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বিশ্ববিদ্যালয়
গ্রন্থাগার

**AN INVESTIGATION OF CHARACTERISTICS ASSOCIATED WITH
SUCCESS OF TRAINEES IN THE TEACHERS' TRAINING
COLLEGES AS THEY RELATE TO SELECTED
AFFECTIVE FACTORS**

**A Dissertation
Presented to
the Faculty of the Institute of Education
and Research, The University of Dhaka**

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**In Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy in Education**

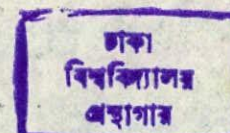
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ABSTRACT

Maliha Khatun, "An Investigation of Characteristics Associated with Success of Trainees in the Teachers' Training Colleges as They Relate to Selected Affective Factors". Unpublished Doctor of Philosophy in Education dissertation, Institute of Education and Research, University of Dhaka, 1984.

Statement of the Problem

The problem of the study was to verify the acceptability of the proposition that success of the trainees in the Teachers' Training Colleges depends as much on affective variables as on cognitive variables.

More specifically one purpose of the study was to measure the affective variables in terms of scores on the following three instruments specially developed and used for this study: (1) Personality (extroversion-introversion) Scale, suitable for measurement of personality traits, (2) Attitude Scale for measurement of attitude towards the teaching profession and (3) Interest Inventory for measurement of interest for the teaching profession. The other purpose of the study was to determine the comparative effects of the affective variables represented by the scores on the three scales mentioned previously and cognitive variables represented by results of the college admission tests and past academic achievements upon the trainees' success in the training programmes measured in terms of level of their achievements in the training programme as a whole and the practice teaching part of the programmes. For the purpose

of this study, level of achievement in practice teaching part of the programme was assumed to have represented the level of success in the teaching profession.

Methods of Study

For purpose of this study the following data collection instruments were used for each student: (1) Personality (extroversion-introversion) Scale, (2) Attitude Scale, (3) Interest Inventory and an inventory for recording information on past academic achievements, admission test results and scores representing achievements in the programme as a whole and also in the practice teaching part. Success of a trainee was measured in terms of total marks obtained by the individual students in the programme as a whole. And also his success in the practice teaching part was measured in terms of total marks obtained in this part.

The data collection instruments were administered to a sufficient sample of trainees belonging to the following three selected teachers' training colleges: (1) Teachers' Training College, Dhaka, (2) Teachers' Training College for Women, Mymensingh, and (3) Teachers' Training College, Comilla. The sample consisted of 203 trainees.

The personality (extroversion-introversion) Scale consisted of one hundred question items. Each item is a statement purported to measure the respondent's attribute in the continuum of extroversion-introversion. The responses

to the items were recorded as either 'Yes' or 'No'. About 50% of the items were given in the form of extrovert statements while the remaining ones were introvert statements. For each extrovert item the 'Yes' response was allotted 1 mark and the 'No' response was allotted -1 mark. On the other hand, the 'Yes' response for an introvert item was allotted -1 mark and the 'No' response was allotted 1 mark. The total score for the tests on the scale was then determined by computing the algebraic sum of the marks for all one hundred items.

The attitude scale, used for the purpose of this study, contained 82 items. Each item was so designed as to evoke one of the five alternate responses indicating a scaled response on a continuum of attitude of the respondent towards teaching as a profession. There were two groups of items- favourable and unfavourable. The scale contained 25 unfavourable items and 57 favourable items. Each item statement evoked five alternate responses in a continuum of agreement-disagreement. The five point scale measured the extent of a respondent's agreement or disagreement with the idea expressed in the statement. This indicated the extent of the respondent's attitude towards the teaching profession. The sum of scores of all the items in the scale provided a total score for the respondent indicating the extent of his attitude towards the teaching profession. In other words,

the total score indicated the extent of positive or negative attitude of the respondent. That is, testees were classified as with favourable attitude and with unfavourable attitude.

An interest inventory containing one hundred fifty-four items for measuring interest for the teaching profession was also used. The items were under two groups: one dealing with positive interest and the other with negative interest. The number of positive items was 92 and the number of negative items was 62. Each respondent was required to put either 'Yes' or 'No' as the only possible response to each item statement. A 'Yes' response for a positive item was scored +1 while a negative response was scored -1. On the other hand, a 'Yes' response for a negative item was scored -1 and a 'No' response was scored +1. An algebraic sum of all responses of a respondent provided an indication of his or her interest in the teaching profession.

The admission tests given by the teachers' training colleges for selection of trainees were basically aptitude tests. The results of these tests were used as one of the independent variables for the study.

The past academic achievements of each trainee were used as the measure of cognitive development. The past academic achievements were scaled on a ten point scale.

To measure success the following were used as

dependent variables for the purposes of this study: (1) Success in the training programme was measured in terms of total marks obtained by each trainee in the theory part of B. Ed. examination. (2) Since success in the teaching profession can be measured only through a follow-up study of these students, an alternative is the extent of success in practice teaching. The success in the teaching profession for the purpose of this study was measured by the extent of success in practice teaching. (3) Finally success was measured in terms of marks obtained in the programme as a whole.

Methods of Analysis: Simple Effects

Each of the three affective variables was correlated with each of the three dependent variables, namely, extent of success in the theory part of the training programme, the extent of success in the practice teaching part of the training programme, and that in the programme as a whole. Each of the two cognitive variables was correlated with each of the three dependent variables. The resulting coefficients of correlation provided indication of the extent to which the independent variables were capable of predicting success singly. These co-efficients of correlation were tested for significance.

Methods of Analysis: Multiple Effects

The multiple effects of the three affective variables

upon the ~~three~~ dependent variables had been analysed in order to determine the best combination of these independent variables as predictors of the three dependent variables. For this purpose combinations of two or three independent variables had been progressively used to find the highest multiple correlation and the best regression equation. The coefficients of multiple correlation as well as the regression coefficients had been tested for significance.

The above procedure had been repeated in respect of the two cognitive variables also. In other words, multiple correlation between each of the criteria of success and the two cognitive variables was carried out and the resulting coefficients of multiple correlation had been compared with the coefficients of multiple correlation as found out in the case of the affective variables. This analysis provided basis for determination of the comparative merits of the affective predictors and the cognitive predictors.

Hypotheses of the Study

Statistical analysis of the data collected for the study as indicated in the foregoing section of this chapter had been conducted in order to test the following general hypotheses:

1. Extroverts are expected to be generally more successful than introverts in the training programme.
2. Trainees with favourable attitude towards

teaching are expected to be more successful in the training programme as well as in the practice teaching part of the programme than those with less favourable attitude.

3. Trainees with greater interests for teaching are likely to be more successful than those with less interest in the training programme as well as in the practice teaching part of the programme.

4. Trainees with higher scores in the admission tests are expected to be more successful in the programme.

5. Trainees with higher scores representing their past academic achievements are expected to be more successful in the programme than those with lower scores.

6. The affective factors of the trainees compared with their past academic achievements are expected to be equally predictive of success in the training programme.

7. The affective factors are independent of the cognitive factors represented by the admission test and past academic achievements.

8. The performance in the practice teaching part of the training programme is independent of the performance in the theory part of the programme.

Reliability of the Scales for Measuring Affective Variables

In order to determine the reliability of the instruments two methods were applied. The first method involved splitting of each test into two halves with the odd numbered

items in the first and the even numbered items in the second half. In this case the reliability of the whole of each test was determined by using the Kuder-Richardson formula. The second method used the method of Rational Equivalence. The second method was used because of the fact that splitting does not always result into equivalent halves for tests of this nature.

Validity of the Scales for Measuring the Affective Variables

In order to assess the validity of the three measuring devices for measuring the affective aspects of the trainees, the tests were administered to a sample of 134 trained teachers with B. Ed. degree from a sample of 9 schools. The criteria used for validation of the test consisted of Headmaster's ratings on (1) success in teaching, (2) interest in teaching, (3) attitude towards teaching and (4) personality of the teacher (introversion-extroversion); Assistant Headmaster's ratings on (1) success in teaching, (2) interest in teaching, (3) attitude towards teaching and (4) personality of the teacher (introversion-extroversion); and class placement of the teacher in the B. Ed. degree programme.

Findings and Conclusions

Simple Effects

The personality scale developed for the purpose of this study is highly discriminatory. It tends to discriminate

the sample of respondents sufficiently along the extroversion-introversion dimension.

The distribution of scores on attitude of the responding sample has the mean of about 41 with a standard deviation of 13.43. The scale discriminates the sample of respondents quite sufficiently on the dimension of the psychological object measured for the purposes of the study, viz. attitude towards the teaching profession.

The interest inventory constructed for the purpose appears to be sufficiently discriminatory in measuring interest of the group on this dimension.

The coefficient of correlation between past academic achievement of the group of respondents and the admission test result is found to be 0.43 which is significant and positive. The value of the coefficient is moderately sufficient to interpret that there is some amount of direct relationship between these two independent variables. College admission test results may be said to depend naturally to an extent upon the past academic achievements of the candidates for the teachers' training programmes of the training colleges.

The magnitude of the coefficient of correlation indicates that a small part of the variation in the examination results of the theory part is accounted for by the past academic achievements of the trainees.

The coefficient of correlation between past academic achievement and the final examination results of the candidates is found to be 0.24 which is significant and positive.

The coefficient of correlation between college admission test and the examination of the theory part as one of the measures of success in the training programme is found to be 0.22 which is significant. But the magnitude of the coefficient is rather low. Hence only a very small part of the variation in the examination of the theory part is probably accounted for by the corresponding variation in the college admission test results.

The coefficient of correlation between the personality scale and examination of the theory part as one of the measures of success in the training programme is significant but negative. Comparatively less extroverts tend to do better than extroverts in the evaluation of the theory part of their achievements in the training colleges.

The coefficient of correlation between the measures of personality and the examination of the practice teaching part of training programme is found to be 0.35 which is positive and significant. The magnitude of the coefficient of correlation is indicative of the fact that the personality variable (extroversion-introversion) tends to contribute substantially to the success of the trainees in the practice teaching part of the training programme.

The coefficient of correlation between attitude and interest of the trainees is found to be 0.78 which is positive and significant, indicating some amounts of overlap between these two affective measures.

The coefficient of correlation between the measures of attitude and success of the trainees measured in terms of examination of practice teaching part of the training programme is found to be 0.32. This coefficient is positive and significant. It indicates that the measures of attitude is capable of predicting success in practice teaching to a substantial extent.

The coefficient of correlation between the measures of attitudes and success of the trainees as measured by the final examination result is found to be 0.46 which is positive and significant.

The coefficient of correlation between measures of interest and the success of the trainees as measured by the final examination result is found to be 0.51. The coefficient is positive and significant. A large portion of the variation in the final examination result is accounted for by the corresponding variation in the examination of the theory part of the training programme.

The set of three affective variables are definitely better predictors than the set of two cognitive variables in predicting different aspects of success; particularly in the

practice teaching part of training programme which is actually so similar to the real teaching job.

Multiple Effects

Regression of the dependent variable given by scores on practice teaching part of the programme as a criterion measure upon the combination of predictors given by past academic achievement and admission test result gives a multiple correlation coefficient which is significant.

Regression of success as measured by final marks upon the combination of predictors given by past academic achievements and admission test results gives a multiple correlation coefficient which is significant.

The multiple correlation coefficient between the combination of personality (extroversion-introversion) and attitude as predictor variables and success in the practice teaching part of the training programme as one of the criterion variables is found to be significant.

The coefficient of multiple correlation between the combination of measures of personality and interest as independent variables and success as measured by internal examination of the theory part of the training programme is found to be significant.

The coefficient of multiple correlation between the combination of the measures of personality (extroversion-introversion) and interest as predictors and success in the

practice teaching part of the training programme as a criterion is found to be significant.

The coefficient of multiple correlation between the combination of the measures of personality (extroversion-introversion) and interest as predictors and success as reflected by the final marks in the training programme is found to be significant.

The coefficient of multiple correlation between the combination of the measures of attitude and interest as predictors and success in the theory part of the training programme as a criterion variable is found to be significant.

The coefficient of multiple correlation between the combination of the measures of attitude and interest as predictor and success in the practice teaching part of the training programme as a criterion is found to be significant.

The coefficient of multiple correlation between the combination of the measures of attitude and interest as predictors and success as reflected by the final marks is found to be significant.

General Conclusions

(1) The hypothesis that extroverts are expected to be generally more successful than introverts in the training programme appears to be true to a large extent. It appears that extroverts are more successful than introverts in the practice teaching part of the training programme, which is

assumed to be equivalent to the teaching profession. The personality (extroversion-introversion) scale is therefore a fair predictor of success in the teaching profession. But success of the trainees as measured by the final marks, which represent mostly performance in the theory part of the training programme, does not depend on extroversion-introversion as measured by the Personality (extroversion-introversion) scale. This scale is not, therefore, a good predictor of success in the predominately theory of the training programme. However, either a combination of the measures of personality (extroversion-introversion) and attitude or that of personality (extroversion-introversion) and interest appears to be a fair predictor of success in the training programme as a whole as well as in the practice teaching part of the training programme.

(2) The hypothesis that trainees with favourable attitude towards teaching are expected to be more successful in the training programme as well as in the practice teaching part than those with less favourable attitude is partially true. It appears that the measures of attitude can predict success to a very small extent in the theory part of the training programme but the measure of attitude is capable of predicting to a large extent success as measured by the final marks. However, the measure of attitude appears to be a good predictor of success in the practice teaching part

of the training programme. But, while the combination of measures of attitude and interest is a poor predictor of success in the theory part of the training programme, this combination appears to be capable of predicting success in the practice teaching part to some extent. The same combination however is a fair predictor of success in the programme as reflected by the final marks. Thus the trainees with favourable attitude towards the teaching profession are found to be generally more successful in the training programme than those with less favourable attitude.

(3) The hypothesis that trainees with greater interests for teaching are likely to be more successful in the training programme as well as in the practice teaching part than those with less interest appears to be tenable to some extent. Interest of the trainees for the teaching profession can predict success in the theory part of training programme to a small extent but it can predict success as reflected by the final marks to a large extent. It is interesting to note that the combination of interest and personality (extroversion-introversion) is a good predictor of success as measured by evaluation of practice teaching as well as the final marks. But the combination of interest and attitude is only a fair predictor of success as reflected by final marks. This is also capable of predicting success in practice teaching only to a little extent. Hence it may be

said that the trainees with greater interest for teaching are likely to be more successful in the training programme as a whole as well as in the practice teaching part than those with less interest.

(4) The hypothesis that trainees with higher score in the admission tests are expected to be more successful in the training programme than those with lower scores is tenable to a very little extent. The college admission tests generally fail to predict success in the training programme. However combinations of the admission test and the affective factors are capable of predicting success in the training programme to some extent.

(5) The hypothesis that trainees with higher scores representing their past academic achievements are expected to be more successful in the training programme than those with lower scores does not appear to be quite true. Past academic achievements seem to predict only a little part of the success in the practice teaching part of the training programme. The combination of past academic achievements and admission test results is a poor predictor of success in the practice teaching part of the training programme.

(6) The hypothesis that the affective factors of the trainees compared with their past academic achievements are expected to be equally predictive of success in the

training programme is quite tenable. In fact this study demonstrates clearly that the affective factors are better predictors of success of the trainees in the training programme.

(7) The hypothesis that the affective factors are independent of the cognitive factors represented by the admission test and the past academic achievements is acceptable to some extent. In fact the affective factors have been found to be independent of past academic achievements and admission test results. Attitude and interest are also found to be independent of past academic achievements. However, attitude and interest are negatively and significantly correlated with admission test result. Hence, it can be said that the affective factors are better predictors of success in the training programme than the cognitive factors.

(8) The hypothesis that the performance of trainees in the practice teaching part is independent of their performance in the theory part of the training programme is not tenable. In fact there is significant correlation between the theory part and the practice teaching part. In other words, it can be said that trainees who do well in the course work of the training colleges during the first two terms generally tend to do well in the practice teaching part in the final term.

Recommendation

In the light of the findings and the conclusions of the present study the following recommendations are made:

1. The admission procedure for the purpose of admitting student in the B. Ed. degree programme of the teachers' training college should be modified, so that the admission tests contain factors of the cognitive domain as well as those of the affective domain.
2. Since extroverts tend to be more successful than introverts in the training programme of the teachers training colleges, the admission test should include a personality (extroversion-introversion) scale similar to the one that has been developed for the purposes of this study.
3. Since trainees with favourable attitude towards the teaching profession tend to be more successful in the teachers' training programme than those with less favourable attitude, the admission test for the selection of trainees should include an attitude scale similar to the one developed for the purposes of the study.
4. Since trainees with greater interest for

teaching than those with less interest tend to be more successful in the training programme of the teachers' training colleges, the admission tests should include an interest inventory similar to the one developed for the purpose of this study for selection of good candidates.

5. Since particular combination of cognitive and affective factors tends to be more predictive of success in the training programme, the selection of candidate for B. Ed. programme should be based upon a more scientific and rigorous technique of selection consisting of such combinations of cognitive and affective factors. The teachers' training college authorities may consider application of the combination of factors as suggested in the present research study for the purpose of selecting candidates for the B. Ed. degree programme.
6. Further studies with more representative samples of trainees and working teachers should be conducted in order to standardize the personality (extroversion-introversion)

scale, and the interest inventory developed for the purpose of the study.

7. The teachers' training college authorities should conduct studies to establish the reliability and the predictive validity of the admission tests for the selection of the candidates for the B. Ed. degree programmes.
8. Studies should be undertaken to assess the reliability and the validity of the examinations held by the teachers' training colleges to evaluate the performance of the trainees in the programmes.

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CHAPTER I

INTRODUCTION

In the modern society education is considered so important that it hardly needs any emphasis. As Reller and Morphet said, "The most pressing and basically the most important problem facing the present generation is education." (9), p. 1.)

Although education has been one of the highest priorities of the Government of Bangladesh since independence, the desired progress in education has been hindered by several factors among which the primary factor is shortage of qualified teachers, who are morally and mentally best fitted to teach.

In any education system teachers occupy a pivotal position. Success of any education system largely depends upon the quality of teachers. The Report of the Bangladesh Education Commission, 1974, discussing this problem recognises the importance of the role of teachers in the following words:

Educational progress in any country is related directly to the quality of teacher training. Today the role of education in society has become increasingly important; more emphasis is being placed on the improvement of school programmes and in the education of those who teach. The professional preparation of teachers has become a matter of general interest and of national importance. (101, p. 60.)

Stressing the need for a well-prepared professional teacher within a properly organised system of education, the APEID Regional Planning Workshop on Teacher Education and Curriculum Development declared,

The world of the teacher today is complex. The teacher is expected to function not only as a teacher in the classroom but also as a communication learning facilitator. (142, p. 26.)

It was also stated there that the teacher is a developer of learning materials, experimenter, organiser and manager of instructional system. The teacher is a guidance officer in both the school and community in the context of life-long education.

As life is progressive and creative, education must also be progressive and creative, education must be planned in such a way as to foster the creative spirit of man, because all good in the world has come through the creative spirit of man. Our system of education, to a great extent, has been responsible for the sterilisation of the creative spirit, emphasising generally the imitative spirit. The present need of our developing society is to have an education which will not merely impart knowledge but kindle the latent spark of creativity in human minds. To attain this objective teachers must carefully be selected, trained and, above all, infused with a sense of purpose and a philosophy of life. This sense of purpose and a philosophy of life is sure to raise the quality of teaching and ultimately

lead to the re-awakening of the creative spirit without which nothing worthwhile had ever been achieved nor will ever be achieved.

One can say without fear of contradiction, that the quality of human life depends largely on the quality of education a human being receives, and the quality of education depends mostly on the quality and character of those who teach.

As education does not work in vacuum but in a given society, the needs of the society, both material and spiritual (or human), must influence education in a manner as to guide its forces to create men and women who could realise the needs of the society. Here the training colleges of the country must come forward to help education in realising its objectives. Training colleges in Bangladesh, therefore, must put special emphasis on the training or better be called 'educating' the teacher according to these expectations of the society.

From what has been said so far it follows that the most urgent need in connection with the improvement in the quality of education is the need for the improvement and re-orientation of the teacher training programme. How this purpose can best be achieved is the subject of inquiry and investigation of this study.

Well-founded knowledge of the factors influencing success in teaching is important in order to increase the

effectiveness of teacher selection process. Moreover, the task of identifying effective teachers for effective teaching is crucial to teacher education, certification, selection and promotion in so far as teaching contributes to the total social welfare and ultimately to human survival.

With these points in mind many researchers have attempted to specify in detail the factors contributing to teaching success. The research reports of the past half century provide ample evidence for this. But still it is rather difficult to precisely identify and summarise the principal factors that characterise the effective or successful teacher.

Purposes of the Study

The present study is concerned with an investigation of selected characteristics of trainees associated with success in teachers' training colleges and also in the teaching profession as they relate to selected personality factors of the trainees.

Teacher trainees are usually selected for the training programme in the teachers' training colleges on the basis of admission tests and past academic records of individual students. These factors, which are expected to have an effect on success in the training programme as well as the teaching profession, are basically intellectual (cognitive) in nature. Although it is assumed that these

that these cognitive variables have high predictive validity, in-depth studies are necessary to probe into the extent of predictive validity of either admission tests used as aptitude tests or the other academic criteria of admission.

Professional success is known to depend as much on personality (affective) variables as on cognitive variables. One of the purposes of the present investigation is to verify the validity of this last statement. Hence the present study deals with the comparative effects of a selection of personality (affective) variables and cognitive variables upon the trainees' success in the training programme measured in terms of levels of achievements in the training programme as a whole and the practice teaching part of the programme. For the purposes of this study, therefore, levels of achievement in the practice teaching part of the programme is assumed to have represented levels of success in the profession. For practical reasons it will not be possible for the present researcher to conduct a follow-up study of the trainees when they should have been engaged in teaching jobs after successful completion of the training programme.

The independent variables for the study comprises two sets, namely (1) cognitive and (2) affective variables. The scores obtained by the trainees in the admission tests given by the colleges for selection of trainees are used as measures of their aptitudes which will be treated as a

cognitive measure and a scaled measure of past academic achievements is treated as another cognitive measure. The personality variables contain: (1) a measure of introversion-extroversion, (2) attitude of the student-teachers towards teaching, and (3) interest of the trainees for teaching.

The dependent variables are obviously: (1) level of success in the theory part of the training programme, (2) level of success in practice teaching, and (3) level of success in the training programme as a whole. These levels of success are measured in terms of marks obtained by the individual student in each aspect.

Since the study is concerned mainly with the probable effects of affective variables upon the two sets of dependent variables, appropriate statistical techniques were applied to test hypotheses regarding the effects of all necessary combinations of the independent affective variables upon each of the dependent variables. Similarly, the effects of the cognitive variables upon each dependent variable were studied.

Also appropriate statistical techniques were applied to test hypotheses regarding relative effects of the two sets of independent variables in predicting the three dependent variables.

While the cognitive aspects of the independent variable were measured in terms of scores obtained by the

candidates for admission in their admission tests and their scaled scores on past academic achievement, the variables in the affective domain were measured in terms of their scores on the following three scales specially developed for this study: (1) Introversion-Extroversion Scale suitable for measurement of these attributes of the trainees (2) Attitude Scale for measurement of attitude of trainees towards teaching, and (3) Interest Inventory for measurement of interest of the trainees for the teaching profession.

The study was conducted to serve a two-fold purpose. One of the purposes was to identify the nature and extent of the effects of the independent variables upon the dependent variables as mentioned earlier. The other purpose was to construct three suitable scales for the measurement of the independent affective variables.

Hypotheses of the Study

The following general hypotheses were tested in this study:

1. Extroverts are expected to be generally more successful than introverts in the training programme.
2. Trainees with favourable attitude towards teaching are expected to be more successful in the training programme as well as in the practice teaching part of the programme than those with less favourable attitude.
3. Trainees with greater interests for teaching

are likely to be more successful than those with less interest in the training programme as well as in the practice teaching part of the programme.

4. Trainees with higher scores in the admission tests are expected to be more successful in the programme.

5. Trainees with higher scores representing their past academic achievements are expected to be more successful in the programme than those with lower scores.

6. The affective factors of the trainees compared with their past academic achievements are expected to be equally predictive of success in the training programme.

7. The affective factors are independent of the cognitive factors represented by the admission test and past academic achievements.

8. The performance in the practice teaching part of the training programme is independent of the performance in the theory part of the programme.

Significance of the Study

It is essential for the teachers and teacher-trainees to possess appropriate personality characteristics, and to have emotional balance and preferably a superior intelligence, so that they become models for their students. This is necessary because they act as active agents to bring forth new social order in the community and the nation.

In recent years, the affective factors related to

teacher effectiveness or teaching success have received considerable attention from research workers in all parts of the world. Writing about personality research in general, Eysenck (39) suggests a point for future research in the following words: "it is interesting that extroversion (sociability) and neuroticism (manifest emotionality) emerge relatively closely". He also stated that research work is needed for investigating the behaviour and success in different types of tasks or groups made up in varying but known properties of strongly extroverted, strongly introverted, stable and highly unstable members. It may be experimented by manipulating personality factors as the independent variable and studying their influence on performance as dependent variable. This should give us considerable insight into group functioning.

It is, therefore, quite interesting and useful to investigate the possible effects of a selection of such personality factors which include attitude and interest upon success of trainees in their teacher training programme as a whole and in their practice teaching.

The present study which includes an investigation into the personality traits of trainees is of much importance in view of the fact that sincere effort has not been made in this direction so far in this country. The results of the study are likely to reveal many factors which should

provide sound basis for admission in teacher-education programmes. The study may reasonably be expected to improve the approaches of selection of students who would take training for teaching.

Methods of the Study

The following data collection instruments were used for gathering relevant data for the study: (1) the three scales for measurement of the independent affective variables as mentioned earlier, (2) an inventory for recording information on past academic achievements records, (3) admission test results, (4) achievements in the programme as a whole, (5) achievements in the theory part of the training programme, and (6) achievements in the practice teaching part for each student. A sufficient sample of trainees from the Dhaka Teachers' Training College, Mymensingh Teachers' Training College for Women and Comilla Teachers' Training College was drawn and the above mentioned tests and inventory were administered to them individually for collection of data.

For the purpose of validation of the three instruments constructed for measurement of the affective variables as stated previously, these instruments were administered to a sample of working teachers of high schools with at least B. Ed. degree from the sample of three teachers' training colleges of this country. A specially developed rating scale (namely the Rating Scale for Headmasters and Assistant

Headmasters) was administered to the Headmasters and Assistant Headmasters of the sample of high schools where these teachers were working. This rating scale included items on a four point scale. The respondents were requested to rate each selected teacher of his school in respect of extroversion-introversion, attitude towards teaching, and interest in teaching.

For analysis of data appropriate statistical techniques, such as analysis of variance, correlation analysis and multiple regression analysis have been used according to necessity for testing the significance of each of the statistical hypotheses, corresponding to the general hypotheses stated earlier.

The reliability and validity of the test instruments and their components have been assessed by applying appropriate techniques according to need. And items in the three instruments for measurement of the affective variables have been analysed in order to determine discriminating index of each item.

Delimitation of the Study

This study was limited to: (1) the existing B. Ed. degree programme of the three teachers' training colleges in Bangladesh, namely Teachers' Training College, Dhaka, Teachers' Training College, Comilla and Teachers' Training College for Women, Mymensingh; (2) the trainees of the three

teachers' training colleges; (3) the selected secondary school teachers in Dhaka City to prepare questions for the interest inventory; (4) the selected teachers in the Teachers' Training College, Dhaka who worked as experts for preparing the items for the Interest Inventory; (5) the nine selected government and non-government schools for obtaining data for validation of the three instruments for measurement of the affective variables; (6) the teachers who got B. Ed. degree from the Teachers' Training College, Dhaka, the Teachers' Training College Comilla, and the Teachers' Training College for Women, Mymensingh for their self-assessment with regard to the three instruments for measuring the affective variables; (7) the Headmasters and the Assistant Headmasters of the selected schools for rating of teachers who got the B. Ed. degree from any of the three teachers' training colleges; and (8) the use of Bengali as the language of personality (extroversion-introversion) scale, attitude scale, interest inventory and direction for the rating scale used by Headmasters and Assistant Headmasters.

Note on Special Terms and References

Admission Test - A test given to each candidate for admission to the B.Ed. degree programme of a teacher's training college for selection of suitable candidates. This has been used as one of the two independent variables.

Attitude Scale - An instrument used here for measurement of attitude towards the teaching profession. This has

been used as one of the three independent affective variables.

Final Marks - Total of all marks obtained by a trainee in the B. Ed. degree programme as a whole reflecting the level of his/her achievement in the degree programme. This is actually the sum of marks obtained in the theory part and the practice teaching part. This has been used as one of the three dependent variables.

Interest Inventory - An instrument used in this study for measurement of interest for the teaching profession. This is one of the three independent affective variables.

Past Academic Achievement - A special combination of achievements of each trainee in his/her previous public examinations, namely SSC (or Matriculation after ten years of schooling), HSC (after two more years of schooling), First University degree (either two more years of undergraduate studies in the case of Pass courses or three more years of undergraduate studies in the case of Hons. courses), and other postgraduate degree in liberal arts or sciences. This combined score has been used as one of the two independent cognitive variables.

Personality Scale (Extroversion-Introversion) - An instrument used in this study for measurement of personality traits of respondents on a continuum of extroversion-introversion. This is one of the three independent affective variables.

Practice Teaching Part of the Training Programme -

Evaluated in terms of marks obtained by a trainee in his/her practice teaching in an assigned school during the last term of the training programme for the B. Ed. degree. This has been used as one of the three dependent variables and also as equivalent to performance in the teaching profession.

Teachers' Training College - An institution of higher education dealing with training of mostly secondary school teachers. The colleges (currently there are ten in this country) are affiliated to universities which award the B. Ed. degree to a trainee who successfully completes a year of teacher training.

Theory Part of the Training Programme (abbreviated as Theory) - Evaluated in terms of marks obtained by a trainee in the B. Ed. course programme excepting those in the practice teaching part. This has been used as one of the three dependent variables.

Reference

The citation of bibliographical sources or their paraphrase in the text of the dissertation has been referred to by the respective serial number in the bibliography followed by the year of its publication and, whenever necessary, the page number in the publication. The information has been put within parentheses.

CHAPTER II

REVIEW OF PREVIOUS RESEARCH

Opinions about successful or effective teachers are very common, but they are frequently expressed without any basis beyond personal assessment. At the same time the genuine factors connected with success in teaching often seem to bypass the people who approach the problem from experimental standpoint. This is quite evident from a review of summary of the relevant research studies, such as those of Barr (5 and 6, 1948 and 1961), Evans (36, 1959), and Getzel and Jackson (46, 1963), which show many contradictory findings. Getzel and Jackson (46, 1963), concluding their chapter on "Teacher's Personality and Characteristics", state, "Despite the critical importance of the problem and a half-century of prodigious research effort, very little is known for certain about the nature and measurement of teacher personality and teaching effectiveness" (46, p. 574). They emphasize the point that reasearch is not needed to reiterate the self-evident but it is necessary for the discovery of specific and distinctive features of teacher personality and of the effective teacher (46, p. 574).

Studies legitimately falling within the field of successful teacher characteristics are numerous Barr (5,1948)

has reported in summary form nearly 150 studies relating to the measurement and prediction of teaching efficiency. Domas and Tiedman (27, 1950) in their annotated bibliography listed over some thousand titles. Sanford and Trump (81, 1950) in their contribution to the Encyclopedia of Educational Research estimate about six hundred and seventy-five articles and monographs to have appeared since 1905. Getzel and Jackson (46, 1963) have compiled about eight hundred research references before presenting their valuable chapter reviewing research on the Teacher Personality and Characteristics. All these refer mainly to American work. Evans (37, 1961) has made an annotated bibliography of British research on teaching and teaching ability which has been carried out in Britain since early 1930. These bibliographies reveal a trend of shifting emphasis upon studies of teacher personality and other relevant psychological characteristics. Martin (66, 1944) noted this trend on the basis of his comparison of the aspects of teachers and teaching for the periods 1940-43 and 1937-39.

Evans (34, 1951) has examined four criteria of teaching ability. They are pupil gain in information, the opinion of experts, ratings on various rating scales, and the opinions of pupils. The available evidence suggested that there is little agreement between these different criteria.

The main opposition to the commonly used subjective methods of assessing teaching success is that the rating given to a teacher depends on the impression made at that time and place on the assessor. The reliability of such an assessment is rather doubtful. As Vernon (95, 1953) says, "Teacher assessment is even more difficult than marking of English essays (which is notorious for its subjectivity and for variations of standards between markers), since the assessors cannot ever directly compare one teacher with another in a standard situation as can the marker of a number of essays on a given topic" (95, p. 72). The unreliability theory is further supported by the evidence of Evans (34, 1951), Martindale (65, 1951) and Poppleton (74, 1968). Jane (55, 1945) explored this and found that when four supervisors ranked two different lessons by each of seventeen teachers, the correlations between rankings by each supervisor were not significant. Further they found that assessments of teachers by supervisors were quite unreliable and correlated weakly or negatively with pupil gain. Another factor affecting this type of subjective measurement has been posed by Knight (61, 1923) who sees the possibility of supervisors over-rating the teachers over the normal curve due to the acquaintance factor. Poppleton (78, 1968) too found this over-rating possibility by supervisors (i.e., negatively skewed distribution for supervisors), but according to him this arises from the

recognition of the seriousness or failure on the part of those responsible for awarding a certificate. Poppleton's reason seems to be more valid than Knight's acquaintance factor. Nevertheless, the opinions of experts have been in general use. Vernon (95, 1953) makes a proposition that probably the best criterion of teacher's work would be a composite measure with a statement of type of pupils, of size of class, and of the subject matter taught. Dale (24, 1955) "an intervening variable such as the state of the school discipline operated always to reduce the efficiency of the prediction of teaching success".

