

AN INVESTIGATION OF THE
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PROGRESS IN THE

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AN EVALUATION OF THE QUALITY OF THE SECONDARY TEACHER EDUCATION PROGRAMS OF BANGLADESH



**Thesis is Submitted to the University of Dhaka
for the Degree of
Doctor of Philosophy**

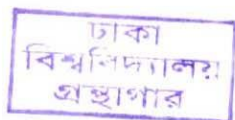


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TO WHOM IT MAY CONCERN

This is to certify that **Selina Akhter** a Ph.D. research fellow of the Institute of Education and Research, University of Dhaka has successfully completed her Ph.D. research study entitled **An Evaluation of the Quality of the Secondary Teacher Education Programs of Bangladesh** under my Supervision. This is her original research work.

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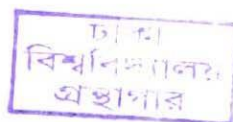
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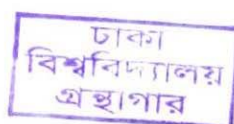
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ABSTRACT

The study used a descriptive survey to evaluate the quality of secondary teacher education programs, i.e., B.Ed. offered by National University and Bangladesh Open University. Specifically it sought to achieve the following research objectives:

1. To assess the effectiveness of the input variables of the existing secondary teacher education programs of Bangladesh offered by National University and Bangladesh Open University.
2. To assess the effectiveness of the process variables of the said secondary teacher education programs.
3. To assess the effectiveness of the secondary teacher education programs in terms of output and outcome variables.
4. To compare the quality of the teacher education programs offered by different institutions in terms of the identified input, process and output variables;
5. To identify specifically the strengths and the constraints against qualitative teacher education programs implementation; and
6. To suggest remedial measures for overall quality improvement of the secondary teacher education programs of Bangladesh.

The study used both qualitative and quantitative approaches of research design. Data were gathered from 12 TTCs (six govt. and six private) and six B.Ed. tutorial centers of BOU. The sample size was 162 which included 72 B.Ed. graduates, 72 teacher educators and 18 program managers (principals and B.Ed. tutorial center coordinators). An input, process and output model was adopted in collection of data.

Data were gathered by means of three questionnaires, one observation checklist and two institutional information sheets. The questionnaires were employed on three categories of respondents- graduates, teacher educators/tutors and principals/course coordinators of the TTCs/TCs. They were prepared based on the input, process and output variables as defined in the research objectives. The input variables included eight sub-variables, namely educational and professional qualifications as well as in-service training status of the faculty; curriculum; infrastructural facilities; student support services; professionalism and scope of professional development; and instructional materials and aids. The process

variables were: methods and techniques; teaching practice; co-curricular activities; evaluation process; academic environment; program duration; class duration; teacher-student ratio; and admission procedure. The output variables included B.Ed. result (pass rates and class); teaching performance of the graduates; and attitude of the respondents.

The observation checklist was used to assess the teaching performance of the B.Ed. graduates in real school situation. The major aspects of the observation were classroom environment; class management; use of teaching aids; planning lesson; presentation; participation of students; use of life oriented examples; use of chalkboard; summarization of lesson; and evaluation procedure.

Both parametric and non-parametric statistical techniques, like mean, percentage, SD, rank order, ANNOVA, t test, correlation, and regression analysis were run in analyzing and interpretation the of the data.

The findings show that the faculty of the govt. TTCs and the TCs had better educational qualifications and in-service training status. The private TTC faculties were in better position in terms of professional qualifications. Infrastructural facilities; professionalism; academic environment; and admission procedure of all the three types of institutions were found satisfactory to conduct the B.Ed. programs effectively. Instructional aids and materials; student support services; methods and techniques; and teacher-student ratio were found unsatisfactory in all the three types of teacher education institutions. In addition, the distance B.Ed. was not found effective in terms of curriculum; teaching practice; co-curricular activities; evaluation process; and tutorial class duration, but the program duration was found much satisfactory. The private TTCs had unsatisfactory co-curricular activities. The govt. TTC respondents were unsatisfied with program and class durations. Student support service was opined as the weakest area under the input variables and methods and techniques under process variable by the respondents of all institutions. The input and process variables had some specific strengths and weaknesses, which have important implications on the quality of the B.Ed. programs.

The findings further show that the output, in terms of pass rate and class obtained by the graduates, in the B.Ed. final examinations was much better in the TTCs, both public and private, than that of the TCs/BOU. The overall pass rate was little higher for govt. TTCs, but the percentages of first class receivers in both the types of TTCs were almost

same and quite good. The pass rate of BOU B.Ed. was low. The percentage of first class there was lamentably low, almost nil. The overall teaching performance of the B.Ed. graduates of the private TTCs was the lowest and average in magnitude, while it was higher, satisfactory and almost same in cases of the govt. TTC and BOU graduates. The graduates of the govt. TTCs and BOU had satisfactory performance in classroom management; use of chalkboard; and summarization of lesson. They performed unsatisfactorily in planning lesson; participation of students; use of life oriented examples; and use of teaching aids. The private TTC graduates showed unsatisfactory performance in all the areas except use of chalkboard. In the area of evaluation, the govt. and the private TTC respondents were positive while BOU respondents were negative. All the graduate groups showed the highest performance in use of chalkboard and the lowest in participation of students followed by planning lesson and use of life oriented examples, where performance of all the groups were very low and unsatisfactory. The total performance of the B.Ed. graduates of the private TTCs was average. For the govt. TTCs and BOU it was much higher and satisfactory. The respondents of all the institutions, on average, had positive attitude regarding the quality of their B.Ed. with the lowest one about the B.Ed. of BOU.

The govt. TTC B.Ed. was found satisfactory in terms of both input and process variables. The private TTC B.Ed. was unsatisfactory in terms of input variables, but effective in process variables. In BOU both, input and process, were identified as unsatisfactory. On average, all the three types of institutions were in weaker position in service delivery of the input variables than the process variables. The input variables had higher impact in the TTCs. In BOU the process variables had more impact on the respondents' opinion and attitude.

The findings of this study upheld the need for the TTCs and BOU to improve the quality of their B.Ed. by eliminating the shortcomings and further consolidation of the strong areas for a sustainable quality improvement. To this end a number of remedial measures have been proposed, materialization of which can help the institutions to improve their program efficiency as well as the government to achieve its mission and commitment to improve the quality of education of the country, particularly the secondary education program development of which is an urgent need for human resource development.

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ACRONYMS

BANBEIS	:	Bangladesh Bureau of Educational Information and Statistics
BBS	:	Bangladesh Bureau of Statistics
B.Ed.	:	Bachelor of Education
BIAM	:	Bangladesh Institute of Administration and Management
BIDE	:	Bangladesh Institute of Distance Education
BOU	:	Bangladesh Open University
BTV	:	Bangladesh Television
CAMPE	:	Campaign for Popular Education
COL	:	Commonwealth of Learning
CPD	:	Continuous Professional Development
DG	:	Director General
DISHE	:	Directorate of Secondary and Higher Education
DPE	:	Directorate of Primary Education
FSSAP	:	Female Secondary School Assistance Project
GoB	:	Government of Bangladesh
Govt.	:	Government
HSC	:	Higher Secondary Certificate
HSTTI	:	Higher Secondary Teacher Training Institute
IER	:	Institute of Education and Research
IPO	:	Input Process and Output
M.Ed.	:	Master of Education
MoE	:	Ministry of Education
NAAC	:	National Assessment and Accreditation Council
NAEM	:	National Academy for Educational Management
NCTB	:	National Curriculum and Textbook Board
NU	:	National University
ODL	:	Open and Distance Learning
PEDP II	:	Primary Education Development Programme II
PROMOTE	:	Programme to Motivate, Train and Employ Female Teachers in Rural Secondary Schools
Pvt.	:	Private
PSPMP	:	Primary School Performance Monitoring Project
RRC	:	Regional Resource Center
SEDP	:	Secondary Education Development Project
SESIP	:	Secondary Education Sector Improvement Project
SoE	:	School of Education
SSS	:	Student Support Services
STC	:	Secondary Teaching Certificate
TC	:	Tutorial Center
TE	:	Teacher Educator
ToT	:	Training of Trainers
TP	:	Teaching Practice
TMA	:	Tutor Marked Assignment
TTC	:	Teachers' Training College
TQI-SEP	:	Teaching Quality Improvement in Secondary Education Project
UGC	:	University Grants Commission

Chapter I

INTRODUCTION

1.1 Background of the Study

Education is one of the basic requirements for human development as well for inducing social change and promoting overall economic development of the country (GoB and UN Country Team, 2005:1). Recognizing the fact post-independent Bangladesh undertook a plethora of educational development measures, especially during the period after the holding of World Conference on Education for ALL (WCEFA) in 1990 and Dakar 2000. Consequently the country is experiencing a systematic development in the field of education, especially the primary education sector witnessed a massive quantitative expansion, in terms of both enrolment and physical structure. This steady growth in primary education over the recent years has resultant in concomitant quantitative expansion in secondary education too. Nonetheless, declining quality of students' performance, as expressed by low SSC (Secondary School Certificate) and HSC (Higher Secondary Certificate) pass rates and high dropout rate, remains a major concern and poses a question of the quality and internal efficiency of secondary education. As observed by Education Watch 2005 survey (Ahmed et al, 2006:5) "deficiency in teachers' skills and capability" is one of the major causes of low quality of secondary education. This quality concern in education has been mounting from all concerns (Halim, 2004:99). One fundamental issue in this regard is lack of quality teacher education program, which influences many other quality factors.

Quality of education and quality of professional education of the teachers are closely interlinked. The standard of teacher education programs in fact determines the quality of training provided to the teacher. As stated by Sharma (2002:335),

"There is no doubt that of the factors which determine the quality of education and its contribution to national development, teacher education is among the most important. It is on the qualities and character, educational qualifications and professional competence of the teachers that success of all educational endeavours depends. Thus, quality professional training of the teachers is of crucial significance."

It is widely accepted that successful transaction and realization of any curriculum and curricular goal largely depends on quality teachers and teacher education plays a pivotal role in development of quality of teachers through playing the expected role of preparing them professionally, and armor them with required knowledge, skills and attitude regarding teaching and through all these, increasing efficiency and productivity of the teacher. Highlighting the significance of teacher education Singh and Sharma (1997:vii) opined that the success of reforms in school education depends largely on the quality of teachers which, in turn, depends, to a great extent, on the quality of teacher education. They further continued:

“ The quality of a teacher depends on the quality of the teacher education, the quality of a teacher education depends on the quality of the teacher education program which he has undergone. Thus teacher education and the teacher become two sides of the same coin. Teacher education can be visualized as the ‘process’ and the teacher as its ‘product’.”

As stated by the Open University of Sri Lanka (2006:1), the quality of education has become crucial because of the quantum change in the socio-economic context the world over. Quality concern in education has therefore become prime area for many nations. Bangladesh has not remained excluded from this effort. Assuring quality of education has, therefore, got paramount importance in the recent educational history of Bangladesh. With due respect to this importance, the question of improvement of quality of secondary teacher education programs is being discussed and underlined extensively in different reports, workshops, seminars, symposia, etc. However, any specific attempt to develop it qualitatively, except a few sporadic efforts, was still a far cry and mainly suffered from stagnation until the Teaching Quality Improvement in Secondary Education Project (TQI-SEP) was launched in 2005. This truth was echoed in the speech of a former education secretary, made in a National Workshop on Policy and Planning for Secondary Teacher Education, organized by Secondary Education Sector improvement Project (SESIP, Nov., 2001:42), where he stated, “Teacher education is perhaps the most neglected area by the Ministry of Education” and emphasized on improvement of the institutional framework of teacher education through undertaking a holistic approach for quality improvement. The draft TQI-SEP Final Report (GoB, 2003:64) also complied with the situation that although several previous education sector projects had teacher education components of their reform

efforts, but improving the quality of teachers and teaching at secondary level has never before been the priority. Consequently, there was simply no noticeable improvement in the quality of the secondary school teaching force and the existing teacher education programs failed to meet the demand of qualified secondary school teachers. Dr. John Dewar Wilson, an international consultant of SESIP (Secondary Education Sector Improvement Project), in his keynote paper presented in the same workshop on policy and planning indicated, "Vision, policy formulation, planning, management, administration and evaluation are key components in delivering quality secondary teacher education. None of these are effectively developed for secondary teacher education in Bangladesh." Tapan in his paper presented in the Internal Seminar on Quality Assurance in Higher Education in Bangladesh organized by the University Grants Commission and Commonwealth of Learning (UGC and COL, March 2002:88) said the pre-service and in-service teacher training programs in Bangladesh, in terms of both quality and quantity, were inadequate and dispiriting.

Experience demonstrates that low internal efficiency of teacher education produces teachers with low quality, which results in poor output in education. The scenario of our secondary education confirms the fact as stated by Ministry of Education (MoE, March 2002:4), "Only a fraction of the student who enter in secondary education complete grade X and pass the SSC examination and even fewer complete grade XII and pass HSC examination." This is to some extent, as mentioned before, resultant from poor secondary teacher education program. Henceforth, revitalization and reorganization of the secondary teacher education programs through identifying its weaknesses and areas of improvement specifically has become an imperative to meet the quality challenges of secondary level of education.

Qualitative improvement of teacher education are linked with several factors, such as quality of students entering the program, quality of teacher trainers, relevance of curriculum and syllabi, inputs into professional preparation of teacher educators, efficiency of management and the physical facilities, positive learning environment, proper monitoring, supervision and guidance, teacher accountability, manageable teacher-student ratio, required physical facilities, etc. As revealed by different reports and research studies (SEDP, SESIP, PROMOTE, TQI-SEP, etc.), the teacher education programs of Bangladesh are today beset with many of these problems, like low internal efficiency; irrelevance of curriculum; poor examination system, shortage of facilities, lack of technological facilities, shortage of quality teacher trainer, absence of staff

development initiatives, negligence in practice teaching, short program duration, etc. Different education Commission and Committee reports starting from Qudrat E Khuda Education Commission (1973) to the latest National Education Commission Report 2003 (National Curriculum and Syllabus Committee, 1978; Interim Education Policy, 1979; Bangladesh Education Commission, 1988; National Education policy 2000, etc.) also found these problems inherent with the teacher education programs and strongly recommended a number of corrective measures to eliminate the problems.

Post independent Bangladesh has experienced a significant quantitative expansion in secondary teacher education field. Before teacher education was offered by only a few govt. TTCs. Considering the demand of training to a huge number of secondary untrained teachers the first ever distance mode B.Ed. started its journey in 1985 under Bangladesh Institute of Distance Education (BIDE), which is now being offered by Bangladesh Open University (BOU) since its establishment in 1992. Another evidence of significant quantitative expansion of secondary teacher education program is mushrooming growth of private TTCs in last one decade, which has rose to an unbelievable number of 94 (BANBEIS: 2007:1.1) within one decade. All these institutions every year add a number of B.Ed. graduates with the force of teachers already exist. But, there is nothing quality checking measures of their programs. Also there is no formal institution, at the national level, to look after the issue. Resultantly, the unabated quantitative growth by various institutions has produced a growing concern that the quality of the secondary teacher education program is not up to the mark and characterized with many weaknesses. As stated in the draft final report of Teaching Quality Improvement in Secondary Education Project (GoB, 2003:47):

“The current Bangladeshi teacher education curriculum is an outmoded model, based on the best thinking of the 1960. Both pre and in-service teacher training are overwhelmingly the presentation of theory mode, with some modeling. These approaches may lead to a degree of conceptual understanding, but have little impact on either skill attainment or ability to apply the theories....., The curriculum is seriously overloaded with classes, with students sitting in large lectures for 6-8 hours daily, with little time to use the poorly-equipped and understaffed libraries and laboratories.”

All these issues and concerns are interrelated and inter-woven and will further spiral the problems if not resolved properly. Teachers who will graduate through such a system of teacher education program will not be of high standard and will

contribute to the quality of secondary education in a downward spiral. The critical quality scenario of the secondary teacher education program, therefore, underscores the need for excelling the quality of the pre-service teacher education program of secondary level. It should also be noted that quantitative expansion alone by itself is not an indication of quality education. The progress has to be planned in both qualitative and quantitative directions.

