	0	0	53	✓	0	0	54	0	0	0	55	0	0	0
56	0	0	0	57	✓	0	0	58	0	0	0	59	0	0	0	60	✓	0	0
61	0	0	0	62	0	0	0	63	0	0	0	64	0	0	0	65	✓	0	0
66	0	0	0	67	0	0	0	68	✓	0	0	69	0	0	0	70	✓	0	0
71	0	0	0	72	0	0	0	73	0	0	0	74	0	0	0	75	0	0	0
76	0	0	0	77	0	0	0	78	✓	0	0	79	0	0	0	80	0	0	0
81	0	0	0	82	0	0	0	83	0	0	0	84	0	0	0	85	0	0	0
86	0	0	0	87	0	0	0	88	0	0	0	89	0	0	0	90	0	0	0
91	0	0	0	92	✓	0	0	93	0	0	0	94	0	0	0	95	0	0	0
96	0	0	0	97	✓	0	0	98	0	0	0	99	0	0	0	100	✓	0	0
101	0	0	0	102	0	0	0	103	0	0	0	104	0	0	0	105	0	0	0
106	0	0	0	107	0	0	0	108	0	0	0	109	0	0	0	110	✓	0	0
111	0	0	0	112	0	0	0	113	0	0	0	114	0	0	0	115	0	0	0
116	0	0	0	117	✓	0	0	118	0	0	0	119	0	0	0	120	0	0	0
121	0	0	0	122	✓	0	0	123	0	0	0	124	0	0	0	125	0	0	0
126	0	0	0	127	0	0	0	128	0	0	0	129	0	0	0	130	0	0	0
131	0	0	0	132	0	0	0	133	0	0	0	134	0	0	0	135	0	0	0
136	0	0	0	137	✓	0	0	138	✓	0	0	139	0	0	0	140	0	0	0
141	0	0	0	142	0	0	0	143	0	0	0	144	0	0	0	145	✓	0	0
146	0	0	0	147	0	0	0	148	0	0	0	149	0	0	0	150	0	0	0
151	0	0	0	152	✓	0	0	153	0	0	0	154	0	0	0	155	0	0	0
156	0	0	0	157	0	0	0	158	0	0	0	159	0	0	0	160	0	0	0
161	0	0	0	162	0	0	0	163	0	0	0	164	0	0	0	165	0	0	0
166	0	0	0	167	0	0	0	168	0	0	0	169	0	0	0	170	0	0	0
171	0	0	0	172	0	0	0	173	0	0	0	174	0	0	0	175	0	0	0
176	0	0	0	177	0	0	0	178	0	0	0	179	0	0	0	180	0	0	0
181	0	0	0	182	0	0	0	183	0	0	0	184	✓	0	0	185	0	0	0
186	0	0	0	187	0	0	0	188	0	0	0	189	✓	0	0	190	0	0	0
191	0	0	0	192	0	0	0	193	0	0	0	194	0	0	0	195	0	0	0
196	0	0	0	197	0	0	0	198	0	0	0	199	0	0	0	200	0	0	0







## Hostility adjustment এর scoring key

	হ্যাঁ	না	?	হ্যাঁ	না	?	হ্যাঁ	না	?	হ্যাঁ	না	?	হ্যাঁ	না	?	হ্যাঁ	না	?	
1	0	0	0	2	0	0	0	3	0	0	0	4	0	0	0	5	0	0	0
6	0	0	0	7	0	0	0	8	0	0	0	9	0	0	0	10	0	0	0
11	0	0	0	12	0	0	0	13	0	0	0	14	0	0	0	15	0	0	0
16	0	0	0	17	0	0	0	18	0	0	0	19	0	0	0	20	0	0	0
21	0	0	0	22	0	0	0	23	0	0	0	24	0	0	0	25	0	0	0
26	0	0	0	27	0	0	0	28	0	0	0	29	0	0	0	30	0	0	0
31	0	0	0	32	0	0	0	33	0	0	0	34	0	0	0	35	0	0	0
36	0	0	0	37	0	0	0	38	0	0	0	39	0	0	0	40	0	0	0
41	0	0	0	42	0	0	0	43	0	0	0	44	0	0	0	45	0	0	0
46	0	0	0	47	0	0	0	48	0	0	0	49	0	0	0	50	0	0	0
51	0	0	0	52	0	0	0	53	0	0	0	54	0	0	0	55	0	0	0
56	0	0	0	57	0	0	0	58	0	0	0	59	0	0	0	60	0	0	0
61	0	0	0	62	0	0	0	63	0	0	0	64	0	0	0	65	0	0	0
66	0	0	0	67	0	0	0	68	0	0	0	69	0	0	0	70	0	0	0
71	0	0	0	72	0	0	0	73	0	0	0	74	0	0	0	75	0	0	0
76	0	0	0	77	0	0	0	78	0	0	0	79	0	0	0	80	0	0	0
81	0	0	0	82	0	0	0	83	0	0	0	84	0	0	0	85	0	0	0
86	0	0	0	87	0	0	0	88	0	0	0	89	0	0	0	90	0	0	0
91	0	0	0	92	0	0	0	93	0	0	0	94	0	0	0	95	0	0	0
96	0	0	0	97	0	0	0	98	0	0	0	99	0	0	0	100	0	0	0
101	0	0	0	102	0	0	0	103	0	0	0	104	0	0	0	105	0	0	0
106	0	0	0	107	0	0	0	108	0	0	0	109	0	0	0	110	0	0	0
111	0	0	0	112	0	0	0	113	0	0	0	114	0	0	0	115	0	0	0
116	0	0	0	117	0	0	0	118	0	0	0	119	0	0	0	120	0	0	0
121	0	0	0	122	0	0	0	123	0	0	0	124	0	0	0	125	0	0	0
126	0	0	0	127	0	0	0	128	0	0	0	129	0	0	0	130	0	0	0
131	0	0	0	132	0	0	0	133	0	0	0	134	0	0	0	135	0	0	0
136	0	0	0	137	0	0	0	138	0	0	0	139	0	0	0	140	0	0	0
141	0	0	0	142	0	0	0	143	0	0	0	144	0	0	0	145	0	0	0
146	0	0	0	147	0	0	0	148	0	0	0	149	0	0	0	150	0	0	0
151	0	0	0	152	0	0	0	153	0	0	0	154	0	0	0	155	0	0	0
156	0	0	0	157	0	0	0	158	0	0	0	159	0	0	0	160	0	0	0
161	0	0	0	162	0	0	0	163	0	0	0	164	0	0	0	165	0	0	0
166	0	0	0	167	0	0	0	168	0	0	0	169	0	0	0	170	0	0	0
171	0	0	0	172	0	0	0	173	0	0	0	174	0	0	0	175	0	0	0
176	0	0	0	177	0	0	0	178	0	0	0	179	0	0	0	180	0	0	0
181	0	0	0	182	0	0	0	183	0	0	0	184	0	0	0	185	0	0	0
186	0	0	0	187	0	0	0	188	0	0	0	189	0	0	0	190	0	0	0
191	0	0	0	192	0	0	0	193	0	0	0	194	0	0	0	195	0	0	0
196	0	0	0	197	0	0	0	198	0	0	0	199	0	0	0	200	0	0	0