Some studies have attempted to assess the relationship between criteria of assessment made at the end of a teacher training period and subsequent (in-service) assessment of teaching efficiency. A fairly recent investigation (17, 1959) comprises a follow-up of some former graduate student-teachers. This investigator compared their training period assessment with that of assessment made by the head of school. A correlation of 0.566 was obtained between heads' and training period tutors' assessments. Yet there are other researches which show no significant association between training period teaching mark and subsequent teaching efficiency or success (64, 66, 1944; 84, 1941).

On the other hand, the reason for obtaining low correlational figures is quite clear, if one considers the evidence put forward by Robertson (79, 1957), who investigated

the judgement of eighty supervisors in a university teacher training department. His conclusion was: "There were some different opinions common to groups of supervisors, and also some idiosyncrasy; and a number of supervisors show only a limited agreement with any of their colleagues". In other words, the supervisors view of the material presented to them varied substantially, and there were clearly a number of different approaches to students' teaching practice. This demonstrates the relative unreliability and doubtful validity of subjective judgements on students' practice teaching.

The reports that have looked into this question consider it as a two dimensional problem. But in actual fact it seems to be a multi-dimensional one, of which certain dimensions are yet to be discovered by means of analytical research.

The studies that are reviewed in the following pages are classified according to a number of current psychological concepts involved in teacher effectiveness studies.

The reviews are organised under the following headings:

1. Personality
2. Cognitive Abilities
3. Attitude towards Education
4. Interest.

Personality

Today the personality of the teacher is considered as one of the most significant variables in teacher effectiveness and in the classroom. The research trend in studying these qualities in relation to teaching success has become the basis for many of the researches. Vernon has said, "Teachers are as diverse in their psychological (traits) as any other occupational group and it is fallacious to talk of the teaching personality as something distinct and consistent" (95, 1953, p. 74). Barr's (5, 1948) summary gives as many as two hundred references to positive correlation between personality qualities and teaching success. Not a single correlation was negative; though many of them were small, many were significantly different from zero. The techniques used in assessing these qualities in relation to teaching success are many and out of these, standard inventories, observational techniques, and rating scales are predominant. Vernon (95, 1953, p. 13) going through some of the experimental data states, "Experiments..... sometimes give us worthless results in this as in most other fields, but generally do show that teaching efficiency is slightly associated with scores for extraversion, self-confidence, sociability, dominance and (negatively) with emotional instability or neuroticism" (95, 1953, p. 69).

Looking at some of the early researches with inventories, Laycock (64, 1934), using rating scales and

the Sernreuter Personality Inventory, found positive relationships between good teaching ability and emotional stability, extraversion, dominance and self-sufficiency. Retan (76, 1943), using the same personality inventory, showed that seventy-five per cent of the stable teachers were rated as good teachers by superintendents, compared to fifty-one per cent of unstable teachers.

Gotham (47, 1945), using pupil achievement as the criterion, administered three tests of personality to forty-seven teachers. He found little relationship between the criterion and personality of the teachers. The possible exceptions were progressiveness and refinement which correlated positively with the criterion ($r=0.30$, $r=0.25$) and quite supprisingly interest in work and adaptability, which correlated negatively ($r=-0.35$, $p=-0.23$). In any case his sample was rather too small to generate decisive conclusions. Hellfristzsch (46, 1945) used pupil achievement as the criterion and several psychological inventories for measurement teacher characteristics and adopted the factor analytic technique for analysis. He extracted a common factor, which he labelled as Personal Emotional Adjustment, to associate with the criterion. But this common factor accounted for only 9% of the total variance. Regarding his criterion of the pupil gain index, he says, "No single teacher measure can be validly substituted for the actual

measurement of pupil growth in evaluating the ability of the teacher to teach".

In Australia, with teachers in training, Kemp (59, 1947) found that better teachers tended to be more self-confident, tolerant and dominant, while the poorer teacher tended to be uncoperative, over-critical and socially passive.

In the United States, in the 1950's the Minnesota Multiphasic Personality Inventory (MMPI) was the most predominantly used personality inventory in research studies of teachers and teaching. Schmits (83, 1950) applied factor analytic technique to a battery of tests consisting of four scales of the MMPI: Hypermania, Masculinity-Femininity, Depression, Social Introversion, plus two other personality inventories and practice teaching rating data of 102 university students of education. The female data yielded a factor labelled introversion. A low practice teaching rating was associated with low hypermonia, high depression and high introversion scores. With the male data, the first factor was labelled as social and educational adjustment and it contained grade point averages, practice teaching ratings, good educational attitudes and three scores from the Washburne Social Adjustment Inventory. But none of the MMPI variables had any considerable loadings. The difference in the results in the two factor analysis may be due to behaviour differences between the sexes. The small sample

sizes (N=51) may also be partly responsible. In interpreting these results one has to bear in mind the points made by Guilford (50, 1959) about using MMPI scales in factor analytic studies. His objections to MMPI variables were that they often tended to produce correlation coefficients due to the fact that they were not experimentally or linearly independent and that the variables were complex.

Gough and Pemberton (48, 49, 1952) using the MMPI scales on 147 practising teachers (89 males and 58 females) did an analysis of mean scores of high, average, and low groups of the sample. Their results showed that the successful male practising teachers did have lower scores on Hysteria, Psychopathic Deviate (PD) and higher scores on Psychological Aptitude (P A). But with the female group none of the scales gave a significant Fratio. Without being satisfied with these results, they went further in making what they called an "intuitive" search of the MMPI data. The report of the search was that an above average paranoia score is a 'sign' predictive of success in practice teaching. Also an average hypermania (mild over-excitability) score was a similar predictive sign. Their observations on the MMPI scale were: "Its practical efficiency may not be high, but the empirical confirmation of the methodology indicates that a systematic and diligent search for sign and patterns might yield predictors of practical utility" (48, 1952, p. 309). On the whole, they too found a sex difference though

the results were not identical with that of Schmids (83, 1950).

Of the other inventories providing scores for separate factors or primary traits of personality, Cattell's Sixteen Personality Factor Questionnaires (16 PF test) has been widely used in U. K. and U. S. A. for teacher effectiveness studies. One of the most extensive research using this instrument has been made by Lamke (63, 1951). The good teachers were above average and the poor teachers were below average, on Cattell's (11, 1970) F, H, and Fand H factors. Interpreting this Lamke came to the conclusion that good teachers were more talkative, placed, frank and quick. Also that they were above average in their tendencies to be gregarious, adventurous, frivolous, to have high emotional responses, strong artistic and emotional interest and to be interested in the opposite sex. The analysis indicated that the responses of good and poor teachers did not fall into two well-defined characteristic patterns, but the several different patterns of traits existed for both good and bad teachers. But Montross (67, 1954), correlating scores on Cattell's 16 PF test with the composite ratings of success in teaching, obtained results conflicting with those of Lamke (63, 1951). While confirming Lamke's point that there are several patterns of temperament for good and bad teachers, Montross makes the point that objective measures of fluency, speed, etc. are more useful in predicting ability than using the standard scales of Cattell's 16 PF.

In his work only the factor A (Cyclothymic VS Schizothymic) correlated significantly ($r=0.40$) with one of the ratings. His conclusion on the 16 PF test was that "It..... seemingly fail(s) to identify aspects of temperamental behaviour which are related to success in teaching (67, 1954, p. 96). The unreliability of a unified pattern of factors from 16 PF was further proved by Erickson's (30, 1954) results. He found the factors self-control, conscientiousness and unconventionality to be related to teaching success. The obtained correlations were of the order of 0.2 to 0.3.

Warburton et al (97, 1963, pp. 33, 69-79) included the 16 PF test in their large test battery to predict student performance in a university department of education. The personality qualities related to practice teaching were self-control, conscientiousness and sensitivity. Thus to some extent their findings corroborated those of Erickson (31, 1954, pp. 1-39). According to Warburton the correlation between teaching success and sensitivity was a new finding with 16 PF test and the cultural difference between the two countries has accounted for it.

Start (36, 1965, pp. 36, 153-165) made use of the 16 PF test but with different objective. His study was restricted to one school and found the superior teachers scoring significantly higher than other teachers on general intelligence, dominance, relaxed security, introversion and individuality, and conservatism factors. They were

also found to obtain significantly lower scores on the self control factor, contradicting one of Warburton's findings. Moreover, it seems that his better teachers were introverted (not warm and sociable) than the average teacher and that it was the average and below average teachers who tended to show extraverted characteristics. For the disagreement with Warburton's findings he says, "The difference..... may be the result of differences between students and practicing teachers, between the criterion of head teachers and education lecturers or of random differences" (86, 1965, p. 164).

Certain other standardised tests or inventories have also been used in investigations regarding teaching. It is hoped to deal with some of them very briefly, mainly to point out the personality characteristics that have been considered so important for teaching success.

Jones (55, 57, 1956) used the Guilford-Zimmerman Inventory scores to differentiate between poor and good teachers. Of the five traits (General Activity, Restraint, Ascendancy, Sociability and Emotional Stability) only the General Activity score discriminated the two groups significantly. This score correlated positively with a practice teaching grade ($r=0.46$). This particular factor is related to some earlier findings of Clark (16, 1950) and of Goman and Goman (47, 1950) who showed that the teachers were lower in General Activity than the normal group.

Durflinger (29, 1963) attempted to correlate California Psychological Inventory (CPI) variables to students' practice teaching grade. Of the 18 variables studied, Psychological Mindedness, Flexibility, Achievement, and Independence made significantly negative correlations, while Sociability and Socialization made significant positive correlations.

Eysenck (37, 1969, pp. 39, 109-122) touching on this problem of non-replicable results in personality research said, "Primary factors are non-replicable across sex for the most part, unless these factors are tautological, and that higher order or 'super' factors, i.e. E&N, are replicable from one investigator's set of questions to another's while higher order or 'super' factors are replicable" (37, 1969, p. 250). With this argument in mind Eysenck has made a very thorough analysis of Cattell's, Eysenck's and Guilford's factors. In concluding this work, he says, "For experimental work and also for practical and applied work super factors rather than primary factors are more likely to give useful and worthwhile results." If we are to accept this theory, then it is obvious that we must get non-replicable results with many of the instruments mentioned in studies under reference, as they really measure primary personality factors.

Eysenck's (40, 1960) super factor personality theory could be briefly stated as: "That there are two main factors

or dimensions which between them account for a good part of non-cognitive aspects of personality. These two factors may be labelled as extraversion - introversion, and neuroticism or emotionality as opposed to stability or normality." With those factors in mind, Eysenck has developed two inventories to measure these two major dimensions. They are the Maudsley Personality Inventory (MPI) and its shorter version, the Eysenck's Personality Inventory (EPI). Some studies in U.K. have concentrated on this theory of personality dimensions in describing personality.

As far as teacher effectiveness studies are concerned, Enwistle and Enwistle (30, 1970, pp. 40, 132-143) gave the EPI to 118 trainees at a college of education and correlated these scores with their academic performance. Here the successful trainees tended to have below average scores on extraversion. Considering both dimensions, it appeared that the successful trainees were the stable introverted group. In their work they found that the coefficients of extraversion and neuroticism with academic performance were significant but negative. As far as academic performance is concerned, these studies seem to corroborate with the studies of Furneaux (45, 1961), Kelvin et al (58, 1965) at university level. These investigations have shown that the academic attainment at the university was associated with introversion and neuroticism. Their study indicates that, in the case of trainees in colleges of education, introversion is related

to higher scholastic achievement and that social and emotional extraversion are related to practice teaching success. Their findings provide "evidence to substantiate a common "hunch" that good teachers are not only good students but also must possess certain social and emotional Characteristics."

Furneaux (45, 1961, pp. 195-213) leads directly to relate teaching performance to Eysenck's personality dimensions. His experimental evidence suggests that in situations of an inter-personal kind a higher drive is generated by extraverts than by introverts. Thus he expects extraversion to be associated with success in learning and task performance, in situations which involve a definite pupil-teacher relationship of a continuous kind. Since classroom teaching tasks involve an interpersonal relationship, one could use this drive model to postulate hypotheses relating teaching to neuroticism and extrversion. By combining these two a four-fold division can be obtained by grouping into stable extraverts, neurotic extraverts, stable introverts and neurotic introverts. It is established that neuroticism also gives rise to a characteristic internal stimulation. Thus according to Furneaux's drive model, one can expect the neurotic extravert to experience a very high level of drive in a teaching task as to exceed the Yorkes & Dodson optimum (100, 1908) and thereby to perform purely; whereas the extrovert will achieve a high drive state due

to his extraversion quality and remain below the Yerkes-Dedson optimum. This level will enable the stable extravert to perform better in a classroom teaching situation.

Looking at introverts, on the same principle, the neurotic introvert in this situation will not gain any additional drive other than what he is getting from neuroticism; and the stable introvert will not gain any sort of drive to make a successful performance. On the whole, Furneaux's theory has the required notional quality to warrant a full scale experimental investigation for confirmation.

Rating teachers on personality traits or characteristics and then relating them to criterion of teaching success has been another approach in teacher effectiveness research. The major problem in this technique is the "Halo" effect on the rater. Vernon (86, 1953, p. 13) points out, "They depend so largely on the attitude of the raters and on the usage of these trait names that they give little information about the actual behaviour of the person rated" (95, 1953, p. 75). Commenting on reliability and validity of rating, Eysenck says, "When all the.....mentioned factors are taken into account, it will not surprise.....to find literature, replete with indications of the low reliability or to find that when reliabilities are high the explanation may be in terms of common bias or halo rather than in terms of validity" (43, 1970, p. 169).

Evans (36, 1952) has concentrated his studies on student-teachers. He obtained a fair degree of correlation between ratings of various personality characteristics and teaching ability or success. Evans (36, 1952) collected personality ratings on self-confidence, fluency, sociability and resourcefulness and correlated these with the final practice teaching mark. All the coefficients were positive but only the correlation with resourcefulness and significant. Even in rating analysis a definite personality pattern pertinent to the successful teacher is not evident. This is not surprising as many characteristics that were rated seem to be idiosyncratic to the individual investigator rather than to any psychological theory.

Ryans (80, 1969) separately factor analysed Judge's observations of the classroom behaviour of a large number of elementary and secondary school teachers. The resulting factor matrices have been related obliquely to give simple structure for interpretation. From the factors Ryans came to the conclusion that there were three patterns of teacher's behaviour that were common to both elementary and secondary school teachers:

- | | |
|---------------|---|
| TCS Pattern X | : -"Understanding, friendly",
vs aloof, egocentric,
restricted teacher behaviour. |
| TCS Pattern Y | : -"Responsible, business like
systematic," vs "Evading,
unplanned, slipshod" teacher
behaviour. |

TCS Pattern Z : -"Stimulating, imaginative, or enthusiastic" vs "dull, routine" teacher behaviour.

The study was not concerned with finding out the characteristic patterns of the effective and successful teacher. The main objectives were the "analysis of overt behaviours, or acts of teachers in their classrooms" and "determination of families or clusters into which such behaviours seemed to fall" (80, 1969, p. 43). Accordingly, the teachers were segregated into groups of levels, considering the above characteristic pattern. The high group tended to be extremely generous in appraisals of the behaviour and motives of other persons; possessed strong interest in reading and literary affairs; was interested in music and painting; participated in social groups; enjoyed pupil relationships; preferred non-directive (permissive) classroom procedure; had a superior verbal intelligence and was superior with respect to emotional adjustments. The lower group tended generally to be restrictive and critical in their appraisal of other persons; preferred activities which did not involve close personal contacts; expressed less favourable opinions of pupils; had a lower intelligence; and showed less satisfactory emotional adjustments.

Though Ryans' investigation procedures and techniques were remarkable, this study provides an example of the failure of the empirical approach. The validity coefficients for the combined battery of tests which measured the three

behaviour patterns, averaged around 0.37 at the elementary, and 0.31 at the secondary levels. But when the very same tests were used for predicting success of student-teachers, the mean correlation with X, Y and Z pattern ratings dropped to around 0.12.

Cognitive Ability

It is expected that teachers are of high intelligence compared with others. Within this occupational group the successful or effective teacher should at least be in the high category of general intelligence. But as far as primary and secondary levels of education are concerned, the reported findings of statistical studies create some doubt about the importance of general intelligence alone to successful teaching.

Vernon (95, 1953, p. 13) looking at several findings observed a positive but a very low coefficient of correlation in fairly heterogeneous groups of students and zero or even negative coefficients in highly selective groups. He observed that there is an indication of a non-linear relationship between intelligence and teaching success. Morsh and Wilder (68, 1954) reviewing 53 studies found only 16 of those to have positive correlation coefficients exceeding 0.30 between intelligence test scores and teaching success. But there had been many instances in which no relationship was found and moreover at least 15 investigations had reported negative coefficients of correlation.

Evans (35, 1959), Warburton (97, 1963), and Tarpey (87, 1965) have also touched on this question of teacher's intelligence. None of these researches showed any significant relationship between intelligence and success in teaching. However, they tend to put forward an argument of "Critical Level" of intelligence which is essential for effective teaching. This idea is somewhat similar to that expressed by Cattell who says, "We have known the case of a teacher with an IQ of less than 100, but we have measured several moderately successful teachers at or just about that figure" (11, 1931, pp. 1, 48-72). Thus it seems that there is a minimum level of intelligence which is needed for effective teaching. Given that minimum, there is little or no relationship between success in teaching and general intelligence.

Some researchers have begun to explore the relationship between success in teaching and different types of cognitive functionings, which could not be assessed only by the conventional tests of intelligence. Thurstone (90, 1949), using factor analysis, identified and described several different types of ability to which he has given the name "Primary Mental Abilities". Thurstone defined eight such primary mental abilities: Verbal Meaning (V), Spaces (S), Reasoning (R), Number (N), Word Fluency (W), Memory (M), Perceptual Speed (P) and Motor (Mo). Also, according to Thurstone, high ability in verbal Meaning (V)

yields clues to possible success in teaching. Thurstone's view of man having different types of "Primary Mental Abilities" helps to demonstrate that in many ways the separate measurement of special abilities gives a more meaningful and useful description of intellectual quality than the traditional single intelligence score which measures the large 'g' factor.

Warburton et al (97, 1963), using three of the primary abilities, namely Memory, Verbal Fluency and Vocabulary, failed to predict either the practice teaching mark or the theory mark at any significant level. Only Verbal Fluency and Vocabulary tests made suggestive correlation with practice teaching mark. In fact, all the six ability tests used in the battery failed in predicting any of the criterion scores. Cortis's (20, 1968, pp. 38, 15-121) findings with Verbal Fluency measurement were quite contrary to that of Warburton's (97, 1963, p. 45). Using Getzel and Jackson's Word Association Test, he found the more successful student-teachers in their practice teaching to be lower in Verbal Fluency. But the values of the coefficients of correlation given in both of the studies are very low.

Knoall's (62, 1953, p. 46) investigation is worthy of note here. She administered a battery of word fluency tests to undergraduate students of education, "with the dual purpose of determining the number and nature of word fluency factors, with the hypothesis that fluency is not a

single ability and of finding out the relationship between word fluency and teaching success." From the 38 students who began teaching in secondary schools, she obtained three measures of teaching efficiency after a period of one year from their beginning. Two of her nine measures of word fluency correlated significantly with all three criteria of success in teaching. One test required the subject to "write all the adjectives which would be used to describe a house" and the other to "list all things around." Both tests were supposed to measure the "ideational word fluency." Getzel (46, 1963) defines this fluency factor, citing Guilford's (50, 1959) definition, as a divergent thinking factor characterised by "... the ability to call up many ideas in a situation relatively free from restrictions, where quality of response is unimportant" (50, 1959, P. 382).

With Knoell's (62, 1953, p. 46) findings in mind, the work of Grocken (22, 1968) with training college students is worth considering. He assumed that a trainee's teaching method was heavily influenced by two major factors: Ingenuity and Flexibility in the teaching situation: Thus he postulated that "If ingenuity is an essential part of successful teaching then it should be possible to predict it from a paper and pencil test of verbal flexibility." On the basis of his studies, he was successful in saying, "By and large although at a low level of significance the best cut-off instrument for predicting student-teaching

work was the test of flexibility" (22, 1968).

The relationship between verbal ability and teaching has been investigated by Ryans (80, 1969, p. 77) and his associates too in their teacher characteristics study. As a measure of verbal understanding they used 11 vocabulary and verbal analogy items. The difference between the superior and the inferior teachers, as indicated by a large group of principals, in the verbal understanding was significant at 0.05 level. However, the correlation coefficient between verbal understanding and principal's rating of general teaching efficiency for a combined sample of 113 elementary and secondary school teachers was only 0.01. Ryan's findings also indicate a slight superiority in verbal understanding by female teachers when compared with male teachers.

After Thurstone's identification of primary mental abilities in the early 1940's, it was assumed that such measures were relatively pure and that each involves a smaller number of determinants than the traditional type of intelligence tests. Furneaux's (45, 1961, pp. 195-213) work involved a new set of tests (Nufferno Tests) to measure certain functional attributes that are considered to be involved in any intellectual ability. Furneaux stated that their function was rather to introduce a new rationale, by making possible the separate measurement of each of the several attributes which interact to determine the score

obtained by an individual on conventional tests measuring abstract reasoning ability, inductive reasoning ability, general ability and the like. The set of Nufferno Tests assesses one's speed, accuracy and level in mental functions. The mental level score is defined as a measurement of a person's effectiveness within problem solving situations. Using these measurements Fureaux has demonstrated a relationship between slowness and psychiatric break-down in university students. The mental speed tests have also been used to demonstrate slowness of inductive reasoning in psychotics. Also it has been said that it could be used as an aid to differential diagnosis between neurotics and psychotics.

Interest

Interest may be defined as stated preference for activity. It is an important factor in everyday living and has a prominent influence in the individual's social adjustment. Darley and Hagerah define interest stating that "measured interests and occupational involvement reflect personality and provide opportunities for the fulfilment of needs and drives" (25, 1955).

Interests are believed to be related to academic success and job satisfaction: it is desirable that individuals have an understanding of relative strength and weakness of his interest. Several questions concerning an individual's interests seem to be relevant: (1) What are the person's

interest? (2) How does his interest in one activity compare with his interest in other activities? (3) How does his degree of interest in a given activity compare with that of other persons? and (4) Will his interests change a great deal with the passage of time?

Interest determined by one's values and preferences may be the deciding factor in the selection of a course or of an occupation. Interest has been the object of much attention from the point of view of vocational and counselling psychologists during the past generation.

There have been four major interpretations of the term interest. Super (1947) classified them as: (a) expression, (b) manifestation, (c) tests, and (d) inventories of interest.

(a) Expressed interest is the verbal expression of interest in an object, activity or occupation. The importance which may be attached to expression of specific interests clearly varies with the maturity of the individuals. (b) Manifest interest is synonymous with participation in an activity or occupation. Objective manifestation of interest has been studied in order to avoid the subjectivity of expression or implication of a static quality of interest. (c) Tested interests refer to interests as measured by objective tests. It is assumed that since interest in a vocation is likely to manifest itself in action, it should also result in an accumulation of relevant information.

Thus interest in science should cause a person to read about scientific developments and to acquire and retain more information about science than other people. (d) Inventoried interest is assessed by means of tests of activities and occupations. Most interest tests in use to-day are of the inventory type, list of items is presented and response of liking or preference is elicited. A fundamental assumption in the use of interest inventory is that people in different occupations have at least partially different interests; otherwise there would be no way in which interest tests could be used successfully to advise people to consider one occupation rather than another. The oldest and one of the most widely used among all inventories is the Strong Vocational Interest Blank which has undergone continuing research, revision and extension. It is designed primarily for people who have at least some college education, although there is coverage for a few occupations where college education is not required. Most of the 400 items require like-indifferent-dislike response to activities or topics. A weighted scoring key was prepared to assess how closely the subject's interests correspond to those of the professional group.

Early interest inventories were oriented chiefly towards the prediction of the individual's eventual acceptance or rejection of particular job functions. From these modest beginning interest tests have gradually come to play a significant role in the formulation of personality theory.

The impetus for these developments has come from several sources. Factor analysis of interest first suggested the inter-connection of interest with other dimensions of personality (Guilford 1954). Comparative investigation of several behaviourally defined groups has likewise revealed significant correspondence between vocational interest and other aspects of personality.

Super and Crites¹ have made certain suggestions regarding vocational counselling which implied that (a) each individual is endowed with certain abilities, interests, personality traits and other characteristics and that (b) if he knows them and their potential values it will make him a comparatively happier man, a more effective worker, and a more useful citizen of his country (16, 1962, pp. 1-5).

Ginzburg and his associates (23, 1968, pp. 121-129) comprising a team of an economist, a psychiatrist, a sociologist and a psychologist may be credited with effectively introducing a developmental approach to the study of vocational behaviour. They have summarised their views on occupational choice which contains four elements: (1) Occupational choice is a developmental process which typically takes place over a period of some ten years. (2) The process is largely irreversible, i.e. experience cannot be undone, for it results in investment of time, money and ego; besides, it produces changes in the individual. (3) The process of occupational choice ends in a compromise between interests,

capacities, values and opportunities.

Froelich and Hoyt (39, 1959, pp. 175-180) consider interest to be one of the forces that motivated activity. They refer to a tendency of an individual to select one activity or thing in preference to something else.

Brayfield (6, 1935) refers to a number of factor-analytical studies of the results of interest inventories which have been made with a view to determining basic interest factors (6, 1965, pp. 92-104). One such case was that of Thurstone. The first application of his new method of factor analysis was to a list of inter-correlations of interests of eighteen professions. The result was the extraction of four factors. They were necessary in order to account for the correlations through postulates. These factors were named interest in science, interest in language, interest in people and interest in business.

Career developmental patterns of college women were studied by Wolfson who included in the study 306 college students in their mid-thirties. It was a follow-up study where these students were assigned after 25 years to five vocational pattern groups on the basis of their work histories. Among the 29 characteristics that were analyzed statistically, 15 significantly discriminated among the five groups. Though a woman's career pattern could not be predicted from data obtained at the time of her entry into college, it could be predicted five years later from other known

data. However, the most significant data were related to marital situation and education.

Sharf (96,1970, pp. 258-262) made a study which was designed to find out the relative importance of interest and ability in making job decision. In that study seventy-six male college students rated each of 100 occupations either high or low with respect to their interest and ability in each one. From among these self-ratings, pairings of high and low interest and ability for specific occupations were offered to each subject in a forced choice format. The self-rated interest was found to be significantly more important than self-rated ability in choosing between two occupational alternative in high-, low-, and mixed- preference choice situations. Thus, though interest and ability appear to be only slightly related, students tend to stress on interest rather than ability in their educational and vocational decision making.

Zytowski made a follow-up study regarding the predictive validity of the KOIS (Kinder Occupational Interest Survey). He included in his study more than 1000 men and women who were located 12 to 19 years after taking an early form of the KOIS either in high school or in college. It was noticed that the writer obtained satisfactory data regarding 882 subjects. 51% of the subjects were employed at the time of the follow-up in an occupation that would have been suggested to them had their inventory been

interpreted to them. This compared favourably with other validity findings for occupational scaled interest inventories.

Two interest inventories which are considered to be extremely valuable as appraisal instruments are the Strong Vocational Interest Blank and the Kuder Preference Record: Vocational. The former has been the subject of intensive study from various view points. The latter, experimented with for several years before publication, has been revised several times and new studies by its author and others are continually appearing in the journals or in the new edition of the manuals. It is in all fairness that a brief mention of the above two instruments be made here.

Strong Vocational Interest Bank (SVIB) was for many years the leading vocational interest inventory, a position it now shares with the Kuder Record. The purpose of the SVIB is not to test interest in vocations, but to discuss the extent to which a person's interests agree with those of persons in various occupational groups. The SVIB is an example of the methodology of the empirical approach in which the author stated that the interests of occupational groups do not result from people having experience in that occupation. Rather these interests are present to a large degree before the individuals enter into different occupations. The occupational differences in patterns of interest were the basic discoveries made by Strong. Subsequently those discoveries made possible later studies of the nature

and role of vocational interests.

Qazi Anowara Khatun did her doctoral study on "Development of a Vocational Interest Inventory for the Secondary School Certificate Level Students in Dhaka City".

Khatun's study was limited to school students. The purpose of developing the Interest Inventory was to find out a valid and reliable instrument for measuring the vocational interest of S.S.C. level students who have not yet entered into job but who are supposed to make a decision regarding their occupation on completion of their study. Three hundred items of the questionnaire covered the following ten occupational areas with equal number of items in each: (1) Teaching, (2) Medicine, (3) Nursing, (4) Social Welfare, (5) Engineering, (6) Business, (7) Secretarial Science, (8) Accountancy, (9) Law and (10) Family Welfare. This type of inventory could be used in selecting personnel and in solving problems related to their vocations.

Attitude to Education

An attitude is often defined as a tendency to react favourably or unfavourably toward a designated class of stimuli such as a national or racial group or custom or an institution. It is evident, when so defined, attitude cannot be directly observed but must be inferred from overt behaviour, both verbal and non-verbal. The term "attitude" has been more frequently associated with social stimuli with emotionally toned responses.

Measurement of attitude is a subject of recurrent controversy and debate. Whether verbally expressed opinion can be regarded as indicator of attitudes has frequently been questioned. It has been further pointed out that even observation of overt behaviour may not always provide an accurate index of attitude. The relationship between "what the person says" and "what he does" as well as the relationship between publicly and privately expressed attitude will be recognized as a special instance of validity. But attitude scales are designed to provide a quantitative measure of the individual's relative position along an unidimensional attitude continuum.

Since the early 1950's the Minnesota Teacher Attitude Inventory (MTAI) has been the most popular instrument used in measuring teacher's attitudes. The authors of the MTAI indicate, "It is designed to measure those attitudes of a teacher which predict how well he will get along with pupils in interpersonal relationships, and indirectly how well satisfied he will be with teaching as a vocation" (19, 1951). The MTAI may approximately be described as a measure of progressive vs traditional attitudes to education. However factor analytic attitude studies on MTAI suggest that it is measuring a single positive attitude (46, 1963). The data presented in the manual shows that those scoring high in the test tend to be better teachers than those scoring low in the test. Again, Cronbach (23, 1960, p. 831), making a

review on MTAI, says that MTAI is a promising tool for research on teacher success.

Whatever the MTAI measures, a review of research on teacher effectiveness studies does not indicate positively that it predicts the success of a teacher. Some investigations provide contradictory findings. Sandgren and Schmidt (82, 1956, p. 49), experimenting with MTAI on 393 students, found no significant relationship between MTAI scores and supervisors' ratings of teaching success, even by sub-dividing the group into standard categories (male vs female, elementary vs secondary according to subject groups).

But Stien and Hardy (88, 1957, pp. 21, 54-60), working on student-teachers with the MTAI, reported some positive findings. They correlated the MTAI scores with four types of classroom teaching measures: (1) rating by pupils on an adaptation of Leed's scale called "out student-teachers", (2) rating by pupils of the student-teacher's lessons apart from his personality, (3) adviser's rating, and (4) a combination of the three ratings. The student-teachers were grouped into two samples: elementary and secondary school teachers. Of the eleven correlations reported, eight were significant at the 0.05 level. The combined pupil-adviser rating gave correlation values of 0.39 and 0.56 for elementary and secondary student teachers respectively.

Evans (36, 1958) made a study of MTAI with student-

teachers. Her sample of 109 postgraduate student-teachers in a university department of education showed no positive correlations. Only success "theory of education" correlated to a small extent. But Herbert and Turnbull (54, 1963, pp. 16, 24-31) in their investigation with 499 three year diploma students, found MTAI as the best test which discriminated most consistently the better students from the rest. Furthermore, they found that the MTAI discriminated similarly with assessments in Education and Psychology. Esco (32, 1956, p. 5) also found that the MTAI scores predicted students' success in an educational psychology course.

Oliver and Butcher (71, 1962, pp. 56-69) attempted to ascertain teachers' attitudes to education according to a meaningful classification. They were successful in showing that teachers' attitudes to education are organized in structures which can be described, though not completely, in terms of tendermindedness, radicalism, and naturalism. To determine these factors, they utilised a scale containing 30 naturalism (N) items, 38 radicalism (R) items, and 42 tendermindedness (T) items. Factor analysing these, the authors have shortened the scales to 11, 12 and 14 items in N, R and T respectively. Oliver, (69, 1969), using these scales, constructed his "Survey of Opinions about Education". This is being used extensively, especially with teacher effectiveness studies. Warburton, Butcher, and Forest (97, 1963, pp. 33, 69-79) included these three scales into

their 100 variables to predict graduate students' teaching performance. They found "tendermindedness in education" and extreme answers on the scale of "radicalism in education" to correlate significantly with students' final theory mark (an average of five examination papers and one long essay) and the certificate awarding decision, but not with final practice teaching mark. Only the "naturalism in education" score made a suggestive negative correlation with practice teaching mark, though it was not significant in statistical terms. According to Oliver (71, 1962, pp. 1, 56-69) the idea of "naturalism in education" refers to the "Child centered" and "Progressive" group of attitudes. In the factor analysis, again, the tendermindedness factor (having loadings) of Oliver's Tendermindedness in Education and Cattell's (14, 1967, pp. 2, 211-214) 16 PF Sensitivity had appeared to have a substantial relationship with the main criteria. The study does not show evidence that the three criteria are independent of each other. The certificate awarding score or the decision itself is not experimentally independent from the other two criteria. This dependence gave rise to a spurious inter-correlation among the three criteria. Therefore, it is difficult to evaluate the real effect of "tendermindedness" to the said criteria separately, or in combination by means of factor analysis. Nevertheless, as far as attitudes are concerned there is some indication that "tendermindedness" and "radicalism" along with

"unconventionality" are predictive of the "theory of education" component of the course.