The welcome address of NAAC-COL Round Table (p. 1) on Innovations in teacher education held in India stated “New realities of life, like increasingly competitive globalized world, far reaching development in information communication technologies, accelerated pace of change, knowledge as a primary source of wealth and increasing democratization of public life have resulted in quality becoming the defining element of all aspects of life in the 21st century”. The relevance of any education in this age, therefore, should be judged by its quality. The teacher training institutions from where one expects the production and supply of needed human resources developer to take place should also be driven by this determining factor, i.e., quality.

To this end there is a need at this time for a comprehensive study to assess the present state of art of the quality of secondary teacher education programs to have a deeper look into some quality concerns, like - How much qualitative the curriculum, instructional delivery, evaluation system are? Are the physical facilities, student support services supportive to offer a quality teacher education program? Have modern technological facilities become part of the system? Is the practice teaching component conducive to developing required teaching skills in the future teachers? Are the class size, program duration, admission procedure etc. conducive to offering quality secondary teacher education? Are the achievement and performances of the graduates of the program satisfactory? What is the attitude of different groups of stakeholders to the quality of the teacher education program? A study of particular groups of B.Ed. graduates, teacher educators, administrators, and institutions can give some idea of the answers to these basic quality questions. This is one of the reasons to undertake the study by the researcher. Hopefully, the findings of this study will give an overview on the effectiveness of the secondary teacher education programs and will thus provide a basis for judgment regarding the quality of the program and thereby will help to identify the areas of improvement.

Another justification of this study is that research and evaluation, even though crucial for quality improvement of any program, is one of the weakest components in

teacher education programs. It is believed that research can help in clarifying objectives, developing realistic curriculum, adopting effective method of instruction and recruitment and evaluation procedures in preparation of an effective teacher on which the quality of school education largely depends (Singh and Sharma, 1997:20). This was one of the prime reasons for choosing the study by the researcher as part of her Ph.D dissertation.

1.2 The Present Study

The present study is an evaluation of the existing pre-service secondary teacher education programs, i.e., B.Ed. offered by the various government and private TTCs under National University (NU) as well as School of Education (SoE) of Bangladesh Open university. It is survey type in nature. This also may be called an explorative and remedial research as under it the present status as well as lapses and weaknesses of the B.Ed. programs were studied and possible remedies were suggested for improvement.

Any evaluative study aims at collecting information (data) from different sources – both primary and secondary. To evaluate a program under implementation one may also wish to follow different approach, such as systems analysis approach, individualistic approach, comprehensive approach, etc. In this study the researcher felt important to know whether the significant elements (input, process and output factors) of the total systems of the teacher education programs were working well. From this view point this study adopted a systems analysis approach to collect basic data from the different possible sources, such as functionaries, beneficiaries, organizations, records and registers through evaluating the important aspects of the B.Ed. programs.

1.3 Aim and Objectives of the Study

The prime aim of this study was to evaluate the quality of the secondary teacher education programs, i.e., B.Ed. offered by National University through the govt. and private TTCs and Bangladesh Open University following a systems approach. To this end it specifically attempted to achieve the following objectives.

1. To assess the effectiveness of the input variables of the existing secondary teacher education programs of Bangladesh offered by National University and Bangladesh Open University.

2. To assess the effectiveness of the process variables of the said secondary teacher education programs.
3. To assess the effectiveness of the secondary teacher education programs in terms of output and outcome variables.
4. To compare the quality of the teacher education programs offered by different institutions in terms of the identified input, process and output variables;
5. To identify specifically the strengths and the constraints against qualitative teacher education programs implementation; and
6. To suggest remedial measures for overall quality improvement of the secondary teacher education programs of Bangladesh.

1.4 Variables of the Study

The variables investigated in this study under the input, process and output and outcome variables were as follows.

1.4.1 Input Variables

- Educational qualification
- Professional qualification
- In-service training status
- Curriculum
- Infrastructural facilities
- Students support services
- Professionalism & scope of professional development
- Instructional materials & aids

1.4.2 Process Variables

- Methods and techniques
- Teaching practice
- Co-curricular activities
- Evaluation process
- Academic environment
- Program duration
- Class duration
- Teacher-student ratio
- Admission procedure

1.4.3 Output and Outcome Variables

- B.Ed. final results (pass rates and class obtained)
- Teaching performance of the B.Ed. graduates
- Attitude of the respondents towards quality of the B.Ed. programs

1.5 Significance of the Study

This study is significant for various reasons:

The success of any reform in school education depends largely on quality teachers, which in turn depends, to a great extent, on the quality of secondary level teacher education programs. To this end secondary teacher education programs need to be improved through identifying specifically their strengths and weaknesses. It is also obviously true that merely increasing the number of teacher education institutions, which happened in last decade, can not ensure the delivery of quality program. So quality improvement of secondary teacher education program is very significant for overall development of secondary education. For this, it is of utmost importance that the issues and problems posing threat against the quality of the said program should be identified specifically first and then required remedial measures should be adopted. It is expected that the findings of this study will help to this end.

This study can provide essential empirical data to the policy makers, program managers, curriculum developers, and instructional material developers in analyzing, reviewing and improving the teacher education programs upon which they could anchor rational decisions for implementing more effective teacher education programs. Thus the efficiency of program transaction can be enriched based on the empirical data gathered through this study.

Since evaluation serves as the vertebra of any developmental work, this study can help in revitalizing the teacher education programs through providing feedback by locating weak points, diagnosing their causes and suggesting remedial measures.

The findings generated from this study may lead other researchers to conduct further studies in this field. The findings may also be treated as complementary of the various studies conducted by various development projects, like SEDP, PROMOTE, SESIP, TQI-SEP, etc., and through personal initiative. Teacher educators and distance

B.Ed. tutors may utilize the findings of this study as a guide to the adaptation of more effective mechanism in their process of program delivery.

The findings of this study may also be utilized as the baseline data for prioritizing the steps to be taken for improvement of the programs and for comparison with other such initiative. Another important thing to mention is that there is severe dearth of local empirical studies in teacher education in Bangladesh. Hence, the present study will add some findings to this effort.

Finally, as a teacher educator the researcher has also immensely benefited from the practical experience and insights gained from this study. These will work as guiding principles in discharging her future roles and responsibilities more efficiently.

1.6 Scope and Delimitations

As an evaluative study this was confined to evaluation of the quality of the B.Ed. programs offered by NU and BOU. In conducting this study systems approach (input-process-output model) was followed. Data were collected from six government TTCs, six private TTCs and six B.Ed. tutorial centers (TCs) of BOU located across the six administrative divisions of the country. Although, many factors are involved in the system of a teacher education program, the study limited its investigation to some of the major input, process and output variables as mentioned above. Other variables associated with the system were treated as extraneous variables and remained outside the purview of the study.

A major limitation of the study was that the B.Ed. program of NU, which was evaluated in this study, has been replaced by a new national B.Ed. program developed by SESIP and implemented under TQI-SEP from 2006. The BOU B.Ed. also has been replaced by the new national B.Ed. program from October, 2008. Henceforth, findings on some of the aspects of these programs, for example curriculum, program duration, evaluation procedure, etc. might not directly contribute to improve the system as some of those already have been changed in the new national B.Ed. program. However, importantly, the findings might work as important baseline data for overall quality improvement of the said B.Ed. programs imparted by National University and Bangladesh Open University.

Chapter 2

REVIEW OF RELATED LITERATURE

This chapter presents a review of related literature and studies conducted here and abroad in the area of evaluation of teacher's performance and teacher education program. The review provided the researcher required background information and foundation for conceptualizing the research problems, framework and select the research methodologies for the present study.

2.1 Literature on Concept of Quality of Education

2.1.1 Sallis (1997) in his book "**Total Quality Management in Education**" provided in- depth ideas and concepts on quality of education issues in light of its theoretical basis. According to him 'quality is at the top of most agendas of present day situation and improving quality of education is probably the most important task facing any education institution. Like Monohar he also said quality has different meaning to different people. Therefore, while everyone is in favor of providing quality education it is necessary to have a clear understanding of the various meaning of the word 'quality' before involving any acts of quality of education issue. The various concepts of quality as described by Sallis, therefore, should be taken into consideration. They are:

Quality as an Absolute: It means pursuing quality is all about performing to the highest standards of any thing.

Quality as a Relative Notion: In this sense quality is about measuring up to predetermined standards and meeting those standards time and again.

The Role of Consumer in Quality: Consumers have crucial role in ascertaining quality of any product or service. Consumers are the party to decide whether a school or college is providing a quality service. According to Sallis (p. 64), "Quality can be said to be in the eyes of the beholder. This is a very important and powerful definition, and one that any institution ignores at its peril. It is the consumers who make the judgment on quality, which they do by reference to the best comparable performer".

In defining quality, Sallis said it is necessary to understand the difference between three other important quality ideas, which were- (1) Quality Control; (2) Quality Assurance;

and (3) Total Quality management (TQM). **Quality control** is the oldest quality concept. It involves the detection and elimination of components or final products, which are not up to the standard. It is an after-the-event process concerned with detecting and rejecting defective items. **Quality assurance** is different from it. It is a before and during the event process. Its concern is to prevent faults occurring during the first place. **TQM** incorporates quality assurance and extends and develops it. Its aim is to create a quality culture, where the aim of every member of staff is to delight their customers, and where the structure of their organization allows them to do so. As per the ideas of TQM the customer is sovereign, where emphasis is given on what they want, when they want it and how they want it.

The 'Product' of Education: To understand the quality of education or any situation it is important to ask two fundamental questions. The first one is, what is the product? The second is, who are the customers? Definitely learner/pupil/student is the product and customer. But in quality assurance process it is impossible to produce all pupils and students to any particular guaranteed standards because of uniqueness of each individual learner and the complexities of the learning process. Therefore, Sallis found appropriate to viewing education as a service industry rather than a production one. Once this view is established the institution needs to define clearly the services it will provide and the standards to which they will be delivered. Those services include tuition, assessment, guidance, etc. Regarding the second question, he mentioned education has diversified customers, both external and internal. The external customers are the learners, parents/governors/employers and labor market/government/society, while the internal customers are teachers/support staff. These different customer groups have different views and needs. One of the best methods of resolving these differences is to reconciling their various needs and interests through focusing on core issues.

Based on the above theoretical conception of quality, Sallis put TQM at the center for assuring quality of various educational programs of any educational institution. He further proposed for a quality framework to assess the existing quality initiatives and for planning and implementing new ones for continuous institutional development. The components of Sallis's quality framework are (p. 123-129): (1) developing leadership and strategy; (2) delighting customers; (3) designating quality champions; (4) ensure that the senior management team monitor progress; (5) initiating staff training for quality; (6) monitoring the delivery of curriculum; (7) verifying the assessment of students performance; (8) communicating the quality message; (9)

measuring cost of quality; (10) supporting teams; (11) applying quality tools and techniques; and (12) developing a self-assessment culture.

2.1.2 In an article outlining as “**Quality Assurance in Distance Education Institutions**” Monohar (1999:389-403) said that the term ‘quality’ can not be defined precisely and there is lack of uniformity in defining quality. It has different meaning to different people. Quality is, therefore, a ‘value loaded’ term and a relative concept. He further said that despite the lack of agreement regarding the definition of quality, the essence of all definitions remains the same and in the language of Harvey and Green it is:

- A strikingly higher level of performance;
- Well designed process with zero defects;
- Fulfillment of stated objectives for which the institution is created;
- Accountability and equity; and
- The kind of increasing performance.

According to these criteria, quality assurance is planned, deliberate actions or activities instigated and carried out with the intent and purpose of maintaining and improving the quality of learning for participants. It deals with the processes of achieving the desired objectives for which the institution is created and the transformation and improvement in the performance of the clientele for whom the institution is meant.

2.1.3 **The Dakar Framework for Action** (UNESCO, 2000) identified quality as a prerequisite for achieving equity and said access to quality education was a right of every child. It emphasized on five components of quality education. These are: (1) healthy and motivated learners; (2) competent teachers using active pedagogies; (3) relevant curricula; (4) good governance; and (5) equitable resource allocation.

2.1.4 Prasad (2002) in his paper presented during an “**International Seminar on Quality Assurance in Higher Education in Bangladesh**” organized by UGC and COL in Dhaka mentioned some quality parameters are imperative for maintaining quality of any higher education in the perspective of changing educational context of present day. These are: socially relevant programs/courses; intensive teaching/ learning

process; good learning materials; higher level of professional efficiency; valid and reliable evaluation system; higher level of research; use of educational technologies; efficient students support services; teachers as catalytic agents of development; and continuous improvement. He further continued that the assessment of the performance of an organization, in terms of these parameters, can serve the purposes of quality assurance and these are generally may be viewed as input indicators, process indicators and output indicators.

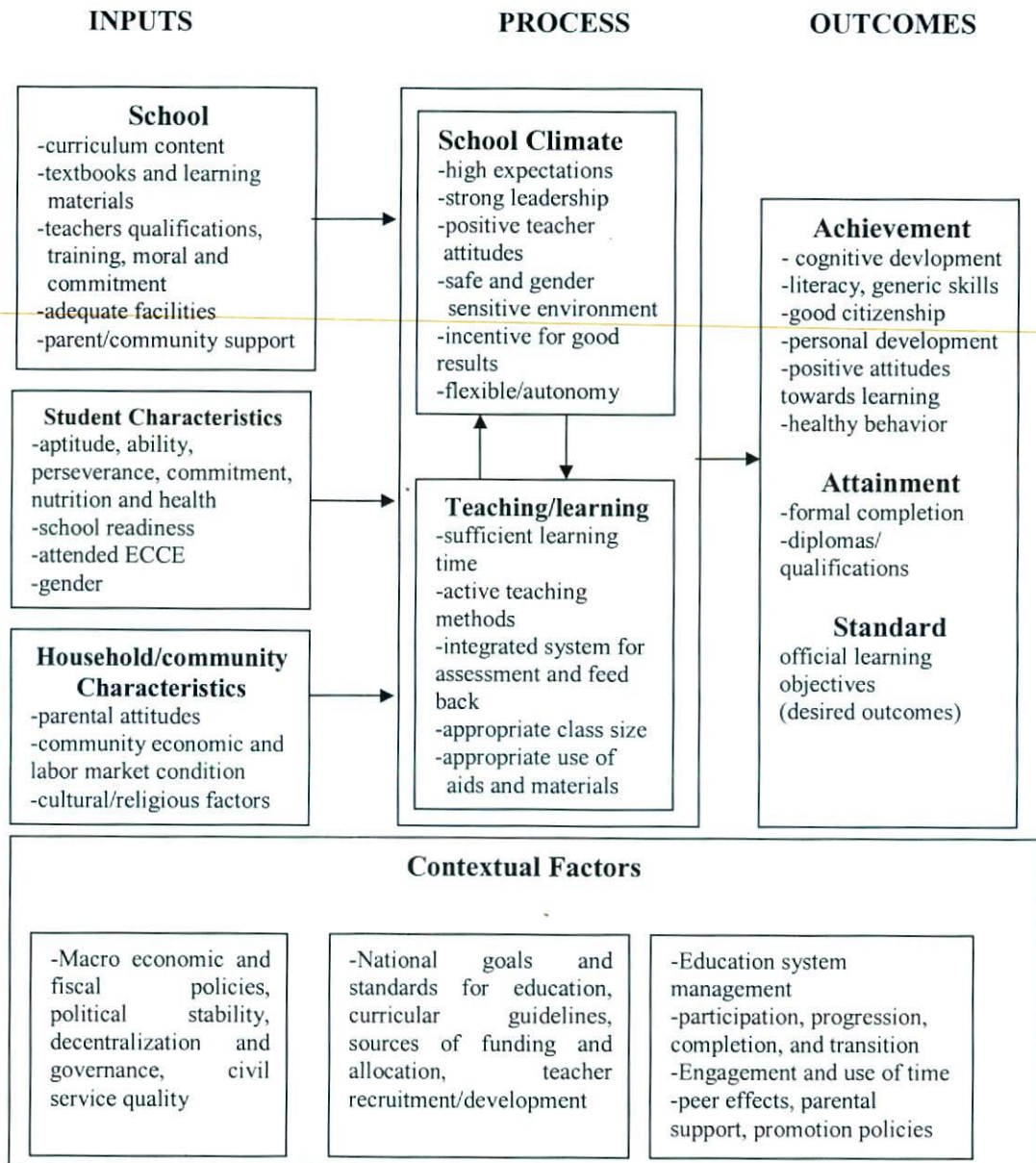
2.1.5 UNESCO (2002:81) in its “**EFA Goal Monitoring Report 2002**” stated that quality is a multi-faceted concept. It encompasses how learning is organized and managed, what the content of learning is, what level of learning is achieved, what it leads to in terms of outcome, and what goes on in the learning environment.” Converting this concept of quality of any education into a flow chart UNESCO forwarded an input-process-outcome framework for assessing quality of an educational program mentioned in the following page. In the light of this quality framework of education given by UNESCO, a quality evaluation framework was finally conceived for evaluation of the quality of the secondary level teacher education programs of Bangladesh.