Cortis (20, 1966, pp. 38, 115-121), working with students on a three year certificate course, found "naturalism in education" to correlate positively and significantly with the practice teaching mark. Moreover his factor analysis also revealed an educational attitude factor (i.e., naturalism and tenermindedness with practice teaching mark.

The prime objective of teaching is to produce desirable changes in pupils in many ways. Barr (4, 1935, pp. 561-569) points out, ". . . we shall have to take into consideration not merely knowledges and skills and the more tangible outcomes of instruction, but attitudes and ideals and the less tangible outcomes of instructions". But most researches have only considered the obvious and the easiest measure of change of knowledge. This perhaps may be due to complexities involved in an overall measure. But, on the other hand, such an overall change invariably depends more on the teacher's behaviour than on the effectiveness of his teaching. Rosenshine (79, 1971) has focussed our attention on this new field of educational research: the study of the relationship between teacher behaviour and student achievement.

Studies reviewed in this chapter indicate the need for further exploration of the relative merits of affective

variables as contrasted to cognitive ones in predicting success of trainees of teachers' training colleges in the teaching profession. This kind of investigation is particularly important for Bangladesh because of the peculiarity of its socio-economic and cultural situation.

Introduction

The present study is concerned with an investigation of selected affective variables and their effects on the success of trainees in the teachers' training colleges and in the profession as they relate to selected affective factors of these trainees. In order to accomplish this, the researcher conducted an exploratory study to determine the comparative effects of a selection of affective variables and cognitive variables upon their success in the training programs as well as in the teaching profession measured in terms of their level of achievements in the programs of teacher education.

In order to measure the affective variables, three data gathering instruments were used. They were: (1) Personality (introversion-extraversion) Scale, (2) Attitude Scale and (3) Interest Inventory. These three scales were constructed specially for the purposes of the present study.

In addition to the above mentioned affective variables, the following cognitive variables were also used as independent variables in order to determine the comparative effects of these variables upon measures of success: (1) The

scores obtained by the trainees in the admission tests given by the college for selection of trainees and (2) a scaled measure of past academic achievements of each student.

Success of a trainee was measured in terms of (1) marks obtained in the theory part of the training programme, (2) marks obtained in the practice teaching part of the training programme, and (3) total marks obtained in the B. Ed. degree programme as a whole (final marks). For the purposes of this study the extent of success in the practice teaching measure of success in the teaching profession, assuming an equivalence of the two.

Since the study is also concerned with an analysis of comparative effects of affective and cognitive variables upon the criteria of success, statistical techniques as described in this chapter was applied to test hypotheses regarding the effects of all relevant combinations of the independent variables upon each of the dependent variables. In other words, the predictive validity of each independent variable or suitable combinations of them was determined. Besides, the extent of reliability of each instrument as included for the measurement of the affective variables was established. Appropriate item analysis was done for each specially developed measure of the affective variables. An attempt was made also to assess the validity of the three scales for measurement of the affective variables.

Sample for the Study

The samples for the study consisted of the trainees of the three teachers' training colleges in Bangladesh, namely Teachers' Training College, Dhaka, Teachers' Training College for Women, Mymensingh and Teachers' Training College, Comilla. The set of the three tests for measurement of the affective variables was administered to the respondents by the researcher personally with a request to duly record their responses to each question item in the three instruments according to instructions incorporated in each scale. Each respondent was given a period of five days to complete the work. A total of 203 respondent trainees duly filled in the question items and returned the set of scales to the researcher. The distribution of the sample of trainees of the teachers' training colleges is shown in Table 1.

TABLE 1

DISTRIBUTION OF THE SAMPLE OF RESPONDENT TRAINEES
OF THE TEACHERS' TRAINING COLLEGE

College	Male	Female	Both Sexes
Teachers' Training College, Dhaka	61	43	104
Teachers' Training College for Women, Mymensingh	-	44	44
Teachers' Training College, Comilla	26	29	55
Total	87	116	203

Description of the Data Gathering Instruments

1. Personality (extroversion-introversion) Scale:

The scale consists of one hundred question items. Each item is a statement purported to measure the respondent's attribute in the continuum of extroversion-introversion. The item was actually given in the form of a statement for which a response in either 'Yes' or 'No' was recorded. However, there are two types of statements which have been used to design the item pool. About 50% of the items are given in the form of extrovert statements while the remaining ones are introvert statements. A special method was used for the determination of the score of a respondent to the scale as a whole.

The score of each respondent was found out by the following method: for each extrovert item the 'Yes' response was allotted 1 mark and the 'No' response was allotted -1 mark. On the other hand, the 'Yes' response for an introvert item was allotted -1 mark and the 'No' response was allotted 1 mark. The total score for a testee on the scale was then determined by computing the algebraic sum of the marks for all one hundred items. This score indicated the respondent's position on the extroversion-introversion continuum as envisaged, assuming linearity of the scale. On the basis of this total score each testee was classified as either an extrovert or an introvert.

The items for the scales were adapted version of those in the following two main sources: (1) Minnesota Multiphasic Personality Inventory (MMPI) and (2) Introversion

Scale developed by M. U. Ahmed (). However items included in the present scale were adapted by the researcher according to their suitability for measurement of extroversion-introversion of the subject group under study. As an example, the following item in its English version is presented: "I cannot make friendship quickly with anyone". The scale is given in Appendix B.

2. Attitude Scale: The attitude scale, used for the purpose of this study, contains 82 items. Each item has been so designed as to evoke one of the five alternate responses indicating a scaled response on a continuum of attitude of the respondent towards the teaching profession. There were two types of items-favourable and unfavourable. The scale contain 25 unfavourable items and 57 favourable items. Each item statement evoked five alternate responses in a continuum of agreement - disagreement. The five point scale measured the extent of a respondent's agreement or disagreement with the idea expressed in the statement. This indicated the extent of the respondent's attitude towards the teaching profession. The sum of scores of all the items in the scale provided a total score for the respondent indicating the extent of his attitude towards the teaching profession in the continuum of favourableness-unfavourableness. In other words, the total score indicated the extent of positive or negative attitude of the respondent. That is, testees were classified with favourable attitude and unfavourable attitude.

The following special scheme was used for scoring responses to the items in the attitude scale:

Response	Score	
	Favourable Item	Unfavourable Item
Strongly agree	2	-2
Agree	1	-1
Uncertain	0	0
Disagree	-1	1
Strongly disagree	-2	2

As an example, the following item in its English form is furnished here: "Love for children is a heavenly quality and teachers get the opportunities to inculcate that quality in them." The scale is presented in Appendix C.

The items in the scale were constructed by the researcher for the purpose of this study. The scale was initially given to a number of experts for their opinion about the suitability of each item. On the basis of their verbal comments and discussions the researcher modified the scale and prepared it for use in the current study.

3. Interest Inventory: A specially designed interest inventory containing one hundred fifty-four items for measurement of interest for the teaching profession was used as one of the data gathering instruments.

The items were constructed by a sufficient number of teachers of schools in the City of Dhaka. Out of 300 items prepared by them, 154 were finally selected on the basis of judgement of a number of experts in teacher education.

The items are in the form of statements indicating some amount of interests for the teaching profession.

The items of the scale fall under two groups: one dealing with positive interest and the other with negative interest. The number of positive items is 92 and the number of negative items is 62. Each respondent was required to put either 'Yes' or 'No' as the only possible response to each item statement. A 'Yes' response for a positive items was scored +1, while a negative response was scored - 1. On the other hand, a 'Yes' response for a negative item was scored -1 and a 'No' response was scored +1. An algebraic sum of all responses of a respondent provided an indication of his or her interest for the teaching profession. One question may be mentioned here as a sample. "I make efforts to solve problems of students." The scale is presented in Appendix D.

4. Admission Test: The admission tests given by the teacher's training colleges for selection of trainees are basically aptitude tests. The result of these tests was used as one of the independent variables for the study. This is obviously a cognitive variable.

5. The Past Academic Achievements: The past academic achievements of each trainee was used as the measure of cognitive development. The past academic achievement was scaled on ten-point scale. The following scheme was used for initial scoring of past academic achievement in any

public examination:

Division	Score
First Division	3
Second Division	2
Third Division and others	1

A special technique was applied for transforming the scores of each respondent into a uniform score on the basis of the ten-point scale. This technique consisted in computing the weighted average of the scores on all public examinations of each trainee.

Data on Success in the Training Programme

The measures of success were used as dependent variables for the purpose of this study. The following three were obtained and used in this study:

1. Success in the training programme was measured in terms of marks obtained by each trainee in the theory part of the B. Ed. Examination.
2. Success in the teaching profession can be actually measured only through a follow up study of these graduates. An alternative is the extent of success in the practice teaching part of the B. Ed. degree programme. Hence success in the teaching profession for the purposes of this study was measured in terms of marks obtained in the practice teaching part of the B. Ed. Examination.
3. Success in the training programme as a whole was measured

in terms of the sum of the marks obtained by each trainee in the theory part and the practice teaching part of the B. Ed. degree programme (final marks).

Analysis of the Data

Effects of the independent variables upon the dependent variables were investigated by application of the following techniques:

1. Simple effects: Each of the three affective variables was correlated with each of the two dependent variables, namely extent of success in the theory part of the training programme and that in the practice teaching part. Similarly, each of the two cognitive variables was correlated with each of the two dependent variables. The resulting coefficients of correlation provided an indication of the extent to which the independent variables singly predict success. These coefficients of correlation were tested for significance.

In order to determine some of the broader effects of the independent variables upon the dependent variables the following analyses were conducted: Comparative effects of: (1) introversion and extroversion, (2) favourable attitude and unfavourable attitude, (3) high interest and low interest, (4) high aptitude and low aptitude, and (5) high past academic achievement and low past academic achievement upon the two dependent variables. The aptitudes were, of course, measured in terms of marks obtained by each

trainee in the admission test.

2. Multiple effects: The multiple effects of the three affective variables upon the two dependent variables had also been analysed in order to determine the best combination of these independent variables as predictors of the two dependent variables. For this purpose different combinations of the independent variables were used to find the highest coefficients multiple correlation and the best regression equation. The coefficients of multiple correlation as well as the regression coefficients were tested for significance.

The above procedures were repeated in respect of the two cognitive variables also. In other words, multiple correlation between each of the criteria of success and the two cognitive variables was found out and the resulting coefficient of multiple correlation was compared with the coefficient of multiple correlation as found out in the case of the affective variables. This provided a basis for determination of the comparative merits of the affective predictors and the cognitive predictors.

Validation of Data-Gathering Instruments

Validation of the three instruments for gathering data on the affective aspects of the respondents, namely the Interest Inventory, the Attitude scale and the Personality (extroversion-introversion) Scale was also done in terms of the extent of success of a special sample of teachers of

high schools with at least the B. Ed. degree. Their success on the teaching job was measured in terms of ratings given by the Headmaster as well as the Assistant Headmaster of the respective high school. The Headmaster and the Assistant Headmaster also rated each selected teacher working in the respective school in respect of interest for teaching, attitude towards the teaching profession and personality (extroversion-introversion).

A specially designed rating scale was administered to the nine Headmasters and eight Assistant Headmasters of the nine Schools selected for the purpose. The Assistant Headmaster of Comilla Zilla School could not participate in the study. The respondent teachers in those schools were required individually to fill up the three data gathering instruments, namely the Interest Inventory, the Attitude Scale, and the Personality (extroversion-introversion) Scale. A total of 134 teachers of these nine schools participated in this study. This procedure was expected to provide a substitute from a following study of the trainees included in the present investigation. A distribution of the sample of responding trained teachers of the selected high schools is shown in Table 2.

TABLE 2
SAMPLE OF RESPONDENT TRAINED TEACHERS OF
THE SELECTED HIGH SCHOOLS

School	Male	Female	Both Sexes
Govt. Laboratory School, Dhaka (Govt.)	21	-	21
Polytechnique Girls' School, Dhaka (Govt.)	3	18	21
Rayer Bazar Girls' School, Dhaka	2	3	5
Rajdhani Uchcha Vidhalaya, Dhaka	4	-	4
Comilla Zilla School, Comilla (Govt.)	21	-	21
Vidhamayee Girls' School, Mymensingh (Govt.)	3	10	14
Radha Sundari Girls' High School, Mymensingh	3	7	10
Mymensingh Zilla School, Mymensingh (Govt.)	22	2	24
Farida Vidya-ayatan, Comilla	5	9	14
Total	84	50	134

A special multivariate regression analysis was conducted in order to determine the extent of validity of the three instruments purported to measure the affective variables, namely interest, attitude and personality (extroversion-introversion) as they relate to success in the teaching profession. It is naturally expected that this special analysis would indicate the validity of these three instruments developed for the present study.

Reliability of the Data-Gathering Instruments

Reliability of each of the three affective measures was computed by using the split-half method. The resulting coefficients of reliability were tested for significance. Besides, the reliability of each of these three instruments were also computed by using the method of rational equivalence for further verification.

Item Analysis

Items in each of the three instruments for measurement of the affective variables were analysed with a view to determining the discriminating index of each item. This index provided a basis for item validity.

For the purpose of item analysis in each of three instruments for the measurements of affective variables, the highest scoring 50 (fifty) scripts (about 25%) were isolated and called the high group and similarly, the lowest scoring 50 (fifty) scripts were isolated and called the low group. The methods of analysis are shown in the following sections:

1. Personality (extroversion-introversion) Scale:

For analysing each extrovert item the 'Yes' responses of the high and low groups were used in the following equation to compute the discriminating index of an extrovert item:

$$\text{Discriminating Index} = \frac{H-L}{50} \times 100$$

In order to compute the discriminating index of an introvert item the 'No' responses of the High and Low groups were

used in the following formula

$$\text{Discriminating Index} = \frac{H-L}{50} \times 100$$

2. Attitude Scale: For the purpose of analysing favourable items in the Attitude Scale, responses given in the form of extent of agreement with the idea contained in a statement for an item were regarded as 'Yes' responses. Similarly, the responses indicating some extent of disagreement with item contained in a statement were regarded as 'No' responses. For the purpose of computing the discriminating index of a favourable item the 'Yes' responses of the high and the low groups were used in the following formula:

$$\text{Discriminating Index} = \frac{H-L}{50} \times 100$$

Similarly, for the purpose of computing the discriminating index of an unfavourable item, the 'No' responses of the high and the low groups were used in the following formula:

$$\text{Discriminating Index} = \frac{H-L}{50} \times 100$$

The foregoing scheme for item analysis has given two types of items in each measuring instrument, namely positively discriminating items and negatively discriminating items. The former type of items are valid for the respective scale, while the latter are not.

3. Interest Inventory: For the purpose of computing the discriminating index of a positive item in the Interest Inventory, the 'Yes' responses of the high and the low groups were used in the following formula:

$$\text{Discriminating Index} = \frac{H-L}{50} \times 100$$

Hypotheses of the Study

Statistical analysis of the data collected for the study as indicated in the foregoing section of this chapter were conducted in order to test the eight general hypotheses mentioned previously in Chapter I of this research report.

Choice of Level of Significance

The choice of level of significance was an arbitrary and subjective judgement. The 0.05 level is one of the most commonly used and suitable values (3, 1960, p. 231). In dealing with uncertainties and unknowns a judicious choice of level of significance was necessary. The level used for testing the hypotheses in this study was 0.05.

Data Processing

Data processing for almost all the data collected for the study was done by the computer service of the Bangladesh University of Engineering and Technology (BUET). According to the instructions given by the researcher, the experts of the Computer Centre, BUET, prepared the relevant programme and got the data processed in their computer. The essential portions of the computer output have been used for the purposes of the analysis of findings and presentation of results as given in Chapter IV.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

Since the present study is concerned with an investigation of selected characteristics of the trainees associated with their success in teachers' training colleges as predictors of success in the teaching profession, the researcher describes here some relevant particulars about the selected teachers' training colleges. It may be mentioned here that for the purposes of the current study, data have been collected from three training colleges, namely (1) Teachers' Training College, Dhaka, (2) Teachers' Training College, Comilla and (3) Teachers' Training College for Women, Mymensingh.

The teacher education programmes of the teachers' training colleges in Bangladesh aim at providing pre-service training to secondary school teachers of the country. The minimum educational qualification required for admission to these programmes is the first degree (Bachelor degree) of the universities. Many of the trainees actually tend to possess higher degrees. Although the training programme is essentially a pre-service training programme, a large number of trainees tend to possess teaching experiences of varying

length at secondary schools.

Entrance into the colleges for training in the B. Ed. course is based on a competitive examination, consisting basically of three compulsory areas, namely (a) English, (b) general knowledge and (c) general intelligence. Besides, almost all the subjects offered by the secondary school curriculum are included in the test. The subjects are elective. A candidate has to select two of the subjects for the admission test. As the seats in the colleges are limited the selection of candidates in all the colleges is made carefully. As for example, in Teachers' Training College, Dhaka, there are about 400 places, but as many as 2500 candidates apply for admission in this college. After screening the candidates on the basis of this written test, those who qualify are interviewed by a panel of teachers to assess other qualities that should make good teachers. Ability for participation in co-curricular activities and games and sports, possession of soft and pleasant voice, ability for getting along well with others etc are taken into consideration for admission. Preference is given to candidates with teaching experience.

Candidates for admission to the teacher's training colleges are required to give in their application forms detailed information regarding their past academic achievements, particularly mentioning their division placement in the public examinations like the Matriculation Examination

(S.S.C. examination), Intermediate Examination (H.S.C. examination) and examinations for higher university degrees.

A special technique is applied for rating each candidate for admission on the basis of their past academic achievement in all public examinations. Usually a ten-point scale is used to compute an overall measure of merit of performance in the past public examinations. This score is used as one of the important criteria for admission of a candidate to the teachers' training college. This practice however slightly varies from college to college.

In order to bring about a uniformity for the purposes of the current study, the following ten point scale for computing an overall measure of past academic achievement was used. The scheme is as follows: 1 mark for third division or compartmental or supplementary, 2 marks for second division, and 3 marks for first division in any public examination including examinations for higher degrees. For the purpose of transforming the sum of these marks of a candidate into a score on the ten-point scale, the sum was divided by the maximum possible marks and the quotient was multiplied by ten.

Although there is a separate training college for women in Mymensingh, a certain number of seats is reserved for women in other teacher's training colleges. Little distinction is made between the sexes in the curriculum. Male and female students follow the same courses, attend

the same classes. Only in practice teaching women trainees are usually and preferably sent to girls' schools. However, in the Teachers' Training College for Women, Mymensingh, a separate curricular emphasis is put on Child Development and Home Economics.

The academic programme consists of a core part and an elective part. The core curriculum usually contains pedagogical subjects, such as Educational Psychology, Principles of Education, History of Education, Philosophy of Education, Child Development, Islamic Ideology, Population Education, Comparative Education, Hygiene and Health Education, etc. The elective curriculum consists of methods of teaching secondary school subjects. Usually each trainee is required to choose two school subjects for the purpose. The course consists of the following subjects of which five are compulsory and the remaining ones are elective and optional:

Compulsory Subjects

1. Educational Psychology
2. (a) Principle of Education
(b) Philosophy of Education
3. (a) History of Education
(b) Comparative Education
4. Educational Measurement
5. Health Education:
(a) Hygiene,
(b) Physical Education

6. Home Economics

7. Child Development (in the Teachers' Training College for Women)

Elective Subjects

1. Bengali

2. English

3. Mathematics

4. Science

5. History

6. Geography

7. Arts and Crafts

8. Home Economics (in the Teachers' Training College for Women)

One of the Following Optional Subjects is Allowed

1. Counselling and Guidance

2. Islamic Ideology (compulsory subject in the Teachers' Training College, Comilla)

3. Library Science

4. Primary Education

5. Research

In addition to these academic programmes of theoretical nature, the trainees are required to participate in a number of co-curricular activities. The training of teachers is considered incomplete without active participation in co-curricular activities. These activities usually correspond with the co-curricular activities of secondary

schools of the country.

Co-curricular activities comprise the following, for which 20 marks are allotted. Every student has to select one of the following:

1. Debates and discussions
2. Dramatics
3. Songs and music
4. Story making
5. Speech making
6. Gardening

In addition to these co-curricular activities, students participate in most of the following:

1. Annual drama
2. Publication of college magazine
3. Formation of subject society such as Science Club, History Club, etc.
4. Periodical publication of subject magazines
5. Tour of places of geographical/industrial or educational interest
6. Annual picnic
7. Games and annual sports

The curriculum of the teachers' training colleges is designed with a view to giving adequate knowledge of the subjects offered by the secondary schools. It is expected that a sound knowledge of the pedagogical subjects together with that of the methods of teaching certain

secondary school subjects would provide to the trainees a good background for teaching efficiently in the secondary schools. From time to time, as needs are felt, additions and revisions are made in the curriculum to relate the subjects of study with actual life experiences. This task of revising the curriculum is assigned by the universities to committee of courses consisting of eminent teachers of the training colleges, presided over by the Dean of the Faculty of Education.

Evaluation of Performance in B. Ed. Programme

In all the teachers' training colleges examinations are conducted in three phases: 1st Term, 2nd Term and Final Term. The First Term examination comprises the portions covered in that term of all the subjects prescribed by the teachers' training colleges syllabus. The examination held at the end of the Second Term covers the remaining portions of each subject. The total marks of 100 in each subject is distributed as follows: First Term 25 marks, the Second Term 25 marks, and the Final Examination 50 marks.

The practice teaching part which is done in the Third Term is evaluated internally by the teachers of the training colleges as well as externally by an expert appointed by the respective universities. Assessment of practice teaching is made internally by the teaching staff who approve the lesson plans and visit the schools to supervise the lessons imparted by students.

Trainees at the time of practice teaching in schools are placed under different supervisors who write some suggestions in the students' note book to further improve his method of teaching. Supervisors also check whether lesson plans have been duly approved by any tutor. At least 4 tutors must supervise every trainee and they note whether suggestions given by them were followed or not. The main purpose of assessment is to provide a systematic basis for evaluating the trainee's progress in teaching.

Marks out of 100 are awarded for practice teaching by teaching staff of the college at a staff meeting. This is called internal assessment of practice teaching of trainees. Final assessment is made out of 200 marks by the principal and the external examiner appointed by the university authorities. So a total of 300 marks is allocated for practice teaching.

The researcher collected internal marks out of 100 for practice teaching from the college records and final marks out of 300 for practice teaching from the university examination register. Similarly, the researcher collected marks in other subject areas for the B. Ed. Examination from the universities.

In selecting students for the training programme, two criteria are used: (1) admission test results and (2) past academic achievements. These two measures were used in this study as independent variables. Their suitability as predictors of success in the teaching profession has been

compared in this study with that of the independent affective variables, namely a measure of personality, a measure of attitude, and a measure of interest.

Statistical Analysis and Presentation of the Data

The following sections of this chapter are devoted to statistical analysis of the data on: (1) the past academic achievements, (2) admission test results, (3) personality (extroversion-introversion), (4) attitude, (5) interest, (6) examination in the theory part, (7) examination in the practice teaching part, and (8) final marks. These eight variables fall under two groups, namely the independent variables consisting of the first five and (2) the dependent variables consisting of the last three. These sections have been followed by sections on validity of the instruments for measurement of the affective variables, reliability of these instruments, and item analysis for these three instruments. The analysis has been conducted according to the detailed procedure given in Chapter III.

The Past Academic Achievements and Admission Test Results

The past academic achievements and college admission test results of the sample of the respondents are summarised and presented in Table 3.

The past academic achievements of each responding trainee were transformed into a weighted average score on a ten-point scale. The mean of the distribution is found to be 4.82 with a standard deviation of 0.82. These statistics, read together with the other relevant statistics as shown in the table, clearly indicate the nature of the distribution

TABLE 3
SUMMARIZED DATA ON PAST ACADEMIC ACHIEVEMENTS AND COLLEGE
ADMISSION TEST (INDEPENDENT VARIABLES) (N=203)

<u>Statistic</u>	<u>Past Academic Achievements</u>	<u>College Admission Test</u>
<u>Mean</u>	4.82	50.03
<u>Standard Deviation</u>	0.82	5.61
<u>Standard Error</u>	0.07	0.39
<u>Range</u>	5.55	58.00
<u>Skewness</u>	0.71	3.49
<u>Kurtosis</u>	1.25	27.64

of the sample of the trainees in respect of their past academic achievements. The distribution is slightly positively skewed and to an extent heterogeneous. The mean value of 4.82 may be interpreted as indicative of moderately low academic achievements of the group. However, the distribution includes a good number of trainees with high past academic achievements too.

The mean of the distribution of the college admission test score is found to be about 50.03 with a standard deviation of 5.61. The maximum possible score on the test was 100. Although the standard deviation of the distribution is found to be small enough to show that the large majority of the candidates obtained scores between 44 and 56 (about 67 per cent), the range of the distribution is clearly indicating the fact that the group contained quite

a number of poorly performing and highly performing candidates. The distribution is found to be slightly positively skewed. For practical purposes the skewness may be ignored and the distribution may be regarded as approximately platykurtic. Hence a mean score of 50 out of a maximum possible score of 100 is indicative of moderately low performances.

However, the two sets of statistics given in table 3 describe the nature of the sample in terms of their past academic preparation as well as performances in the admission tests. The data generally show that teacher training programmes are attractive to graduates whose past academic achievements are not very high.

Information on Personality Attitude and Interest

A summary of data on Measurements of Personality (extroversion-introversion), Attitude and Interest is presented in Table 4.

The distribution of scores on personality appears to be quite heterogeneous, negatively skewed and leptokurtic, the mean of the distribution is found to be 18.12 with the standard deviation of 16.36 and a range of 92. This is indicative of the fact that the personality scale developed for the purpose of this study is highly discriminatory. It tends to discriminate the sample of respondents sufficiently along the extroversion-introversion dimension.

TABLE 4

SUMMARIZED DATA ON PERSONALITY (EXTROVERSION-INTROVERSION),
ATTITUDE AND INTEREST (INDEPENDENT VARIABLES) (N=203)

Statistic	Personality	Attitude	Interest
Mean	18.12	40.87	77.84
Standard Deviation	16.36	13.43	29.44
Standard Error	1.15	0.96	2.07
Range	92.00	84.00	131.00
Skewness	0.39	0.43	-3.22
Kurtosis	-0.10	0.15	-1.01

The distribution of scores on attitude of the responding sample has the mean of about 41 with a standard deviation of 13.43. The distribution appears to have a high variability as indicated by the values of the standard deviation and the range. The range of the distribution is 84. It is positively skewed with a small and positive kurtosis. The distribution is, therefore, leptokurtic. This shows that the attitude scale constructed for the purpose is sufficiently and highly discriminatory in nature. The scale discriminates the sample of respondent quite sufficiently on the dimension of the psychological object measured for the purposes of the study, viz attitude towards the teaching profession.

The statistics on the distribution of measures of interest show that the mean of the distribution is nearly 78 with a standard deviation of 29.44 the range of the

distribution is 131. The distribution is slightly negatively skewed with a negative kurtosis. It is leptokurtic. In respect of interest of the sample of the respondents towards the teaching profession, it may be inferred that the group is quite heterogeneous. The Interest Inventory constructed for the purpose appears to be sufficiently discriminatory in measuring interest of the group on the dimension.

Measurement of Success in the Training Programme in Terms of Results of Examinations in the Training Programme

The relevant statistics concerning success of the trainees in the programme of training in terms of examination in the theory part, examination in the practice teaching part and final marks in the programme as a whole are furnished Table 5.

The distribution of scores on the theory part has the mean of about 53 with a standard deviation of 3.27 and a range of 20. The distribution is slightly positively skewed and platykurtic. Hence the group appears to be quite homogeneous in respect of examination in the theory part. However, a mean score of 53 out of the maximum possible score of 100 seems to be fairly high.

TABLE 5

SUMMARIZED DATA ON SUCCESS IN THE PROGRAMME OF TRAINING IN THE TEACHERS' TRAINING COLLEGE IN TERMS OF EXAMINATION IN THE THEORY PART EXAMINATION IN THE PRACTICE TEACHING PART AND FINAL MARKS (DEPENDENT VARIABLES) (N=203)

Statistic	Theory	Practice Teaching	Final Marks
Mean	52.51	55.04	54.19
Standard Deviation	3.27	2.58	2.61
Standard Error	0.23	0.18	0.25
Range	20.00	15.00	23.00
Skewness	0.29	0.11	-0.32
Kurtosis	0.65	-0.15	0.98

The distribution of scores of the examination assessing the quality of practice teaching part of the training programme is found to have the mean value of about 55 with a standard deviation of 2.58 and range of only 15. The distribution is slightly negatively skewed and slightly leptokurtic. The distribution appears to be highly homogeneous. The assessment is, therefore, not very discriminatory. A mean score of 55 out of the maximum possible score of 100 is again high.

The statistics concerning final assessment of the responding trainees of the teacher training programmes in terms of the final marks show that the mean of the distribution is about 54 with a standard deviation of only 2.61 and a range of only 23. The distribution is slightly negatively

skewed and moderately platykurtic. It appears that the group of trainees is quite homogeneous in respect of their achievement in the teacher education programme in the teachers' training colleges. A mean of 54 reflects fairly high achievement when one considers it against the maximum possible score of 100.

Summary of Data on the Five Independent Variables

Summarized data on the distribution of scores on the five independent variables are presented in Table 6.

The data presented in this table have been analyzed in details in previous sections. Presentation of this summary is expected to provide information for quick review of the situation. The contents of the table show the respective mean and the standard deviation of the distribution of score on each of the five independent variables under study. Since the findings have already been interpreted, interpretation is not repeated here.

TABLE 6

**SUMMARIZED DATA ON THE DISTRIBUTION OF SCORES ON THE
FIVE INDEPENDENT (COGNITIVE AND AFFECTIVE)
VARIABLES UNDER STUDY (N=203)**

Variable	Mean	Standard Deviation
Past Academic Achievement	4.8149	0.9601
College Admission Test	50.0296	5.6084
Personality (Extroversion-Introversion)	18.1182	16.3597
Attitude	40.8670	13.7386
Interest	77.8424	29.4369

Inter-Correlation Among the Eight Variables Under Study

The present study is concerned with multivariate analysis of five independent variables and three dependent variables. The inter-correlations among these eight variables are presented in the correlation matrix given in Table 7.

Past Academic Achievement

The coefficient of correlation between past academic achievements of the group of respondents and the admission test results is found to be 0.43 which is significant and positive. The value of the coefficient is moderately sufficient to interpret that there is some amount of direct relationship between these two independent variables (cognitive). In other words, college admission test results may be said to depend naturally to an extent upon the past academic achievements of the candidates. However, the magnitude of the coefficient is also indicative of the fact that past academic achievements alone cannot account for the total variations in the admission test results. It may be mentioned here that the candidates for admission usually have a heterogeneity of background in their past academic preparation.

The coefficient correlation between the past academic achievements of the sample of respondents and each of the three affective variables, namely personality (extroversion-introversion), attitude towards the teaching profession and interest in teaching as a profession is found to be

TABLE 7
SUMMARIZED DATA ON INTER-CORRELATION AMONG THE EIGHT VARIABLES UNDER STUDY (N=203)

	Past Academic Achievements	Admission Tests	Personality: (extrovert-introvert)	Attitude	Interest	Theory	Practice Teaching	Marks
Past Academic Achievement (Independent Variable)	1.00	0.43*	0.03	-0.10	-0.09	0.41*	0.23*	0.24*
College Admission Test (Independent Variable)	0.43	1.00	0.00	-0.40*	-0.39*	0.22*	0.04	0.06
Personality (extroversion-introversion) (Independent Variable)	-0.03	0.00	1.00	0.06	-0.04	-0.27*	0.35*	-0.06
Attitude (Independent Variable)	-0.10	-0.40	0.06	1.00	0.78*	0.18*	0.32*	0.46*
Interest (Independent Variable)	-0.09	-0.39*	0.04	0.78*	1.00	0.20*	0.25*	0.51*
Theory (Dependent Variable)	0.41	0.22	-0.27*	0.18	0.20	1.00	0.34*	0.57*
Practice Teaching (Dependent Variable)	0.23	0.04	0.35*	0.32*	0.25	0.34*	1.00	0.39*
Final Marks (Dependent Variable)	0.24	0.06	-0.06	0.46*	0.50*	0.57*	0.39*	1.00

*Significant at the five per cent level (degrees of freedom = 201).

non-significant. In other words, the affective aspects of the responding samples bear no relationship with the past academic achievements.

The coefficient of correlation between the past academic achievements and success of the candidates in their training programmes measured in terms of examination in the theory, part this being one of the dependent variables, is found to be 0.41 which is positive and significant. The magnitude of the coefficient of correlation indicates that a part of the variation in the examination results in the theory part is accounted for by the past academic achievements of the trainees. In other words, the past academic achievements as the independent variable can predict success of the candidates measured in terms of examination in the theory part only to a small extent.

The coefficient of correlation between the past academic achievements and success of the trainees measured in terms of examination of the practice teaching part of the training programme is found to be only 0.23 which is significant and positive but low in magnitude. Hence it may be inferred that a very small portion of the variation in success of the trainees in the practice teaching part is accountable by the past academic achievement of the candidates. It is quite interesting to note here that success in practice teaching, which is similar to the job of the teachers in the actual field, depends very little on their

past academic preparation. Conclusions may be drawn to the effect that the past academic achievements can predict very little of the success in the practice teaching part of the training programme. Past academic preparation is only partially responsible for the variation in the results of the examination in the practice teaching part.

The coefficient of correlation between past academic achievements and the final marks of the candidates is found to be 0.24 which is significant and positive. But the magnitude of the coefficient of correlation is low. Past academic achievements can, therefore, predict only a small portion of the variation of the final marks which is meant to evaluate the training programme as a whole. Hence it may be inferred that past academic achievements can predict success in the training programme to a very small extent. Trainees appear to succeed irrespective of variation in their past academic achievements, satisfying only the minimum requirements for admission.

College Admission Test

The scores on the college admission test of the sample of trainees were correlated with all of the other variables. Table 7 shows the coefficients of correlation.

The coefficient of correlation between the college admission test and the attitude scale is found to be -0.40 which is negative but significant. The magnitude of the coefficient is also substantial. It, therefore, appears

that there is an indirect relationship between college admission test and the attitude of the trainee towards the teaching profession. Hence it may be concluded that either the attitude scale or the college admission test is predictive of success in the training programme.

The coefficient of correlation between the college admission test and the interest inventory is found to be -0.39 , which is negative but significant, indicating again an indirect relationship between these two independent variables. The magnitude of the correlation is also substantial, showing an indirect relationship between the college admission test and interest of the group for the teaching profession. Conclusion may at this stage be drawn to the effect that either the interest inventory or the college admission test is predictive of success in the training programme.

The coefficient of correlation between college admission test and the examination in the theory part as one of the measures of success in the training programme is found to be 0.22 which is significant. But the magnitude of the coefficient is rather low. Hence only a very small part of the variation in the examination in the theory part is probably accounted for by the corresponding variation in the college admission test results. Although the coefficient of relationship between the college admission test result and the examination in the theory part appears to be positive,

the coefficient of correlation is so small that the college admission test cannot be claimed to be a good predictor of success in the training programme as measured by the examination in the theory part. However, since both the instruments represent a sort of internal evaluation by the training college authorities, it is probable that there is some sort of implicit connection between the two and that this has caused a positive and significant correlation.

The coefficient of correlation between the college admission test and the practice teaching examination is found to be 0.04, which is non-significant. Conclusion may, therefore, be made that probably there is no relationship between the college admission test and the evaluation of the practice teaching part of the training programme. The college admission test is not a predictor of success in the training programme as measured by this evaluation of practice teaching which, by its nature, is so akin to the future teaching job of the trainees.

The coefficient of correlation between the college admission test and the final marks of the trainees is found to be 0.06 which is also non-significant. The final marks by its very nature is the final index of success in the training programme as a whole. The final examination result is the cumulation of all internal and external evaluation of the effects of training programme on the students of the teachers' training colleges. It includes not only the results

of the final university examination but also to an extent those of the internal and external examinations conducted by the college authorities during the entire session. It is, therefore, interesting to note and conclude that the college admission test fails to predict success on the training programme as measured by the final marks.

Personality (extroversion-introversion)

The personality scale developed for the purpose of this study is actually an extroversion-introversion scale. The coefficients of correlation between this scale and all of the other variables are as shown in Table 7. The coefficient of correlation between the measures of personality on the extroversion-introversion dimension and the attitude of the trainees towards the training programme is found to be 0.06 which is non-significant. Conclusion may, therefore, be drawn to the effect that these two independent (affective) variables are uncorrelated, signifying the fact that they tend to measure two different affective aspects of the behaviour of the sample of trainees.

The coefficient of correlation between the personality scale and the interest inventory is found to be 0.04 which is again non-significant, indicating the probable fact that these two independent (affective) variables also measure two different affective factors.

The coefficient of correlation between the personality scale and examination in the theory part as

has been correlated with all the other independent and dependent variables under study. The findings are shown in Table 7.

The coefficient of correlation between attitude and interest of the trainees is found to be 0.78 which is positive and significant. The coefficient is substantial enough to infer that there is substantial amount of overlap between the measurements of attitude and interest of the trainees. A large portion of the variation in interest is, therefore, accounted for by the variation in the attitude of trainees towards the teaching profession. Hence it may be concluded that the attitude scale and the interest inventory developed for the purpose of this study tend to measure largely overlapping and similar behavioural attributes of the trainees.

The coefficient of correlation between attitude of the trainees towards the teaching profession and the results of the examination in the theory part is found to be 0.18, which is positive and significant indicating some amount of relationship between attitude of the trainees and their success in their training programme as reflected by the evaluation of the theory part of their training programme. But, since the coefficient is small, it can be inferred that only a small portion of variation in the examination in the results of the theory part is accounted for by variation in their attitude towards the teaching profession. The measures of attitude can predict success in the theory

part of the training programme as measured by examination in the theory part only to a very small extent.

The coefficient of correlation between the measures of attitude and success of the trainees measured in terms of examination of the practice teaching part of the training programme is found to be 0.32. This coefficient is positive and significant. It indicates that the measure of attitude is capable of predicting success in practice teaching to a substantial extent. A substantial portion of variation in success in the practice teaching part of the training programme is, therefore, explainable by the corresponding variation in attitude of the trainees towards the teaching profession.

The coefficient of correlation between the measures of attitudes and success of the trainees as measured by the final marks is found to be 0.46 which is positive and significant. The coefficient of correlation is quite substantial to lead to the conclusion that the measures of attitude of the trainees towards the teaching profession is capable of predicting their success in the training programme as measured by the final marks to a large extent. A substantial portion of the variation in success in the training programme is accounted for by the variation in attitudes.

Interest

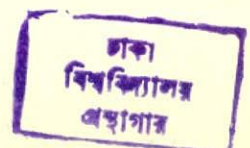
The measure of interest of trainees for the teaching profession has been correlated with all of the other variables.

The findings have been shown in Table 7.

The coefficient of correlation between measures of interest and the success of the trainees as measured by examination in the theory part of the training programme is found to be 0.20. The coefficient of correlation is positive and significant. But the magnitude of correlation is rather low. However the coefficient indicates that interest of trainees towards teaching can predict their success in the theory part of the training programme to some extent.

The coefficient of correlation between the measures of interest and the success of the trainees as measured by the examination of the practice teaching part of the training programme is found to be 0.25. The coefficient is positive and significant. But it is low in magnitude. It may be concluded that the measure of interest is capable of predicting success in the practice teaching part of the training programme to some extent. The variation of success in the practice teaching part as measured by the examination of practice teaching is accounted for by the corresponding variation in interest for the teaching profession only to some extent. 384840

The coefficient of correlation between the measure of interest and the success of the trainees as measured by the final marks is found to be 0.51. The coefficient is positive and significant. It is high enough to infer that a large portion of variation in success as measured by the



examination of the theory part of the training programme.

Examination of the Practice Teaching Part

Success in the training programme as measured by examination of the practice teaching part of the training programme has been correlated with all of the other variables. The findings are reported in Table 7.

The coefficient of correlation between success as measured by examination of the practice teaching part of the training programme (dependent variable) and success as measured by the final marks (dependent variable) is found to be 0.39 which is positive and significant. There is a fair amount of agreement between these two dependent variables.

The foregoing discussion and analysis of the findings as reported in Table 7 is indicative of the following facts:

The past academic achievements of the sample of trainees under consideration is found to be capable of predicting success of the trainees as measured by the three dependent variables only to some extent. While this independent variable tends to predict success in the theory part of the training programme well, it fails to do so in the practice teaching part of the training programme. This independent variable does not at all agree with the three independent affective variables. But naturally this independent cognitive variable tends to agree so well the other independent cognitive variable, namely the college admission test, which has also been used as one of the predictors of success as measured

by the three dependent variables. The college admission test result appears to predict to some extent success in the theory part of the training programme as measured by examination in the theory part but this independent cognitive variable fails to predict success as measured by examination of the practice teaching part. The college admission test results do not agree with the set of three affective variables.

The set of three independent affective variables which are mutually correlated only to some extent appears to predict success as measured by the three dependent variables fairly well. At this stage it can be said that the set of affective variables is a slightly better predictor of the dependent variables measuring success of the trainees in different parts of the training programme. The set of three affective variables are definitely better predictors than set of cognitive variables in predicting different aspects of success, particularly that in the practice teaching part of the training programme, which is actually very similar to the real teaching job. Hence it can be concluded tentatively that the three instruments which have been developed for measurement of personality (extroversion-introversion), attitude and interest as predictors of success in the teaching profession are good enough for the purpose. The foregoing analysis does not indicate the extent of relative importance of contributions of each predictor upon success.

Results of Multivariate Analysis

Multiple regression analysis was conducted in order to determine the extent of relationship among each criterion measure and combination of the predictor measures. This was done on the assumption of probable linear relationship among each criterion measure and the combination of predictors. In each case the value of multiple correlation coefficient, the corresponding F ratio for testing the significance of R and the regression equation have been determined. The relevant data are presented in Tables 8-15.

Past Academic Achievement and Admission

Past academic achievement and admission test result are used by the training colleges as predictors of success in the programme. Success in the programme as measured by internal examination of the theory part of the training programme was used as a criterion measure to determine its regression upon combination of predictor measures given by past academic achievement and admission test results.

Past Academic Achievement: Regression of the dependent variables namely theory, practice and final marks upon each of the independent variables, namely past academic achievement and admission test results has been studied, taking a pair of variables at a time. The analysis is presented in Tables 8 and 9.

training programme as a measure of success is found to be 0.24 which has already been interpreted. However, it appears that only 6 per cent of the variation in success as measured by the final marks is explainable by the corresponding variation in past academic achievement as the predictor. The F value is found to be 12.51 which is significant. The regression equation is given by $X_8 = 0.9099X_1 + 49.8057$. Hence it can be concluded that past academic achievements is rather a poor predictor of success as measured by the final marks.

Admission Test Result: The admission test result as a predictor is correlated with success as measured by the examination of the theory part of the training programme and the coefficient of correlation is found to be 0.22. Only 5 per cent of the variation of success in the theory part of the training programme is accounted for by the variation in the admission test result. The value of F is found to be 9.77 which is significant. The regression equation is given by $X_6 = 0.1257X_2 + 46.2165$. The analysis shows that admission test result is a poor predictor of success in the theory part of the training programme.

The coefficient of correlation between admission test result as a predictor and success as measured by the practice teaching part of the training programme is found to be only 0.04. It is found that variation in success measured by the practice teaching part of the training

programme cannot be explained by the corresponding variation in the admission test results. The F value is found to be 0.29 which is nonsignificant. The regression equation is given by $X_7 = 0.0174X_2 + 54.1724$. Hence it can be concluded that admission test result fails to predict success in the practice teaching part of the training programme.

The coefficient of correlation between admission test result as predictor and final marks as a measure of success is found to be 0.06. Variation in final marks is not at all explainable by the corresponding variation in the admission test results. The value of F is found to be 0.82, which is non-significant. The regression equation is given by $X_8 = 0.0411X_2 + 52.1331$. Hence it can be concluded that admission test result fails to predict success as measured by the final marks in the training programme.

Regression of the theory upon past academic achievement and admission test, as given in Table 9, shows that the value of R is 0.41. This indicates that about 17 per cent of the variation in the criterion measure, namely success in the theory part of the training programme is accounted for by the corresponding variation in the combination of the two cognitive variables, namely past academic achievements and admission test results. The corresponding value of F has been found to be 20.68 which is significant at the five per cent level. Hence conclusion may be drawn to the effect that the regression equation given by $X_6 = 1.3380X + 0.0266X + 447369$

The coefficient of correlation between past academic achievement as one of the predictors and examination of theory part as a measure of success is found to be 0.41 which has been previously interpreted. This shows further that 17 per cent of the variation in the criterion, namely examination of the theory part of the training programme is explainable by the variation in the predictor variable, past academic achievement. The value of F is found to be 41.37, which is significant. The corresponding regression equation is $X_6 = 1.4051X_1 + 45.7418$. The analysis shows that past academic achievement is a moderately fair predictor of success in the theory part of the training programme. The coefficient of correlation between past achievement as one of the predictors and success in the practice teaching part in the training programme is found to be 0.23 which has already been interpreted. However this analysis shows that only 5 per cent of the variation in success in the practice teaching part of the training programme can be explained by the variation in the past academic achievement as a predictor. The corresponding F value is found to be 11.38 which is significant. The regression equation is found to be $X_7 = 0.6230X_1 + 52.0447$. Hence it can be concluded that past academic achievement can predict success in the practice teaching part only to an extremely little extent.

The coefficient of correlation between past academic achievement as a predictor variable and final marks in the

TABLE 9

DATA ON REGRESSION OF THEORY (X_6), PRACTICE (X_7) AND FINAL MARKS (X_8) ON THE COMBINATION OF THE INDEPENDENT VARIABLES PAST ACADEMIC ACHIEVEMENT (X_1) AND ADMISSION (X_2)

Dependent Variables	Independent Variables	Statistic	Value
Theory (X_6)	Past Academic Achievement (X_1)	R	0.41
	and	F	20.68*
	Admission (X_2)	Regression equations:	$X_6 = 1.3380X_1 + 0.0266X_2 + 44.7369$
Practice (X_7)	Past Academic Achievement (X_1)	R	0.24
	and	F	6.20*
	Admission (X_2)	Regression equation:	$X_7 = 0.7125X_1 - 0.035X_2 + 53.3844$
Final Marks (X_8)	Past Academic Achievement (X_1)	R	0.25
	and	F	6.46*
	Admission (X_2)	Regression equation:	$X_8 = 0.9922X_1 - 0.0325X_2 + 51.0358$

*Value of F with 2 and 200 degrees of freedom significant at the 5 per cent level.

is capable of predicting success in the theory part of the training programme to some extent.

Regression of the dependent variable given by scores on practice teaching part of the programme as a criterion measure upon the combination of predictors given by past academic achievement and admission test result gives a

multiple correlation coefficient of 0.24 with the corresponding F value of 6.20 which is significant. About 6 per cent of the variation in the criterion measure is found to be explainable by the corresponding variation in the combination of the two predictors. The regression equation is given by $X_7 = 0.7125X_1 - 0.035X_2 + 53.3844$. Hence it may be concluded that the combination of the past academic achievement and admission test results is a rather poor predictor of success in the practice teaching part of the training programme.

Regression of success as measured by final marks upon the combination of predictors given by past academic achievement and admission test results gives a multiple correlation coefficient of 0.25 with corresponding F value of 6.46 which is significant. Only about 6 per cent of variation in the criterion measure is explainable by the corresponding variation in the combination of predictors. The regression equation is given by $X_8 = 0.9922X_1 - 0.325X_2 + 51.0358$. Hence it may be concluded that the combination of past academic achievements and admission test results is rather a poor predictor of success in the practice teaching part of the training programme.

On the basis of the analysis of findings furnished in the preceding paragraphs, conclusions may be drawn to the effect that, although the combination of the two predictors given by past academic achievements and admission test results is capable of predicting success in the evaluation of the theory part of the training programme

only to a little extent, the combination is in fact a very poor predictor of success either in the practice teaching part or in the final examination as measured by the final marks.

Personality (extroversion-introversion)

Regression of the three criterion variables, namely theory, practice and final marks upon the independent variable personality (extroversion-introversion) has been studied. The results of an analysis are presented in Table 10.

The coefficient of correlation between the measure of personality (extroversion-introversion) as a predictor and success as measured by the examination of the theory part of the training programme is found to be 0.27 which accounts for about 7 per cent of the variation in success in the theory part corresponding to variation in the measurement of personality. The value of F is found to be 15.72 which is significant. The corresponding regression equation is given by $X_6 = -0.0539X_3 + 53.4843$. Hence conclusion may be drawn to the effect that the measure of personality predicts success in the theory part of the training programme to a very little extent.

The coefficient of correlation between the measure of personality (extroversion-introversion) and the criterion measure given by evaluation of practice teaching is found

TABLE 10

DATA ON REGRESSION OF THEORY (X_6), PRACTICE (X_7) AND FINAL MARKS (X_8) UPON THE INDEPENDENT VARIABLES, PERSONALITY (EXTROVERSION-INTROVERSION) (X_3)

Dependent Variable	Independent Variable	Statistic	Value
Theory (X_6)	Personality	R	0.27
	(Extroversion-Introversion) (X_3)	F	15.72*
		Regression equation:	$X_6 = 0.0539X_3 + 53.4843$
Practice (X_7)	Personality	R	0.35
	(Extroversion-Introversion) (X_3)	F	27.45*
		Regression equation:	$X_7 = 0.5475X_3 + 54.0523$
Final Marks (X_8)	Personality	R	0.06
	(Introversion-Extroversion) (X_3)	F	0.72
		Regression equation:	$X_8 = 0.0132X_3 + 54.4256$

*Value of F with and 201 degrees of freedom significant at 5 per cent level.

to be 0.35. About 12 per cent of variation in success in the practice teaching part of the programme is accounted for by the corresponding variation in the measure of personality (extroversion-introversion). The corresponding regression equation is given by $X_7 = 0.5475X_3 + 54.0523$. This shows that the measures of personality (extroversion-introversion) is a fair predictor of success in the practice teaching part.

The coefficient of correlation between the measures

of personality (extroversion-introversion) as a predictor and success as measured by the final marks as a criterion is found to be 0.06. The measurement of personality (extroversion-introversion) fails to account for any variation in the final marks. The value of F is found to be 0.72 which is non-significant. The regression equation is given by $X_8 = 0.0132X_3 + 54.4256$. The analysis clearly shows that the measure of personality (extroversion-introversion) does not predict success as measured by the final marks.

Attitude Towards the Teaching Profession

Regression of the three criterion variables upon the independent variable attitude has been studied. The outcome of regression analysis is presented in Table 11.

TABLE 11

DATA ON REGRESSION OF THEORY (X_6), PRACTICE (X_7) AND FINAL MARKS (X_8) UPON THE INDEPENDENT VARIABLE ATTITUDE (X_4)

Dependent Variable	Independent Variable	Statistic	Value
Theory (X_6)	Attitude (X_4)	R	0.18
		F	6.99*
		Regression equation:	$X_6 = 0.4371X_4 + 50.720$
Practice (X_7)	Attitude (X_4)	R	0.32
		F	23.01*
		Regression equation:	$X_7 = 0.0602X_4 + 52.581$
Final Marks (X_8)	Attitude (X_4)	R	0.46
		F	53.67*
		Regression equation:	$X_8 = 0.1206X_4 + 49.258$

*Value of F with 1 and 201 degrees of freedom significant at 5 per cent level.

The coefficient of correlation between the predictor variable attitude and criterion variable theory is found to be 0.18 which accounts for about 3 per cent of the variation in the measure of success reflected by examination of theory part of the training programme corresponding to variation in attitude towards the teaching profession. The value of F is found to be 6.99 and significant. The regression equation is given by $X_6 = 0.0437X_4 + 50.7209$. It may, therefore, be concluded that the measure of attitude is capable of predicting only a very small portion of success as measured by evaluation of the theory part of the training programme.

The coefficient of correlation between the measure of attitude as a predictor and success as measured by the evaluation of the practice teaching part of the training programme is found to be 0.32 which accounts for about 10 per cent of the variation in success in the practice teaching part of the training programme corresponding to the variation in attitude towards the teaching profession. The value of F is found to be 23.01 and significant. The regression equation is given by $X_7 = 0.060X_4 + 52.5810$. Hence conclusion may be drawn to the effect that the measure of attitude as a predictor is capable of predicting success in the practice teaching part of the training programme to a considerable extent.

The coefficient of correlation between the measure

of attitude as a predictor with final marks as the criterion variable is found to be 0.46 which accounts for 21 per cent of the variation in the measure of success given by the final marks in the training programme corresponding to the variation in attitude. The value of F is found to be 53.76 and significant. The regression equation is given by $X_8 = 0.1206X_4 + 49.2587$. Hence it may be concluded that the measure of attitude is capable of predicting a fair portion of success in the training programme as reflected by the final marks.

Interest

The regression of the three criterion variables, namely theory, practice and final marks upon the independent variable interest for the teaching profession has been conducted. The relevant data on this regression analysis are presented in Table 12.

The coefficient of correlation between the measure of interest as the predictor and evaluation of the theory part of the training programme is found to be 0.20 which accounts for nearly 3 per cent of the variation in success in the theory part corresponding to variation in the interest of the trainees. The value of F is found to be 8.17 and significant. The regression equation is given by $X_6 = 0.2198X_5 + 50.7960$. Hence conclusion may be drawn to the effect that the measure of interest is capable of

TABLE 12
DATA ON THE REGRESSION OF THEORY (X_6), PRACTICE (X_7) AND FINAL MARKS (X_8) UPON THE INDEPENDENT VARIABLE INTEREST (X_5)

Dependent Variable	Independent Variable	Statistic	Value
Theory (X_6)	Interest (X_5)	R	0.20
		R^2	0.03
		F	3.17*
		Regression equation:	$X_6 = 0.2198X_5 + 50.7960$
Practice (X_7)	Interest (X_5)	R	0.25
		R^2	0.06
		F	13.71*
		Regression equation:	$X_7 = 0.0222X_5 + 53.3173$
Final Marks (X_8)	Interest (X_5)	R	0.51
		R^2	0.26
		F	69.76*
		Regression equation:	$X_8 = 0.0622X_5 + 49.3429$

*Value of F with 2 and 200 degrees of freedom significant at the 5 per cent level.

predicting only a very little part of success in the theory part of the programme.

The coefficient of correlation between the measure of interest as a predictor and success as measured by evaluation of the practice teaching part of the training programme is found to be 0.25 which appears to account for

about 6 per cent of the variation in the training programme corresponding to variation in interest. The value of F is found to be 13.71 which is significant. The regression equation is given by $X_7 = 0.222X_5 + 53.3173$. Conclusion may, therefore, be drawn to the effect that interest as a predictor is capable of predicting a small portion of variation in success measured by practice teaching.

The coefficient of correlation between the measure of interest and success as measured by the final marks is found to be 0.51 which accounts for about 26 per cent of the variation in the final marks as a consequence of variation in interest. The value of F is found to be 69.77 which is significant. The regression equation is given by $X_8 = 0.0622X_5 + 49.3429$. The analysis clearly leads to the conclusion that interest of the trainees as a predictor of the criterion variable, final marks, is capable of doing so to a fairly large extent.

Personality (extroversion and introversion) and Attitude

The regression of the three dependent variables, namely theory, practice and final marks upon the combination of the measure of personality (extroversion-introversion) and attitude has been studied. The relevant data are presented in Table 13.

TABLE 13

DATA ON REGRESSION OF THEORY (X_6), PRACTICE (X_7) AND FINAL MARKS (X_8) ON THE COMBINATION OF THE INDEPENDENT VARIABLES PERSONALITY (EXTROVERSION-INTROVERSION) (X_3) AND ATTITUDE (X_4)

Dependent Variable	Independent Variable	Statistic	Value
Theory (X_6)	Personality	R	0.33
	(Extroversion-Introversion) (X_3)	F	12.65*
	and	Regression equation:	$X_6 = 0.562X_3 + 0.4760X_4 + 51.5811$
	Attitude (X_4)		
Practice (X_7)	Personality	R	0.46
	(Extroversion-Introversion) (X_3)	F	26.70*
	and	Regression equation:	$X_7 = 0.0519X_3 + 0.0567X_4 + 51.7859$
	Attitude (X_4)		
Final Marks (X_8)	Personality	R	0.47
	(Extroversion-Introversion) (X_3)	F	27.92*
	and	Regression equation:	$X_8 = 0.01991X_3 + 0.1219X_4 + 49.5508$
	Attitude (X_4)		

*Value of F with 2 and 200 degrees of freedom significant at 5 per cent level.

The multiple correlation coefficient between the combination of personality (extroversion-introversion) and attitude as independent variables and evaluation of the theory part of the training programme is found to be 0.33 which accounts for about 11 per cent of the variability in the measurement of success in the theory part of the training

programme corresponding to the variability in these two independent variables. The value of F is found to be 12.65 and significant. The regression equation is given by $X_6 = 0.562X_3 + 0.476X_4 + 51.5311$. Conclusion may, therefore, be drawn to the effect that the combination of the measures of personality (extroversion-introversion) and attitude is capable of predicting success in the theory part of the training programme only to a little extent.

The multiple correlation coefficient between the combination of personality (extroversion-introversion) and attitude as predictor variables and success in the practice teaching part of the training programme as one of the criterion variables is found to be 0.46 which accounts for about 21 per cent of the variation in success in the practice teaching part corresponding to the variability in the combination of these two independent variables. The value of F is found to be 26.70 which is significant. The regression equation is given by $X_7 = 0.05719X_3 + 51.7859$. It may, therefore, be concluded that the combination of measures of personality (extroversion-introversion) and attitude is a fair predictor of success in the practice teaching part of the training programme.

The coefficient of multiple correlation between the combination of the measures of personality (extroversion-introversion) and attitude as predictor variables and success

as measured by the final marks in the training programme is found to be 0.47 which accounts for about 22 per cent of the variability in the final marks as a consequence of variability in the combination of these two independent variables as predictors. The value of F is found to be 27.29 and significant. The regression equation is given by $X_8 = 0.01991X_3 + 0.1219X_4 + 49.5508$. Hence conclusion may be drawn that the combination of personality (extroversion-introversion) and attitude is a good predictor of success as measured by final marks.

Personality (extroversion-introversion) and Interest

The regression of the three dependent variables, namely theory, practice and final marks upon the combination of the measures of the independent variables given by personality (extroversion-introversion) and interest has been studied. The outcomes of the regression analysis are presented in Table 14.

The coefficient of multiple correlation between the combination of measures of personality and interest as independent variables and success as measured by examination of the theory part of the training programme is found to be 0.34 which accounts for about 11 per cent of the variation in success in the theory part as a consequence of the variability in the combination of the measures of personality (extroversion-introversion) and interest. The value of F is found to be 13.14 and significant. The regression equation

TABLE 14

DATA ON THE REGRESSION OF THE THEORY (X_6), PRACTICE (X_7) AND FINAL MARKS (X_8) UPON THE COMBINATION OF THE INDEPENDENT VARIABLES PERSONALITY (EXTROVERSION-INTROVERSION) (X_3) AND INTEREST (X_5)

Dependent Variable	Independent Variable	Statistic	Value
Theory (X_6)	Personality	R	0.34
	(extroversion-introversion) (X_3)	F	13.14*
	and	Regression equation:	$X_6 = 0.0556X_3 + 0.023X_5 + 51.7059$
	Interest (X_5)		
Practice (X_7)	Personality	R	0.42
	(extroversion-introversion) (X_3)	F	21.54*
	and	Regression equation:	$X_7 = 0.0532X_3 + 0.210X_5 + 52.4468$
	Interest (X_3)		
Final Marks (X_8)	Personality	R	0.51
	(extroversion-introversion) (X_3)	F	35.89*
	and	Regression equation:	$X_8 = -0.0177X_3 + 0.0626X_5 + 49.6332$
	Interest (X_5)		

*value of F with 2 and 200 degrees of freedom significant at the 5 per cent level.

is given by $X_6 = -0.0556X_3 + 0.0232X_5 + 51.7059$. The analysis leads to the conclusion that the combination of the measures of personality (extroversion-introversion) and interest is capable of predicting only a little part of the success in the theory part of the training programme.

The coefficient of multiple correlation between the combination of the measures of personality (extroversion-introversion) and interest as predictor and success in the practice teaching part as a criterion is found to be 0.42 which accounts for about 18 per cent of the variability in success in the practice teaching part as a consequence of the variability in the combination of the measures of personality (extroversion-introversion) and interest. The value of F is found to be 21.54 and significant. The regression equation is given by $X_7 = 0.0532X_3 + 0.0210X_5 + 52.4468$. It may, therefore, be concluded that the combination of measures of personality (extroversion-introversion) and interest is a fair predictor of success in the practice teaching part of the training programme.

The coefficient of multiple correlation between the combination of the measures of personality (extroversion-introversion) and interest as predictor and success as reflected by the final marks in the training programme is found to be 0.51 which accounts for about 26 per cent of the variability in success as reflected by the final marks corresponding to variation in the combination of the measures of personality (extroversion-introversion) and interest. The value of F is found to be 35.89 and significant. The regression equation is given by $X_8 = -0.0177X_3 + 0.0626X_5 + 49.6332$. It appears that the combination of the measures of personality and interest is a good predictor of success as reflected by

the final marks.

Attitude and Interest

The regression of the three dependent variables, namely theory, practice and final marks upon the combination of the independent variables given by the measures of attitude and interest has been studied. The outcome of regression analysis are presented in the Table 15.

The coefficient of multiple correlation between the combination of the measures of attitude and interest as predictor and success in the theory part of the training programme as a criterion variable is found to be 0.20. This shows that about 4 per cent of the variability in success in theory part is accounted for by the variability in the combination of the measures of attitude and interest. The value of F is found to be 4.29 and significant. The regression equation is given by $X_6 = 0.0176X_4 + 0.0155X_5 + 50.5780$. The analysis shows that the combination of the measures of attitude and interest is rather a poor predictor of success in the theory part of the training programme.

The coefficient of multiple correlation between the combination of the measures of attitude and interest as predictor and success in the practice teaching part as a criterion is found to be 0.32 which accounts for about 10 per cent of the variability in the success in the practice teaching as a consequence of the variability in the combination of attitude and interest. The value of F is found to be 11.45 and significant. The regression equation is given

TABLE 15

DATA ON REGRESSION OF THEORY (X_6), PRACTICE (X_7) AND FINAL MARKS (X_8) ON THE COMBINATION OF THE INDEPENDENT VARIABLES ATTITUDE (X_4) AND INTEREST (X_5)

Dependent Variable	Independent Variable	Statistic	Value
Theory (X_6)	Attitude (X_4)	R	0.20
	and	F	4.29*
	Interest (X_5)	Regression equation:	$X_6 = 0.0176X_4 + 0.0155X_5 + 50.5780$
Practice (X_7)	Attitude (X_4)	R	0.32
	and	F	11.45*
	Interest (X_5)	Regression equation:	$X_7 = 0.0597X_4 + 0.0338X_5 + 52.5778$
Final Marks (X_8)	Attitude (X_4)	R	0.51
	and	F	36.49*
	Interest (X_5)	Regression equation:	$X_8 = 0.04167X_4 + 0.0469X_5 + 48.3268$

*value of F with 2 and 200 degree of freedom significant at the 5 per cent level.

by $X_7 = 0.0597X_4 + 0.0338X_5 + 52.5778$. The analysis leads to the conclusion that the combination of the measures of attitude and interest is capable of predicting success in the practice teaching part of the training programme to only a little extent.

The coefficient of multiple correlation between the combination of the measures of attitude and interest

as predictor and success as reflected by the final marks is found to be 0.51 which accounts for 26 per cent of the variability in the final marks as a consequence of the variability in the combination of attitude and interest. The value of F is found to be 36.49 and significant. The regression equation is given by $X_8 = 0.0417X_4 + 0.0469X_5 + 48.8268$. The analysis clearly shows that the combination of the measures of attitude and interest is a fair predictor of success reflected by the final marks.

Reliability and Validity of the Personality (extroversion-introversion) Scale, Interest Inventory and Attitude Scale

An attempt has been made in this study to assess the reliability and validity of the three measuring instruments used for the measurement of affective aspects of the trainees as predictors of success in the training programme as well as in the teaching profession.

Reliability

In order to determine the reliability of the instruments two methods have been applied. The first method consists of splitting each test into two halves with the odd numbered items in the first and the even numbered items in the second half. For each test the reliability of the whole test has been determined by using an appropriate formula. The method of rationable equivalence has also been used for the purpose. The second method has been used because of fact that splitting does not always result in two

equivalent halves for a test of this nature.

The relevant information on reliability of the test is furnished in Table 16

TABLE 16

DATA ON RELIABILITY OF THE PERSONALITY (EXTROVERSION-INTROVERSION) SCALE, ATTITUDE SCALE AND INTEREST INVENTORY

Test	F (Split-half)	F (Rational Equivalence)	Number
Personality Scale	0.41	0.95	203
Attitude Scale	0.59	0.90	203
Interest Inventory	0.92	0.96	203

The contents of the table show that the reliability of the personality inventory is 0.41 according to the split-half method and 0.95 according to method of rational equivalence. The reliability of the attitude scale is 0.59 according to split-half method and 0.90 according to method of rational equivalence. The reliability of the interest inventory is found to be 0.92 and 0.96 according to the split-half method and method of rational equivalence respectively. In all these cases the reliability coefficients are positive and moderate to high in magnitude. On the basis of this evidence it may be concluded that the tests used for measurement of affective aspects of the trainees are satisfactorily reliable.

Validity

In order to assess the validity of the three measuring devices for measurement of affective aspects of the trainees, the tests were administered to a sample of 134 trained teachers (with B . Ed. degree) drawn from 9 schools. The criteria used for validation of the test consist of Head Masters' ratings on : (1) success in teaching, (2) interest in teaching, (3) attitude towards teaching and (4) personality of the teacher (introversion-extroversion), and similarly Assistant Head Master's ratings on: (1) success in teaching, (2) interest in teaching, (3) attitude towards teaching and (4) personality of the teacher (extroversion-introversion). Besides, information on class placement of the teachers in the B. Ed. degree programme was also collected.

The relevant data on validity of the test showing the coefficients of correlation have been furnished in Table 17.

The personality scale is found to be significantly correlated with Headmaster's rating on personality of the teacher ($r=+0.38$) but it is found to be non-significantly correlated with Head-Master's rating on success in teaching ($r=+0.09$). The scale is found to be negatively but significantly correlated with Assistant Headmaster's ratings on success in teaching ($r=-0.28$). The personality scale is found to be non-significantly correlated with Assistant Headmaster's rating on personality of the teacher ($r=-0.10$).