2.1.6 Makoju (2004) in his paper “**Quality Assurance Practices in Nigerian Teacher Education**” presented in the Roundtable on Innovations in Teacher Education held in India proposed three paradigms for ensuring quality in teacher education program. The first one is **A Data Processing Model** which follows a input, process and output model of assuring quality. The second one is **A College Evaluation Model**. In this model a single most important factor or a wide range of factors are considered for quality of a teacher education program, which might include: student; teacher; administration; physical inputs; management; accreditation; educational objectives; admission procedure; training; experience; financial stability; laboratory and library resources; etc.

The third paradigm is **Professionalizing Teacher Education**. This is a way to ensure quality practices in teacher education through enhancing professionalism. The steps could be taken in this regard are to focus on: a. responsibility of teacher education; b. admission of candidates; c. retention of students; d. content of teacher education; and e. process of teacher education. He continued saying that if teacher

education is adversely affected by these factors, quality would be affected. So it is important to identify the constraints affecting quality and taking measures accordingly.

Figure 2:1: An Input Process and Output Framework for Assessing Education Quality Given by UNESCO



2.1.7 **Dean**, (2006:8) the monitoring and evaluation adviser of TQI-SEP in an attempt to establishing a TQI Quality Assurance Framework for teacher training program mentioned in the report of “**Putting Quality into TQI The Role of a Quality Assurance Framework**” defined some standards for quality improvement of the TTCs of the country. They are:

- physical facilities and infrastructure;
- training courses and curricula offered;
- operational characteristics, including qualifications of trainers; experience of trainers; match between trainers and the courses they teach; and arrangement for teaching practice;
- teaching quality and trainee outcomes; and
- gender and inclusion.

To ensure these aspects he suggested TTCs need well defined standards to fulfill two fundamental purposes: (1) form a basis of improvement through self evaluation; and (2) provide a mechanism for accreditation of non-government TTCs and others through a Regulatory Government Agency.

2.2 Literature on Systems Approach

2.2.1 The term “systems” is derived from the Greek word “synistanai”, which means “to bring together or combine.” Accordingly systems approach refers to components of the organizational concepts. Four major concepts underlie it are:

- (1) **Specialization:** A system is divided into smaller components allowing more specialized concentration on each component.
- (2) **Grouping:** Group the components in related disciplines or sub-disciplines.
- (3) **Coordination:** Coordinate the interactions among the groups.
- (4) **Emergent Properties:** recognizing and understanding the “emergent properties” of the system

(The Systems Approach, <http://silvae.cfr.washington.edu/ecosystem-management/systems.html>).

2.2.2 **According to Watson** (1998:1624), system denotes a whole, considered in regard to the connection, organization, and arrangement of its parts. In education this word is used to denote the organization of knowledge into a definite plan, and therefore the stage of generalization in method.

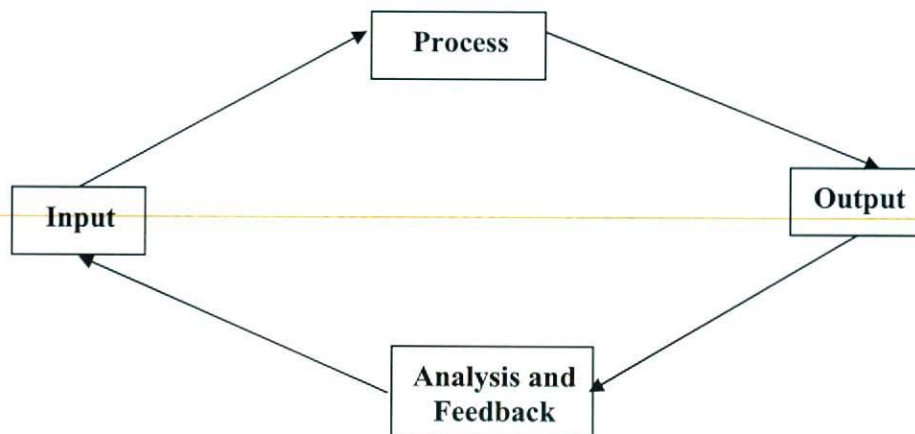
2.2.3 **Singh and Sharma** (1997: 31) said, “The system approach as a way of thinking helps in clarifying even the most hazy concept through a step by step analysis and thus leads to a plan for achieving the desired goal.”

2.2.4 **The Encyclopedia Americana** (1996:1998-1999) indicated systems approach as the study of the structure and behavior of sets of interacting elements.. The distinguish feature of systems analysis is the concept of treating problems as a whole rather than piecemeal. This feature necessitates consideration of all major variables and their interactions. In this way it is usually possible to achieve better overall solutions and avoid unexpected and detrimental effects. According to it the typical steps in the systems approach are: (1) formulate the problem; (2) identify the components of the system and their interrelationship; (3) develop mathematical or logical models; (4) analyze system’s performance and study alternative means; (5) select the best system based on specific criteria; and (6) build or implement the system that has been selected.

2.2.5 In an attempt in defining systems approach **Sampath, Vam and Santhanam** (1994:100-114) quoted from Webster’s dictionary said system is a regularly interacting or independent group of items forming a unified whole. It is a methodically arranged set of ideas, methods or procedure. Systems analysis is a systematic way of identifying goals of any system and scientifically working out different steps to move towards the goals suggesting ‘models’ of application. This in general includes some steps, like a. an analysis of existing situation; b. setting up of goals; c. defining mechanism to evaluate the achievements of goals; d. generating alternative solutions; e. choosing the best possible solution; e. detailing the design of the system; g. outlining the monitoring mechanism for the system; and working out solution. They further continued saying “Systems approach is a rational problem-solving method of analyzing the educational process and making it more effective. System is a process taken as a whole incorporating all its aspects and parts, namely pupils, teachers, curriculum content, instructional materials, instructional strategy, physical environment and the evaluation of instructional objectives.” Regarding components of a systems approach they said systems approach is a systematic approach attempt to coordinate all aspects of a problem toward specific objectives. It focuses first upon the learner and the performances required of him. Only then it makes decision regarding course content,

learning experiences, media and instructional strategies. Such a system incorporates within itself the capability of providing continuous self-correction and improvement. It is concerned with all elements of instruction including media. Its purpose is to ensure that the components of organic whole will be available with the proper characteristics at the proper time to contribute to the total system fulfilling the objectives.

According to them systems approach applied to educational situations involves the following interlinked and interdependent stages:



According to them the components of different parts of systems approach are :

1. Input Variables

- a. **Input with regards to Pupils:** Age, minimum prescribed entry qualification, attainments (entry behavior), attitude and aptitude of pupils.
- b. **Inputs with regards to Cost Factor and Benefits:** Location of institute (rural-urban) and hostel facilities (cost, finance involved).

2. Process Variables

- (a) **Curriculum:** Whether need based, well defined objectives, anticipated behavior changes in pupils, methods, evaluation procedures laid out.
- (b) **Institute**
 - (1) Physical environment, location (urban, rural, isolated, transport, space).
 - (2) Buildings, classrooms, etc.: well lighted-cross ventilation, fixtures and suitable furniture, books (designed and organized for optimum use), library-journals.

- (3) Facilities: laboratories, workshops, society service center, recreational facilities, hostel facilities for boarding pupils and staff, etc.
- (4) Teachers: Professional qualification or training, experience, attitude, job satisfaction, constraints to get suitable teachers – finance, location of institution.

3. Feedback:

- (a) Evaluation by public organizations, boards, universities – internal, external, part internal and part external, performance.
- (b) Employees – initiative, adequacy of knowledge and skill, adaptability and ability to apply knowledge to practical situation.

2.2.6 **Shafritz, Koeppe and Soper** (1988:461) in the Dictionary of Education defined 'system' as an organized collection of parts that is united by prescribed interactions and designed for the accomplishment of a specific goal. And they identified systems analysis as "The methodologically rigorous collection, manipulation, and evaluation of data on social units to determine the best way to improve their functioning and to aid decision maker in selecting a preferred choice among alternatives." The systems approach views social units as complex sets of dynamically intertwined and interconnected elements, including inputs, processes, outputs, feedback loops, and the environments in which they operate. A change in any element of the system inevitably causes changes in other elements. It considers the organization as the totality that make up the system and their interaction with each other and with the whole.

2.2.7 As said by **Venkataiah** (1986: 7-8), Systems approach is an approach of educational technology. It is a systematic attempt to coordinate all aspects of a problem towards specific objectives. In the context of education, system as a whole incorporates all its aspects and parts, namely pupils, teachers, curriculum content and evaluation of instructional objectives.

2.2.8 **UNESCO** (1979) in its Report of a **Regional Training Workshop on Systems Approach for Education- Teacher in-Service Program** conceptualized the systems approach as a process for the application of logical thinking in the solution of problems. It is a technique for understanding, predicting and controlling the interaction and interdependence of the major parts of a system in a given situation to achieve specified

objectives. It advocated systems approach as an effective alternative for improving the process and their outcomes in pre-service and in-service teacher education programs. UNESCO espoused the view that the systems approach may be utilized in an unlimited number of situations, which call for analysis. One such situation might be curriculum development or assessing achievement or a teacher education program for teachers and other personnel.

Evaluation is a major technique in the application of system thinking. Analyzing the significant role of evaluation in systems analysis, UNESCO noted that evaluation or assessment helps to ascertain the actual fact of a situation and remedial actions are taken where necessary. When the techniques of systems approach are used, evaluation assumes a greater significance. It becomes a very positive and necessary condition for the movement of total system towards achieving its objectives. As systems approach by nature is analytical, this analysis helps to isolate the factors, which may contribute to the malfunctioning of the whole system. In this case evaluation can perform a vital diagnostic role by suggesting corrective measures instead of having the system with all its errors to proceed blindly to its final end. And evaluation must be both an ongoing process (formative) and a final product assessment (summative). In this way, system analysis helps not only to evaluate the final product but also to recognize the problems and improve the process. According to UNESCO, as a first step of evaluation in systems approach it is first necessary to identify the dependents or sub-systems in terms of their input, processes, outputs and their functional relationships. In this context evaluation performs two major functions- the first one being a descriptive one is collection and analysis of data and the second taking a judgment role in making the decision based on the description. Using these functions in systems approach evaluation may be undertaken to assess the performance of a system in terms of three criteria: efforts, effectiveness and efficiency, i.e., input, process and output.

2.3 Review of Related Studies

2.3.1 A study was conducted by **Begum** in 1972 entitled as “**An Evaluation of the Teacher Education Programme of the Teacher Training College, Dacca**” in fulfillment of her doctoral degree. The **problems** as investigated in this study were three fold: firstly, whether the selection procedure of the students in teacher education program of the Teacher Training College (TTC) was adequate; secondly, how much

effective was the curriculum of the TTC in preparing teachers for secondary schools of Bangladesh; and thirdly, did the curriculum of Dhaka TTC meet the requirements of the secondary schools of Bangladesh. The study made use of questionnaire method to collect pertinent data necessary for the study. Two groups of population were chosen as the data source. Group one consisted of principal and teaching staff of the Dacca TTC, while the second group consisted of the teachers graduated from the TTC during a period of fifteen years and who were working in different secondary schools of Dhaka city. The sample size for population one and two were 16 and 180 respectively, selected with the use of simple random sampling technique. Two sets of questionnaire were used for the two types of samples. Each had two parts. The first parts of the questionnaires were different for both population, but the second parts were the same. The first part of the questionnaires consisted of three types of questions-(1) yes-no or alternative response type; (2) multiple option, one response type; and (3) multiple option, multiple response type. The second part was designed on a five point scale. The collected data were statistically analyzed and interpreted with the use of chi-square test.

Some of the major **findings** were: traditional curriculum; short program duration (10 month); lecture method as the familiar method of teaching; heavy assignment load; short TP duration; formal but friendly teacher and student relationship; etc.

The findings led to some precise **recommendations** for improving the teacher education program of Dhaka TTC. The recommendation suggested for required improvement of admission procedure; physical facilities; curriculum; course duration; diversity of course of study; areas of studies; teaching-learning methodology, evaluation system; orientation, guidance and counseling for the students; practice teaching; assignment; lesson plan preparation; classroom supervision; development and preparation of instructional materials; scholarship/incentive system; etc.

2.3.2 **Haque et. El. (1976)** administered an evaluative study undertaken by **IER** on the topic of “**An evaluation of the Curricula of the Teacher Education Programme of Bangladesh**”. The first of its kind in the country, this study consisted of analyzing and evaluating in a multi-dimensional approach the prevailing teacher education programs and the modern trend in teacher education in the world. The **objectives** of this study were two-folds: (1) to evaluate the teacher education programs in order to determine its effectiveness; and (2) to suggest required measures for improvement.

The research methodology included an analysis of relevant document, survey of opinions of teacher educators, trainees, graduates and educational specialists; analysis of facilities and practice in teacher education institutions and place of employment and international trend in curricular practice, trend analysis and projection.

A representative sample was drawn for this study through random sampling technique. Data were collected from various data sources, like PTI, TTTC, TTC, IER through the use of questionnaire for interview and inventory to collect information about institutions.

The major **findings** regarding **TTCs** were: inadequate physical facilities, equipment and library services; scarcity of recent books and other reading materials; inadequate professional preparation of some of the teacher educators; unsatisfactory curricular provision; lack of research experience and innovative curricular practices, instructional aids and equipment, audio-visual materials; traditional method of teaching, such as lecturing; etc. Accordingly, the study **recommended** for improvement of the weak areas to ensure the quality of the TTCs.

2.3.3 The Teacher Training Team of **SEDP** (1995) conducted a survey on “**Teacher Training**” in six representative govt. TTCs to identify the state of affairs of teacher training in Bangladesh and to identify the training needs of the teacher trainers. A total of 41 faculty members, 481 teacher trainees, and 182 non teacher trainees, totaling 704 were interviewed.

Some of the significant **findings** as revealed by the respondents included that most of the libraries of the sampled TTCs were outdated, unkempt and most of the time closed; books, journals, references, encyclopedias, monographs and other printed materials were inadequate and old; the lecture method was the most common teaching methodology; there was wide use of textbook teaching; had very little use of educational technologies; little use of micro-teaching; big class size ranged from 150 to 350 students; lack of teachers and facilities; inadequate science equipment and the few available instruments and equipment were in a state of disrepair; physical conditions of most of the classrooms were in deplorable state with crowded classrooms, broken chairs and tables, worn-out black boards, scarcity of light and required ventilation; lack of carrier ladder, i.e., scope of promotion for the teacher educators of the TTCs; lack of staff development opportunities like training/fellowship; and the B.Ed. course was too

much theoretical and of short duration. Accordingly, the study **suggested** for improvement of the above areas to improve the status of the B.Ed. offered by the TTCs.

2.3.4 **Alto** (1996), a Teacher Training Specialist of Science conducted a study – “**Teacher Training in Bangladesh**” in fulfillment of his/her job requirement under the Secondary Education Development Project (**SEDP**). This study adopted a survey method to review and analyze the B.Ed. program as a research design. Literature review as well as interviews with 8 to 10 respondents from each of the then 10 govt. TTCs were made for collection of required data and information. Besides, on the spot observation was made to have an idea on teaching learning methodologies followed in the TTCs.