TABLE 17
VALIDITY COEFFICIENTS OF PERSONALITY (EXTROVERSION-INTROVERSION)
SCALE, ATTITUDE SCALE AND INTEREST INVENTORY (N=134)

Criteria for Validation								
	HM's Ratings on			Asstt. HM's Ratings on			Class in B. Ed. degree	
	Success in teaching	Interest in teaching	Attitude towards teaching	Success in teaching	Interest in teaching	Attitude towards teaching		
Personality Scale	0.03			0.38*	-0.23*		-0.10	-0.08
Attitude Scale	0.01		-0.04		0.08	-0.23*		-0.11
Interest Inventory	0.18*	0.17*			0.25*	0.22*		0.12
HM's Ratings on success in teaching					0.13*			0.17*
Asstt. HM's Ratings on success in teaching								0.26*

*Significant at the five per cent level.

The personality scale is non-significantly correlated with the class placement of the teacher in his B. Ed. degree programme ($r=-0.08$). Taking Headmaster's rating into consideration, it may be concluded that the personality scale is possibly capable of measuring personality of the teachers.

The attitude scale is found to be non-significantly correlated with Headmaster's rating on success in teaching ($r=+0.01$) and attitude of the teachers towards teaching ($r=-0.04$). The scale is found to be non-significantly correlated with Assistant Headmaster's rating on success in teaching ($r=0.08$). But it is found to be significantly and negatively correlated with Assistant Headmaster's rating on attitude of the teachers towards teaching ($r=-0.23$). The attitude scale is found to be non-significantly correlated with class placement of the teachers in the B. Ed. degree programme ($r=-0.11$). It may, therefore, be concluded that neither the Headmaster nor the Assistant Headmaster agree with the measurement of attitude given by the scale.

The interest inventory is found to be significantly correlated with Headmaster's ratings on both success in teaching ($r=+0.18$) and interest of the teachers in teaching ($r=+0.17$). The scale is found to be significantly correlated with Assistant Headmaster's ratings on both success of the teacher in teaching ($r=+0.25$) and his interest in teaching ($r=+0.22$). The interest inventory is non-significantly

correlated with class placement of the teachers in the B. Ed. degree programme ($r=+0.12$). Conclusion may, therefore, be drawn to the effect that the interest inventory is capable of predicting success in teaching as well as interest in teaching as the Headmaster and the Assistant Headmaster see them.

The Headmaster's ratings on a teacher's success in teaching is significantly correlated with the class placement of the teacher in the B. Ed. degree programme ($r=+0.17$). The Assistant Headmaster's ratings success of a teacher in teaching is also found to be significantly correlated with class placement of the working teacher in the B. Ed. degree programme ($r=+0.26$). It, therefore, appears that the Headmaster's and the Assistant Headmasters tend to agree in their rating on success of the teachers with their class placement in the B. Ed. degree programme. However, this tendency might have arisen from the fact that these supervisors of the working teachers did have a prior knowledge of the class placement of the teachers in their B. Ed. degree programme. This knowledge might have influenced them in their rating.

It is also found that the Headmaster's ratings on success of a teacher in his teaching job is not significantly correlated with the Assistant Headmaster's ratings on this.

The information furnished here provides substantial evidence regarding the predictive validity of the personality scale the attitude scale, and the interest inventory used for

the purposes of the current study. This shows that the three instruments may be used to select trainees (for the training colleges) whose chances of success in the teaching profession would be fair.

Item Analysis

Items included in the personality scale, attitude scale, and interest inventory have been analysed on the basis of the data collected. Discrimination index for each item has been calculated on the basis of responses of 50 highest scoring subjects and 50 lowest scoring subjects in each group. The details of the item analysis data have been presented in Appendix

In the case of the extrovert items in the personality scale, the discrimination index is based upon a comparison of the 'Yes' responses of the highest scoring and the lowest scoring subjects. But in the case of introvert items the discrimination index is based upon a comparison of 'No' responses of the highest and the lowest scoring of the subjects.

In the case of the favorable items of the attitude scale the discrimination index of the items is based upon a comparison between favourable responses of the highest scoring and the lowest scoring subject groups. On the other hand, in the case of the unfavourable items the discrimination index of an item has been calculated on the basis of a comparison between the unfavourable responses of the highest

scoring and the lowest scoring subject groups.

Similarly, in the case of the items giving positive interest, the discrimination index of an item of the interest inventory has been calculated on the basis of 'Yes' responses of the highest scoring and the lowest scoring subject groups. In the case of the items giving negative interest, the discrimination index of an item is based on a comparison of the 'No' responses of the highest scoring and the lowest scoring subject groups.

In fact, in each case, the number of responses of the highest scoring groups has been subtracted from the number of responses of the lowest scoring group and this difference for each item has been divided by 50, to get the index. However for better interpretation of the index this has been shown in terms of percentage.

An arbitrary, but conventional, index of + 20 or more has been used for the purpose of this study as the criterion of retention of an item. Application of this methodology has generated information provided in Table 18.

The personality inventory contains a total number of 100 items. According to the criterion of retention 65 items in the test is found to have been retainable. This shows that 65 per cent of the items are good enough to be retained for the scale.

The attitude scales contain a total of 82 items of which 52 items have been retained according to the procedure.

TABLE 18
SUMMARY OF INFORMATION ABOUT ITEM ANALYSIS

Test	: Number of : Items : Retained	: :	Number of Items Rejected	: :	Total Number of Items
Personality: Scale	: 65	: :	35	: :	100
Attitude Scale	: 52	: :	30	: :	82
Interest Inventory	: 83	: :	71	: :	154

Note: Details of Item Analysis data have been
presented in Appendix

In this case about 64 per cent are found to have been retainable.

The interest inventory includes a total of 154 items of which 83 items are found to have been retainable according to the criterion of retention. In this case 54 per cent of the items are retainable.

It may be mentioned here that although many of the items included in the three tests have been found to be not retainable according to this rigorous criterion, but a large number of those rejected items are actually found to be positively discriminating and only a few items are found to be negatively discriminating.

The fact, that the discriminating indexes actually measure validity of items, leads naturally to the conclusion that a large majority of the items are valid for the purpose.

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATION

Summary

Introduction

The influence of a good system of education in the context of a given society needs no emphasis. But good education, in both intellectual and moral sense, depends to a large degree upon the personality of those who teach. Bangladesh seems to suffer from the lack of good teachers who are both adequately equipped with the skill and technique of teaching as well as endowed with personal qualities of character and devotion to the teaching profession.

The modern teacher works in a complex world. He is influenced by many different stimuli and his ability stems clearly out of these.

The teacher is not only a teacher of certain disciplines in the classroom, he is also looked upon as a builder of human character. In the modern complex world education is planned or should be planned in such a way as to bring to fruition all the latent potentialities of the child - particularly the creative abilities which are considered to be at the root of all human achievements in the world. To attain this objective, education must have

recourse to the careful selection and enlightened training of teachers with special emphasis on the development of a healthy attitude towards the teaching profession. Together with this the teacher must be given a sound philosophy of life within the framework of which he should build the character of his pupils.

The most urgent need of the time seems to bring about an improvement and re-orientation of the teacher training programme. It should be taken as the basic problem in our country. How best this purpose can be achieved is the subject of inquiry and investigation of the present study.

The present study is concerned with finding out the basic characteristics of the trainees in teacher education programmes and identifying those traits which are mainly influential in their probable success in the teaching profession.

Large number of candidates every year seek admission to the teachers' training colleges in Bangladesh. The usual practice of screening is through an admission test and the review of previous academic achievements. The present study is concerned, inter-alia, with probing into the predictive value of this system.

The present study assumes that the immediate success in the teacher education programme in terms of examination results as well as later in the teaching profession depends, to a great degree, not alone on the cognitive aspects, as

revealed by the admission tests and past academic achievements, but more so on personality variables that include attitude, interest and personality traits such as extroversion or introversion of the trainees.

This study is mainly concerned with finding out the effects of affective variables on the dependent variables consisting of measures of success in the teacher education programme and in the teaching profession and also the degree of predictive capacity of the affective variables. Appropriate techniques have been applied to test hypotheses regarding the relative effects of independent variables consisting of two cognitive measures and three affective measures on the dependent variables. The cognitive measures are admission test result and past academic achievements; the affective measures are personality, attitude, and interest.

In this country, so far, no due attention has been focussed on the inquiry to find out the influences of affective traits on the making of a successful teacher. The training colleges make no systematic efforts to apply measures in the affective domain in selecting trainees.

Hypotheses of the Study

In this study an attempt has been made to test the following general hypotheses:

1. Extroverts are expected to be generally more successful than introverts in the training programme.

2. Trainees with favourable attitude towards teaching are expected to be more successful in the training programme as well as in the practice teaching part of the programme than those with less favourable attitude.

3. Trainees with greater interests for teaching are likely to be more successful than those with less interest in the training programme as well as in the practice teaching part of the programme.

4. Trainees with higher scores in the admission tests are expected to be more successful in the programme.

5. Trainees with higher scores representing their past academic achievements are expected to be more successful in the programme than those with lower scores.

6. The affective factors of the trainees compared with their past academic achievements are expected to be equally predictive of success in the training programme.

7. The affective factors are independent of the cognitive factors represented by the admission test and past academic achievements.

8. The performance in the practice teaching part of the training programme is independent of the performance in the theory part of the programme.

For the purposes of testing these general hypotheses the degree of probable success of trainees in the teaching profession has been estimated in terms of the degree of their immediate success in the practice teaching part of the

training programme on the assumption of similarity of the two. Besides, an indirect evidence regarding the degree of success of trainees in the teaching profession has been generated in terms of predictive validity of the affective measures.

These eight general hypotheses have been thoroughly examined in the light of the statistical analysis of the data and the relevant and precise conclusions have ^{been} reported in this chapter.

Admission Test

The admission test given by the teachers' training colleges for selection of trainees is basically an aptitude test. The result of this test has been used as one of the independent variables for the study. Quite a large number of candidates including both teachers and non-teachers apply every year for admission to the course leading to B. Ed. degree. As the seats are limited, the college authorities try to apply strict screening to select only those candidates who are likely to make the most of the training programme and after the completion of training become successful and effective teachers in the real sense. Only those of the candidates who fulfil the basic requirements of admission are called upon to take the admission test.

To achieve this objective the candidates have to appear in a competitive examination, consisting of three compulsory areas and two optional subjects out of the many

subjects taught in secondary schools. The candidates generally select two subjects which they have been already teaching in the school or in which they are interested and later would like to teach those subjects in schools. Candidates who secure qualifying marks in the test are asked to appear for interview before a panel of training college teachers. This may be termed as the second stage of screening. Interview is given due importance because it is considered that the making of a good teacher does not necessarily consist in theoretical knowledge of the subject, but on many other factors, such as, a pleasing personality, good voice, interest in co-curricular activities, games and sports and above all the quality of getting along well with others. However, untrained teachers and educational administrators who are sent on deputation get some preference in the selection procedure.

It is apparent that efforts are made to select those candidates who promise to stick to the teaching profession and make good teachers both in the intellectual and moral sense.

Hence, for the purposes of the current study, admission test result of candidates has been used as one of the independent variables in the cognitive domain.

Past Academic Achievement

The past academic achievements of each candidate for admission are considered by the training colleges for selection

of trainees. So weighted average of these achievements of a trainee has been used as another independent variable in the cognitive domain for the purposes of the present study. A special technique has been applied to calculate the weighted average.

The Affective Variables

The affective variables for this study consist of the scores on the following three tests specially designed for this purpose: (1) Personality (extroversion-introversion) Scale, (2) Attitude Scale for measurement of attitude towards the teaching profession, and (3) Interest Inventory for measuring interest for the teaching profession. These three instruments were duly administered to the samples of trainees and working teachers who had the B. Ed. degree. These three measures have been used as a set of independent variables for the present study.

Findings on the Nature of the Variables under Study

The mean value of 4.82 on a ten point scale may be interpreted as indicative of moderately low academic achievement of the group. However, the distribution includes a number of trainees with high past academic achievements too, because the distribution of the scaled scores is found to be positively skewed.

The personality scale developed for the purpose of this study is highly discriminatory. It tends to discriminate the sample of respondents sufficiently along the extroversion-

introversion dimension as indicated by the mean of 18.12 and standard deviation of 16.36.

The distribution of scores on the attitude of the responding sample has the mean of about 41 with a standard deviation of 13.43. This shows that the attitude scale constructed for the purpose is sufficiently and highly discriminatory in nature. The scale discriminates the sample of respondents quite sufficiently on the dimension of the psychological object measured for the purposes of the study, *viz* attitude towards the teaching profession.

In respect of interest of the sample of the respondents towards the teaching profession, it may be inferred that the group is quite heterogeneous. The interest inventory constructed for the purpose appears to be sufficiently discriminatory in measuring interest of the group on this dimension. The mean of the distribution is 78 with a standard deviation of 29.44.

It appears that the group of trainees is quite homogeneous in respect of their achievement in the teacher education programme in the teachers' training colleges. A mean of 54 reflects fairly high achievement in the final examination when one considers it against the maximum possible score of 100. The standard deviation is only 2.61.

However, the distribution of scores in the examination on the theory part has the mean of 53 with the standard deviation of 3.27, reflecting a fairly high score and

homogeneity of the group.

The distribution of scores on the assessment of practice teaching part of the training programme has the mean of 55 with a standard deviation of 2.53, reflecting again fairly high score and homogeneity of the group.

The coefficient of correlation between past academic achievement of the group of respondents and the admission test result is found to be 0.43 which is significant and positive. The value of the coefficient is moderately sufficient to interpret that there is some amount of direct relationship between these two independent cognitive variables.

College admission test results may be said to depend naturally to an extent upon the past academic achievements of the candidates for the teachers' training programmes of the training colleges. The magnitude of the coefficient of correlation is also indicative of the fact that past academic achievements alone cannot account for the total variations in the admission test results. It may be mentioned here that the candidates for admission usually have a heterogeneity of background in their past academic preparation.

The past academic achievements as an independent variable can predict success of the candidates measured in terms of their scores in the examination on the theory part only to a small extent.

It may be inferred that a very small portion of the

variation in success of the trainees in the practice teaching part is explainable by the past academic achievements of the candidates. It is quite interesting to note here that success in practice teaching, which is similar to the job of the teachers in the actual field, depends very little on their past academic preparation.

The coefficient of correlation between past academic achievement and the final examination results of the candidates is found to be 0.24 which is significant and positive. But the magnitude of the coefficient of correlation is low. Past academic achievements can, therefore, predict only a small portion of the variation of the final examination result which is meant to evaluate the training programme as a whole.

It appears that there is an indirect relationship between college admission test and the attitude of the trainees towards the teaching profession. The coefficient of correlation is found to be -0.40 which is significant.

The coefficient of correlation between the college admission test and the interest inventory is found to be -0.39 which is negative but significant, indicating again an indirect relationship between these two independent variables. The magnitude of the correlation is also substantial, showing an indirect relationship between the college admission test and interest of the group for the teaching profession.

The coefficient of correlation between college admission test and the examination on the theory part as one of the measures of success in the training programme is found to be 0.22 which is significant. But the magnitude of the coefficient is rather low. Hence only a very small part of the variation in the examination of the theory part is probably accounted for by the corresponding variation in the college admission test results.

The coefficient of correlation between the college admission test and the practice teaching examination is found to be 0.04 which is non-significant. The college admission test is not a predictor of success in the training programme as measured by this evaluation of practice teaching which by its nature is so akin to the future teaching job of the trainees.

The coefficient of correlation between the college admission test and the final examination results of the trainees is found to be 0.06 which is also non-significant.

The coefficient of correlation between the measures of personality on the extroversion-introversion dimension and the attitude of the trainees towards the training programme is found to be 0.06 which is non-significant.

The coefficient of correlation between the personality scale and the interest inventory is found to be 0.04 which is again non-significant, indicating the probable fact that the two independent affective variables also possibly measure

two different affective factors.

The coefficient of correlation between the personality scale and examination on the theory part as one of the measures of success in the training programme is significant but negative.

Comparatively less extroverts tend to do better than introverts in the evaluation of the theory part of the training programme.

The coefficient of correlation between the measures of personality and the examination on the practice teaching part of the training programme is found to be 0.35 which is positive and significant. The magnitude of the coefficient of correlation is indicative of the fact that the personality variable (extroversion-introversion) tends to contribute substantially to the success of the trainees in the practice teaching part of the training programme.

The coefficient of correlation between the measures of personality (extroversion-introversion) and the final examination of the trainees is found to be -0.06 which is not significant.

The coefficient of correlation between attitude and interest of the trainees is found to be 0.78 which is positive and significant.

The coefficient of correlation between the measures of interest and the success of the trainees as measured by the examination on the practice teaching part of the training

programme is found to be 0.25. The coefficient is positive and significant. But it is low in magnitude.

The coefficient of correlation between the measure of interest and the success of the trainees as measured by the final examination result is found to be 0.51. The coefficient is positive and significant.

The coefficient of correlation between success as measured by the examination on the theory part of the training programme (a dependent variable) and success as measured by the final examination (another dependent variable) is found to be 0.57. The coefficient is positive and significant. The magnitude of the coefficient is high enough to infer that a large portion of the variation in the final examination result is accounted for by the corresponding variation in the examination on the theory part of the training programme.

The coefficient of correlation between success as measured by the examination on the practice teaching part of the training programme (a dependent variable) and success as measured by the final examination result (another dependent variable) is found to be positive and significant. Although there is a good amount of agreement between these two dependent variables, the variation in one accounts for only a little part of the variation in the other.

The past academic achievements of the sample of trainees under consideration is found to be capable of predicting success of the trainees as measured by the three

dependent variables only to some extent. While this independent variable tends to predict success in the theory part of the training programme well, it fails to do so in the practice teaching part of the training programme. This independent variable does not at all agree with the three independent affective variables. But naturally this independent cognitive variable tends to agree so well with the other independent cognitive variables, namely the college admission test which has also been used as one of the predictors of success. The college admission test result appears to predict to some extent success in the theory part of the training programme but this independent cognitive variable fails to predict success as measured by the examination on the practice teaching part.

The set of three independent affective variables which are mutually correlated only to some extent appears to predict success as measured by the three dependent variables fairly well. The set of three affective variables are definitely better predictors than the set of two cognitive variables in predicting different aspects of success; particularly in the practice teaching part of training programme which is actually so similar to the real teaching job.

Findings based on Multivariate Analysis

Multiple regression analysis was conducted in order to determine the extent of relationship among each criterion

measure, and a combination of the predictor measures. This was done on the assumption of probable linear relationship among each criterion measure and the combination of predictors. In each case the value of multiple correlation coefficient, the corresponding F ratio for testing the significance of R and the regression equation have been determined.

Past Academic Achievement

Regression of the dependent variables, namely theory, practice teaching and final marks upon each of the independent variables, namely past academic achievements and admission test results has been studied taking a pair of variables at a time.

The coefficient of correlation between past academic achievements as one of the predictors and the examination on the theory part as a measure of success shows further that 17 per cent of the variation in the criterion variable, namely examination on the theory part of the training programme, is explainable by the variation in the predictor variable, past academic achievements. The value of F is found to be 41.07 which is significant. The corresponding regression equation is $X_6 = 1.4051X_1 + 45.7418$.

The analysis shows that academic achievement is a moderately fair predictor of success in the theory part of the training programme. The coefficient of correlation between past achievement as one of the predictors and success

in the practice teaching is found to be 0.23. Only 5 per cent of the variation in success in the practice teaching part of the training programme can be explained by the variation in the past academic achievement as a predictor. The corresponding F value is found to be 11.38 which is significant. The regression equation is found to be $X_7 = 0.6230X_1 + 52.0447$. Hence it can be concluded that past academic achievement can predict success in the practice teaching part only to an extremely little extent.

The coefficient of correlation between the past academic achievement as a predictor variable and final marks in the training programme as a measure of success is found to be 0.24. Only 6 per cent of the variation in success as measured by the final marks is explainable by the corresponding variation in past academic achievement as the predictor. The F value is found to be 12.51 which is significant. The regression equation is given by $X_8 = 0.909X_1 + 49.8057$.

Admission Test Result

The admission test result as a predictor is correlated with success as measured by the internal examination of the theory part of the training programme and the coefficient of correlation is found to be 0.22. Only 5 per cent of the variation of success in the theory part is accounted for by the variation in the admission test result. The value of F is found to be 9.77 which is significant. The regression equation is given by $X_6 = 0.1257X_2 + 46.2165$.

The analysis shows that admission test result is a poor predictor of success in the theory part of the training programme.

The coefficient of correlation between admission test result as a predictor and success as measured by the practice teaching part is only 0.04. It is found that variation in success measured by the practice teaching part of the training programme cannot be explained by the corresponding variation in the admission test results. The F value is found to be 0.29 which is non-significant. The regression equation is given by $X_7 = 0.0174X_2 + 54.1724$.

The coefficient of correlation between admission test result as predictor and final marks as a measure of success is found to be 0.06. Variation in final marks is not at all explainable by the corresponding variation in the admission test results. The value of F is 0.82 which is non-significant. The regression equation is given by $X_8 = 0.0411X_2 + 52.1331$.

Past Academic Achievement and Admission Test

Regression of the theory part upon past academic achievement and admission test shows that the value of R is 0.41. This indicates that about 17 per cent of the variation in the criterion measure, namely success in the theory part is accounted for by the corresponding variation in the combination of the two cognitive variables, namely past academic achievements and admission test results. The

corresponding value of F has been found to be 20.68 which is significant. Hence conclusion may be drawn to the effect that the regression equation given by $X_8 = 1.3380X_1 + 0.0266X_2 + 44.7369$ is capable of predicting success in the theory part of the training programme to some extent.

Regression of the dependent variable given by scores on practice teaching part of the programme as a criterion measure upon the combination of predictors given by past academic achievement and admission test result gives a multiple correlation coefficient of 0.24 with the corresponding F value of 6.20 which is significant. About 6 per cent of the variation in the criterion measure is found to be explainable by the corresponding variation in the combination of the two predictors. The regression equation is given by $X_7 = 0.7125X_1 - 0.0354X_2 + 53.3844$.

Regression of success as measured by final marks upon the combination of predictors given by past academic achievements and admission test results gives a multiple correlation coefficient of 0.25 with corresponding F value of 6.46 which is significant. Only about 6 per cent variation in the criterion measure is explainable by the corresponding variation in the combination of the predictors. The regression equation is given by $X_8 = 0.9922X_1 - 0.0325X_2 + 51.0358$.

Personality

The coefficient of correlation between the measure

of personality (extroversion-introversion) as a predictor and success as measured by the internal examination of the theory part of the training programme is found to be 0.27 which accounts for about 7 per cent of the variation in success in the theory part corresponding to variation in the measurement of personality. The value of F is found to be 15.72 which is significant. The corresponding regression equation is given by $X_6 = 0.0539X_3 + 53.4843$.

The coefficient of correlation between the measure of personality (extroversion-introversion) and the criterion measure given by evaluation of practice teaching is found to be 0.35. About 12 per cent of variation in success in the practice teaching part of the programme is accounted for by the corresponding variation in the measure of personality (extroversion-introversion). The value of F is found to be 27.45 which is significant. The corresponding regression equation is given by $X_7 = 0.5475X_3 + 54.0523$.

The coefficient of correlation between the measures of personality (extroversion-introversion) as a predictor and success as measured by the final marks as a criterion is found to be 0.06. The measurement of personality (extroversion-introversion) fails to account for any variation in the final marks. The value of F is found to be 0.72 which is non-significant. The regression equation^{is} given by $X_8 = 0.0132X_3 + 54.4256$.

Attitude

The coefficient of correlation between the predictor variable attitude and criterion variable theory is found to be 0.18 which accounts for about 3 per cent of the variation in the measure of success reflected by internal examination of theory part of the training programme corresponding to variation in attitude towards the teaching profession. The value of F is found to be 6.99 and significant. The regression equation is given by $X_6 = 0.0437X_4 + 50.7209$.

The coefficient of correlation between the measure of attitude as a predictor and success as measured by the evaluation of the practice teaching part of the training programme is found to be 0.32 which accounts for about 10 per cent of the variation in success in the practice teaching part of the training programme corresponding to the variation in attitude towards the teaching profession. The value of F is found to be 23.01 and significant. The regression equation is given by $X_7 = 0.0602X_4 + 52.5810$.

The coefficient of correlation between the measure of attitude as a predictor with final marks as the criterion variable is found to be 0.46 which accounts for 21 per cent of the variation in the measure of success given by the final marks in the training programme corresponding to the variation in attitudes. The value of F is found to be 53.76 and significant. The regression equation is given by $X_8 = 0.1206X_4 + 49.2587$.

Interest

The coefficient of correlation between the measure of interest as the predictor and evaluation of the theory part of the training programme is found to be 0.20 which accounts for nearly 3 per cent of the variation in success in the theory part corresponding to variation in the interest of the trainees. The value of F is found to be 8.17 and significant. The regression equation is given by $X_6 = 0.2198X_5 + 50.7960$.

The coefficient of correlation between measure of interest as a predictor and success as measured by evaluation of the practice teaching part of training programme is found to be 0.25 which appears to account for about 6 per cent of the variation in the training programme corresponding to variation in interest. The value of F is found to be 13.71 which is significant. The regression equation is given by $X_7 = 0.0222X_5 + 53.3173$.

The coefficient of correlation between the measure of interest and success as measured by the final marks is found to be 0.51 which accounts for about 26 per cent of the variation in the final marks as a consequence of variation in interest. The value of F is found to be 69.77 which is significant. The regression equation is given by $X_8 = 0.0622X_5 + 49.3429$.

Personality (extroversion and introversion) and Attitude

The regression of the three dependent variables

namely theory, practice and final marks upon the combination of the measures of personality (extroversion-introversion) and attitude has been studied.

The coefficient of multiple correlation between measures of personality (extroversion and introversion) and attitude as independent variables and evaluation of the theory part of the training programme is found to be 0.33, which accounts for about 11 per cent of the variability in the measurement of success in the theory part of the training programme corresponding to the variability in these two independent variable. The value of F is found to be 12.65 and significant. The regression equation is given by $X_6 = 0.0562X_3 + 0.4760X_4 + 51.5611$.

The coefficient of multiple correlation between the combination of personality (extroversion-introversion) and attitude as predictor variables and success in the practice teaching part of the training programme as one of the criterion variables is found to be 0.46, which accounts for about 21 per cent of the variation in success in the practice teaching part corresponding to the variability in the combination of these two independent variables. The value of F is found to be 26.70 which is significant. The regression equation is given by $X_7 = 0.0519X_3 + 0.0567X_4 + 51.7359$.

Personality (extroversion-introversion) and Interest

The regression of the three dependent variables namely theory, practice and final marks upon the combination

of the measures of the independent variables given by personality (extroversion-introversion) and interest has been studied.

The coefficient of multiple correlation between the combination of measures of personality and interest as independent variables and success as measured by examination on the theory part of the training programme is found to be 0.34 which accounts for 11 per cent of the variation in success in the theory part of the training programme as a consequence of the variability in the combination of the measures of personality (extroversion-introversion) and interest. The value of F is found to be 13.14 and significant. The regression equation is given by $X_6 = -0.0556X_3 + 0.0232X_5 + 51.7059$.

The coefficient of multiple correlation between the combination of the measures of personality (extroversion-introversion) and interest as predictor and success in the practice teaching part of the training programme as a criterion is found to be 0.42 which accounts for about 18 per cent of the variability in success in the practice teaching part of the training programme as a consequence of the variability in the combination of the measures of personality (extroversion-introversion) and interest. The value of F is found to be 21.54 and significant. The regression equation given ^{is} by $X_7 = 0.0532X_3 + 0.0210X_5 + 52.4468$.

The coefficient of multiple correlation between the combination of the measures of personality (extroversion-

introversion) and interest as predictors and success as reflected by the final marks in the training programme is found to be 0.51 which accounts for about 26 per cent of the variability in success as reflected by the final marks corresponding to variation in the combination of the measures of personality (extroversion-introversion) and interest. The value of F is found to be 35.89 and significant. The regression equation is given by $X_8 = 0.0177X_3 + 0.0626X_5 + 49.6332$.

Attitude and Interest

The regression of the three dependent variables, namely theory, practice and final marks upon the combination of the independent variables given by the measurement of attitude and interest has been studied.

The coefficient of multiple correlation between the combination of the measures of attitude and interest as predictors and success in the theory part of the training programme as a criterion variable is found to be 0.20. This shows that about 4 per cent of the variability in success in the theory part of the training programme is accounted for by the variability in the combination of the measures of attitude and interest. The value of F is found to be 4.29 and significant. The regression equation is given by $X_6 = 0.0176X_4 + 0.0155X_5 + 50.5780$.

The coefficient of multiple correlation between the combination of the measures of attitude and interest as

predictor and success in the practice teaching part of the training programme as a criterion is found to be 0.32, which accounts for about 10 per cent of the variability in the success in the practice teaching as a consequence of the variability in the combination of attitude and interest. The value of F is found to be 11.45 and significant. The regression equation is given by $X_7 = 0.0597X_4 + 0.0338X_5 + 52.5778$.

The coefficient of multiple correlation between the combination of the measures of attitude and interest as predictors and success as reflected by the final marks is found to be 0.51, which accounts for 26 per cent of the variability in the final marks as a consequence of the variability in the combination of attitude and interest. The value of F is found to be 36.49 and significant. The regression equation is given by $X_8 = 0.0417X_4 + 0.0469X_5 + 48.8268$.

Reliability of the Affective Measures

In order to determine the reliability of the instruments two methods have been applied. The first method consists of splitting each test into two halves with the odd numbered items in the first and the even numbered items in the second half. The reliability of the whole of each test has been determined by using the Kuder-Richardson Formula. The second method consists in using the Method of Rational Equivalence. The second method has been used because splitting does not always result into equivalent halves for tests of this nature. The reliability of the

Personality Scale is 0.41 according to the split-half method and 0.95 according to the Method of Rational Equivalence. The reliability of the Attitude Scale is 0.59 according to the split-half method and 0.90 according to the Method of Rational Equivalence. The reliability of the Interest Inventory is found to be 0.92 and 0.96 according to the split-half method and the Method of Rational Equivalence respectively. In all these cases the reliability coefficients are positive and moderate to high in magnitude.

Validity of the Affective Measures

In order to assess the validity of the three measuring devices for measurement of affective aspects of the trainees, the tests were administered to a sample of 134 teachers with B. Ed. degree belonging to a sample of 9 schools. The criteria used for validation of the test consists of Headmaster's ratings on: (1) Success in teaching, (2) Interest in teaching, (3) Attitude towards teaching and (4) Personality of the teacher (extroversion-introversion); Assistant Headmaster's ratings on: (1) Success in teaching, (2) Interest in teaching, (3) Attitude towards teaching and (4) Personality of the teacher (extroversion-introversion), and class placement of the teacher in the B. Ed. degree programme.

The Personality Scale is found to be significantly correlated with Headmaster's rating on personality of the teacher ($r=+0.38$) but it is found to be non-significantly

success in teaching is significantly correlated with the class-placement of the teacher in the B. Ed. degree programme ($r=+0.17$). The Assistant Headmaster's rating on success of a teacher in teaching is also found to be significantly correlated with class-placement of the working teacher in the B. Ed. degree programme ($r=+0.26$). It appears that the Headmaster and the Assistant Headmaster tend to agree in their ratings on success of the working teachers with their class-placement in the B. Ed. degree programme to some extent.

Item Analysis

Items included in the Personality Scale, Attitude Scale, and Interest Inventory have been analysed on the basis of the data collected. Discriminating Index for each item has been calculated on the basis of responses of 50 highest scoring subjects and 50 lowest scoring subjects in each group.

An arbitrary, but conventional, index of 0.20 or more has been used for the purposes of this study as the criterion of retention of an item.

The Personality Scale contains a total number of 100 items. According to criterion of retention 65 items in the test is found to have been retainable. This clearly shows that 65 per cent of the items are valid in spite of this rigorous criterion.

The Attitude Scale contains a total of 82 items of

which 52 items have been retained according to the procedure. In this case, about 64 per cent are found to have been retainable.

The Interest Inventory includes a total of 154 items of which 83 items are found to have been retainable according to the criterion of retention. In this case 54 per cent of these items are retainable.

It may be mentioned here that although many of the items included in the three tests have been found to be not retainable according to this rigorous criterion, a large number of those rejected items are actually found to be positively discriminating and only a few items are found to be negatively discriminating.

Conclusions

Specific Conclusions

Past academic achievements can predict only a little part of the success in the practice teaching part of the training programme. Past academic achievement is only partially responsible for the variation in the results of the examination on the theory part of the programme.

It can be inferred that past academic achievements can predict success in the training programme to a very small extent. Trainees appear to succeed irrespective of variation in their past academic achievements, satisfying only the minimum requirements for admission.

The college admission test cannot be claimed to be

a good predictor of success in the training programme as measured by the examination on the theory part.

Conclusion may be made that probably there is no relationship between the college admission test and the evaluation of the practice teaching part of the training programme.

It is interesting to note and conclude that the college admission test fails to predict success in the training programme as measured by the final examination.

Conclusion may be drawn to the effect that the personality scale and the interest inventory are independent of each other, signifying the fact that they tend to measure two different affective aspects of the behaviour of the sample of trainees.

Extroversion accounts for success in the practice teaching part to a large extent. But it may also be concluded that success of the trainees as measured by the final examination results does not depend on extroversion-introversion as a measure of personality.

The attitude scale and the interest inventory developed for the purpose of this study tend to measure largely overlapping and similar behavioural attributes of the trainees.

The measures of attitude can predict success in theory part of the training programme only to a very small extent.

The measures of attitude of the trainees towards the teaching profession is capable of predicting their success in the training programme as measured by the final examination results to a large extent.