This study explored some important **findings** on secondary teacher education program in the area of Science Teaching. These revealed that the B.Ed. curriculum was crammed with too much contents; the common teaching methodology used in teaching science was lecture method; science was teaching with content and laboratory work; evaluation was not fruitful; test were too factual; had dearth of equipment and laboratory apparatus; classes were relatively large ranging from 100 – 200; class period was short to accomplish the set objectives effectively; time period for laboratory work was too short; unattractive physical environment; poor library facilities with apparent dearth of resource materials like updated books, journals, references, encyclopedias, etc. Besides, the topics included in the syllabus merely touched the matter because of wide coverage of subject matter. There was absent of emergent and current developments and issues (i.e. global warming, uses of new technology, life skills, environment, gender, and values, etc.). The TTCs suffered from inadequate number of qualified science teachers of whom about 70% were untrained and dire absence of educational technology like microphone/sound system, overhead projector/TV sets, etc.

The **recommendations** included the following for qualitative improvement of the B.Ed.: lengthening of the programme life from 10 months to a year, non-vacational and tri-semesters or 3 years with specialization on a semester basis; lengthening the class period from 40/45 to 60 minutes; revision of the syllabus; initiate project-based instruction instead of lecture method; allow teaching practice only after all the basic academic subjects have been completed; strengthen evaluation system with stress on various types of tests; introduce numerical grades rather than marks to encourage students to avoid the motto of passing the examination; employ modular instruction to

avoid the hazards of big class size and to solve the problems of lack of learning materials and large class size; conduct intensive and massive in-service training; intensive training and campaign for integration of new concepts, values education, and improvisation of equipments and instructional materials using low-cost and available local materials; net-working as a solution to lack of qualified science teachers and learning materials; develop a research culture in the TTCs and making environment of the TTCs conducive to quality learning.

2.3.5 In India **Sekhar** conducted a study in fulfillment of his Ph.D in 2000, which was found very much similar with the nature of investigation of the present study. The title of his study was “**An Evaluation of Primary School Teacher Education Programme in Andhra Pradesh.**” The major **goal** was to evaluate the pre-service training program for primary teacher preparation and bringing qualitative improvement in it. The study was explorative and descriptive in nature and adopted a survey design to investigate the research problems. The main **objectives** were to:

1. study the perceptions of the student teachers about different aspects of training;
2. study the attitude of the student teachers towards teaching profession;
3. note the variation in the perceptions and attitudes of student teachers due to different personal and demographic variables;
4. study the perceptions of the teacher educators about different aspects of the teacher education program;
5. study the attitudes of the teacher educators towards existing teacher education program;
6. identify the differences in the perceptions and attitudes of teacher educators depending upon their personal and demographic variables;
7. study the perceptions of the principals about different aspects of the TTCs;
8. record the physical and academic facilities available in the DIETs;
9. observe the specific deficiencies in the DIETs; and
10. suggest remedial measures to nullify the deficiencies.

The study considered three categories of samples namely, student teachers, teacher educators and principals of DIETs. A two-stage stratified random sampling technique was employed for selecting the samples of the investigation. It included randomly selected 500 student teachers from 10 DIETs; 101 teacher educators identified through cluster sampling technique; and 10 principals from the 10 DIETs.

Three perception scales and three attitude scales were employed for assessing the perceptions and attitudes of the three groups of samples and a checklist was used to identify principals' opinion about availability of requirements in the DIETs.

Descriptive statistics such as frequencies, percentages and chi-square were employed to make the description more precise. Mean, media, mode, quartile deviation, standard deviation, skewness and kurtosis were used to describe the distribution of scores. The inferential statistical techniques such as 't' test and 'F' test were employed to test different hypothesis.

The **findings** exhibited that DIETS were behind the objectives of providing quality teacher education program to the stakeholders because of institutional deficiencies, like lack of scope of physical education activities; distance of practice teaching schools; ineffectiveness of the examination system in assessing teaching skills obtained by the trainees; heavy curricular workload; weak demonstration lesson; lack of compulsory apprenticeship; outdated training program; lack of infra-structural facilities of the DIETs; insufficient time period for internship and demonstration lesson; lack of well furnished libraries; absence of required leadership on part of the principals; lack of strict adherence to the administrative rules; low emphasis on practical; meager chances to participate in co-curricular activities; lack of dynamism in the program; little correlation between theoretical and practical; outdated curriculum; etc. Besides, the DIETs were found to face severe scarcity of physical facilities required for offering quality teacher education program.

2.3.6 In year 2001 **Hussain et. el.** used a triangulation method of research design entitled as "**Teaching Practice Development Research TTC Comilla**" to investigate into the current situation and effectiveness of the teaching practice at the Comilla TTC. The aspects investigated were – state of school supervision, subject placement and preparation problems faced by the trainees; etc. The triangulation method of data collection included interview with a semi-structured questionnaire; in-depth interviews; and focus group discussion with 40 respondents, selected from six levels/categories. They included one Principal; seven teacher educators; eight trainee teachers; eight ex-teacher trainees, six Head Teachers ; and 10 school students.

The **results** demonstrated that the trainers did not get adequate scope for preparation of teaching practice in terms of simulation class; lesson plan preparation; demonstration class on teaching subjects; consultation with supervisor regarding lesson

plan; orientation on subject of teaching and doing the required 60 practice lessons due to shortage of time. The supervision of the teaching practice of the teacher trainees was also not up to the standard in terms of frequency of visit and time of staying at teaching practice class; not providing feedback; non-involvement of concern school teachers with the teacher students to guide them in their TP; etc. The evaluation of teacher trainees was partial, with a few exception, as teacher educators evaluated the trainee teachers for only five to six minutes instead of a full class. Besides, the trainees were not informed of their marks or levels/grades either. The administrations of internal assessment, like final teaching practice and viva-voce were also no up to the level. Teacher students faced many problems, like superficial knowledge in lesson plan preparation and teaching method; absence of required demonstration class; un-unified lesson plan structure followed by different subject teachers; absence of practice, knowledge and experience in teaching aids preparation/improvisation due to lack of training in this regards; lack of video recording facilities; lack of coordination among the teacher educators of various subjects, etc.

2.3.7 Primary School Performance Monitoring Project (PSPMP) conducted a study “**Primary Education in Bangladesh Findings of PSPMP 2000**” in year 2001 to look into the status of primary education. Under this study the performance of 150 primary schools were monitored based on some quality indicators. For this purpose it made use of Primary School Performance Monitoring Model, which included varied monitoring activities, like interview, observation of classroom activities as well as school situation.

This study although conducted in primary schools, however, had significant implication in identifying the research methodology of the present study, particularly in observing the classroom performance of the B.Ed. graduates in school situation for which a number of quality indicators were adapted from the PSPMP study tool.

2.3.8 In an opinion survey in 2001 “**Responses to the 36 Questions on Policy Formulation Concerning Teacher Education**” Secondary Education Sector Improvement Project (**SESIP**) sought views of some experts regarding some pertinent issues of existing secondary teacher education program, i.e., B.Ed. A set of 36 questions on different issues of teacher education program was sent to the respondents through mail. The major issues touched in the questions were (a) policy making and planning; (b) organization; (c) private TTCs; (d) qualifications of the teacher educators;

(e) curriculum; (f) in-service training (professional development); and (g) research. According to the **findings** the respondents expressed dissatisfaction over the existing capacity of DSHE for policy making and planning secondary teacher education. Absolute majority (18/19) were in favor of creating adequate number of senior posts in TTCs. They were in strong favor of appointment of TTC Principals with prior experience in training. The respondents expressed strong dissatisfaction over the current monitoring standards in private TTCs and recommended for establishing a powerful monitoring standard and organization for the private TTCs. Other important findings were bringing change in the qualifications of the teacher educators; extending the duration of B.Ed. program; make arrangement for at least three months long practical teaching; revamping of B.Ed. curriculum for developing teachers' required competencies, etc.

2.3.9 A research study titled as “**Teacher Education Programme of IGNOU: Student Teachers' Perception**” was conducted by **Sharma** (2002), which was closely related to the present study both in content and methodology. The **objective** was to assess the reactions of the student teachers on different components of the distance B.Ed. program offered by Indira Gandhi National Open University (IGNOU), Delhi. A comprehensive questionnaire, contained both the structured and open ended questions, was used to seek student teachers' perception on admission procedure; study materials; course components; counseling system; practice teaching; and assignments. The **findings** explored that the distance B.Ed. program was well planned but had some deficiencies at implementation level. These included weak monitoring and evaluation system; low level of motivations on the part of the student teachers; insufficient counseling system; conventional teaching-learning process; absence of expert guidance, close monitoring and supervision; absence of feedback from teachers/tutors on assignments; absence of use of technology-based programs; lack of supervision of practice teaching; etc. The study concluded that the B.Ed. program of IGNOU was able to create positive image among the trainees with some of the crucial areas as mentioned need to provide more inputs so as to improve the effectiveness of the program.

2.3.10 **SESIP** in 2004 conducted a research study - “**An Experience Worth Having? Competency for Secondary Teaching Acquired by New Teachers from the B.Ed.**”

Program of 1999-2000". The main **purpose** of this study was to establish the perceptions of some of the trainees of the program regarding the B.Ed. program offered by different public and private TTCs. The study provided the first empirical findings on trainees' perceptions of the B.Ed. and made a comparison between a government and a private TTC. It also provided evidence on gender difference, job opportunities of the B. Ed. degree obtainers from two types of teacher education institutions.

A total of 40 respondents from two TTCs, one private and one public, were selected for individual interview by using purposive sampling technique. The respondents included 20 persons from 'employed as teacher category' and 20 from the 'unemployed category'. Each group included 50% (10) female and 50% (10) male interviewees. Finally, the data were retrieved from 31 interviewees, 15 from public TTCs and 16 from private TTC. Two methods of data collection were used: individual interview and focus group discussion (FGD). For individual interviews, a Bangla version structured interview schedule comprising open and closed-ended questions was prepared. The draft interview schedule was piloted in order to determine the reliability and validity of it. Focused group discussions were held with two groups from each of the TTCs, one group included employed teachers and the other group included graduates. For FGD an unstructured interview guide was developed.

The respondents were interviewed personally and the interview session took place at their own residence. Every interview lasted between 30 minutes to one hour. Responses were tape recorded and duly transcribed and analyzed.

The study provided some important empirical findings about trainees' perception of the B.Ed. program. The **findings** included some significant positive aspects such as the program helped to develop a conception of student centered teaching methods; improved their commitment to teaching and gave them new ideas about how to teach; trainees learned well about lesson plan and its related sub-components, such as ways of arousing interest of students and using teaching aids; the B.Ed. provided them background in adolescent development related learning; and skills in planning. It was also helpful in fostering professional attitudes related to caring for and assisting students to learn.

The negative aspects of the B.Ed. program in general were: trainees could not apply the methods advocated by TTCs in their classes; relatively higher quality of the training experience at the government TTC compared to the private TTC; the academic quality of its staff; its maintenance of attendance records; organization of practice

teaching; poor role model for teaching provided by both public and private TTC staff because of the dull, inaudible lectures and lack of audio-visual aids; the contents of different courses were overloaded with theoretical contents unrelated to secondary school teaching and it provided too little time for practice teaching; and the trainees failed to achieve desired knowledge of the school subjects.

The **comparison between the public and private TTCs** revealed that the government TTC provided a better training experience than the private TTCs. The govt. TTC had better physical facilities like classroom provision, hostel accommodation, better qualified academic staff and better management. The academic standard of the trainees of the govt. TTC was also better as they had a good process of selecting them. According to the public TTC trainees, the shortcomings of the B.Ed. were: short program duration; long period of daily study time; much rote learning; short duration of practice teaching; longer theory part than the teaching part; no provision of practice teaching for elective subjects and an inappropriate assessment system, where essay type questions were the sole method of assessment and no provision was made for objective type questions. The disliked areas as expressed by the private TTC trainees were: inconsistent attendance of teachers; insufficient learning time with a short program duration; inappropriate examination system; insufficient library facility; lack of good teachers; etc.

In order to eliminate the shortcomings of the B.Ed. program and giving it a quality shape the study **suggested** some pertinent recommendations, such as development of a proper recruitment policy for ensuring professionally qualified teachers for TTCs; review of the structure of teaching practice, evaluation system, content and pedagogy; and introducing admission test in private TTCs. It also highlighted the need for providing training for teacher educators and conducting more study in the area of teacher education.

2.3.11 Another study entitled as “**B Ed Practice Teaching: The Views of Head Teachers of Practice Schools**” was conducted by SESIP in 2004. The study was designed to collect views on how to improve practice teaching from a key group of stakeholders, i.e., Head Teachers of schools that received trainees from the local TTCs. It was based on a one-day workshop followed by a survey.

The **sample** consisted of 100 Head Teachers, 20 ex-trainees and 30 TTC staff, who participated in a series of 10 workshops arranged in 10 TTCs. The study

categorically put forward some recommendations for improving the present status of TP. For **MoE** the significant **recommendations** were: appointment of trained teachers with experience of and commitment to teacher education, as TTC Principal; provide financial and other support to enable TTC staff to visit schools; develop consensus between schools and TTC regarding acceptance of trainees; strengthening supervision of practicing teachers by trained teachers; preparing proper guidelines and regulations for enhancing effectiveness of teaching practice; etc. For **NU** the **recommendations** were to change the academic calendar from July-April to January- December or November-October to make it aligned to the school year; refuse to accept appointment of any principal having no professional training and experience; issue guidelines for the conduct of practice teaching, setting out duties and responsibilities of all those involved; provide training to TTC staff on teaching practice; paying school teachers for supervising trainees, etc. For **TTCs** the **suggestions** were keep contact with Head Teachers through meetings to make arrangement regarding practice teaching and its timing; authorize schools to observe trainees and their lesson plans; grade their teaching and allocate a percentage of internal marks; etc. For **schools** the list of **suggestions** were: maintaining a record of trainees and issuing the certificate for attendance; provide trainees appropriate facilities; give them opportunity to work with good and trained teachers; assist trainees to prepare lesson plan covering the curriculum; letting them scope to participate in school routine and extra curricular activities; observe trainees' teaching; provide feedback and give a report on trainees development; etc. The **suggestions** forwarded for the **trainees** were- recognizing the authority of Head Teacher; staying full time in schools and perform all assignment as given by the school authority; following the guidelines for practice teaching; cooperate with their supervising teacher; take account of their advice and direction; etc.

2.3.12 **Rahman et. el. (2005)** undertook a **Baseline Survey Quality Part** under **PEDP II** with a view to determine the status of the quality indicators of primary education of Bangladesh. It was conducted on randomly selected 400 primary schools. Data were collected through classroom observation, review of school resources and school perspective. The quality parts on which data were collected were: enrolment; teacher-student ratio; class size; attendance; profile, quality; job satisfaction, workload and age of teachers; in-service training; perception of teachers; contact hour; educational materials; supplementary reading materials; teaching aids; community relationship;

physical facilities; records and register; space, seating arrangement in class; school ground; potable water; toilet facilities; etc.

The observation of the performance in the classroom included the major areas: (1) input in the classroom; (2) pupil in the classroom; (3) knowledge and understanding of the teachers; (4) performance planning; and (5) facilitating learning. Under each of these areas there were couples of investigation and these helped the researchers to identify the quality indicators under the input, process and output variables as well as for the classroom observation schedule.

In Bangladesh a study entitled “**Baseline Report of Teaching Quality**” was conducted by **Dean** (April 2007), monitoring and evaluation consultant of **TQI-SEP**. The fundamental **goal** of this study was to collect baseline data on existing teaching styles and teachers’ classroom behaviors, based on the predefined quality indicators of classroom teaching set under TQI-SEP. To obtain this goal it made use of survey method for which data were collected from 60 secondary schools, 10 from each division, selected through stratified random sampling strategy. For gathering data classroom observation technique was adopted. Two lessons of different subjects and grades were observed in each school giving a total sample of 120 lessons observation and almost 600 snapshots of teachers’ behavior and 600 of students behavior were taken for in-depth analysis of the behaviors.

According to the **findings** the lessons were very much typical in secondary schools; the students were not required to think other than remember from the book and there was no active participation on their part. There was no evidence of lesson plan and additional teaching and learning resources were scarce. Some other major findings were – in majority cases teaching-learning were book based; teachers did not recap previous lesson; did not provide feedbacks to students on homework assignments; did not explain the objectives and coverage of the lesson; did not relate the lesson to previous lesson and learning; did not check whether all the students had required textbooks; read from the book; wrote notes on the board for students to copy; very little use of teaching aids; asked closed questions; did not provide feedback to students and listened to students ideas; did not monitor students’ classroom activities; etc. However, there were some positive findings, for example the classroom conditions were reasonable for teaching-learning and notably clear evidence of better performance of the trained teachers than their untrained counterparts.

The findings led to conclude that if TQI-SEP is to achieve its fundamental goal of improving the quality of teaching, the above concerns should be taken into account in the training programs, in-service and pre-service, taken by TQI-SEP.

2.4 Review of Related Reports

2.4.1 **Bangladesh Education Commission Report** (1974:76-79), the first education commission of the country urged the need for importance of quality teacher education program in the following way:

“The role of a properly qualified teacher in our national life is of immense importance. The qualitative tone of an education system is determined by the professional competence of the teachers. In fact, building, appliances and any such investment in the field of education will be of little value if appropriate measures are not taken for improving the standard of teachers.”

The commission further said as a basic preparatory measure in our total effort to popularize and expand education in our country, the greatest stress has to be laid in increasing the number of properly-qualified teachers. It must be remembered that as the teacher is concerned with building the personality of the pupil, the former must not only acquire the required amount of knowledge but also a special ability in teaching in relation to the pupil's mental inclinations. Above all the teacher must have all the appropriate personal qualities required to build up the pupils as responsible citizen of the country through the particular medium of his instruction. To achieve these, along with others, the modern principles and methods followed in teacher-training in the developed countries of the world have to be adapted to our particular educational needs.

The commission, therefore, envisaged on adapting some **measures** for improvement of secondary level teacher training program. They were: the teacher training courses should be reformed and made up to date; the ten-months duration gradually replaced by a three-year program; set up a National-Training Advisory Committee to coordinate and supervise the different training programs arranged by different institutions; arrange training for the teachers without any professional training for whom a part-time or correspondence course can be introduced; set up a National Educational Research Council to coordinate and supervise the different

schemes and activities; reduce teacher-student ratio and it could be 1:15 apart from the principal and the vice-principal; raise educational qualifications of the teacher educators at the teacher training institutes; and create more senior educational service posts of professors; establish a direct connection with neighboring schools through an appropriate Education Extension Program; wide use of radio and television, i.e., technology in all extension work of teacher training; maintain a cumulative record of the pupils and modify the principles of practical lessons to raise the standard of instruction; establish a National Association of all teachers belonging to teacher-training institutes for their professional advancement; attract meritorious pupils to teaching; provide adequate fund to teacher-training; and set up of a national Training Advisory Council to advise the MoE in all matters relating to teacher-training.

2.4.2 The report on **National Curriculum and Syllabus Committee of Bangladesh** (NCSCB, 1978: 72-73) also reiterated the need for harmonious development of curriculum and syllabus of secondary level teacher education program for effective and quality implementation of secondary school curriculum. According to this committee report, "Overall development of the teacher training program is possible only through the quality improvement of the institutions engaged in offering professional training for the teachers." For realization of this goal it suggested for restructuring, renewal, modification and development of teacher training curriculum of different teacher education institutions in line with the following **guidelines**.

- Identify specifically the general objectives of each teacher training institution focusing the psychological, social and pedagogical aspects of education.
- Structuring of curriculum and syllabus according to the pre-specified objectives of the teacher training institutions;
- In preparing and revamping teacher training curriculum attention should be given so that it is fully consistent with school curriculum and not become too much overloaded or under-loaded for the students. Besides, there should be enough scope of training of the trainers; harmonious integration of theory and practical in the contents; emphasis on work experience and practical work; proper integration of content, method and practical work in school subjects; and emphasis on co-curricular activities. It also urged for emphasizing the practice teaching part of teacher education program with more time allocation for it and

focus on supervision of practice teaching in schools; and provide feedback on it. NCSCB further suggested for some other important initiatives significant of which were: emphasis on action research; providing facilities of library, laboratory, furniture, etc.; equal distribution of marks for internal and external evaluation in the assessment of students academic progress; arranging refresher training for the teachers in every five years to update their knowledge and skills; introduction of different measures like increased allowance and scope of promotion in work place for attracting meritorious students to teacher training institutions; make provision of minimum 5% of the GDP for teacher training, establishment of a National Teacher Training Academy to look after overall activities of teacher education program; establishment of a National Association for the teachers of all teacher education institutions of the country, etc.

2.4.3 The **Education Commission Report 1988**, also raised some **concerns** about the quality and utility of the teaching standard in TTCs. According to its observation, TTCs failed to establish direct and working relationship with modern trend of educational change in the country. The developments occurred in education, in general, during pre and post independent period were not reflected in the education system of the TTCs. The curriculum of these institutions was still very traditional and unrealistic. Moreover, it did not suit to the curriculum and syllabus of secondary schools. It did not provide enough opportunity to learn about the teaching methods required for effective teaching of the secondary school subjects. There was also lack of coordination between the theoretical and practical aspects of the curriculum of TTCs. As it emphasized more on theoretical aspects, students failed to practice them in reality. The teaching of theoretical aspects was lecture based and lacked in modern concepts.

Besides, TTCs suffered from strong scarcity of teacher trainers. Against the total sanctioned posts only 48% teachers were working in the TTCs. There was only one post of associate professor beyond the post of Principal and Vice Principal. Resultantly teachers were bound to leave the TTCs after promotion and thus TTCs failed to utilize the expertise of senior teachers. The physical facilities of the TTCs were also not up to the mark. Besides, TTCs suffered from coordination problems among the TTCs and there was no system of regular supervision and monitoring of the academic activities in the TTCs.

2.4.4 The **National Committee on Education Policy 1997** (NCEP, 1997:186-191)

to utter discontentment said the present system of teacher training at any levels of education were mostly conventional, mechanical, incomplete, certificate based and inadequate in relation to demand. The curriculum and syllabus of teacher training were not updated and not at all consistent with the continuous process of development of global knowledge and technology. In many cases it was overloaded with theoretical subjects; the old system of cramming based evaluation was followed, practical training was very much neglected; and barred with a number of problems. For these reasons the desired result was never achieved. There was also problem in the application of acquired experiences of training in educational institutions due to environmental obstacles. For all these reasons the training program needs to go for reform and expansion, so that its application could be ensured.

To overcome this unexpected state of teacher training program of the country NCEP suggested few **recommendations** significant of which were: modernization of curriculum and syllabus; having adequate knowledge and conception of the changed curriculum and syllabus by the instructor/trainer; provide training for qualitative improvement of the trainer; impart training to the untrained in-service teachers; emphasis of practice teaching in terms of content and duration; provide training on co-curricular activities; reframing of admission rules; increasing financial and physical facilities for the trainees; in-service training and orientation after each five years for each working teachers; supply of educational equipment along with creation of proper environment; allocation of justified number of periods; and adequate supervisory arrangement to ensure that knowledge gained in training is correctly applied in the educational institutions.

2.4.5 The report of the “**Secondary Teacher Education Task Force Workshop**” organized by **SESIP** (2001) revealed some important findings, which has important implications on the research questions of the present study. A total of 55 participants attended the meeting, who in groups worked out on two important issues: (1) present duration and (2) timing of each course. The participants opined the duration of B.Ed. was not appropriate and time was insufficient. The **problems** identified in these regards were: vast and lengthy syllabus with emphasis on theoretical aspects; heavy content load which does not suit with students’ present need; scarcity of teachers; overlapping in syllabus; shortage of reference books and equipment; lack of linkage between school

syllabus and teacher education curriculum; and lacking in co-ordination between methods and contents; trainers' lack of training on modern pedagogical concepts and information and communication technologies; absence of proper and required monitoring, supervision and evaluation system; insufficient practice teaching and course duration; high trainee- trainer ratio; insufficient teaching aids and equipment; absence of the scope of trainers' professional development; lack of status of the TTCs and control of administration, examination and publication of results by different organizations.

2.4.6 **National University** (2002) in conjunction with SESIP organized **The First National University Workshop for Private Teacher Training Colleges** in March 2002 in the backdrop of increasing concern of falling standards, inappropriate grading practices and mismanagement in private TTCs which deliver the B.Ed.

The major **goal** of this workshop was to review the standard of private TTCs in delivering the B.Ed. course, its strengths and limitations and find out means and ways to enhance its standard in terms of courses, examination, teaching practice and management. In the workshop participants identified some important problems and issues in offering quality B.Ed. program by private TTCs. Those were: high percentage of students awarded 1st class; political infiltration in the management; over marking in internal examination; less priority to private TTCs than government ones; short program duration; unsuitable timing of practice teaching and TTC year; low attendance; less emphasis on teaching practice; weak management; poor physical facilities; lack of opportunity of in-service training of the teacher trainer; poor evaluation system, etc.

The participants generated a wide range of solutions to these problems. They were: take necessary measures by NU to ensure quality education in the TTCs; introduce standardized marking system; appoint qualified and experienced teacher educators; ensure students' presence; regular monitoring of the private TTCs in the areas of overall management, financial transparency, physical facilities, teaching resources including the library, academic qualifications and quality of teaching staff, course process, attendance, teaching, internal examination and record keeping; providing written guidelines which private TTCs should follow strictly; revision of the

B.Ed. curriculum; elimination of the mismatch and overlapping of the contents and add new areas to meet new challenges; emphasis on teaching practice; development of teaching skills rather than memorizing contents.

Other suggestions included that NU should set up central admission test for all applicants and distribute successful applicants to the TTCs on the basis of the result; bar entry to the B.Ed. course to teachers with a 3rd class degree; arrange meetings between public and private TTCs to exchange experiences; provide funds for TTC buildings, textbooks, teaching aids; provide training to teaching staff including international training; introduce computer subject into curriculum; introduction of assignment system in all subjects; appoint qualified teachers; increase the number of demonstration lesson; managing teaching practice better; introduce questions of innovative type and of critical thinking instead of traditional one; according affiliation to private TTCs which have physical facilities, teaching staff, library and other facilities; private TTCs should be aided by government; and extension of course duration.

2.4.7 Tapan (2002) in his seminar paper “**Quality Assurance of Teacher Education in Bangladesh**” presented during an international seminar held in Dhaka and organized by UGC and COL on **Quality Assurance in Higher Education** viewed quality issues of an education program from multidimensional directions. They were: the curriculum; role of teachers; learning resources; staff resources; course organizations; teaching-learning environment; assessment appraisal and monitoring. Investigating these areas of secondary teacher education program offered by public TTCs, he explored a gloomy status of it which was characterized with big class size ranges from 150 to 350; one-way teaching method, where teacher is the main role player; hardly use of modern teaching-learning methods and techniques; strong lack of laboratory instruments and equipment; inadequate contact hour of only 40 – 45 minutes duration; lack of technological and IT facilities; occasional presence of important and recent books, journals, references, encyclopedias, monographs and other printed materials on the library shelves; strong absence of required faculties with most teaching posts unfulfilled; severe lack of instructional facilities and materials; and low staff morale of the faculties.

According to Tapan the private TTCs also had these deficiencies along with some more, such as rented building with lack of required physical facilities; flexible

enrolment continue almost throughout the academic year; absenteeism with no regulation in this regard; lack of qualified and professionally sound teaching staff; inefficient internal assessment with high level of manipulation, etc.

2.4.8 The Report of **National Education Commission – 2003** (NEC-2003) indicates that quality of education largely depends on well-planned curriculum, competent teachers and conducive educational environment. Among these determinants of quality education teacher's role is the most important and a competent teacher should have three qualities: (1) sound knowledge of the subject matter of teaching; (2) knowledge and skills of pedagogy; and (3) embedding with positive attitude for good teaching.

To cultivate these qualities among teachers quality teacher education program is a precondition. Although a number of institutions were involved in offering teacher education program they were constrained with some **weaknesses** in delivering quality teacher education program. According to NEC important of them were: lack of required infra-structural facilities in TTCs, like classroom, hostel, library, laboratory, etc.; lack of required number of teacher educators; absence of regular staff development training for them; lack of adequate and updated books on teacher education; lack of modern scientific equipment and other materials in the laboratories; absence of transparency and accountability due to absence of due monitoring, inspection and supervision by the higher authority; absence of professionals at National University to look after the academic aspects of the TTCs; absence of initiative to modernize the teacher training program; lack of control of the government over the private TTCs; developing an attitude of commercialism on part of the private TTCs and providing less importance to academic aspects; more focus on theoretical aspects and negligence to the practical aspect; and absence of due promotion of the teachers of the TTCs.

To eliminate these quality problems NEC suggested a list of **recommendations**, which included: developing the infrastructural situation of the TTCs; appoint Principals of all TTCs with training background on educational administration and management; staff all the TTCs with required number of teacher trainers, who should have master degree both in education as well as in the subject of teaching; provide recurrent professional training to all the teachers in a span of every five years; give training to them through establishing a network with developed countries and exchange of education programs or through undertaking development projects; involve teacher educators and teacher trainees in curriculum development of teacher education program

for proper reflection of their needs; adequate and proper arrangement for teaching practice; make available latest books and other materials in the libraries of the TTCs; made financial provision by the government to capacitate the TTCs in buying laboratory materials for science teaching; redesign the present manpower structure of the TTCs and create more higher positions to facilitate the promotion of teacher trainers; regular monitoring, supervision and inspection of each TTC; make policy to enhance the infra-structural facilities of the private TTCs; and strengthen the practice teaching in the distance B.Ed. program of BOU.

2.4.9 **National University** (2005:24-25) in association with SESIP, DSHE and MoE developed a **New Secondary Teacher Education Curriculum** to be implemented in session 2006-2007, where a set of 32 competencies were identified as a model for secondary teachers of Bangladesh and expected that the B.Ed. program will mold the future secondary school teachers in line with these competencies. The 32 competencies were categorized under the following six major areas:

1. Professional attitude and approach;
2. Knowledge about development characteristics of adolescents and the cultural, social and economic influence in their lives;
3. Resourceful and innovative in implementing available physical and material resources for teaching and learning;
4. Skilled in planning, preparing and managing classroom activity and students' participation to achieve understanding as well as knowledge and skill acquisition;
5. Knowledgeable and skilled in determining students learning needs and in assessing and communicating student achievement;
6. Practical in using assessment information and other forms of feedback to evaluate the review of their own teaching.