Interest of trainees towards teaching can predict their success in the theory part of the training programme to a small extent. The coefficient of correlation between the two variables is high enough to infer that a large portion of variation in success as measured by the final examination result is explainable by the corresponding variation in interest.

It can be concluded that the three instruments which have been developed for measurement of personality (extroversion-introversion), attitude and interest as predictors of success in the teaching profession are good enough for the purpose.

The analysis shows that past academic achievement is a moderately fair predictor of success in the theory part of the training programme.

It can be concluded that past academic achievement can predict success in the practice teaching part only to an extremely little extent. It can also be concluded that past academic achievement is rather a poor predictor of success as measured by the final marks.

Admission test result is a poor predictor of success in the theory part of the training programme. Admission test

results fail to predict success as measured by the final marks in the training programme.

It may be concluded that the combination of the past academic achievements and admission test results is a rather poor predictor of success in the practice teaching part of the training programme.

Conclusion may be drawn to the effect that the measure of personality predicts success in the theory part of the training programme to a very little extent.

The measures of personality (extroversion-introversion) is a fair predictor of success in the practice teaching part. The measures of personality (extroversion-introversion) does not predict success as measured by the final marks.

The measure of attitude is capable of predicting only a small portion of success as measured by the evaluation of the theory part of the training programme. It is capable of predicting success in the practice teaching part of the training programme to a considerable extent. It is capable of predicting a fair portion of a success in the training programme as reflected by the final marks.

The measure of interest is capable of predicting only a very little part of success in the theory part of the programme. It is capable of predicting a small portion of variation in success measured by the practice teaching. Interest of the trainees as a predictor of the criterion variable final marks is capable of doing so to a fairly

large extent.

The combination of the measures of personality (extroversion-introversion) and attitude is capable of predicting success in the theory part of the training programme only to a little extent. The combination is a fair predictor of success in the practice teaching part of the training programme.

The combination of the measures of personality (extroversion-introversion) and interest is capable of predicting only a little part of the success to the theory part of the training programme. The combination is a fair predictor of success in the practice teaching part of the training programme. It is a good predictor of success as reflected by the final marks.

The combination of the measures of attitude and interest is rather a poor predictor of success in the theory part of the training programme. The combination is capable of predicting success in the practice teaching part of the training programme to only a little extent. It is a fair predictor of success as reflected by the final marks.

General Conclusion

In the light of foregoing conclusions the general hypotheses of the present study can be tested and the extent of their feasibility can be examined. This assessment is given below in respect of these eight hypotheses:

- (1) The hypothesis that extroverts are expected

to be generally more successful than introverts in the training programme appears to be true to a large extent. It appears that extroverts are more successful than introverts in the practice teaching part of the training programme, which is assumed to be equivalent to the teaching profession. The personality (extroversion-introversion) scale is therefore a fair predictor of success in the teaching profession. But success of the trainees as measured by the final marks, which represent mostly performance in the theory part of the training programme, does not depend on extroversion-introversion as measured by the Personality (extroversion-introversion) Scale. This scale is not, therefore, a good predictor of success in the predominately theory of the training programme. However, either a combination of the measures of personality (extroversion-introversion) and attitude or that of personality (extroversion-introversion) and interest appears to be a fair predictor of success in the training programme as a whole as well as in the practice teaching part of the training programme.

(2) The hypothesis that trainees with favourable attitude towards teaching are expected to be more successful in the training programme as well as in the practice teaching part than those with less favourable attitude is partially true. It appears that the measures of attitude can predict success to a very small extent in the theory part of the training programme but the measure of attitude is capable

of predicting to a large extent success as measured by the final marks. However, the measure of attitude appears to be a good predictor of success in the practice teaching part of the training programme. But, while the combination of measures of attitude and interest is a poor predictor of success in the theory part of the training programme, this combination appears to be capable of predicting success in the practice teaching part to some extent. The same combination however is a fair predictor of success in the programme as reflected by the final marks. Thus the trainees with favourable attitude towards the teaching profession are found to be generally more successful in the training programme than those with less favourable attitude.

(3) The hypothesis that trainees with greater interests for teaching are likely to be more successful in the training programme as well as in the practice teaching part than those with less interest appears to be tenable to some extent. Interest of the trainees for the teaching profession can predict success in the theory part of training programme to a small extent but it can predict success as reflected by the final marks to a large extent. It is interesting to note that the combination of interest and personality (extroversion-introversion) is a good predictor of success as measured by evaluation of practice teaching as well as the final marks. But the combination of interest and attitude is only a fair predictor of success as reflected

by final marks. This is also capable of predicting success in practice teaching only to a little extent. Hence it may be said that the trainees with greater interest for teaching are likely to be more successful in the training programme as a whole as well as in the practice teaching part than those with less interest.

(4) The hypothesis that trainees with higher score in the admission tests are expected to be more successful in the training programme than those with lower scores is tenable to a very little extent. The college admission tests generally fail to predict success in the training programme. However combinations of the admission test and the affective factors are capable of predicting success in the training programme to some extent.

(5) The hypothesis that trainees with higher scores representing their past academic achievements are expected to be more successful in the training programme than those with lower scores does not appear to be quite true. Past academic achievements seem to predict only a little part of the success in the practice teaching part of the training programme. The combination of past academic achievements and admission test results is a poor predictor of success in the practice teaching part of the training programme.

(6) The hypothesis that the affective factors of the trainees compared with their past academic achievements are expected to be equally predictive of success in the

training programme is quite tenable. In fact this study demonstrates clearly that the affective factors are better predictors of success of the trainees in the training programme.

(7) The hypothesis that the affective factors are independent of the cognitive factors represented by the admission test and the past academic achievements is acceptable to some extent. In fact the affective factors have been found to be independent of past academic achievements and admission test results. Attitude and interest are also found to be independent of past academic achievements. However, attitude and interest are negatively and significantly correlated with admission test result. Hence, it can be said that the affective factors are better predictors of success in the training programme than the cognitive factors.

(8) The hypothesis that the performance of trainees in the practice teaching part is independent of their performance in the theory part of the training programme is not tenable. In fact there is significant correlation between the theory part and the practice teaching part. In other words, it can be said that trainees who do well in the course work of the training colleges during the first two terms generally tend to do well in the practice teaching part in the final term

Recommendations

In the light of the findings and the conclusions of the present study the following recommendations are made:

1. The admission procedure for the purpose of admitting students in the B. Ed. degree programme of the teachers' training colleges should be modified, so that the admission tests contain factors from cognitive domain as well as the affective domain.
2. Since extroverts tend to be more successful than introverts in the training programme of the teachers training colleges the admission tests should include a personality (extroversion-introversion) scale similar to the one that has been developed for the purpose of this study.
3. Since trainees with favourable attitude towards the teaching profession tend to be more successful in the teacher training programme than those with less favourable attitude, the admission tests for the selection of trainees should include an attitude scale similar to the one developed for the purposes of the study.
4. Since trainees with greater interest for teaching than those with lesser interest

tend to be more successful in the training programme of the teachers' training colleges, the admission tests should include an interest inventory similar to the one developed for the purpose of this study for selection of good candidates.

5. Since particular combination of cognitive and affective factors tends to be more predictive of success in the training programme than the present admission criteria, the selection of candidate for B. Ed. programme should be based upon a more scientific technique of selection consisting of such combinations of cognitive and affective factors. The teachers' training college authorities may consider application of the combination of factors as suggested in the present study for the purpose of selecting candidates for the B. Ed. degree programme.
6. Further studies with more representative samples of trainees and working teachers should be conducted in order to standardize the personality (extroversion-introversion) scale, the attitude scale, and the interest inventory developed for the purpose of the

study.

7. The teachers' training colleges should conduct studies to establish the reliability and the predictive validity of the admission tests for the selection of the candidates for the B. Ed. degree programmes.
8. Studies should be undertaken to assess the reliability and the validity of the examinations held by the teachers' training colleges to evaluate the performance of the trainees in the programmes.

APPENDIX A

**LETTER CONTAINING GENERAL INSTRUCTIONS FOR RECORDING
RESPONSES TO THE QUESTIONNAIRES: (1) PERSONALITY
(extroversion-introversion) SCALE, (2) ATTITUDE
SCALE, AND (3) INTEREST INVENTORY**

General Instructions

Attached herewith please find three questionnaires. You are requested to fill-in each item in these questionnaires and return them to the undersigned as soon as possible. Each questionnaire contains special instructions for recording your responses. Please read these instructions carefully before recording your responses.

You are also requested to write yours name, roll number in the teachers' training college, and your past academic qualifications with division placement in each public examination in the separate sheet provided for the purpose.

Thanking you,

Sincerely yours,

(Maliha Khatun)

APPENDIX B

PERSONALITY (extroversion-introversion) SCALE

নির্ণেয়াকী

এই প্রশ্নাঙ্গার মাধ্যমে বিভিন্ন বিষয়ে আপনার ব্যক্তিগত
গছ-অগছ যাচাই এর জন্য কিছু সংখ্যক উক্তি দেওয়া আছে। প্রতিটি
উক্তি মনোযোগ সহকারে পাঠ করুন এবং উল্লেখিত বক্তব্যটি বিবেচনা করে
যদি এর সংগে আপনি একমত হন তাহলে উক্তির বরাবরে তান পার্শ্বে 'হ্যাঁ'
শিরোনামযুক্ত কলামের নীচে টিক চিহ্ন ✓ দিন। আর যদি উক্তির
সহিত আপনি একমত না হন তাহলে 'না' শিরোনামের কলামের নীচে
টিক চিহ্ন দিন। যদি আপনি কোন উক্তির সত্য বা মিথ্যা সম্পর্কে শিহুর
নিশ্চিত নন অথবা এ সম্পর্কে বক্তা থাকেন তবে উক্ত পক্ষে সমানুরাণ রেখার
মধ্যবর্তী স্থানে কোন চিহ্ন দেবেন না। সব প্রশ্নের উত্তর দিতে চেষ্টা
করুন। প্রশ্নের সংগে উত্তরের নাম্বারের সঠিকতা বজায় রাখুন। এ প্রশ্নাঙ্গার
১০০ প্রশ্ন আছে।

বিঃ দ্রঃ আপনার নাম পরিচয় এবং অন্যান্য যে সব তথ্য আপনি
সুরবরাহ করবেন, সে সম্বন্ধে সম্পূর্ণ গোপনীয়তা রক্ষা করা
হবে।

- ১। দলের সাথে থাকলে ও আমি অন্যদের সাথে না মিলে
একাকী থাকতেই ভালবাসি
- ২। জানালোনা কেউ উন্নতি করলে আমার মনে হয় যেন
আমি কোন উন্নতি করতে পারলাম না
- ৩। আমি অন্যদের আলোচনায় যোগ দেই না ।
- ৪। কোন কাজ করে তা তাকাতাকি ছেড়ে দিতে ইচ্ছা হয় ।
- ৫। আমার কোন কাজ যদি অন্যে পছন্দ না করে তা হলে
সে কাজ করতে আমার ইচ্ছা হয় না ।
- ৬। সাধারণত লোকে অন্যের চেয়ে নিজের ভালই
বেশী চায় ।
- ৭। কোন কাজ এ আমি ঠিক ভাবে মন দিতে পারি না ।
- ৮। আমি বেশী দুশ্চিন্তা করি ।
- ৯। অনেক সময় মনে হয়েছে যে অচেনা লোকজন আমার
দিকে তাকিয়ে আমার খুঁত বের করছে ।
- ১০। লোকজন এর সাথে কথা বলতে আমার খুব অসুবিধা হয় ।
- ১১। লোকজনের সাথে থাকলে আমি অগত্যা অশিষ্ট হই ।
- ১২। অন্যে যা কিছু বলে তা আমি ভুলে যাই ।
- ১৩। ঠিকমত কোন কাজ করতে পারবনা জেনে অনেক সময়
সেই কাজ আমি ছেড়ে দিয়েছি ।
- ১৪। গর্দি না থাকলেও আমার গলার সুর সময় সময় বাটকে
যায় ।

হ্যাঁ	না
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	হ্যাঁ	না
১৫। আমি নিজের সমস্ত অতিরিক্ত সজাণ থাকি ।		
১৬। আমি কোন খেলাধুলা পছন্দ করি না ।		
১৭। লোকজনদের মাঝে আমি মেলামেশা পছন্দ করি না ।		
১৮। লোকজন সামনে থাকলে ভাল কোন গল্প মনে আসত না ।		
১৯। খুব হাসি খুশি বন্ধুদের সাথে থাকলেও আমার দুশ্চিন্তা কমে না ।		
২০। গুলাব করতে কিংবা চেচন রাখতে আমার অসুবিধা হয় ।		
২১। অচেনা লোকজনদের সাথে মিশতে আমার অসুবিধা হয় ।		
২২। ট্রেন কিংবা বাসে যাবার সময় আমি অচেনা লোকদের সাথে কথা বলি না ।		
২৩। যখন কোনও দলের সঙ্গে থাকি তখন কেউ আমার জানা বিষয় সম্বন্ধে কিছু বললে তাও আমি বলতে পারি না ।		
২৪। সমাজে মেলামেশা করতে আমার ভাল লাগে না ।		
২৫। সুযোগ পেলেও জগজ্জের ভালোর জন্য আমি কিছুই করতে পারলাম না ।		
২৬। আমি মন মরা থাকি ।		
২৭। অচেনা লোকজনের কাছে যেতও আমার ভয় হয় ।		
২৮। আমি ভাড়াভাড়া কারও সাথে বসবাস করতে পারি না ।		
২৯। আমি একজন গায়ক / গায়িকা হতে চাই ।		
৩০। কোন একটা চাকুরি অথবা কাজ মনোযোগ দিয়ে করতে আমার কষ্ট হয় ।		

	কথা	না
৩১।	আমার খুব বদভৃত এবং অস্বাভাবিক অভিজ্ঞতা হয়েছিল।	
৩২।	আমি খুব শিল্পী।	
৩৩।	অন্যদের মত আমি খুশি হতে চাই।	
৩৪।	আমাকে নিয়ে হাসি ঠাট্টার জন্য আমি কিছু মনে করি না।	
৩৫।	আমি কবিতা গছ করি।	
৩৬।	আমোদ-প্ৰমোদ, কৌতুক পূর্ণ এবং অন্য অনুষ্ঠানে যেতে আমার ভাল লাগে।	
৩৭।	আমার পাবার জন্য কোন বিপদ জনক কাজ আমি করি না।	
৩৮।	যারা পুরাতন ভয়ে বেলীর ভাগ লোক সহ।	
৩৯।	আমার বক্তৃতা সকল সময় একই রকম লাগে না, ভাড়াভাড়া না, কল না।	
৪০।	বেলীর ভাগ লোকই মুনাকা এবং সুবিধা হারানোর চেয়ে পাবার আশাই সঙ্গ উপায় অবলম্বন করে।	
৪১।	আমি নাটক গছ করি।	
৪২।	টিটকারী অথবা জিন্নাকার আমাকে গজীর ভাবে আমোদ দেয়।	
৪৩।	আমি যখন খুব শিল্পী ছিলাম তখন আমি একটি অনুরোধ দলের সাথে নিযুক্ত ছিলাম।	
৪৪।	সময় মত মন ঠিক করতে না পারায় আমি অনেক সময় অনেক কিছু হারিয়েছি।	
৪৫।	কোন পার্টিতে লোক দেখানো কর্মানুষ্ঠান অথবা কর্ম প্রদর্শন করতে আমি অসুস্থ বোধ করি যদিও অন্যেরা একই ধরনের কাজ করছে।	

	হ্যাঁ	না
৪৬। নিজের লজ্জার বিরুদ্ধে আমাকে প্রায় যুদ্ধ করতে হয় ।		
৪৭। অচেনা লোকদের সাথে কথা বলতে আমার অসুবিধা হয়।		
৪৮। আমার কোন হাঁপানি বা সর্দি জ্বর নাই ।		
৪৯। আমার মনে হয় যদি আমি এতলাজুক না হতাম ।		
৫০। গ্রেপ্তার নিয়ে খেলতে আমার ভাল লাগে ।		
৫১। আমি বিভিন্ন ক্লাব /সম্প্রদায়/ অথবা সভা সমিতির সাথে যুক্ত হতে পছন্দ করি না ।		
৫২। আমি যৌন বিষয়ে স্বাভাবিক বলতে পছন্দ করি ।		
৫৩। আমি খুব গভীর ভাবে চিন্তা করি ।		
৫৪। যারা পরস্পর হান্য কৌতুক করে সেই ধরনের জনসমাবেশে থাকতে আমার ভাল লাগে ।		
৫৫। আমি দেহতে ভাল নই তা আমাকে বিরক্ত করে না ।		
৫৬। যখন আমি লোকজনের সাথে থাকি তখন ঠিক কি করতে হবে তা চিন্তা করতে আমার অসুবিধা হয় ।		
৫৭। আমার প্রায় মনে হতো যে আগন্তুকরা আমাকে খুটিয়ে খুটিয়ে দেখছে ।		
৫৮। আমি কখনও প্রয়োজন করে দেখি না যে আমার কানে জটা জটা শব্দ করে কি না ।		
৫৯। অন্য লোকে আমার সাথে আগে কথা না বললে আমি তার সাথে সাধারণত কথা না ।		
৬০। কোন নির্দিষ্ট কারণ ছাড়াই এক এক সময় আমি খুশী থাকি ।		
৬১। শুলে থাকতে হালের সময় কিছুই বলা আমার খুব কঠিন বলে মনে হতো ।		

	ইং	বা
৬২। অন্যদের মতো আমি ভাড়াভাড়া অন্য কারো সাথে বস্তু করতে পারি ।		
৬৩। আমার মনে হয় প্রায় প্রজন্মেরই বিপদ থেকে বাঁচার জন্য শিক্ষা কী কী উচিত ।		
৬৪। এমনও সময় ছিল তখন আমি এত বেশী কর্মচঞ্চল ছিলাম যে দিনের পর দিন ঘুম আমার কাছে প্রয়োজনীয় মনে করিনি ।		
৬৫। এক দল লোকের মাঝে কিছু আলোচনা শুরু করতে অথবা আমি যা ভাল জানি সে সম্বন্ধে মতামত চাওয়া হলে আমি বিরুদ্ধ বোধ করি না ।		
৬৬। পার্টি এবং সামাজিকতা আমি পছন্দ করি ।		
৬৭। আমি সমস্যা অথবা সংকটে পড়লে ভীত হই ।		
৬৮। কোন কিছু ঠিকভাবে করার উপযুক্ত হিসাবে যখন আমি কিছু করতে চাই, তখন অন্যেরা ভাবে যে এটা কোন মূল্য নাই ।		
৬৯। আমি সহজে হতবুদ্ধি হই ।		
৭০। সর্দি না থাকলেও সময় সময় আমার গলা খাটকে যায় ।		
৭১। আমি সহজেই লোকদের সাথে অশ্রদ্ধা হয়ে পড়ি ।		
৭২। অন্য যা কিছু বলে তা আমি ভুলে যাই ।		
৭৩। যে ঘরে অন্য লোক জড়ো হয়ে কথা বলে সে ঘরে নিজে যেতে আমি এতটুকু ভীত হই না ।		
৭৪। আমার কাজ করার শক্তি কম হওয়ার জন্য আমি অনেক বার কাজ করা ছেড়ে দিয়েছি ।		
৭৫। ধর্ম আমাকে দুশ্চিন্তা গ্রস্ত করে না ।		

- | | কথা | না |
|-----|--|----|
| ৭৬। | আমি অসুভাবিক ভাবে আত্ম সচেতন নই । | |
| ৭৭। | পার্টিতে অন্যদের সাথে থাকার চেয়ে নিজে একা বসতে অথবা শুধু একজনের পাশে বসতে পছন্দ করি । | |
| ৭৮। | প্রায়ই লোকেরা আমাকে নিরাশ করে । | |
| ৭৯। | বাড়ির বাগরে যেতে আমি ভাল বাসি । | |
| ৮০। | আমি প্রায়ই চিন্তা করি, "যদি আমার শিশু হতে পারতাম" । | |
| ৮১। | যদি আমাকে সুযোগ দেওয়া হতো তবে এমন কিছু করতে পারতাম যা বিশেষ বৃহত্তর স্বার্থে লাগত । | |
| ৮২। | আমি যাতে ভালভাবে চিনি এমন কারো সাক্ষাৎ বা ধরন শুনলে আমি এক ধরনের ব্যর্থতা অনুভব করি । | |
| ৮৩। | সুযোগ পেলে আমি জনগণের একজন ভাল নেতা হতে পারব । | |
| ৮৪। | লোকেরা গল্প শুনলে আমি খুব অসুস্থ বোধ করি । | |
| ৮৫। | লোকেরা অন্যের অধিকারের প্রতি যতটুকু সম্মান প্রদান করতে ইচ্ছুক তার চেয়ে নিজেদের অধিকারের প্রতি অধিক সম্মান তারা দাবি করে । | |
| ৮৬। | অন্যদেরকে বলার জন্যে আমি ভাল গল্প মনে রাখতে চেষ্টা করি । | |
| ৮৭। | সামান্য বাজি ধরে জুয়াখেলা আমি উপভোগ করি । | |
| ৮৮। | লোকের সংগে পাব বলেই আমি সামাজিক সংস্কার-গুলি উপভোগ করি । | |
| ৮৯। | আমি জনতার উত্তেজনা উপভোগ করি । | |

	কথা	না
৯০।	একদল উচ্চল বন্ধুর মাঝে থাকলে আমার দুঃখিত্তাপুণি দূর হয়ে যায় বলে মনে হয় ।	
৯১।	যদি যে দলের সে দলের গুণ গুণব এবং স্বাভাবিক সাধারণতঃ আমি থাকি না ।	
৯২।	পুল্লাব করতে বা চেপে রাখতে আমার কোন অনুবিধা হয় নি ।	
৯৩।	যদি এমন সব লোক দেখেছি যারা আমার ভাল খারগার জন্য হিংসা বোধ করে যেহেতু তারা প্রথমে ইহা ভাবেনি ।	
৯৪।	সব হলে আমি জনতার জীহ্ন এ থাকি এড়িয়ে চিনি ।	
৯৫।	বাগবন্ধুর সাথে সাক্ষাৎ করতে আমি বাগতি করিনি ।	
৯৬।	কোন কিছু এড়িয়ে যাওয়ার জন্য আমি 'অসুখের ভান' করার কথা মনে করতে পারি ।	
৯৭।	ট্রেনে বসে অপরিসীম লোকের সংগে প্রায়ই কথা বলি ।	
৯৮।	যখন কোন কিছু ভাল হয় তখন খুব তাড়াতাড়ি তা পরিত্যাগ করতে আমি গছ করি ।	
৯৯।	জীবনের সুখ সম্পদ এর চেয়ে বাদশ্বর্ষ থাকতে থাকটাই মহত্বের বস্তু ।	
১০০।	যদি অগতঃই হেঁচো যাই ।	

APPENDIX C
ATTITUDE SCALE

গবেষকের আবেদন

ঢাকা বিশ্ববিদ্যালয়ে শিক্ষা ও গবেষণা ইনস্টিটিউটের এক পি,এইচ,ডি, কোর্সের শিক্ষা গবেষণা বিষয়ে আমি কিছু কাজ করছি। এ জন্য আপনার কাছে একটি পুঁজু তালিকা পাঠালাম। এটা কোন বুদ্ধিমত্তার প্রমাণ নয়। এ সব প্রশ্নের কোন সঠিক বা ভুল উত্তর নেই। সর্বোত্তম ও সঠিক জবাব হল 'আপনার ব্যক্তিগত মতামত'। আপনার উত্তর যাই হোক না কেন, আপনার উত্তরের সাথে অনেক 'একমত' হতে পারে। অনেক একমত নাও হতে পারে। আসলে এ সব প্রশ্ন সম্পর্কে আপনার ব্যক্তিগত ধারণা জানা আমাদের উদ্দেশ্য। আপনার মতামত গোপন রাখা হবে এবং শুধু মাত্র গবেষণা কাজের জন্য হিসেবে ব্যবহৃত হবে। অনুগ্রহ করে নীচের নিয়মানুসারে আপনার একান্ত ব্যক্তিগত মূল্যবান মতামত দিয়ে পূরণ করে ফেরত পাঠালে ধন্য হব।

'নিয়মাবলী'

সংযুক্ত কাগজে বিভিন্ন মতামত সম্বলিত কতিপয় মনুবা দেওয়া হলো। সর্জনতার সাথে প্রশ্নগুলি পড়ুন ও আপনার মতামত চিহ্নিত করুন। উল্লিখিত ৫টি পর্যায়ের মধ্যে যে পর্যায়টিকে আপনি সজ্ঞার ভাবে বিশ্বাস করেন বা অনুমোদন করেন সে পর্যায়ের ঘরে একটি চিহ্ন দেবেন। নীচে একটি উদাহরণ দেওয়া হলো।

নং	মন্তব্য	সম্পূর্ণ সম্মত	সম্মত	অনিশ্চিত	অসম্মত	সম্পূর্ণ অসম্মত
	শিক্ষার্থীরা ধর্মীয় বিশ্বাসের ভিত্তিতে প্রকৃত ব্যবস্থা থাকা উচিত নয়।	✓				

এক্ষেত্রে উত্তর দাতা মনুব্যাটির সাথে সম্মত হয়েছেন বলে তিনি এর ঘরে ✓ চিহ্ন দিয়ে নিজ মত প্রকাশ করেছেন।

আপনি উত্তরদানে যত খুশি সময় নিতে পারেন। কিন্তু প্রতিটি উত্তর সর্জনতার সাথে পড়ে সর্বোত্তম উপায়ে জবাব দিতে হবে।

এ প্রশ্নমালাটিতে ৮২টি প্রশ্ন আছে।

নং	যশুকা	সম্পূর্ণ সম্ভব	সম্ভব	অনিশ্চিত	অসম্ভব	সম্পূর্ণ অসম্ভব
১।	'শিক্ষতা পোয়া বাসা ঠিক স্থানি'- এ ধরনের একটি ভাবনা গায়ই শিক্ষক কে অভিভূত করে ।					
২।	শিক্ষরা সমাজের সুরভিত কু ।					
৩।	শিক্ষরা সাধারণতঃ বাসা- বাদী মনোভাবের হয়ে ধাকে ।					
৪।	মনেক চুই-উজুই পার হয়ে জীবনের শেষ পালে এসে, একজন শিক্ষক নিজে কে সার্থক জীবনের অধি- কারী বলে মনে করেন ।					
৫।	শিক্ষকের জীবন যাপন বাদর্শরূপে অনুসরণ যোগ্য ।					
৬।	শিক্ষকের গুরুত্বপূর্ণ পদে নিয়োগ করলে সমাজের উন্নতি জ্ঞানিত হবে ।					
৭।	শিক্ষতা মানবতার সেবায় নিয়োজিত হওয়ার একটি উৎকৃষ্ট পন্থা ।					
৮।	শিক্ষতা জ্ঞানের এবং সংস্কৃতির বিস্তৃতিতে সহায়তা করে ।					
৯।	শিক্ষতা পোয়ার গুরুত্বপূর্ণতাই অধিকারী শিক্ষক ব্যারামপ্রিয় হয়ে ওঠেন ।					
১০।	সমাজের বাদর্শ ব্যক্তিরূপে শিক্ষক ছেলেমেয়েদের দ্বারা সমাদৃত ও অনুসৃত হওয়া উচিত।					

নং	মন্তব্য	সম্পূর্ণ সম্মত	সম্মত	অনিশ্চিত	অসম্মত	সম্পূর্ণ অসম্মত
১১।	কৃতি ছাত্রদের শিক্ষতা প্রদান করা উচিত, যদিও শিক্ষকতা বার্ষিক সম্মতায় নিশ্চয়তা দিতে পারে না।					
১২।	একজন শিক্ষক তার নিজস্ব চিত্তাধারাকে যথেষ্ট মূল্য বান মনে করেন এবং প্রায় শই তা অন্যের উপর চাপিয়ে দিতে চেষ্টা করেন।					
১৩।	শিক্ষকতা পোষায় বিয়োজিত কাজেরা সাধারণত চাপা কৃত্যের হয়ে থাকেন।					
১৪।	শিক্ষকতা পোষা প্রদান করা সমস্যা সৎকাল সাগরে সাঁপ দেওয়ারই নামান্তর।					
১৫।	যত প্রয়োজনেও শিক্ষকতা পোষায় পবিত্র বন্ধন ছিন্ন করা সজি কর্তন					
১৬।	শিক্ষক জীবনের পথ কুসংস্কার নয় জেনেও অনেক শিক্ষকতা কে পোষা হিসাবে বেছে নেন। যুগ জীবন সার্থক হবে, এই মনে করেন।					
১৭।	পরিপূর্ণ করলে শিক্ষকতা তাদের প্রচুর ছুটি ও অবসর সময়ে বার্ষিক লাভজনক কাজে লাগা- তে পারে।					
১৮।	বাদর্শ শিক্ষক দেবদূত হয়ে পৃথিবীতে বার্ষিকিত হন।					
১৯।	সমাজে এখন ধর্ম গুরুদের চেয়ে বাদর্শ শিক্ষকদের প্রয়োজন বেশী।					
২০।	শিক্ষকতা একটি বৈচিত্র্যময় একচেয়ে পোষা।					

নং	যন্ত্রব্য	সম্পূর্ণ সম্ভব	সম্ভব	অনিশ্চিত	অসম্ভব	সম্পূর্ণ অসম্ভব
২১।	“যে পারে সে কিছু দেয়, যে কিছু পারে না সে শিক্ষা দেয়”।					
২২।	অধিকাংশ শিক্ষকের মুখে একটা গুচ্ছ বেদনা বা নিরানন্দের ছাপ থাকে।					
২৩।	“শিশুদের জন্য ভাষাবানী” সুগায় গুল, শিক্ষতা এই সুগায় গুল অর্জন করার সুযোগ দেয়।					
২৪।	অধিকাংশ ক্ষেত্রে ব্যক্তির ভাষাই শিক্ষতা পোষা গ্রন্থের নিয়ামক।					
২৫।	শিক্ষকরা কর্মজীবনে স্বাধীন-নির্ভরশীল।					
২৬।	অধিকাংশ শিক্ষকই কঠোর পরিশ্রমী নয়।					
২৭।	ব্যক্তির উৎকৃষ্টতম গুণাবলী বিকাশে শিক্ষক উদ্বীগু হতে পারে।					
২৮।	একজন শিক্ষকের বক্তৃতা একজন রাজনীতি বিদের বক্তৃতার চেয়ে অধিক মূল্যবান।					
২৯।	প্রথা ও রাজনীতি বাকসু ধরে থাকার প্রবণতা শিক্ষক- দের মধ্যে খুব বেশী।					
৩০।	দীর্ঘকাল শিক্ষতা করার পর অধিকাংশ শিক্ষকের নিকট পোষকে দ্রাবিকর ও বিরক্তিকর মনে হয়।					

নং	মন্তব্য	সম্পূর্ণ সম্মত	সম্মত	অনিশ্চিত	অসম্মত	সম্পূর্ণ অসম্মত
৩১।	শিক্ষকরা অনেক ছুটি ও অবসর পায়, যা তাদের ব্যক্তিগত জীবনের সুযোগ দেয়।					
৩২।	কারাম-বায়োস ও বস্ত্র - জাতীয় সচেতনতা শিক্ষকের নিকট দূর সূত্র ছাড়া আর কিছু নয়।					
৩৩।	শিক্ষকের জীবন যাপনে একটি আকর্ষণীয় বৈশিষ্ট্য হয়েছে।					
৩৪।	সমাজে শিক্ষকরা রাজনীতি বিদদের ঊর্ধ্বে স্থান পাওয়ার উপযুক্ত।					
৩৫।	সমাজের সাথে ভাল মিলিয়ে চলেতে পারেন বলেই শিক্ষকরা সমাজের জীবন পায়।					
৩৬।	যাদের সক্ষমতা কম, তারাই শিক্ষকতাকে পেশা হিসাবে গ্রহণ করে।					
৩৭।	অধিকাংশ শিক্ষকই বুদ্ধিগত মনোভাবের হয়ে থাকে।					
৩৮।	শিক্ষকতা পেশা সৃজনশীল কর্মে নিয়োজিত হতে সহায়তা করে।					
৩৯।	সাধারণত মেধা সম্পন্ন ব্যক্তিবাই শিক্ষকতা পেশায় জানেন।					
৪০।	বেশী বৃত্তাগ লোকই শিক্ষকের গড়ন করে।					

নং	মন্তব্য	সম্পূর্ণ সম্মতি	সম্মত	অনিশ্চিত	অসম্মত	সম্পূর্ণ অসম্মত
৪১।	শিক্ষকতা জীবনে বিমুখ মনোভাব গড়ে তোলে ।					
৪২।	সমাজের উন্নতির জন্য শিক্ষকদের দায়-দায়িত্ব ধর্মগুরুর চেয়ে বেশী ।					
৪৩।	শিক্ষক প্রায়ই জীবনের বাস্তবতা হতে দূরে সরে কখনো রাগো বিচরণ করেন ।					
৪৪।	বাদল শিক্ষকের নিকট সত্যতা ও ন্যায়াবিস্ঠাই জীবনে মুখ্য ।					
৪৫।	বাদলের দিক থেকে ভার- সাম্যহীন ব্যক্তিরাই আজকাল শিক্ষকতায় আসছে, এ জন্য সমাজের উন্নতি বিঘ্নিত হচ্ছে ।					
৪৬।	শিক্ষকদের ব্যক্তিত্ব আকর্ষণীয় ।					
৪৭।	শিক্ষকদের আত্ম-সম্মান বোধ অনেক বেশী ।					
৪৮।	ছোটদের জন্য ভালবাসা ও ক্যাপ কাশনা ব্যক্তিকে শিক্ষকতা বৃত্তি গ্রহণে উদ্বুদ্ধ করে ।					
৪৯।	গ্রামিণ এবং পুরাজয় শিক্ষকরা উদার চিন্তে বরণ করে নিতে পারেন ।					
৫০।	শিক্ষকতার জন্য প্রয়োজন জ্ঞান ও বিবেচিত-প্রাণ মনোভাব ।					
৫১।	শিক্ষকরা সমাজে অবহেলিত বোধ করেন ।					