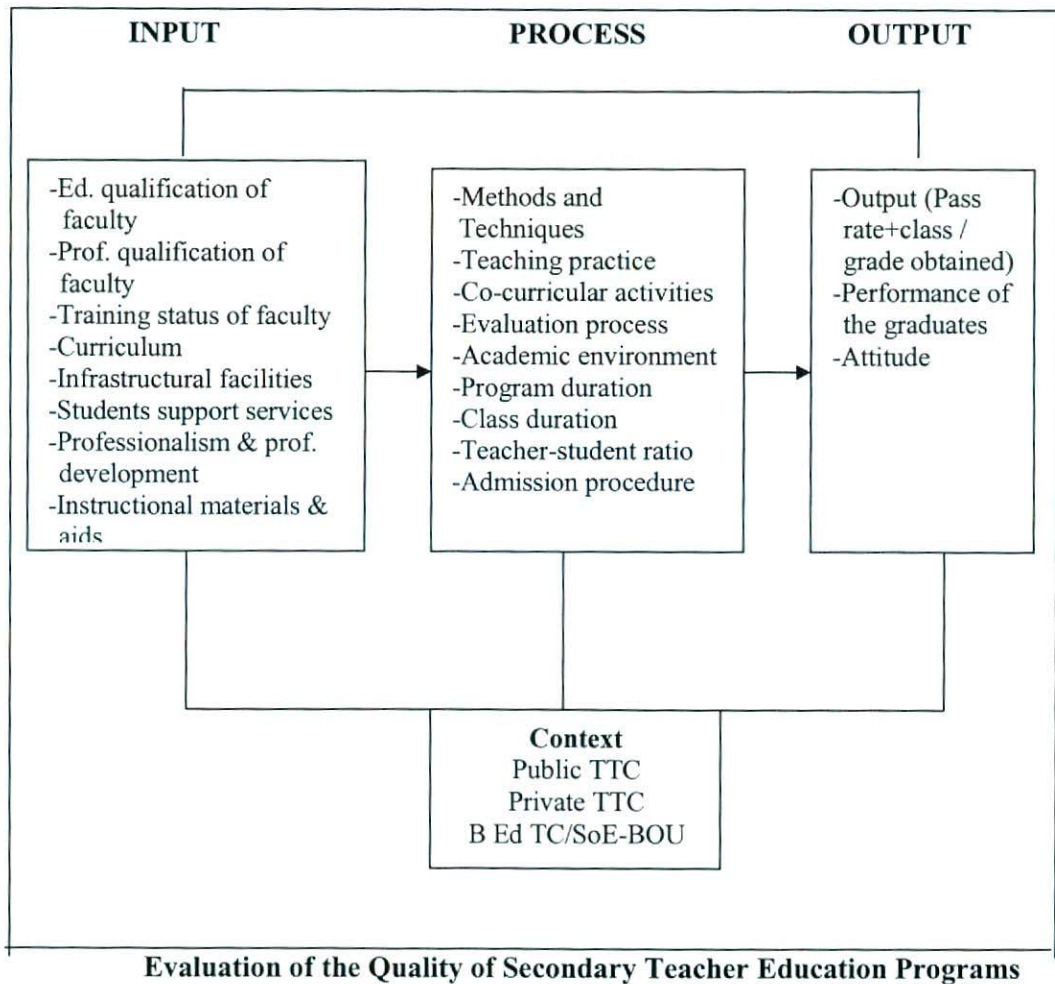
It is important to assess how much the present B.Ed. program is being able to cultivate the competencies in its trainees.

2.5 Conceptual Framework of the Study

One of the fundamental objectives of secondary teacher education program is to equip the secondary school teachers with required knowledge in conceptual and

theoretical aspects of teacher education, inculcate positive attitude to their profession and armor them with quality teaching skills. Development of these aspects greatly depends on the prevailing situation of the secondary teacher education program. But there is a growing feeling that the teacher education programs, offered by NU and BOU, are not effective in turning out such kind of teachers. The findings emerged from review of related literature and empirical studies also support this feeling by exploring deficiencies in a number of variables of the B.Ed. programs, which have significant relationship to the quality of secondary teacher education program. This finding, therefore, justifies the inclusion of these variables as identified for this evaluative study.

Figure 2.2: Conceptual Framework/Research Paradigm of the Study



Again it is found that although different approaches could be employed in evaluation of an education program, however as stated by UNESCO (1979:36), systems

approach is one of the best approaches in evaluation of a teacher education program. It is because of the fact that systems approach by nature is analytical through which the interaction of various components of a system can be defined as clearly as possible. This detailed analysis helps to isolate the factors which may contribute to the malfunctioning of the whole system and thus can perform vital diagnostic role by suggesting corrective action at the stage of operation. UNESCO further mentioned that as the first step in evaluation, in the context of the total system, it is necessary to identify the different variables of the system in terms of their input, process and output variables and their relationship.

The review of literature further reveals that the three institutions, govt. TTCs, private TTCs and SoE/BOU are the major imparters of the B.Ed. programs in the country. Each of these institutions has different set-up and standard in terms of various input, process and output variables and the quality of their B.Ed. programs are variably influenced by the quality of these variables of their own institutions. As mentioned by Dean in his paper on Quality of Education in a TQI Context (TQI-SEP, 2006:16) "Inputs, Process and Output are all important dimensions in securing quality education", "...input, processes and output all contribute to better and higher quality of education.". Accordingly, in order to have a holistic view of the quality of secondary teacher education program it became necessary to look into the quality of the B.Ed. programs in the context of these three IPO (input, process and output) dimensions.

In the light of this consideration the research paradigm of this study in Figure 2.2 illustrates the relationship among the variables considered in the present study. The paradigm shows three major clusters of variables: input, process and output, which are hypothesized to be related with each other. The first cluster consists of input variables, namely educational and professional qualifications of the faculty; status of in-service training received by them; quality of B.Ed. curricula; infrastructural facilities of the teacher education institutions; students support services; professionalism and scope of professional development; and availability of instructional materials and aids.

The second cluster of variables is related with process factors comprising the factors involved in the functioning of the programs. They are: methods and techniques; teaching practice; co-curricular activities; evaluation process; academic environment; program duration; class duration; teacher student ration and admission procedure.

The output variables involved those variables some of whom were the direct result of the combined effort of the input and process variables and some were the

result of counter product of them. Those included formal completion, B.Ed. final results, performance of the B.Ed. graduates in actual classroom situation as well as respondents' attitude towards quality of the B.Ed. programs.

In a nutshell, the framework in Figure 2.2 shows the evaluation procedure of the quality of secondary teacher education programs in terms of input, process and output variables and their interrelationships in the context of govt. TTCs, private TTCs and TCs of BOU.

2.6 Operational Definitions of the Terms and Variables

The terms and variables used in this study are operationally defined as follows:

B.Ed. Graduates: Refers to those individuals who obtained B.Ed. degrees from public and private TTCs of NU and SoE of BOU in the previous five years from academic session 2005-2006 and were working in secondary schools, both govt. and private, during the time of data collection.

Distance B.Ed. Program: Refers to the B.Ed. program offered by School of Education of BOU. Previously it was conducted by BIDE from 1985-1998.

Opinion: An opinion is a person's ideas and thoughts towards something. It is an assessment, judgment or evaluation of something (Wikipedia, 2007:1 of 1). In this study the word 'opinion' indicates the ideas and thoughts of the B.Ed. graduates, teacher educators/tutors and Principals/TC coordinators to various input, process and output variables involved in the operational process of the face to face and distance B.Ed. programs.

Attitude: It is a hypothetical construct that represents an individual's liking or disliking for an item. Attitudes are positive, negative or neutral views of a person. Here it refers to the personal feelings of the respondents of NU and BOU towards different aspects of the B.Ed. programs, which has developed as a counterproductive from participation in the B.Ed. programs.

B.Ed. TC Coordinators: Refers to the program managers of the tutorial centers of the distance B.Ed. program offered by BOU. They are responsible for overall implementation and management of the distance B.Ed. program in their respective tutorial centers. Generally, the heads of the institutions, where the tutorial centers are located, as ex-officio play the roles of TC coordinators.

Tutorial Center of Distance B.Ed.: Refers to the teaching-learning centers of the distance B.Ed. program of BOU, where tutorial class of distance B.Ed. program holds twice a month. Majority of these are located in govt. TTCs and few in general colleges and training institute.

Tutors of Distance B.Ed.: Refers to the individuals, who are assigned by BOU to conduct the tutorial sessions and facilitate the students of distance B.Ed. program in the tutorial centers.

Teacher Educator: Refers to the teachers who work in the TTCs, govt. and private, and teach in the face to face B.Ed. classes. Traditionally they are called as teacher trainers.

Teacher Education Program: It is seen as encompassing the whole process of teacher preparation in academic subjects, pedagogy and personal development (COL, 2003:10). Its difference with teacher training is that teacher training is narrower than teacher education. Here in this study the phrase 'Secondary Teacher Education Program' refers to B.Ed. programs of NU, offered through the govt. and private TTCs, and the distance B.Ed. program of SoE of BOU.

Public Teacher Training College: Indicates the teachers training colleges, which are owned, controlled and managed by the government.

Private Teacher Training College: The TTCs which academically follows the same curriculum of that of the govt. TTCs and managed by the rules and regulations set by NU. These are generally owned by a person or a group of persons and managed by a managing committee following pre-specified rules prescribed by the government.

Performance of the B.Ed. Graduates: Refers to the status of performances of the B.Ed. graduates of NU (both govt. and private TTCs) and BOU in actual classroom situation of secondary schools. This was measured by observing the classroom teaching performances of the sampled B.Ed. graduates of the three kinds of teacher education institutions in real classroom situation.

B.Ed. Curricula: Refers to the B.Ed. curriculum of NU, offered by govt. and private TTCs, which was in vogue up to academic session 2005-2006 and the curriculum of the distance B.Ed. of SoE of BOU practiced up to 2007-2008 academic session.

Face to Face B.Ed.: It indicates the B.Ed. offered by the public and private TTCs. Here Instructional delivery happens in physical presence of both trainers/teacher educators and students and through direct interaction between the both parties.

Distance B.Ed: Indicates the B.Ed. offered by BOU. It delivers education to students who are not physically present on site. Rather than attending courses in person, teacher and students may communicate at time of their own choice by exchanging printed and electronic media or through technology.

Input Variables: Refers to the factors which are essentially required for giving effectiveness to the total functioning of the process of a system. Any education program, irrespective of general and professional, requires these for its effective functioning. These help to reap a better output through making the process variables well functioning. In this study, the input variables considered for the secondary teacher education system were: educational and professional qualifications of the faculty; status of in-service training received by them; B.Ed. curricula; infrastructural facilities of the teacher education institutions; students support services; professionalism and scope of professional development; and availability of instructional materials and aids.

Process Variables: Process variables are concerned with the functioning of a system. The various activities or measures directly undertaken for running a program are considered to be process variables. The process variables as identified in this study were: methods and techniques; teaching practice; co-curricular activities; evaluation process; academic environment of the institutions; program duration; class duration; teacher-student ratio and admission procedure.

Output and Outcome Variables: The output and outcome variables involved those variables some of which are the direct result of the combined efforts of input and process variables and some are the result of counter product of them. The output variables assumed in this study were: pass rate and class obtained in the B.Ed. final examinations. The outcome variables included performance of the B.Ed. graduates in actual classroom teaching-learning process and the attitude of the respondents towards quality of the B.Ed. programs.

Chapter 3

OVERVIEW OF THE SECONDARY TEACHER EDUCATION PROGRAM OF BANGLADESH

This chapter gives an overview of the teacher education programs of Bangladesh exist at different levels of education with particular focus on secondary teacher education programs. This helped the researcher to have an idea of the teacher education programs of the country, both in face to face and distance modes.

3.1 Teacher Education Programs of Bangladesh

There are generally four types of teacher education programs in our country: (a) teacher education program for primary school teachers; (b) teacher education for secondary school teachers; (c) teacher education program for physical education teachers; and (d) technical and vocational teacher education program (BANBEIS, 1989:10-11).

a. Teacher Education Programs for Primary School Teachers

In Bangladesh primary teacher education program is mainly offered by Primary Teacher Training Institutes (PTIs). Presently there are 54 PTIs, 53 public and one private, in the country ((DPE, 1997:24). The program offered by these institutions is called 'Certificate in Education', in brief C-in-Ed. The duration of this program is one year and the minimum qualification required for entries into this course is SSC. The National Academy for Primary Education (NAPE), situated at Mymensingh, is responsible for preparing curriculum, conducting examinations and offering certificates for C-in-Ed program.

Bangladesh Open University offers a one and a half year Certificate of Education (C.Ed.) course to the primary school teachers. The Institute of Education and Research (IER) of Dhaka University offers a two-year M.Ed. degree with major in primary education on part time basis. Besides, IER offers four-year honors in education in the areas of specialization, namely Social Science Education, Math and Science

Education, Language Education and Special Education. In third year students of the first three areas can choose primary education for their practice teaching, thus prepares teachers for primary level of education.

b. Teacher Education Programs for Secondary School Teachers

In Bangladesh secondary teacher education is offered by different institutions like NU (through govt. and private TTCs), BOU, IER-Dhaka university, private universities, etc. According to the latest information sheet of the College Inspection Section of NU (2007) there are at present 14 public and 94 affiliated private TTCs, which provide face to face teacher education program to the secondary school teachers. The program offered by these institutions was of 10 month (before 2006) duration and called as Bachelor of Education (B.Ed.). The School of Education of Bangladesh Open University offers a two-year B.Ed. program for the secondary school teachers through distance mode of education. Besides, the School of Agriculture and Rural Development (SARD) offers a three-year Bachelor of Agriculture Education program (B.Ag.Ed.) for the secondary school teachers. School of Social Science, Humanities and Language (SSHL) of BOU imparts a two-year program, called as Bachelor of English Language Teaching (BELT), for secondary level English teachers. The IER of Dhaka University offers four-year B.Ed. (honors) program followed by one year M.Ed. It also offers a two-year M.Ed. program for part timer with major in secondary education. In a recent development some private universities, like Asian University, Shanto-Mariam University, Darul Ehsan University, Northern University, Uttara University are also offering B.Ed. for the secondary school teachers through face to face and distance mode. There are some other institutions, like HSTTI, BMTTI, NAEM who regularly organize training programs of in-service type. Also under some other projects, like SESIP, SESDC, SEDP, PROMOTE, FSSAP I and II in-service training were made available to the secondary teachers in different areas of their teaching as well as on pedagogy. TQI-SEP has also started similar in-service training programs, like two weeks long Continuous Professional Development (CPD) training on 19 school teaching subjects and a three months long School Teaching Certificate (STC) course for the secondary school teachers for improvement of teaching quality of secondary education of Bangladesh.

c. Teacher Education Program for Physical Education Teachers

The College of Physical Education, one situated in Dhaka and another in Rajshahi, offers one year Bachelor of Physical Education (B.P.Ed.) program after first university degree, i.e., bachelor level of education. They also offer certificate in physical education program for the primary school teachers.

d. Technical and Vocational Teacher Education Programs

The Technical Teacher's Training College (TTTC) offers a two years technical teachers training course for polytechnic diploma holders. Vocational Teacher's Training Institute (VTTI) offers three years diploma course for the teachers working in the Vocational Training Institutes.

3.2 Pre-service Secondary Teacher Education Program

As mentioned above there is an extensive network of pre-service secondary teacher education institutions presently operational in Bangladesh. However, government TTCs were the main imparters of the pre-service teacher education at secondary level before. The history of this teacher education program dates back to the dawn of twentieth century (1909), when Dhaka TTC, the first ever teachers' training college of this country was established by the British ruler under the affiliation of Calcutta University. The degree then awarded was called Bachelor of Training (B.T.), which from 1956 was renamed as B.Ed. The duration of the course was 10 months. Emphasis was laid for providing regular training in school teaching subjects along with requisite knowledge in pedagogy. After the establishment of Dhaka University in 1921, the TTC became a constituent of Dhaka University. In 1948 TTC, Mymensingh (co-ed) and in 1951 TTC, Mymensingh (Female) were established (Maleque et al, 2007:308 and Ahmed, 1996:1). Over time many other govt. TTCs and some other institutions like IER, BOU, private TTCs and some private universities have emerged and are offering secondary teacher education program, i.e., B Ed. They offer teacher education programs of different durations, modes and curricula.

The following table (Table 3.1) presents a brief statement of the pre-service teacher education programs offered by various institutions.

Table: 3.1
Particulars of Pre-service Teacher Education Programs for
Secondary School Teachers

Institution	Program Offered	Duration	Mode of Offering	Nature of Training
Govt. TTCs (14)	B.Ed. B.Ed. Honors M.Ed.	One year Four years One year	Face to face Residential and non-residential	Pre-service
Private TTCs (94)	B.Ed. M.Ed.	Ten months One year	Face to face non-residential	Pre-service
BOU	B.Ed. M.Ed.	Two years Two years	Open and distance mode of education	Pre-service In-service
IER	B.Ed. Honors M.Ed. M.Ed.	Four years One year Two years (Part Time)	Face to face	Pre-service Pre-service In-service
Asian University of Bangladesh	B.Ed.	One year	Distance	Pre-service
Uttara University	B.Ed. M.Ed.	One year One year	Face to face	Pre-service
Northern University of Bangladesh	B.Ed. M.Ed.	One year One year	Face to face	Pre-service
World University of Bangladesh	B.Ed. M.Ed.	One year One year	Face to face	Pre-service
Shanto-Mariam University	B.Ed.	One year	Distance	Pre-service
Darul Ehsan University	B.Ed. M.Ed.	One year One year	Face to face	Pre-service

* Only Mymensingh (Co-Ed), Rajshahi and Dhaka TTCs offer honors and master programs.

Among all the teacher education institutions, in fact the public TTCs and IER have long been working as the major functionaries of pre-service teacher education program for secondary school teachers through face to face mode while BOU is working for distance mode teacher education program. In the last one decade, waves of establishing private TTCs and universities were noticed and they are offering B.Ed. and in limited case M.Ed. But, the standard of these institutions and quality of their programs are under question mark and according to Morris (July 2006:6) is gravely threatening the quality of B.Ed. as well as the enrolment figures of the teacher education program of the government, i.e., public TTCs.

3.2.1 Program Structure and Curricula of the B.Ed. Programs

Here in this study evaluation was done of the pre-service secondary teachers education programs, i.e., B.Ed. offered through face to face and distance modes by the two major educational institutions – The National University and the Bangladesh Open University. Following sections present a precise picture of different aspects of the two B.Ed. programs.

3.2.1.1. B.Ed. Program of National University

Title of the Program: Bachelor of Education (B.Ed.)

Duration: Ten months, without translating in semester.

Offered by: The Government and the private TTCs.

Admission Requirement: The minimum qualification is a minimum second class bachelor degree in any discipline with at least two second class and minimum three years teaching experience. Ten percent seat is reserved for fresher and the rest 90% for working secondary school teachers.

Admission Procedure: The government TTCs admit students through an institution based written test. The aspiring candidates apply for the individual college and seat for a written test, followed by a viva voce examination. Each institution develops its own admission test for screening of eligible candidates. The test is a combination of essay and objective type test items and includes the subjects: Bangla, English and general knowledge. In the private TTCs, applying students can get admission without seating in any admission test.

Curriculum Structure: The B.Ed. curriculum of NU was designed to provide the prospective teachers with necessary background in pedagogy and in secondary school teaching subjects. For this it follows a uni-track model, which includes both theoretical subjects and practical. The theoretical portion includes five compulsory core subjects, 10 elective subjects and seven optional subjects. The elective subjects include together courses from the disciplines of science, social science and business education. Students need to select two elective subjects from this group. In addition they might select anyone from the group of optional subjects. If students can score more than 60% marks in the optional subject, the additional mark is added with their total scores as a deciding factor of their grade in the B.Ed. For practical, students are to choose two subjects from the elective group and have to practice them in secondary schools. Besides, there is a

viva voce. The total marks allocated for face to face B.Ed. is 1100 including the optional. Both the government and the private TTCs under National University follow the same B.Ed. curriculum.

Table 3.2
Curriculum Structure of the B.Ed. Program offered by National University

Core Subjects	Theoretical		Practical	
	Elective Subjects	Optional Subjects	Practice Teaching	Viva Vocee
Compulsory for all Students 1. Foundation of Education 2. Psychological Foundation of Education 3. Secondary Education Administration and Management 4. Educational Measurement and Evaluation 5. Language Education (Bangla and English)	To select any two subjects from below: 1. Bangla 2. English 3. Mathematics 4. Physics 5. Chemistry 6. Biology 7. Social Science 8. History 9. Geography 10. Business Edn.	May select any one from below: 1. Islamiyat 2. Agriculture Edn. 3. Home Economics 4. Arts and Crafts 5. Educational Research 6. Library Science 7. Computer Edn.	Any two from the elective courses	
Marks 500	200	100	200	100

Evaluation Process: The evaluation system of NU B.Ed. has two parts, viz internal and external. Forty percent mark is allocated for internal examination, divided equally for two terminal examinations, for each of the compulsory and elective subjects and 60% for external examination. In case of the optional subject, full 100% mark was for external examination. The internal evaluation is conducted by the TTCs themselves. It consists of two written examinations and assignments/term paper and practice teaching. The external evaluation includes written examination, practice teaching and viva-voce, which were conducted by NU.

Students need to sit for written examination for 700 marks (500 compulsory and 200 practical subjects). They are assessed for 100 marks for lesson plan preparation; 100 for practice teaching; and 100 for viva-voce. The written examination is fully theoretical and includes essay and short essay type questions. Students are to obtain minimum 40% marks in each of the subjects to pass. If any student failed in any course he/she is to retake examination in all subjects.

Operational Modality: The first five months are spent for face to face class. In the sixth, seventh, eighth months teacher trainees do their practice teaching in schools. In the ninth and tenth month of the program, students take preparation and sit for final examination followed by viva voce.

Class duration: For the core courses is 45 minutes and that for the school teaching courses is 40 minutes.

Attendance: A student needs 75% presence to be qualified to appear at the final examination.

Marking: The following traditional marking system was in practice in the B.Ed. of National University.

Table 3.3
Marking System in the B.Ed. Program of NU

Class	Range of Marks (%)
1st Class	60 and above
2 nd Class	45% to below 60%
3 rd Class	40% to below 45%

Validity of One Registration: A student must pass the B.Ed. within maximum five years duration from the time of the first enrolment.

Practice Teaching: Practice teaching is compulsory for all students. All students require to undertake two practice teaching subjects from the list of elective subjects. During practice teaching, all students require to go to actual classrooms with lesson plans previously prepared and approved by the guiding teachers. The actual number of lessons practiced in schools is decided on the availability of the number of classes in schools. For the two TP subjects students were to prepare a total of 60 lesson plans, 30 for each subject (Sources: Maleque et. El., 2007, NU, 2004, NU, 2003).

Performance Indicators: There exists no performance indicators to be achieved by the B.Ed. graduates of National University.

3.2.1.2 B.Ed. Program of Bangladesh Open University

The roots in the history of distance B.Ed. date back to 1956 with the distribution of 2000 radio receivers to education institutions under the auspices of the then

Education Directorate. This in turn led to establishment of the Audio-Visual Cell and later on Audio Visual Education Center (AVEC) in 1962. After independence of Bangladesh, a pilot project 'School Broadcasting Program' (SBP) was undertaken during 1978-80, which was lately merged with AVEC in 1983 to establish NIEM (National Institute of Educational Media and Technology). This was later transformed into Bangladesh Institute of Distance Education in 1985 to offer the first ever distance B.Ed. program to the then huge quantity of untrained secondary school teachers. Thereafter, Bangladesh Open University was established in 1992 as the first ever distance education university of the country under a parliamentary act and is offering distance B.Ed. program for more than one decade by inheriting the distance B.Ed. program of BIDE (Williams and Akhter, 2006:). Following is given a brief description of the distance B.Ed. of BOU (BOU, 2005 and 1996).

Title: Bachelor of Education, in brief B.Ed.

Program Duration: Two years of four semesters, each comprised of six months.

Tutorial Class Duration: 45 minutes, each tutorial class.

Commencement: July, every year.

Credit Hour: 68 credit hours (compulsory courses 44+school teaching subjects 24)

Admission Requirements: The minimum entry qualification is a bachelor degree in any discipline. Teacher and non-teacher both are eligible to apply for admission into the program. Ten percent seat is reserved for fresher, i.e., non-teacher. However, this criteria has been relaxed in the pretext of declining number of B.Ed. enrolment.

Admission Procedure: There no admission test holds for distance B.Ed. admission. Students are admitted on the basis of their results of SSC to bachelor level examinations and weighted points of their age and teaching experience.

Tutorial Center: The distance B.Ed. is offered through 17 tutorial centers across the country. They are mainly located in the campuses of Govt. TTCs. Also some are located in private TTCs and in established degree level colleges, both government and non-government. Two TCs are located in training institutions, namely NAEM (National Academy for Educational Management) and NACTRE (National Academy for Computer Training and Research).

Tutorial Classes: Two tutorial classes hold in these tutorial centers in a month in alternative Fridays.

Curriculum Structure: The curriculum of the distance B.Ed. follows a bi-track structure. It has in total 40 courses, 16 core pedagogical courses and 24 school teaching

Table 3.4
Curriculum Structure of the B.Ed. Program offered by BOU

Core Courses	Elective Courses	Practice Teaching
1st Semester 1. Introduction to Principles of Education 2. Introduction to Educational Psychology 3. Islam and Education 4. Educational Evaluation: Principles and Application	1st Semester Group A: Language and Social Science Teaching 1. Language and Mother Tongue 2. Teaching English as a Foreign Language 3. Teaching Economics in Secondary Schools Group B: Science and Mathematics Teaching 4. Teaching Geography in Secondary Schools 5. Teaching physical Science in Secondary Schools 6. Teaching mathematics in Secondary Schools	Orientation School
2nd Semester 5. Curriculum Development 6. Psychological Processes in Education-1 7. Education in Muslim India 8. Introduction to Statistics	2nd Semester Group A: Language and Social Science Teaching 7. Methods of teaching Mother Tongue 8. Developing English Language Skills 9. Teaching Civics in Secondary Schools Group B: Science and Mathematics Teaching 10. Physical Geography 11. Teaching Biological Science in Secondary Schools 12. Teaching Mathematics in Secondary Schools-2	Summer School
3rd Semester 9. Principles of Teaching and Methods of Teaching 10. Psychological Processes in Education-11. Education in British India 12. Statistical Measures and Tests	3rd Semester Group A: Language and Social Science Teaching 13. Teaching Bangla Language and Composition 14. Method of Teaching English 15. Teaching History in Secondary schools Group B: Science and Mathematics Teaching 16. Methods of Teaching Geography 17. Practice in Teaching Science 18. Teaching Mathematics in Secondary Schools-2	Winter School
4th Semester 13. Principles of Education 14. Educational Psychology 15. History of Education 16. Guidance and Counseling	4th Semester Group A: Language and Social Science Teaching 19. Bangla 20. English 21. Social Studies Group B: Science and Mathematics Teaching 22. Geography 23. Evaluation in Teaching Science 24. Mathematics	Final Practice Teaching

courses. They are divided equally in four semesters, i.e., each semester offers four core courses and six school teaching courses. The core courses are compulsory for all students. The elective courses include two clusters, namely Group A for language (Bangla and English) and Social Science teaching courses and Group B for Mathematics and Science teaching courses. Under both Groups A and B three subjects are offered in each semester from which students are to select any two.

Instructional Delivery: Two face to face tutorial classes in a month are offered in alternative Fridays. These are supplemented by TV and radio program once a week. Besides, students conduct self study on their own pace based on the self learning modules provided by BOU on all the courses.

Teaching Practice: A four-stage teaching practice holds in distance B.Ed. program of BOU. These are:

Table 3.5
Structure of Teaching Practice in Distance B.Ed. Program of BOU

Stages	Holding Time (End of)	Duration	Content and Requirements
Orientation School	1 st semester final exam.	3 days	Orientation on lesson plan preparation holds. Each student prepares two lesson plans (one for each school teaching subjects and are corrected by the tutors. Each practices one TP through simulation. Tutors mark them.
Summer School	2 nd semester final exam	3 days	Students are to submit 20 lesson plans, 10 on each school teaching subjects and they are checked by the tutors. Each student gives two practice lessons through microteaching. They are observed and marked by the tutors.
Winter school	3 rd semester final exam	3 days	Each student submits 30 lesson plans for each of the two school teaching subjects and are checked by the tutors. Again each practices two TP lessons through microteaching. Tutors duly observe and mark them.
Final Practice Teaching	4 th semester final exam	3 days	TP is done through micro teaching by all the B.Ed. students before a panel of tutors (which includes one external) and are marked by them.

All the B.Ed. students need to compulsorily attend the first three teaching practice sessions (orientation, summer and winter sessions) before attending the final one. Otherwise they are not allowed to participate in the final teaching practice.

Evaluation Procedure and Marks Distribution: The total number of marks allocated for the B.Ed. program of BOU is 1000, which is distributed as follows:

Table 3.6
Marks Distribution in Distance B.Ed. Program

Requirements	Marks
Written Examination (Theory)	600 (Core subjects 400, Elective subjects 200)
Practice teaching and lesson plan preparation (during orientation, summer and winter schools)	100
Assignment (Core and Elective subjects)	100
Final practice teaching	200 (viva voce 100+ full practice teaching 100)

At the end of each semester a written examination holds on all theoretical courses. Each student needs to take written examination for 600 marks in each semester. At the end of fourth semester viva voce and final practice teaching examination take place. Besides, students are to appear in assignment examination at the end of each semester.

The written examination is fully theoretical and includes essay and short essay type questions. Students are to obtain minimum 36% marks in each subject to pass it. If any student fails in any course he/she needs to retake examination of that particular subject only.

Marking/ Grading System: The B.Ed. program apparently follows a traditional marking system as follows:

Table 3.7
Marking System in the B.Ed. of BOU

Class	Range of Marks (%)
1st Class	60 and +
2 nd Class	45 - 59
3 rd Class	36 - 44

Students' class is determined based on average of the marks obtained in the written examinations of all the semesters, practice teaching, assignments, viva voce and lesson plan preparation.

Operational Modality: The operational modality of distance B.Ed. program of BOU differs from that of NU. Here two face to face teaching sessions called as 'tutorial session' hold in every months of each semester instead of regular face to face class practiced in NU's face to face B.Ed. At the end of each semester, semester final examination takes place. Unlike the NU system, practice teaching holds within the premise of tutorial centers and under the guidance of subject tutors. This holds after each of the semester final examinations under the banner of 'Orientation Course', 'Summer School', 'Winter School' and 'Final Practice Teaching'. Although the curriculum of distance B.Ed. demands students to have practice teaching in their own schools and to be monitored by the Head Teacher of that school, but this is only in papers. Thus the program runs without any school based practice teaching.

Tutor: Teacher educators of the TTCs and the teachers of general colleges and schools having pedagogical background, i.e., B.Ed. and/or M.Ed. with basic master degree serve as tutor.

Attendance Requirement: A distance B.Ed. student needs to attend minimum two tutorial classes in each of the semesters.

Validity of one Registration: Maximum 10 years.

Performance Indicators: There is no set performance indicator for the graduates of the B.Ed. program of BOU nor there is any set of competencies to be achieved by the graduates.

Accreditation Council: There is no accreditation council responsible for maintaining a common quality standard in the B.Ed. programs offered by BOU, NU or any other institutions, which exists in reality in developed as well as in many developing countries like India, Sri Lanka.

Chapter 4

RESEARCH METHODOLOGY

This chapter describes the research methodology followed in the present study. It includes the description of research design; research locale and population; sample and sampling technique; instrumentation; data gathering procedure; data processing and analysis; statistical procedures; etc. adopted for conducting the study.

4.1 Research Design

This study made use of the descriptive survey research design to assess the quality of the B.Ed. programs offered by National University, through different govt. and private TTCs, and Bangladesh Open University. Descriptive research describes, records, analyzes and interprets 'what is' or conditions that exist in a particular situation (Akhter, 1997:36). In other words it involves the description and interpretation of conditions that now exist. It also involves some comparison among the non-manipulated variables (NAEM, 1997:87). Accordingly, the study was conducted to evaluate the conditions of the B.Ed. programs in terms of some input, process and output variables, as involved in their operational systems, following systems approach. The study was mainly quantitative in nature. In addition it used some quantitative strategies like collecting open opinions of the various respondent groups and field assistants about different aspects of the B.Ed. programs in order to have a deeper look and understanding of the quality of the B.Ed. programs.

4.2 Research Locale

The study was conducted in all the six administrative divisions of the country, namely Dhaka, Chittagong, Khulna, Rajshahi, Sylhet and Barisal. A total of six government teachers' training colleges, taking one from each division, six private teachers' training colleges from six divisions and similarly six B.Ed. tutorial centers of SoE/BOU were selected as the research locales of the study, list of which has been given in Annex-11.

4.3 Population of the Study

The population of this study covered all the principals and teacher educators working in all the public and private TTCs during the academic year 2005-2006; all the B.Ed. course coordinators and tutors of the 17 B.Ed. tutorial centers of SoE/BOU and the B.Ed. graduates of these three types of teacher education institutions, who obtained B.Ed. in the past five years from academic session 2005-2006.