নং	বস্তু	সম্পূর্ণ সম্ভব	সম্ভব	অসম্ভব	অসম্ভব	সম্পূর্ণ অসম্ভব
৫২।	জাতি ও সমাজ গঠনের ভূমিকা কায় অন্য কোন পেশা শিক্ষকের চেয়ে বহুগুণে পাঠে না।					
৫৩।	অধিকাংশ শিক্ষকেরই জীবনে বৈবাহিক জীবন নেই।					
৫৪।	শিক্ষকরা মনে সমাজ তাদের অবস্থায়ন করছে।					
৫৫।	অন্য পেশার লোকদের তুলনায় শিক্ষকরা আপন সম্মানের শিক্ত করতে বেশী সুযোগ ও সময় পায়।					
৫৬।	শিক্ষকতা পেশায় নিয়োজিত ব্যক্তি গৃহ-শিক্ষকতা করে অর্থোপার্জন করতে পারে।					
৫৭।	শিক্ষকরা যথেষ্ট সহনশীল মনোভাব প্রদর্শন করে থাকেন।					
৫৮।	শিক্ষকরা মানুষের ক্যাশকারী কাজায় অগাধ বিশ্বাসী।					
৫৯।	প্রকৃত থাকতে পারে এমন দিনের সংখ্যা শিক্ষকের জীবনে নিজস্বই কম।					
৬০।	শিক্ষকতা একটি উচ্চ স্তরের সাংস্কৃতিক মর্যাদা সম্পন্ন পেশা।					
৬১।	অধিকাংশ শিক্ষকই নিজের উপর অস্বাভাবিক হস্তক্ষেপ করেন।					
৬২।	যে শিশুদের ভালবাসে সে শিক্ষকে পেশা হিসেবে বেছে নেয়।					

নং	মন্তব্য	সম্পূর্ণ সম্মত	অসম্মত	অনিশ্চিত	অসম্মত	সম্পূর্ণ অসম্মত
৬৩।	সমাজ ও মানবতার সেবায় শিক্ষকদের আরো অধিক অগ্রণী ভূমিকা নেওয়া প্রয়োজন।					
৬৪।	মৃত্যুর পরেও আদর্শ শিক্ষক ছাত্রদের মাঝে চিরদিন বৈঠে থাকেন - শিক্ষক বন্দর।					
৬৫।	সমাজে শিক্ষকরা অন্যান্য- দের জন্য অধিক বাস্তবিক ও কিশোরযোগ্য।					
৬৬।	সহ এবং সম্মানিত জীবন শিক্ষকতা পোষায় সত্য।					
৬৭।	শিক্ষকরা অভ্যন্তরীণ ঐশ্বর্য - গুণের অধিকারী।					
৬৮।	শিক্ষকরা যে-কোন পরি- কল্পনা বাস্তবায়নে নিজ ক্ষমতার উপরই বেশী গুরুত্ব দেন।					
৬৯।	শিক্ষকরা মনে করে সন্তানদের এমনভাবে শিক্ষিত করা উচিত যেন শিক্ষকতা পোষায় গুণিত জ্ঞানের অনুরাগ সৃষ্টি হয়।					
৭০।	অন্য চাকুরী দেয় নিরাপত্তার প্রতিশ্রুতি, শিক্ষকতা দেয় অনিশ্চিত ভবিষ্যতের ইচ্ছা।					
৭১।	সামাজিক পোষা গৃহে বঞ্চিত ব্যক্তিরা শিক্ষকতা পোষা গৃহ করে জ্ঞান ও শিক্ষার সম্ভব- হার করতে পারে।					
৭২।	বিদ্যালয়ের পবিত্র অঙ্গনে শিক্ষক নিজেকে রাজীবন উৎসর্গকৃত মনে করেন।					

নং	মন্তব্য	সম্পূর্ণ	অসম্পূর্ণ	অনিশ্চিত	অসম্পূর্ণ	সম্পূর্ণ অসম্পূর্ণ
৭৩।	শিক্ষক জীবন সমাজে অন্য জীবন।					
৭৪।	শিক্ষকতা পোয়ায় কঠোর পরিশ্রম নেই বলেই অনেকে শিক্ষকতার প্রতি বাকৃষ্টি হয়।					
৭৫।	শিক্ষকতা একটি মহান পেশা।					
৭৬।	শিক্ষকতা পেশা ছেলে- মেয়েদের সরল অন্তরে মুগ্ধ ও উচ্চ মনের চিত্রা করতে শিক্ষা দেয়।					
৭৭।	শিক্ষকরা জ্ঞান-বুদ্ধিতে অগুণের হজুয়ায় অনেকের মত মতকে প্রায়ই উপেক্ষা করেন।					
৭৮।	লক্ষ্যহীন ভাবে যারা লেখা- পড়া করে, তারা ই অবশেষে শিক্ষকতা পেশা গ্রহণ করে।					
৭৯।	শিক্ষকতা একটি সহজ বুঝি বিষয় সূপ শিক্ষিত ব্যক্তি- রাই শিক্ষকতাকে গ্রহণ করে।					
৮০।	মততা ও ন্যায়নিষ্ঠা শিক্ষ- কতাকে করে তোলে মহি- মান্বিত।					
৮১।	অধিকাংশ ক্ষেত্রে শিক্ষকরা জানেন মনোভাব খোলা- খুলি প্রকাশ করতে বিধা করেন।					
৮২।	শিক্ষকতা ব্যক্তিকে তার জীবনী পদ্ধতি হতে বঞ্চিত করে।					

APPENDIX D
INTEREST INVENTORY

নির্দেশাবলী

এই প্রণালীর মাধ্যমে বিভিন্ন বিষয়ের আপনার ব্যক্তিগত
গুরুত্বপূর্ণ যাচাই এর জন্য কিছু সংখ্যক উক্তি দেওয়া আছে। প্রতিটি
উক্তি মনোযোগ সহকারে পাঠ করুন এবং উল্লিখিত বক্তব্যটি বিবেচনা করে
যদি এর সঙ্গে আপনি একমত হন তাহলে উক্তির বরাবরে ডান পাশে 'হ্যাঁ'
শিরোনামযুক্ত কলামের নীচে টিক চিহ্ন ✓ দিন। আর যদি উক্তির
সহিত আপনি একমত না হন তাহলে 'না' শিরোনামের কলামের নীচে
টিক চিহ্ন দিন। যদি আপনি কোন উক্তির সত্য বা মিথ্যা সম্পর্কে স্থির
নিশ্চিত নন অথবা এ সম্পর্কে সন্দেহ থাকেন তবে উক্ত পক্ষে সমানুপাত রেখার
মধ্যবর্তী স্থানে কোন চিহ্ন দেবেন না। সব প্রশ্নের উত্তর দিতে চেষ্টা
করুন। প্রশ্নের সঙ্গে উত্তরের নাম্বারের সঠিকতা বজায় রাখুন।

এই প্রণালীতে ১৫৪টি প্রশ্ন আছে।

	হ্যাঁ	না
১। স্পেনী কহে উৎসাহ থাকি ।		
২। স্পেনী কহে এক্ষেয়েমি দূর করার জন্য ব্রসিকতা করি।		
৩। স্পেনী কহে পড়াতে আমার ভাল লাগে ।		
৪। ছাত্রদের সমস্যা সমাধানে আমি যথাসাধ্য চেষ্টা করি ।		
৫। স্পেনী কহে পড়াতে আমার বিরক্তি আসে ।		
৬। প্রশ্নোত্তর দ্বারা আমি ছাত্রদের সাহায্য করি ।		
৭। শূন্য উত্তর দ্বারা ছাত্রদের আমি প্রশংসা দ্বারা উৎসাহিত করি ।		
৮। অপারগ ছাত্রদের উত্তর দানে উৎসাহিত করি ।		
৯। ছাত্ররা উত্তর দিতে না পারলে আমার রাগের সৃষ্টি হয় ।		
১০। ছাত্ররা উত্তর দিতে না পারলে আমি দুঃখিত হই।		
১১। ছাত্ররা উত্তর দিতে না পারলে আমি তাদের জিরংকার করি ।		
১২। ছাত্ররা উত্তর দিতে না পারলে আমি তাদের দৈনিক শাস্তি দেই ।		
১৩। ছাত্ররা উত্তর দিতে না পারলে আমি কিছুই মনে করি না ।		
১৪। ছাত্রদের সমস্যা আমার বিরক্তি আনয়ন করে ।		
১৫। ছাত্ররা আমাকে ভয় করে ।		
১৬। ছাত্ররা আমাকে মুগ্ধ করে ।		
১৭। ছাত্ররা আমাকে ভালবাসে ।		

	হ্যাঁ	না
১৮। ছাত্ররা আমাকে গ্রাহ্য করে না ।		
১৯। ছাত্ররা আমাকে বিদ্রূপ করে ।		
২০। শ্রুতী কহে সমগ্র শ্রুতীর উপর আমি সজাগ দৃষ্টি রাখি ।		
২১। অন্য মনস্ক ছাত্রদের আমি পূর্য করে সজাগ রাখি ।		
২২। অন্য মনস্ক ছাত্রদের আমি শাস্তি দিয়া সজাগ রাখি বা মনোযোগী করি ।		
২৩। ছাত্রদেরকে নতুন কিছু দেখাতে পারলে আমার খুব আনন্দ হয় ।		
২৪। ছাত্রদের সাথে থাকতে আমার ভাল লাগে ।		
২৫। ছাত্রদের থেকে দূরে থাকতেই আমি পছন্দ করি ।		
২৬। ছাত্রদের থেকে কোন পুরা বাসলে তা শ্রুতী কহেই সমাধান করে দেই ।		
২৭। মেধাবী ছাত্রদেরকে আমার খুব পছন্দ হয় ।		
২৮। প্ৰচাদ পদ ছাত্রদেরকে বুঝা করি ।		
২৯। প্ৰচাদ পদ ছাত্রদেরকে ব্যক্তিগত সাহায্য দিয়ে থাকি ।		
৩০। বেশী পড়ুয়া ছাত্রদের আমি পছন্দ করি ।		
৩১। ছাত্রদের শারীরিক কুল আমি জিজ্ঞাসা করি ।		
৩২। ছাত্ররা কিছু বলতে চাইলে আমি তা মনোযোগ দিয়ে শ্রবণ করি ।		
৩৩। শ্রুতী কহে আমি বেত ব্যবহার করি ।		
৩৪। শ্রুতীর সকল ছাত্রদেরকে আমি সমান দৃষ্টিতে দেখি ।		

ক্রা	না
৩৫। কোন ছাত্র অনুগ্রহ হয়ে পড়লে আমি তার পরিচর্যা করি ।	
৩৬। কোন কোন ছাত্রের প্রতি আমার আগ্রহ বেশী ।	
৩৭। দুই ছাত্রদের শাস্তি দিতে আমি মানব পাই ।	
৩৮। দুই ছাত্রদের স্নেহ প্রদান দিয়ে সন্তোষের চেষ্টা করি ।	
৩৯। শ্রেণী কক্ষ পাঠ দানের পূর্বেই পাঠ দানের পরিকল্পনা করে যাই ।	
৪০। পাঠ দানের বিষয় পূর্বাংকই প্রস্তুত করে নেই ।	
৪১। শ্রেণী কক্ষে আমি যথাযথ শিক্ষাপ্রণ ব্যবহার করি ।	
৪২। শ্রেণী কক্ষে শিক্ষাপ্রণ ব্যবহার করতে আমার ইচ্ছা করে না ।	
৪৩। আমি নতুন নতুন পদ্ধতি ব্যবহার করার চেষ্টা করি ।	
৪৪। শ্রেণী কক্ষে ছাত্রদের উৎসাহ রাখার চেষ্টা করি ।	
৪৫। ছাত্রদের বিরক্তি হানলে ছোট ক্রম বলে আগ্রহ বাড়াই ।	
৪৬। কোন প্রশ্নের উত্তর জানা না থাকলে মনগড়া উত্তর শ্রেণী কক্ষে দেই না ।	
৪৭। শ্রেণী কক্ষে নিজের কোন ভুলটি যাতে না ঘটে সেদিকে লক্ষ রাখি ।	
৪৮। শ্রেণী কক্ষে আমার কোন ভুল হলে তা স্বীকার করি ।	
৪৯। পরিত্রাণ করে বুঝাবার জন্য যথেষ্ট চেষ্টা করি ।	

ক্রা	নং
৫০। পক্ষা ভ্রমার ব্যাপারে আমি ছাত্রদের খোলা খুলি প্রদান করি।	
৫১। ছাত্রদের মধ্যে কলহ বাধলে আমি তা দীক্ষা করে দেই।	
৫২। ছাত্রদের গির্জা যাত্রার সংগে মিশতে আমার মানব হয়।	
৫৩। ছাত্রদের প্রয়োজনে স্কুলী কক্ষের নিয়ম পরিবর্তন করি।	
৫৪। টাকা পাঠ্য উপার্জনের চেষ্টায় শিক্ষককে অধিক বেতী প্রদান করি।	
৫৫। ছাত্রদের কোন কথা দিলে তা রক্ষা করি।	
৫৬। স্কুলী কক্ষ কাছাকাছি ও অনন্যোন্মোদিত দেখলে তার কারণ বের করার চেষ্টা করি।	
৫৭। অতিক্রমতা থেকে অনেক কিছু দেখা যায় কিন্তু বিদ্যালয় থেকে তার চেষ্টাও বেতী দেখা যায়।	
৫৮। ছাত্রদের খেলাধুলা পরিচালনা করতে আমার ভাল লাগে।	
৫৯। ছাত্রদের বিজ্ঞান প্রতিযোগিতা সংগঠন করতে আমি উৎসাহ পাই।	
৬০। ছাত্রদের মধ্যে প্রতিযোগিতা সংগঠন করতে আমি পছন্দ করি।	
৬১। ছাত্রদের বনভ্রমণে নিয়ে যেতে আমার মানব হয়।	
৬২। কোন কোন শিক্ষক অন্য শিক্ষকদের চেষ্টায় স্কুলকে বেতী মানব দায়ক করে তোলেন।	
৬৩। স্কুল দুটি থাকলে আমার ভাল লাগে।	
৬৪। স্কুল দুটি থাকলে আমি বিরক্তি অনুভব করি।	

- ৬৫। প্তানোর চেয়ে অকিঙ্গান কাজই আমার পছন্দ ।
- ৬৬। অন্য চাকুরী পেলে শিকরতা আমি ছেড়ে দিতে চাই ।
- ৬৭। চাকুরীর খাজিরেই আমি প্তাতে চাই ।
- ৬৮। বোর্ডে আমি যত্ন করে লিখি ।
- ৬৯। আমার হাতের লেখা পরিষ্কার ।
- ৭০। প্রায়ই ছাত্রকে আমি নামে চিনি ।
- ৭১। বোর্ডে অঙ্কন করতে আমার বানন্দ হয় ।
- ৭২। বক্তৃতা প্রতিযোগিতায় বেশ গ্রহণ করতে আমার বানন্দ হয় ।
- ৭৩। গল্প লিখতে আমার বানন্দ হয় ।
- ৭৪। আমার নৃশিষ্ট কর্তার উপর নির্ভর করিনা বলে আমারদের এত সমস্যা ।
- ৭৫। কথায় উজ্জ্বল পাঞ্জা যাবে তা জানার চেয়ে উজ্জ্বল জানাটা দরকারী ।
- ৭৬। গান গাইতে আমি পছন্দ করি ।
- ৭৭। গল্প পড়তেই আমি বেশী পছন্দ করি ।
- ৭৮। কবিতা পড়তেই আমি বেশী পছন্দ করি ।
- ৭৯। অনেক ছাত্র ছাত্রী সবসময় তিনু থাকে ।
- ৮০। দুপা কক্ষে প্তানোর চাইতে নিজে প্তানুনা করতেই বেশী বানন্দ পাই ।
- ৮১। ছবি আঁকতে আমার ভাল লাগে ।

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৮২। ছবি ঝাঁক শেখাতে আমাদের ভাল লাগে ।		
৮৩। গুলি ফায়ার যারা নকল করে তাদের কল করা উচিত ।		
৮৪। টাকা গুলনা নষ্ট করার চেয়ে সময় নষ্ট করা বারান্দা ।		
৮৫। কত না হজ্জা পর্যন্ত আমাদের ভাল ধারণা হয় না ।		
৮৬। মাহু ধরতে আমাদের আনন্দ লাগে ।		
৮৭। ভ্রমণ করতে আমাদের ভাল লাগে ।		
৮৮। সুলী কলের চেয়ে জন সভায় বক্তৃতা দিতে আমি বেশী পছন্দ করি ।		
৮৯। ছাত্রদের সহিত হাতে নাতে কাজ করতে আমি পছন্দ করি ।		
৯০। অবসরসময় বিকেল কাঠানোর ছাত্রদের সর্বভোম উপায় হল একটু ভাল বই পড়া ।		
৯১। সেমিনার বা কোন আলোচনা সভায় যোগদান করতে আমি পছন্দ করি ।		
৯২। শোনার চেয়ে বলতেই আমার ভাল লাগে ।		
৯৩। আমাদের সমাজের উন্নতি করতে হলে আমাদের গৌরবময় অজিতকে জানতে হবে ।		
৯৪। কস কথা বলতেই আমি পছন্দ করি ।		
৯৫। বস্ত্র বাজারদের সহিত গল্প-গুজব করতে বেশী আনন্দ পাই ।		
৯৬। যা কিছু জানি সেটা অন্যের কাছে প্রকাশ করতে পারলেই আমি খুশী হই ।		

	হা	না
৯৭। কোন কাজ হাতে থাকলে শেষ করতে না পারা পৰ্বন্থ থাকি পাই না ।		
৯৮। বেঁচে থাকতে হলে সারাজীবন সংগ্রাম করে বাঁচতে হবে ।		
৯৯। ক্রোধে পুণ করলে বিপদে পড়ার সম্ভাবনা থাকে ।		
১০০। আমি কামুনের চেয়ে কেক বিস্কুটই পছন্দ করি ।		
১০১। আমি পোষাক পরিচেষ্টে সর্বদা ফিটকাট থাকতে পছন্দ করি ।		
১০২। শুলে যদি গুলি না থাকত তাহলে অধিকাংশ লোকই শুলকে আরো পছন্দ করত ।		
১০৩। আমি রংগী কাপড় চোপড় পছন্দ করি ।		
১০৪। প্রতিষ্ঠা করলেই জীবনে সাক্ষ্য বর্জন করা যায় ।		
১০৫। আমি হিংসা জীব জন্তু শিকার করতে ভাল বাসি ।		
১০৬। গাধা শিকার করতে পছন্দ করি ।		
১০৭। আমি সাতার কাটতে খুব আনন্দ পাই ।		
১০৮। আমি বাটকের চেয়ে সিনামাই বেশী পছন্দ করি ।		
১০৯। সাংস্কৃতিক জলসা আমার খুব ভাল লাগে ।		
১১০। শিক্ষতা আমার কাছে বৈচিত্র্যহীন এক ধৈর্যমি লাগে ।		
১১১। কঠোর পরিশ্রম করা আমার সহ্য হয় না ।		
১১২। আত্ম নির্ভরতাই আমার কাছে আনন্দ দায়ক ।		
১১৩। আত্মসম্মতির মধ্য আনন্দ পাই ।		

	ছা	না
১১৪। শিক্ষকতাকে গোটা হিসাবে গছন করি না ।		
১১৫। আমি মাছ ধরতে ভালবাসি ।		
১১৬। গরী কায় যারা নকল করে তাদের ফেল করা উচিত ।		
১১৭। আমার বৎসের বই খাতা দেখতে আমার ভাল লাগে ।		
১১৮। বিজ্ঞান কতক বৈজ্ঞানিক থাকলে আমার দম বড় হয়ে থাকে ।		
১১৯। কলেজের পার্টটাই ক্লাস আমি উপভোগ করি ।		
১২০। স্কুলের ছেলেদের খেলাধুলা দেখতে আমার খুব ভাল লাগে ।		
১২১। আমি ত্রিকোণ চতুর্ভুজ ভালবাসি ।		
১২২। আমি গাজী তে ভ্রমণ করতে আমার খুব ইচ্ছা হয় ।		
১২৩। অবসর সময়ে সমাজ সেবা মূলক কাজে যোগ দাই ।		
১২৪। গরী বের প্রতি সহানুভূতিশীল দৃষ্টি নিয়ে দেখি ।		
১২৫। বিদ্যালয়ের কাছে বাসা বাড়ি থাকা ভাল ।		
১২৬। শিকায় পূর্তি আমার জন্য আমারদের শিক্ষা ব্যবস্থা উপযুক্ত নয় ।		
১২৭। পাঠ্য বিষয় খুব সহজ করে ছাত্রদের বুঝাতে আমার অনুবিধা হয় ।		
১২৮। মূল ও সাদাসিধা জীবন যাপন আমার ভাল লাগে ।		
১২৯। শিক্ষক হিসেবে প্রশংসা অর্জন করতে আমার ইচ্ছা হয় ।		
১৩০। অবসর সময়ে শিক্ষামূলক পুস্তক রচনা আমি গছন করি ।		

ক্রা	না
১৩১। অবসর সময়ে শিক্ষা বিষয়ক পুস্তক পাঠ করি।	
১৩২। অসহায় গরিব ছাত্রদের লেখা পড়ার সাহায্য করতে চেষ্টা করি।	
১৩৩। শিক্ষা জাতির ভবিষ্যৎ জুড়ি অধিকাংশ কিশোরী স্কুল যেতে চায় না।	
১৩৪। শিক্ষা এমন একটি বিষয় যাহা ব্যক্তি করি কিছু করা সম্ভব নয়।	
১৩৫। ছেলে মেয়েদের সুপ্র শক্তির বিকাশ সাধন করা আমার পছন্দ।	
১৩৬। সমাজের যথাযথ প্রয়োজনে আসবে না এমন পাঠ্যসূচী আমার পছন্দ নয়।	
১৩৭। আমি শিক্ষার করা পছন্দ করি।	
১৩৮। আমি কাল্পনিক চলচ্চিত্র দেখি।	
১৩৯। আমি রাজনীতিক বক্তব্য ধর্মী চলচ্চিত্র দেখতে আমার ভাল লাগে।	
১৪০। আমি বাঁমা ধরা শিল্প কানুনের মধ্যে চলতে অনন্ত্যন্ত।	
১৪১। আমি বাস্তব ধর্মী চলচ্চিত্র পছন্দ করি।	
১৪২। আমি যে কোন পরীক্ষামূলক চলচ্চিত্র পছন্দ করি।	
১৪৩। ছাত্রদের আমি সুধীন চিন্তা ও সুধীন চলাফেরার পছন্দ করি।	
১৪৪। আমি বিজ্ঞানীর মত শৃঙ্খলাপূর্ণ সংজ্ঞানুসন্ধান পছন্দ করি।	
১৪৫। আমি ছেলে মেয়েদের অবাধ মেলামেলার ক্ষমতা দৃষ্টিতে গ্রহণ করতে পারি।	

- | | তা | না |
|------|--|----|
| ১৪৬। | আমি মনে করি জীবনে বিনোদনই মুখ্য । | |
| ১৪৭। | আমি মনে করি জীবনে আদর্শই মুখ্য । | |
| ১৪৮। | পরিষ্কার পরিচ্ছন্ন জীবন যাপন গুরু করি । | |
| ১৪৯। | চারু শিল্পের প্রতি আমার ভেদন কোন আকর্ষণ
নেই । | |
| ১৫০। | দেশের সংগঠনের জন্য সংগীত, নৃত্যগীত ইত্যাদির
সাময়িক বিলুপ্তি প্রয়োজন মনে করি । | |
| ১৫১। | আমার মতে জীবনে বেঁচে থাকাটাই প্রথম সত্য । | |
| ১৫২। | জীবন মানেই মৃত্যু কাজেই সংগ্রামী মনোভাব নিয়েই
জীবন যাপন করা প্রয়োজন । | |
| ১৫৩। | যে ব্যক্তি নীতিহীন নয় সে-ই বরণ্য । | |
| ১৫৪। | জীবনে সুখ-সম্পদের চেয়ে আদর্শ থাকতে থাকাটাই
মহত্বের লক্ষ্য । | |

APPENDIX E

**DATA ON THE MEASURES OF COGNITIVE VARIABLES, AFFECTIVE
VARIABLES (Independent) AND DEPENDENT VARIABLES**

Sl. No.	Scores on Independent Variables					Scores on Dependent Variables		
	Past Academic Achievement (in ten points)	Admission	Extrovert or Introvert	Attitude	Interest	Theory	Practical	Final Marks
	X1	X2	X3	X4	X5	X6	X7	X8
1.	3.33	52	Ex 11	34	86	51	55	49
2.	4.44	54	E 21	32	100	53	55	55
3.	4.44	56	E 13	40	98	56	58	63
4.	6.67	58	E 34	40	100	52	54	54
5.	5.00	50	E 11	58	120	53	58	60
6.	4.44	52	E 10	52	110	57	58	57
7.	4.44	51	E 20	54	115	50	57	53
8.	3.33	54	E 27	35	25	50	54	53
9.	4.44	51	E 16	32	20	47	50	41
10.	4.44	52	E 24	38	27	48	53	48
11.	4.44	46	E 34	38	99	50	56	55
12.	4.44	47	E 1	44	105	51	52	46
13.	6.67	47	E 31	40	88	54	57	51
14.	5.56	53	E 46	42	102	50	55	46
15.	5.56	51	E 18	54	134	51	60	63
16.	5.00	54	E 31	45	77	54	60	53
17.	4.44	53	E 27	38	68	44	50	46
18.	3.33	51	E 44	46	98	51	54	52
19.	5.55	59	E 25	52	27	49	54	50
20.	5.56	58	E 32	40	32	55	59	51
21.	4.44	52	E 30	38	50	50	55	53

Sl. No.	Scores on Independent Variables					Scores on Dependent Variables		
	Past Academic Achievement (in ten points) X1	Ad-mission X2	Ex-trovert or In-trovert X3	Attitude X4	Inter-est X5	Theo-ry X6	Prac-tice X7	Final Marks X8
22.	4.17	44	E 33	24	56	49	54	49
23.	5.00	57	E 38	44	79	50	59	55
24.	5.00	50	E 28	44	79	50	59	55
25.	5.00	53	E 18	30	64	54	57	56
26.	4.44	48	E 25	35	102	52	56	54
27.	4.44	52	E 11	25	64	51	55	54
28.	4.17	56	E 22	36	39	53	56	54
29.	5.83	58	E 4	48	66	55	56	54
30.	5.00	57	E 35	28	47	53	55	59
31.	6.67	49	E 28	49	102	55	58	56
32.	4.17	54	E 12	24	48	52	55	56
33.	4.44	53	E 12	15	48	50	52	40
34.	4.17	52	E 18	54	90	52	54	56
35.	4.44	34	E 23	26	52	49	55	56
36.	5.00	50	E 15	60	71	50	57	54
37.	3.33	47	E 44	62	110	50	55	55
38.	4.44	54	E 34	37	96	50	55	54
39.	4.44	52	E 26	38	89	52	56	55
40.	3.33	44	E 37	61	124	48	56	58
41.	3.33	42	E 14	51	102	49	54	55
42.	4.17	43	E 27	50	82	48	56	55

Sl. No.	Scores on Independent Variables					Scores on Dependent Variables		
	Past Academic Achievement (in ten points)	Ad-mission	Ex-trovert or In-trovert	Attitude	Inter-est	Theo-ry	Prac-tice	Final Marks
	X1	X2	X3	X4	X5	X4	X7	X8
43.	5.00	52	E 38	51	102	54	58	58
44.	5.00	54	E 32	35	49	48	51	56
45.	4.17	49	E 8	50	122	52	55	58
46.	3.33	45	E 10	52	100	50	53	56
47.	5.56	55	E 36	31	88	50	55	52
48.	3.33	42	E 25	48	102	50	53	53
49.	3.33	42	E 26	55	107	50	54	55
50.	3.33	41	E 19	62	98	50	54	56
51.	5.56	50	E 20	63	125	55	58	58
52.	4.44	55	E 38	21	60	49	59	49
53.	5.56	49	E 24	53	127	54	58	58
54.	3.33	42	E 10	51	120	48	52	55
55.	5.00	52	E 10	50	105	58	58	57
56.	3.33	41	E 30	48	92	50	52	53
57.	4.17	54	E 23	48	78	50	55	54
58.	4.44	43	E 20	50	100	50	57	56
59.	6.67	58	E 36	48	92	52	55	57
60.	5.00	51	E 30	100	100	56	59	58
61.	4.44	53	E 15	29	36	56	58	48
62.	4.44	45	E 28	50	118	51	53	55
63.	4.44	48	E 25	48	97	50	55	53

Sl. No.	Scores on Independent Variables					Scores on Dependent Variables		
	Past Academic Achievement	Admission	Ex-trovert or In-trovert	Attitude	Interest	Theory	Practice	Final Marks
	(in ten points) X1		X3					
	X1	X2	X3	X4	X5	X6	X7	X8
64.	5.56	56	E 34	20	24	52	55	53
65.	4.44	50	E 25	24	55	52	54	53
66.	4.17	52	E 28	25	66	50	53	55
67.	3.33	46	E 15	21	70	49	53	49
68.	4.17	48	E 6	20	59	52	54	49
69.	4.44	50	E 25	26	86	50	56	54
70.	4.44	40	E 16	35	57	52	57	48
71.	4.44	40	E 16	35	57	52	57	48
72.	4.44	50	E 32	32	65	52	58	55
73.	5.56	51	E 36	41	70	54	56	56
74.	5.00	44	E 33	59	78	54	58	57
75.	4.44	50	E 20	21	34	50	53	46
76.	4.44	51	E 14	35	90	52	58	57
77.	5.83	54	E 30	30	98	53	57	57
78.	4.44	50	E 12	25	39	50	54	49
79.	4.44	51	E 9	24	38	51	51	49
80.	4.44	52	E 26	25	27	52	54	49
81.	5.00	51	E 26	36	44	52	54	52
82.	4.44	41	E 32	54	79	50	56	53
83.	5.56	55	E 33	30	58	52	56	51
84.	7.78	56	E 9	38	38	52	55	54

Sl. No.	Scores on Independent Variables					Scores on Dependent Variables		
	Past Academic Achievement	Ad-mission	Ex-trovert or In-trovert	Attitude	Inter-est	Theo-ry	Prac-tice	Final Marks
	(in ten points) X1		X3	X4	X5	X6	X7	X8
85.	5.56	54	E 31	30	45	52	58	54
86.	5.56	56	E 3	25	40	50	57	51
87.	4.44	57	E 24	30	71	58	61	57
88.	5.56	47	E 14	52	99	54	56	58
89.	3.33	45	E 10	55	101	48	53	55
90.	4.44	46	E 17	55	100	51	56	55
91.	4.44	45	E 21	50	99	50	56	51
92.	3.33	41	E 11	50	99	49	54	50
93.	3.33	44	E 5	54	98	50	54	52
94.	3.33	44	E 14	56	96	50	58	52
95.	4.44	43	E 17	53	92	50	55	52
96.	5.56	45	E 20	48	94	50	56	51
97.	3.33	55	E 10	24	32	48	52	49
98.	4.44	45	E 30	55	82	52	57	54
99.	4.17	47	E 30	45	85	50	54	54
100.	5.56	56	E 35	25	28	51	54	52
101.	4.17	45	E 54	52	98	52	54	54
102.	6.67	56	E 3	29	27	54	56	54
103.	4.44	43	E 28	50	89	54	58	54
104.	5.56	45	E 6	54	91	53	54	54
105.	5.00	52	E 21	37	89	54	57	55

Scores on Independent Variables						Scores on Dependent Variables		
Sl. No.	Past Academic Achievement (in ten points)	Ad-mission	Ex-trovert or In-trovert	Attitude	Inter-est	Theo-ry	Prac-tice	Final Marks
	X1	X2	X3	X4	X5	X6	X7	X8
106.	5.83	54	E 36	29	72	55	58	56
107.	4.44	46	E 34	43	104	50	55	51
108.	3.33	43	E 24	53	015	49	53	51
109.	4.17	45	E 26	56	106	49	54	51
110.	5.00	46	E 2	62	110	54	56	55
111.	5.83	47	E 9	57	110	55	58	55
112.	5.56	50	E 24	69	121	50	60	61
113.	5.56	46	E 20	48	108	51	55	52
114.	5.56	48	E 14	45	105	52	58	53
115.	6.67	50	E 30	65	118	56	59	60
116.	4.44	52	E 14	25	68	52	54	52
117.	4.44	52	E 32	21	28	51	58	52
118.	5.00	49	E 49	36	101	50	54	53
119.	3.33	51	E 7	42	90	51	57	56
120.	4.44	52	E 24	28	67	54	56	54
121.	6.67	54	E 15	30	50	45	50	51
122.	4.44	52	E 20	28	49	50	52	52
123.	5.00	50	E 67	59	120	53	58	57
124.	4.44	50	E 4	60	121	50	58	58
125.	5.83	55	E 2	55	109	54	58	58
126.	6.67	54	E 12	57	102	58	56	57

Sl. No.	Scores on Independent Variables					Scores on Dependent Variables		
	Past Academic Achievement (in ten points) X1	Ad-mission X2	Ex-trovert or In-trovert X3	Attitude X4	Inter-est X5	Theo-ry X6	Prac-tice X7	Final Marks X8
127.	4.44	52	E 3	23	50	52	53	51
128.	4.44	46	E 16	68	87	53	54	53
129.	5.56	50	E 16	58	89	57	53	55
130.	4.44	49	E 16	58	99	54	57	55
131.	5.56	52	E 34	28	43	52	58	56
132.	3.33	45	E 34	59	110	53	57	54
133.	4.44	53	Ex15	23	45	44	50	52
134.	5.83	55	E 47	35	82	57	57	58
135.	4.44	45	E 42	50	90	53	55	53
136.	5.56	54	E 25	23	37	55	58	54
137.	3.33	51	E 33	31	60	49	52	51
138.	4.44	55	E 37	48	123	62	60	60
139.	4.44	43	E 16	57	126	55	52	57
140.	3.33	53	E 42	29	60	45	51	56
141.	5.83	50	E 28	44	92	56	51	54
142.	5.56	53	E 28	32	66	54	54	56
143.	3.33	42	E 24	54	102	50	55	53
144.	5.56	54	E 28	29	62	54	55	58
145.	7.5	52	E 26	38	82	56	54	58
146.	5.56	52	E 41	35	58	52	58	57
147.	3.33	41	E 12	43	78	53	56	50

Sl. No.	Scores on Independent Variables					Scores on Dependent Variables		
	Past Academic Achievement	Ad-mission	Ex-trovert or In-trovert	Attitude	Inter-est	Theo-ry	Prac-tice	Final Marks
	(in ten points) X1		X3	X4	X5	X6	X7	X8
148.	8.38	55	E 40	34	78	58	55	59
149.	3.33	41	E 32	69	118	56	56	56
150.	4.16	42	E 12	62	100	50	54	52
151.	5.83	50	E 40	32	58	49	56	52
152.	4.44	50	E 21	34	56	56	52	53
153.	4.44	42	E 15	45	78	52	52	52
154.	4.44	45	E 40	56	81	54	56	59
155.	6.67	57	E 27	28	42	61	58	57
156.	4.44	53	E 15	30	48	53	56	56
157.	5.56	55	E 25	25	38	57	53	53
158.	5.00	56	E 25	35	40	54	58	58
159.	3.33	50	Ex30	37	45	51	56	54
160.	5.00	55	Ex29	59	112	62	60	61
161.	5.56	56	Ex24	29	49	51	54	57
162.	4.44	43	E 28	52	98	50	54	54
163.	6.67	55	Ex12	36	40	55	56	56
164.	5.56	52	E 22	28	37	52	56	50
165.	6.67	53	E 3	25	36	53	56	50
166.	4.44	50	E 30	99	124	57	62	62
167.	5.00	49	Ex21	20	44	43	49	42
168.	4.44	48	Ex31	39	61	52	55	51

Sl. No.	Scores on Independent Variables					Scores on Dependent Variables		
	Past Academic Achievement	Ad-	Ex-trovert	Att-	Inter-	Theo-	Prac-	Final
	(in ten points) X1	mission X2	In-trovert X3	titude X4	est X5	ry X6	tice X7	Marks X8
169.	6.67	52	E 25	58	35	57	60	61
170.	5.83	54	I.9	24	66	54	54	53
171.	5.00	50	I-10	55	104	58	53	64
172.	4.44	54	I-10	30	32	52	50	50
173.	4.44	54	I-8	27	54	54	52	54
174.	5.00	52	I-3	23	40	56	53	53
175.	4.44	53	I-9	38	82	56	52	57
176.	4.44	53	I-3	32	86	55	50	57
177.	4.17	52	I-4	25	78	58	54	54
178.	4.44	52	I-2	30	46	55	54	54
179.	5.56	50	I-7	42	82	57	55	55
180.	4.17	51	I-7	43	88	54	50	55
181.	5.00	54	I-7	32	79	55	53	57
182.	4.17	48	I-15	31	75	50	50	52
183.	4.44	55	I-2	22	30	52	51	51
184.	5.83	46	I-22	52	83	57	53	57
185.	5.83	55	I-6	32	56	57	54	57
186.	5.00	53	I-7	35	52	57	52	55
187.	5.56	55	I-1	15	22	53	51	53
188.	5.83	50	I-2	60	120	63	58	61
189.	4.17	51	I-9	54	89	58	54	59

Sl. No.	Scores on Independent Variables					Scores on Dependent Variables		
	Past Academic Achievement	Ad-mission	Ex-trovert or In-trovert	Attitude	Inter-est	Theo-ry	Prac-tice	Final Marks
	(in ten points) X1		X3	X4	X5	X6	X7	X8
190.	5.83	50	I-2	56	100	59	53	58
191.	5.56	52	I-18	53	98	59	57	58
192.	5.00	44	I-10	60	115	54	52	60
193.	6.67	56	I-15	21	38	54	58	55
194.	4.44	53	I-16	25	42	54	52	54.2
195.	5.56	47	I-27	52	102	56	55	56
196.	5.00	52	I-2	49	115	56	52	56
197.	5.56	51	I-2	50	112	56	53	57
198.	5.56	51	I-20	54	125	57	54	60
199.	4.44	53	I-3	38	98	56	53	58
200.	5.56	51	I-14	37	69	54	56	52
201.	4.44	54	I-14	24	43	53	53	53
202.	4.44	51	I-14	24	37	52	51	50
203.	4.44	46	I-15	34	90	50	47	54

APPENDIX F

**LETTER TO HEADMASTER/ASSISTANT HEADMASTER AND ASSISTANT
TEACHERS FOR THEIR OPINION REGARDING PERSONALITY,
INTEREST, ATTITUDE AND SUCCESS IN TEACHING**

জনাব প্রধান শিক্ষক/সহকারী প্রধান শিক্ষক,

সবিনয় নিবেদন করছি যে আমার ওকটর-অব-ফিলসফি -ইন-
এডুকেশন গবেষণা প্রকল্পের জন্য আপনার সক্রিয় সহায়তা ও সহযোগিতা
প্রয়োজন। এই প্রকল্পের জন্য আপনার বিদ্যালয়ের কর্মরত যে শিক্ষকবৃন্দ
চাকা, কুমিল্লা ও ময়মনসিংহ শিক্ষা প্রশিক্ষণ মহাবিদ্যালয় হতে বি.এড. ডিগ্রী
লাভ করেছেন তাদের সম্পর্কে কিছু তথ্য সংগ্রহ করতে হবে। এবং এদের
সম্পর্কে তথ্যবাহ্যিক হিসেবে আপনার সুচিন্তিত মতামত প্রদানের জন্য সংশ্লিষ্ট
প্ৰদত্ত রেটিং স্কেল (Rating Scale) ব্যবহার করে উক্ত শিক্ষকবৃন্দের
শিক্ষক হিসাবে কার্যক্রম এর মূল্যায়ন করবেন। এছাড়াও উল্লেখিত শিক্ষক-
বৃন্দকে আপনার মাধ্যমে অনুরোধ জানাচ্ছি যে, তারা যেন আমার জিটি
অজীকা ১/১ মনোভাব অজীকা ১/২ ব্যক্তিত্ব অজীকা ১/৩ অনুরাগ অজীকা
গ্রহণ করে যথাযথ উক্ত প্রদান করেন। আমি আপনাকে এবং আপনার
মাধ্যমে সম্মানিত সহকর্মী বৃন্দকে এই কৃতজ্ঞতা প্রদান করছি যে, প্ৰদত্ত সকল
তথ্য সম্পূর্ণরূপে গোপন রাখা হবে এবং ব্যক্তি বিশেষের কোন তথ্যই অন্যকে
জ্ঞাপন করা হবে না। শিক্ষা প্রশিক্ষণ মহাবিদ্যালয় এর শিক্ষাক্রম উন্নয়ন
হচ্ছে আপনার এই গবেষণা প্রকল্পের প্রধান লক্ষ্য। আমি আশা করছি যে
প্রার্থী ও সহযোগিতা লাভ করব।

বিনীত

১ মাগিহা খাতুন ১

ওকটর-অব-ফিলসফি -ইন-এডুকেশন ডিগ্রী প্রার্থী
শিক্ষা ও গবেষণা ইনস্টিটিউট।

APPENDIX G

**SUMMARISED DATA ON RESPONSES OF TEACHERS OF HIGH SCHOOLS
WITH THE B. ED. DEGREE, HEADMASTERS AND ASSISTANT
HEADMASTERS OF THESE HIGH SCHOOLS**

DATA

Sl. No. of respondent	Per-sonality (Scale) X1	Att-itude (Scale) X2	In-ter-est (Scale) X3	HM.s Rating on success in teaching X4	HM.s Rating on inter-est in teaching X5	HM.s Rating on Atti-tude to-wards teach-ing X6	HM.s Rating on per-sonality Intro-verl of Ex-tro-verl X7	A.HM.s Rating on succ-ess in teach-ing X8	A.HM.s Rating on inter-est in teach-ing X9	A.HM.s Rating on Atti-tude to-wards teach-ing X10	A.HMs Rating on per-sonality Intro-verl of Ex-tro-verl X11	Class in B.Ed. degree X12
1.	15	49	60	4	4	4	4	3	2	4	4	3
2.	3	33	50	2	2	4	3	4	4	3	2	2
3.	4	39	56	2	3	4	1	2	2	4	3	1
4.	26	45	54	3	3	4	3	3	3	4	3	3
5.	7	32	57	3	2	4	3	3	3	4	4	2
6.	2	27	46	1	2	2	2	3	3	2	3	2
7.	15	45	56	3	3	4	3	4	3	4	3	2
8.	6	47	85	3	4	4	4	4	4	4	4	2
9.	14	48	50	4	3	4	3	4	2	4	3	2
10.	17	9	42	2	2	3	2	3	3	2	3	1

DATA

Sl. No. of respondent	Per-sonality (Scale) X1	Att-itude (Scale) X2	In-ter-est (Scale) X3	HM.s Rating on suc-cess in teach-ing X4	HM.s Rating on inter-est in teach-ing X5	HM.s Rating on Atti-tude to-wards teach-ing X6	HM.s Rating on per-sonality Intro-verl of Extro-verl X7	A.HM.s Rating on suc-cess in teach-ing X8	A.HM.s Rating on inter-est in teach-ing X9	A.HM.s Rating on Atti-tude to-wards teach-ing X10	A.HM.s Rating on per-sonality Intro-verl of Extro-verl X11	Class in BEd. degree X12
11.	16	53	80	4	4	4	4	4	4	4	4	2
12.	13	39	69	4	4	4	3	3	4	4	4	2
13.	14	41	65	3	3	4	3	1	1	3	4	3
14.	20	42	48	3	3	4	3	3	3	4	3	1
15.	15	50	54	4	4	4	4	4	4	4	3	3
16.	17	53	40	4	4	4	4	4	4	4	3	2
17.	16	52	38	3	4	4	4	4	4	4	3	3
18.	18	49	50	3	4	4	4	3	3	4	3	3
19.	2	26	44	3	3	4	3	4	4	4	4	3
20.	28	42	66	3	3	4	3	3	2	2	3	1

DATA

Sl. No. of respondent	Per-sonality (Scale) X1	Att-itude (Scale) X2	In-ter-est (Scale) X3	HM.s. Rating on success in teaching X4	HM.s. Rating on interest in teaching X5	HM.s. Rating on Atti-tude towards teaching X6	HM.s. Rating on per-sonality Intro-vert of Ex-vert X7	A.HM.s Rating on suc-cess in teaching X8	A.HM.s Rating on inter-est in teaching X9	A.HM.s Rating on Atti-tude towards teaching X10	A?HM.s Rating on per-sonality Intro-vert of Ex-vert X11	Class in B.Ed. degree X12
21.	12	39	50	3	3	4	3	3	3	2	3	3
22.	9	38	48	3	3	4	3	3	2	4	4	3
23.	7	48	56	3	4	4	3	3	3	4	4	3
24.	15	54	48	3	4	4	4	3	3	4	3	2
25.	3	38	55	4	3	4	2	4	1	3	3	2
26.	7	32	52	3	4	4	3	4	4	4	4	0
27.	14	65	52	3	3	4	4	3	3	4	4	0
28.	4	47	48	3	3	4	3	4	3	4	4	0
29.	9	48	59	3	3	4	3	4	4	4	4	0
30.	12	31	56	3	3	4	4	3	3	4	4	0

DATA

Sl. No. of respondents	Per-sonality (Scale) X1	Att-itude (Scale) X2	In-ter-est (Scale) X3	HM.s Rating on success in teach-ing X4	HM.s Rating on inter-est in teach-ing X5	HM.s Rating on Atti-tude to-wards teach-ing X6	HM.s Rating on perso-nality Intro-vert X7	A.HM.s Rating on suc-cess in teach-ing X8	A.HM.s Rating on inter-est in teach-ing X9	A.HM.s Rating on Atti-tude to-wards teach-ing X10	A.HM.s Rating on perso-nality Intro-vert X11	Class B.Ed. degree X12
31.	31	27	49	3	2	2	3	3	3	4	4	0
32.	3	53	55	3	3	4	3	3	3	3	2	2
33.	5	49	49	4	3	4	3	3	3	3	2	1
34.	2	51	45	3	3	4	3	3	3	3	2	1
35.	14	61	52	4	4	3	4	3	3	4	3	2
36.	16	59	74	3	3	4	3	3	4	4	2	2
37.	17	40	18	3	3	4	3	3	4	3	2	2
38.	26	42	40	3	3	4	4	3	4	3	2	2
39.	7	26	18	3	3	4	3	3	4	4	2	2
40.	27	45	50	3	4	4	4	3	4	4	2	2

DATA

Sl. No. of respondents	Per-sonality (Scale) X1	Att-itude (Scale) X2	Int-er-est (Scale) X3	HM.s Rating on success in teach-ing X4	HM.s Rating on inter-teach-ing X5	HM.s Rating Atti-tude towards teach-ing X6	HM.s Rating on per-sonality Intro-verl X7	A, HM.s Rating on succ-ess in teach-ing X8	A, HM.s Rating on inter-teach-ing X9	A, HM.s Rating Atti-tude inwards teach-ing X10	A, HM.s Rating on per-sonality Intro-verl X11	Class in B.Ed. degree X12
41.	4	39	112	4	4	4	2	3	4	4	3	1
42.	20	38	72	3	2	4	4	3	4	4	3	1
43.	1	41	60	2	3	4	3	3	4	4	2	1
44.	8	48	74	3	3	4	3	3	3	4	2	2
45.	1	38	24	1	3	4	3	3	3	4	2	2
46.	9	32	76	3	3	4	3	2	3	4	2	2
47.	7	47	52	3	3	4	3	3	3	4	3	2
48.	4	27	52	3	3	4	4	3	4	4	4	2
49.	8	42	52	4	4	4	4	3	3	4	4	2
50.	13	53	82	3	4	4	4	3	3	4	4	2

DATA

Sl. No. of respondent	Per-sonality (Scale) X1	Att-itude (Scale) X2	In-ter-est (Scale) X3	HM.s Rating on suc-cess in teach-ing X4	HM.s Rating on inter-est in teach-ing X5	HM.s Rating on Atti-tude to-wards teach-ing X6	HM.s Rating on perso-nality Intro-vert X7	A.HM.s Rating on suc-cess in teach-ing X8	A.HM.s Rating on inter-est in teach-ing X9	A.HM.s Rating on Atti-tude to-wards teach-ing X10	A.HM.s Rating on perso-nality Intro-vert X11	Class in B.Ed. degree X12
51.	5	58	56	3	4	4	3	3	3	4	4	2
52.	2	73	48	3	3	4	3	3	3	4	4	2
53.	17	57	70	3	2	4	4	3	4	4	3	2
54.	15	87	96	3	3	4	3	3	3	4	4	3
55.	9	31	70	2	2	4	4	3	4	4	3	2
56.	14	45	42	4	4	4	3	3	4	4	3	3
57.	12	47	68	3	2	4	4	3	4	4	3	2
58.	4	53	78	3	3	4	3	3	3	4	3	3
59.	9	48	76	3	3	4	3	3	3	4	3	3
60.	16	40	40	3	2	4	4					2

DATA

Sl. No.	Per-son-ty (Sca-ble)	Att-itude (Sca-ble)	In-ter-est (Sca-ble)	HM M.s Rating on suc-cess (in teach-ing)	HM.s Rating on inter-est in teach-ing	HM.s Rating on Atti-tude to-wards teach-ing	HM.s Rating on per-son-ality Intro-vert	A.HM.s Rating on suc-cess (in teach-ing)	A.HM.s Rating on inter-est in teach-ing	A.HM.s Rating on Atti-tude to-wards teach-ing	A.HM.s Rating on per-son-ality Intro-vert	Class in B.Ed. degree
	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12
61.	17	42	48	3	3	4	4					2
62.	26	49	58	4	4	4	4					2
63.	4	38	42	3	3	4	4					1
64.	20	41	60	3	3	4	4					3
65.	1	39	42	3	3	4	4					3
66.	6	38	46	2	2	4	4					2
67.	9	327	43	23	23	44	43					2
68.	17	37	48	3	3	4	4					2
69.	9	31	42	3	3	4	4					3
70.	14	45	58	3	3	4	4					2

DATA

Sl. No. of respondent	Per-sonality (Scale) X1	Att-itude (Scale) X2	In-ter-test (Scale) X3	HM.s Rating on success in teaching X4	HM.s Rating on inter-teaching X5	HM.s Rating on Atti-tude towards teaching X6	HM.s Rating on perso-nality Intro-verl of Ex-tro-verl X7	A.HM.s Rating on succ-ess in teach-ing X8	A.HM.s Rating on inter-test in wards teach-ing X9	A.HM.s Rating on Atti-tude towards teach-ing X10	A.HM.s Rating on perso-nality Intro-verl of Ex-tro-verl X11	Class in B.Ed. (degree) X12
71.	12	47	58	2	3	4	4					2
72.	4	48	47	2	2	4	4					2
73.	17	47	52	3	3	4	4					2
74.	14	41	54	3	3	4	4					3
75.	3	49	55	3	3	4	4					1
76.	2	53	59	4	3	4	4					2
77.	5	49	55	3	3	4	4					2
78.	16	49	54	2	3	4	4					2
79.	15	57	48	2	2	4	4					1
80.	6	54	74	3	4	4	3	2	3	2	3	1

DATA

Sl. No.	Per-son-ity (Sca- le) X1	Att-itu- de (Sca- le) X2	In-ter- est (Sca- le) X3	HM.s Rating on succ- ess in teach- ing X4	HM.s Rating on inter- est in teach- ing X5	HM.s Rating on Att- itude to- wards teach- ing X6	HM.s Rating on per- son- ality Intro- verl of Ex- tro- verl X7	A.HM.s Rating on succ- ess in teach- ing X8	A.HM.s Rating on inter- est in teach- ing X9	A.HM.s Rating on Att- itude to- wards teach- ing X10	A.HM.s Rating on per- son- ality Intro- verl of Ex- tro- verl X11	Class in (B.Ed. degree) X12
81.	27	49	58	4	4	4	4	1	2	1	2	1
82.	70	104	55	3	2	4	4	3	4	4	4	2
83.	22	102	42	3	4	4	4	4	4	3	3	2
84.	34	88	40	2	3	4	4	3	3	2	4	2
85.	18	105	25	3	3	3	3	4	4	4	4	2
86.	40	88	21	3	3	3	4	3	3	1	3	2
87.	44	100	14	3	3	2	4	1	4	2	2	1
88.	30	92	20	2	2	2	4	2	3	2	3	1
89.	39	65	16	3	3	3	3	2	2	1	3	1
90.	36	78	10	2	1	2	4	1	1	2	2	2

DATA

Sl. No. of respondent	Per-sonality (Scale) X1	Att-itude (Scale) X2	In-ter-est (Scale) X3	HM.s Rating on success in teaching X4	HM.s Rating on inter-est in teaching X5	HM.s Rating on Atti-tude towards teach-ing X6	HM.s Rating on perso-nality Intro-verl of Ex-tro-verl X7	A.HM.s Rating on Succ-ess in teach-ing X8	A.HM.s Rating on inter-est in teach-ing X9	A.HM.s Rating on Atti-tude towards teach-ing X10	A.HM.s Rating on perso-nality Intro-verl of Ex-tro-verl X11	Class in B.Ed. degree X12
91.	28	98	41	3	3	4	4	3	2	2	2	1
92.	37	25	30	3	3	1	4	4	2	3	3	2
93.	38	105	47	4	3	4	4	3	4	2	4	2
94.	17	27	25	1	2	1	4	2	4	2	2	1
95.	28	49	45	3	3	4	2	1	2	1	2	2
96.	40	40	30	3	3	3	4	2	2	2	1	2
97.	31	39	24	3	3	2	3	1	2	2	2	2
98.	15	53	40	4	4	4	4	3	2	4	4	2
99.	3	33	50	3	4	4	3	4	4	4	4	2
100.	14	49	26	4	4	4	3	3	2	4	3	2

DATA

Sl. No. of respondent	Per-sonality (Scale) X1	Att-itude (Scale) X2	In-ter-est (Scale) X3	HM.s Rating on success in teaching X4	HM.s Rating on inter-teaching X5	HM.s Rating on Atti-tude towards teach-ing X6	HM.s Rating on perso-nality Intro-vert of Ex-vert X7	HM.s Rating on succ-ess in teach-ing X8	HM.s Rating on inter-teach-ing X9	HM.s Rating on Atti-tude towards teach-ing X10	HM.s Rating on perso-nality Intro-vert of Ex-vert X11	Class (B.Ed. degree) X12
101.	26	42	54	4	4	4	4	3	3	4	3	1
102.	7	26	17	3	4	4	3	3	3	4	4	2
103.	27	27	42	4	4	3	3	3	3	4	3	2
104.	15	39	52	4	4	4	4	4	3	4	3	2
105.	6	40	45	3	4	4	2	4	4	4	4	2
106.	14	45	26	4	4	4	3	4	2	4	3	1
107.	17	39	44	3	4	4	3	4	3	4	3	2
108.	10	27	24	3	3	3	2	1	2	2	2	2
109.	7	32	25	3	3	4	2	2	2	2	2	1
110.	4	47	48	3	4	4	2	2	1	1	2	1

DATA

Sl. No. of respondent	Per-sonality (Scale) X1	Att-itude (Scale) X2	In-ter-est (Scale) X3	HM.s Rating on suc-cess in teach-ing X4	HM.s Rating on inter-est in teach-ing X5	HM.s Rating on Atti-tude to-wards teach-ing X6	HM.s Rating on per-sonality Intro-vert of Ex-vert X7	A.HM.s Rating on suc-cess in teach-ing X8	A.HM.s Rating on inter-est in teach-ing X9	A.HM.s Rating on Atti-tude to-wards teach-ing X10	A.HM.s Rating on per-sonality Intro-vert of Ex-vert X11	Class in B.Ed. degree X12
111.	13	38	50	3	3	4	3	3	4	3	3	3
112.	15	29	45	3	3	4	3	3	3	4	3	2
113.	22	25	35	4	3	4	3	3	3	4	3	2
114.	24	36	42	4	3	3	3	2	2	2	4	2
115.	6	35	54	3	3	4	3	3	4	4	2	2
116.	7	40	50	3	3	4	3	3	4	4	3	2
117.	16	42	44	3	3	4	4	3	4	4	3	2
118.	17	26	29	4	3	4	3	3	4	4	4	3
119.	27	42	45	3	3	4	3	3	4	4	4	2
120.	14	37	78	4	3	4	3	3	3	4	3	2

DATA

Sl. No. of respondent	Per-sonality (Scale) X1	Att-itude (Scale) X2	In-ter-est (Scale) X3	HM.s Rating on success in teaching X4	HM.s Rating on interest in teaching X5	HM.s Rating on attitude towards teaching X6	HM.s Rating on personality Intro-vert of Ex-tro-vert X7	A.HM.s Rating on success in teaching X8	A.HM.s Rating on interest in teaching X9	A.HM.s Rating on attitude towards teaching X10	(A.HM.s Rating on personality Intro-vert of Ex-tro-vert) X11	(Class in B.Ed. degree) X12
121.	22	38	72	3	3	4	4	3	3	4	4	3
122.	11	45	56	3	3	4	4	4	3	3	4	3
123.	18	58	74	3	3	4	4	3	3	4	4	1
124.	10	36	44	3	3	4	4	3	3	3	4	1
125.	8	42	56	3	3	4	4	3	3	3	3	1
126.	7	32	52	3	4	4	2	4	4	4	3	3
127.	14	65	52	4	3	4	3	3	3	4	4	3
128.	4	47	48	4	3	4	2	3	3	2	3	2
129.	9	48	59	3	3	4	2	4	4	4	3	2
130.	12	31	56	3	4	4	4	3	3	4	4	2

DATA

Sl. No.	Per- sonality res- pon- dent	Per- sonality (Sca- le)	Att- itu- de (Sca- le)	In- ter- est (Sca- le)	HM.s Rating on suc- cess in teach- ing	HM.s Rating on inter- teach- ing	HM.s Rating on Att- itude in- teach- ing	HM.s Rating on Intro- verl tro- verl	A.HM.s Rating on succe- ss in teach- ing	A.HM.s Rating on inter- test in teach- ing	A.HM.s Rating on Att- itude in- wards teach- ing	A.HM.s Rating on Intro- verl tro- verl	Class in B.Ed. degree
	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	
131.	10	27	109	4	4	3	3	4	4	4	4	3	
132.	18	58	74	3	4	4	3	4	4	4	4	1	
133.	7	27	56	3	3	2	3	4	3	3	2	2	
134.	11	45	2	3	4	3	2	4	3	3	3	1	

APPENDIX H

**ITEM ANALYSIS DATA FOR PERSONALITY
(extroversion-introversion) SCALE**

ITEM ANALYSIS DATA FOR PERSONALITY
(extroversion-introversion) SCALE

<u>Item</u>	<u>Higher group</u> <u>Yes</u>	<u>Lower group</u> <u>Yes</u>	<u>Discriminating</u> <u>Index</u>
29	37	27	20
30	34	19	30
31	36	22	28
32	39	17	44
33	30	18	24
35	35	18	34
36	30	6	48
37	39	20	38
39	27	25	4
40	26	23	6
41	29	17	24
42	27	21	12
44	36	22	28
46	34	21	26
48	31	20	22
49	34	22	24
50	24	13	22
51	27	32	10
52	32	19	26
54	32	20	24
55	38	22	32
58	36	22	28
60	26	18	20

ITEM ANALYSIS DATA FOR PERSONALITY
(extroversion-introversion) SCALE

<u>Item</u>	<u>Higher group</u> <u>Yes</u>	<u>Lower group</u> <u>Yes</u>	<u>Discriminating</u> <u>Index</u>
62	34	23	22
63	28	20	16
64	36	18	36
65	26	15	22
66	28	20	32
68	31	20	22
72	39	24	20
73	37	25	4
75	29	20	18
76	38	24	18
78	25	20	10
79	31	23	16
81	39	27	24
83	42	23	38
85	30	16	28
86	27	20	14
87	32	17	30
88	36	23	26
89	31	20	22
92	28	23	10
93	42	20	44
95	35	23	24
97	35	19	32
98	29	15	28
99	39	17	44

ITEM ANALYSIS DATA FOR PERSONALITY
(extroversion-introversion) SCALE

<u>Item</u>	<u>Higher group</u> <u>Yes</u>	<u>Lower group</u> <u>Yes</u>	<u>Discriminating</u> <u>Index</u>
29	37	27	+20
30	34	19	30
31	36	22	28
32	39	17	44
33	30	18	24
35	35	18	34
36	30	6	48
37	39	20	38
39	27	25	4
40	26	23	+ 6
41	29	17	24
43	27	21	12
44	36	22	28
46	34	21	26
48	31	20	22
49	34	22	24
50	24	13	22
51	27	32	-10
52	32	19	26
54	32	20	24
55	38	22	32
58	36	22	28
60	26	18	20
62	34	23	22
63	28	20	16
64	36	18	36
65	26	15	22

APPENDIX I

ITEM ANALYSIS DATA FOR INTEREST INVENTORY

ITEM ANALYSIS DATA FOR INTEREST

Item No.	Score		Discriminating Index
	Higher group Yes	Lower group Yes	
1	40	20	40
2	30	20	20
3	42	25	34
4	40	23	34
9	19	36	34
11	19	26	14
12	5	15	20
13	30	20	20
15	30	20	20
16	45	24	42
17	42	27	30
20	44	22	44
21	41	24	34
24	39	22	34
26	38	22	32
27	40	17	46
28	39	28	22
29	32	15	34
30	30	20	20
31	31	19	24
32	35	24	22
34	41	24	34

ITEM ANALYSIS DATA FOR INTEREST

Item No.	Score		Discriminating Index
	Higher group Yes	Lower group Yes	
35	18	8	20
38	38	25	26
39	42	24	36
40	40	49	42
41	32	22	20
43	34	5	58
44	30	22	16
45	36	22	28
47	34	24	20
48	19	6	26
49	37	10	54
50	31	8	46
51	35	20	30
52	34	24	20
53	33	23	20
54	28	24	8
55	30	22	16
56	26	20	12
57	42	25	34
58	34	26	16
59	31	22	18
60	32	24	16

ITEM ANALYSIS DATA FOR INTEREST

Item No.	Score		Discriminating Index
	Higher group Yes	Lower group Yes	
61	32	20	24
62	40	36	8
64	15	36	42
68	30	23	14
69	33	22	22
70	32	23	18
71	28	24	8
72	30	24	12
73	36	24	24
74	30	24	12
75	31	23	16
76	26	24	4
82	34	10	48
84	36	22	28
85	27	23	8
87	26	23	6
89	31	22	18
90	34	28	12
91	41	40	2
92	23	21	4
93	30	25	10
95	26	24	4

ITEM ANALYSIS DATA FOR INTEREST

Item No.	Score		Discriminating Index
	Higher group Yes	Lower group Yes	
96	27	22	10
97	41	24	34
100	24	26	-4
102	37	28	18
104	39	37	6
107	40	34	12
108	23	26	6
109	32	24	16
111	42	18	48
112	45	22	46
113	40	20	40
115	20	30	20
116	27	24	6
117	31	12	38
119	32	30	4
120	34	24	20
121	30	28	4
122	36	32	8
123	33	23	20
124	34	24	20
125	42	34	16
126	37	24	26

ITEM ANALYSIS DATA FOR INTEREST

Item No.	Score		Discriminating Index
	Higher group Yes	Lower group Yes	
127	40	23	34
128	30	22	16
129	48	26	44
130	46	27	38
131	41	21	40
132	34	15	38
133	44	24	40
134	42	36	12
135	41	22	38
136	42	40	4
140	34	38	8
141.	41	32	18
142	42	25	34
144	37	32	10
145	28	32	8
147	45	20	50
148	46	25	42
149	25	22	6
153	48	37	22
154	42	25	34

APPENDIX J

ITEM ANALYSIS DATA FOR ATTITUDE SCALE

ITEM ANALYSIS DATA FOR ATTITUDE SCALEUNFAVOURABLE ITEM

Item No.	Score		Discriminating Index
	Higher group No	Lower group No	
1	22	17	10
9	24	20	8
13	34	24	20
14	34	29	8
20	30	17	26
21	41	25	32
22	35	24	22
26	36	32	8
29	38	27	22
30	32	25	14
35	39	25	28
36	41	32	18
41	33	20	26
43	30	21	18
45	43	32	22
51	24	21	6
53	39	31	16
59	40	27	26
61	43	32	22
70	41	27	28
77	42	25	34

ITEM ANALYSIS DATA FOR ATTITUDE SCALEUNFAVOURABLE ITEM

Item No.	Score		Discriminating Index
	Higher group No	Lower group No	
78	35	31	8
79	42	32	20
81	27	21	12
82	30	20	20

ITEM ANALYSIS DATA FOR ATTITUDE SCALEFAMOURABLE ITEM

Item No.	Score		Discriminating Index
	Higher group Yes	Lower group Yes	
2	40	22	36
3	36	26	20
4	36	26	20
5	46	21	50
6	41	26	30
7	46	20	52
8	39	23	32
10	44	18	52
11	41	21	40
12	25	23	4
15	38	25	26
16	38	19	38
17	34	23	22
18	33	21	24
19	48	28	40
23	40	20	40
24	41	19	44
25	39	28	22
27	39	19	40
28	35	26	18
31	24	19	10

ITEM ANALYSIS DATA FOR ATTITUDE SCALE**FAVOURABLE ITEM**

Item No.	Score		Discriminating Index
	Higher group Yes	Lower group Yes	
32	35	20	30
33	37	23	28
34	45	25	40
37	27	20	14
38	45	23	44
39	27	23	8
40	36	19	34
42	47	21	52
44	40	25	30
46	33	29	8
47	40	23	34
48	44	24	40
49	29	19	20
50	35	24	22
52	34	25	18
54	34	23	22
55	46	26	40
56	37	20	34
57	40	24	32
58	34	21	26
60	40	28	24

ITEM ANALYSIS DATA FOR ATTITUDE SCALEFAVOURABLE ITEM

Item No.	Score		Discriminating Index
	Higher group Yes	Lower group Yes	
62	45	24	22
63	34	20	28
64	33	21	22
65	38	27	22
66	36	30	12
67	27	19	16
68	35	20	30
69	27	25	4
71	30	22	16
72	34	19	30
73	29	24	10
74	27	25	4
75	43	34	18
76	31	26	10
80	42	39	6

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