4.4 Samples and Sampling Design

The study included three major categories of samples. They were: (1) principals (govt. and private TTCs) and B.Ed. course coordinators (TCs/BOU); (2) teacher educators (govt. and private TTCs) and tutors (TCs/BOU); and (3) B.Ed. graduates passed from the sampled teacher education institutions and were working in different secondary schools after their graduation. Table 4.1 presents the frequency distribution of the samples by type of institution, category of sample and sex.

Table 4.1
Distribution of Samples of the Study by Type of Institution and Sex

Category of Sample	Respondents									Total		
	Govt. TTC (6)			Pvt. TTC (6)			TCs/BOU (6)					
	T	M	F	T	M	F	T	M	F	T	M	F
Principal/ Course Coord.	6 (6X1)	04	02	6 (6X1)	05	01	6 (6X1)	05	01	18	14	04
T. Educator/ Tutor	24 (6X4)	13	11	24 (6X4)	13	11	24 (6X4)	12	12	72	38	34
B.Ed. Graduate	2 (6X4)	11	13	24 (6X4)	14	10	24 (6X4)	12	12	72	37	35
Total	54	28	26	54	32	22	54	29	25	162	89	73

- **Legend:** T = Total, M = Male, F = Female, T. Educator = Teacher Educator, Coord. = Coordinator
- The figures in parentheses represent the number of sampled institutions in each category

In selecting the samples the criteria mentioned in Table 4.2 was adopted. Following this criteria the samples included six principals from the six govt. TTCs, six principals from the six private TTCs and six B.Ed. course coordinators from the six

TCs of SoE/BOU. Thus, the total number of sample in the first category was 18. The second category of sample involved 24 teacher educators from the govt. TTCs, 24 from the private TTCs and 24 tutors from the TCs/BOU, totaled at 72. Similarly, under the third category, 72 B.Ed. graduates were taken from the three types of teacher education institutions taking 24 from each. Thus, the total number of respondents in this study stood at 162 (18+72+72) of which 73 were female respondents and 89 male respondents.

Table 4.2
Criteria followed in Selecting the Samples of the Study

Category of Sample	Criteria for Selection
Principal/B.Ed. Course Coordinator	-All principals of the sampled TTCs (govt. and private) -All the B.Ed. course coordinators of the sampled TCs/BOU
Teacher Educator/Tutor	-Four (4) teacher educators from each TTC (govt. and private) -Four (4) tutors from each of the TCs of SoE/BOU
B.Ed. Graduate	-Four (4) B.Ed. graduates from each TTC (govt. and private) -Four (4) B.Ed. graduates from each of the TCs of SoE/BOU

4.5 Sampling Technique

A two stage sampling technique, combination of random and convenience sampling, was followed in this study. At the first stage six government TTCs, six private TTCs and six B.Ed. tutorial centers of SoE/BOU were selected from the six divisions with the use of simple random sampling technique.

At the second stage, the sampling units were of multiple categories, like principals, teacher educators and B.Ed. graduates of the govt. and the private TTCs and course coordinators, tutors and B.Ed. graduates of the TCs/BOU from the institutions selected randomly at the first stage. From them all the principals of the selected govt. and the private TTCs as well as all the B.Ed. course coordinators of the TCs were selected, without any choice, as the first category of sample. To select the second category of sample, four teacher educators/tutors from each of the TTCs/TCs were chosen through employing simple random sampling technique in order to make the sample representative. The third category of sample of 72 B.Ed. graduates was

identified from the TTCs/TCs following convenience sampling technique. Convenience sample although is a non-probability sample, however, the researcher decided to use it because of availability of selected subjects in the visiting schools and getting a probable sample in this category was unfeasible because of scattered location of works of the graduates across the country and in this situation this was the only type of possible sampling for collecting the data (MacMillan, 1992:74-75).

4.6 Data Gathering Techniques and Tools

The data gathering techniques and tools as used in this study were as follows:

Table 4.3
List of Data Gathering Tools/Techniques

Variables Measured	Tools/Techniques Used
1. Opinions and attitude of the selected samples of the principal/course coordinator; teacher educator/ tutor and B.Ed. graduate about the state of quality of the B.Ed. programs.	1. Three Questionnaires: • For principals/ course coordinators • For teacher educators/tutors • For B.Ed. graduates (Annexes 4, 5, 6)
2. Classroom teaching of the B.Ed. graduates in real school situation.	2. One observation rating scale (Annex 7)
3. Data on institutions' enrolment, completion and output data for last five years from academic session 2006-07.	3. One information gathering table on the areas mentioned (Annex 9)
4. Information about the educational and professional qualifications as well as in-service training status of the faculty.	4. One information sheet (Annex 10)
5. Seeking open opinion on different issues.	5. Discussion with the target groups

It is important to mention that the same instruments were administered on the respondents of the three types of teacher education institutions. This was done as the objectives of inquiry on them were the same. Another reason to adopt the same instruments was to maintain homogeneity in the nature of data so that a common basis of their comparison could be made. Besides, some open questions were included in all

the instruments so that the respondents could answer in the perspective of their own institutions following their own thinking process on different quality issues of the B.Ed. programs. In addition the researcher conducted discussion sessions with the representatives of different samples regarding different aspects of the study.

4.7 Development of the Preliminary Data Gathering Instruments

At first a preliminary set of data gathering instruments of each type was prepared. The following were the steps taken in preparing them:

1. **Determining the Purpose of the Instruments:** As the first step of the tools construction the researcher determined the objectives of the data collection instruments.
2. **Collecting the Statements of Information:** A thorough study of related literature and empirical studies was made to identify the areas of investigations and collect required information. Books on tools construction and materials related to present study were reviewed. Thus the areas, concepts, issues and problems to be included in the instruments were identified.
3. **Constructing the Preliminary Data Gathering Instruments:** The preliminary data gathering instruments were developed based upon the identified research problems, statements and information and under the able guidance of the research supervisor. While preparing the instruments much care was taken to select only the relevant items for incorporation.
4. **Submitting the Instruments to the Supervisor and Teacher Educators:** The preliminary data gathering instruments were then submitted for content validation to the Ph.D. supervisor and to some teacher educators separately for seeking their views on them. They were requested to do the following:
 - Check the validity, clarity, ambiguity, adequacy and appropriateness of the items;
 - Check the construction of the items as included in the instruments;
 - Check the directions and instructions given to answer the items and statements;
 - Suggest how to improve the tools.

5. **Finalizing the Preliminary form of the Data Gathering Instruments:** The instruments were revised to incorporate the suggestions and corrections made by the supervisors and the teacher educators. These included the following:

- Appropriate reflection of the goals and objectives of the study;
- Make some of the opinion and attitude statements as well as questions short, clear and specific;
- Avoid duplication of items;
- Check for grammatical mistakes;
- Include some more to cover the goals and objectives and eliminate the irrelevant ones;
- Restructuring and rewording of some of the items;
- Make the directions regarding the use of the instruments clear; and
- Improve the overall formatting of the instruments.

After incorporating all the logical suggestions and corrections the instruments were submitted to the supervisor. The supervisor further suggested some addition and alteration to them. Thus, through a cycle of revision and improvement the instruments were finally approved by the supervisor for piloting.

4.8 Pre-testing of the Preliminary Data Gathering Instruments

Pre-testing is an integral part of development of any research instrument. As Fraenkel and Wallen (1993: 352) stated, “A “pretest” of the questionnaire or interview schedule can reveal ambiguity, poorly worded questions, questions that are not understood, and unclear choices and can also indicate whether the instructions to the respondents are clear.” Accordingly, the questionnaires and the checklists were subjected to pre-testing on groups of principals, coordinators, teacher educators, tutors and B.Ed. graduates similar to those of the original samples.

The pre-test was done by the researcher herself in one govt. TTC, one private TTC and one TC of BOU. A brief introductory talk was given first before the pretest with each group of respondents for proper motivation. Before answering, the respondents were requested to read carefully the instructions provided in the first page and at the beginning of each part of the questionnaires. The respondents were instructed

to underline the words and phrases, which seemed to be difficult and ambiguous; to report other forms of problems; and to give their comments, if any. The respondents performed their job satisfactorily and the researcher got many valuable comments, which helped her significantly to improve the quality of the research tools.

4.9 Preparing the Final Data Gathering Instrument

The suggestions and recommendations found in the pre-testing were analyzed properly and taken into cognizance with due importance. Accordingly some questions and statements were revised and improved based on the feedback and some were eliminated. Terms and words which seemed to be unclear were made clearer. Ambiguous items were simplified and stated more clearly. Through all these processes the data gathering instruments were finalized and were accepted by the supervisor for final administration.

4.10 Description of the Data Gathering Instruments

a. Questionnaires

Each of the three questionnaires consisted of four parts. Table 4.4 presents the summary view on the structure of the questionnaires used in this study.

Part A, on background information, of each of the questionnaires was designed to elicit data on certain personal and demographic characteristics of the respondents, namely, gender, age, educational and professional qualifications, present position, in-service training received, job experience, teaching experience, family's monthly income, etc.

Part B dealt with opinion scales to seek the respondents' view on different aspects of the B.Ed. programs. They were prepared based on different input, process and output variables. The opinion scales included both positive and negative statements under 14 areas of investigation. Different area included number of opinion items. Each investigation included five possible responses, namely, (1) very high, (2) high, (3) neutral, (4) little and (5) none. In analysis of the responses, the answers were rated as: 'Five' for very high; 'Four' for high; 'Three' for neutral; 'Two' for little; and 'One' for none. For negatively oriented opinion the rating scheme was **reverse**.

Table: 4.4

Summary of Structure of the Questionnaires used in this Study

Variables	Number of Items in the Questionnaire for		
	Principal/ Coordinator	Teacher Educator/Tutor	B.Ed. Graduates
Part A : Background Information	11	13	14
Part B : Opinion about			
1. Curricula	04	12	10
2. Instructional aids and materials	06	09	08
3. Students support services	06	10	07
4. Infra-structural facilities	09	13	10
5. Academic environment	17	16	06
6. Professionalism and scope of professional development	14	07	05
7. Teaching practice	05	15	09
8. Methods and techniques	04	09	14
9. Co-curricular activities	04	06	07
10. Evaluation system	05	11	10
11. Admission procedure	01	01	01
12. Program duration	01	01	01
13. Class duration	01	01	01
14. Teacher-student ratio	01	01	01
Total Number of Opinion Items	78	112	90
Part C: Attitude Inventory	20	22	20
Part D: Number of Open Question Items	03	05	06

Part C of each of the questionnaires included an attitude inventory. Each attitude inventory comprised of certain number of attitude statements patterned after Likert's five point scale. The pattern of attitude scale might be different types, but the reason for choosing the Likert's scale was the rationale mentioned by Oskamp (1999:54) that it is a simple method among different attitude scale which does not require the use of a judge to rate the item's favorability. The guidelines given by Ebel (1986), Kubiszyn and Boric (1993:179-181) Mercado (1994: 68-71), Gronlund (1990), etc. were followed in structuring the attitude scales.

The attitude inventory included almost equal number of positive and negative statements. Each item was followed by five possible responses, namely, (1) strongly agree; (2) agree; (3) undecided; (4) disagree; and (5) strongly disagree. The responses

were rated as: '**Five**' for strongly agree; '**Four**' for agree; '**Three**' for undecided; '**Two**' for disagree; and '**One**' for strongly disagree. For negatively oriented attitude statements the rating scheme was **reverse**.

Part D of each of the questionnaires included few open questions on some of the issues investigated through the opinion and attitude scales

Besides, the objectives of administering the study with request for cooperation from the respondents were narrated at the beginning of each of the questionnaires.

b. Observation Rating Scale

The prime objective of preparing the observation rating scale was to assess the quality of the B.Ed. programs in terms of the B.Ed. graduates' performance in delivering their role and responsibility as classroom teacher. The checklist included at the beginning seven questions on personal factors of the observed B.Ed. graduates. Then there was a five point rating scale for observation which was followed by some open ended questions, to be filled in by the observers. The rating scale included a total of 81 observable items clustered into eight essential parts of a good classroom teaching learning process. They were- (1) classroom environment; (2) classroom management; (3) planning lessons; (4) presentation of lesson; (5) use of chalkboard; (6) use of teaching aids; (7) summarization of the lesson; and (8) evaluation procedure.

In the rating scale each observation item was followed by five possible responses, namely, (1) completely agree; (2) agree; (3) not applicable; (4) disagree; and (5) completely disagree. In analysis of the responses they were rated as: '**Five**' for strongly agree; '**Four**' for agree; '**Three**' for undecided; '**Two**' for disagree; and '**One**' for strongly disagree. For negatively oriented observation statements the rating scheme was **reverse**.

C. Information Sheets on Institutions' Performance and Efficiency

Two information sheets were prepared to collect required information and data of the selected teacher education institutions. One was on admission and output statistics, like admission, appearance in the examination, pass rate, class obtained by the students in the last five years. Another one was about educational and professional qualifications of the faculty and their in-service training status.

4.11 Collection of Data

The researcher personally administered the two questionnaires prepared for collecting data from the principals/course coordinators and the teacher educators/tutors and the information sheets on institutions' performance and efficiency. For conducting the task of observation of the B.Ed. graduates' classroom performance in schools and to gather their opinion, a group of four research assistants was hired from the Institute of Education and Research, University of Dhaka.

In selecting the research assistants consideration was given to them who had research background in their M.Ed. course of studies. For developing a common understanding of the observation process among the research assistants, orientation sessions were organized by the researcher to acquaint them with the observation rating scale and the data gathering instrument from the B.Ed. graduates as well as to give them required tips on the observation and data gathering process. It was followed by a real classroom observation session done in full team, under the guidance of the researcher, in the IER Laboratory School of Dhaka University in order to give them hands on training and a glimpse of practical experience about the observation process. After the trial observation all the research assistants were asked to fill in the rating scale as per their own observation. The researcher herself also did the same job. Finally, a joint meeting of the researcher and the research assistants was convened, where the responses of them to each of the items of the observation checklist was cross checked among the group members and differences of opinions were eliminated through reaching consensus. This process helped to bring internal validity in the observation process done by the research assistants. Besides, a guideline for observing the B.Ed. graduates' actual classroom teaching process was developed (Appendix 8) based on the ideas given in the reports and manuals prepared by Dean (2006), Rahman et.al. (2006), PSPMP (2000). That was distributed among the research assistants and requested to follow it in observing the teaching-learning process and recording the data.

Before the final data gathering, permissions were solicited from the offices of NU and BOU to facilitate the data gathering process (Annexes 1 and 2). Discussions and meetings were held with the authorities of the TTCs, TCs and the schools about the data gathering. This helped the researcher and the research assistants to create rapport with the respondents, to explain the objective of the study and also to explain the meaning of the items of the questionnaires whenever necessary.

4.12 Data Processing and Analysis

Processing and analysis of the data were done by the researcher herself in consultation of a number of related literature (Best, 2005; Ferguson, 1989; Hossain and Tapan, 1996; IER, 2006; Fraenkel and Wallen, 1993; Mercado, 1992; PSPMP, 2000; etc.). For this purpose the returned instruments were first checked according to the set criteria. The data were categorized according to the set objectives of the study and tabulated in master data sheets accordingly. Then the researcher prepared a coding scheme, wherever necessary, in order to facilitate the analysis and interpretation of the research findings. Accordingly, the data entry was done in the computer and the related SPSS program was run to do required statistical analysis with the help of Best and Khan (1995), Imam (2003), Greenfield (1996). During the coding and decoding the correctness of the data were once again checked against the master data sheet. The responses to the open-ended items were recorded both qualitatively and quantitatively. Further analysis, explanation and interpretation were done to them suitably.

4.13 Statistical Treatment

Both descriptive and inferential statistics were employed for analysis and interpretation of the research findings. They were as follows:

1. Frequency and percentage distribution to analyze the personal and professional characteristics of the respondents.
2. Mean scores to identify the level of opinion and attitude against the set input, process and output variable and SDs to see their level of dispersion.
3. Analysis of variance (ANNOVA) and t test to measure the level of significance among and between the differences in the mean opinion and attitude scores of the variables.
4. Pearson's product moment correlation (PPM) to determine the relationships of the graduates' performance and attitude with the input and process variables.
5. Multiple regression analysis to measure the impact of the input and the process variables on the output variables in terms of the graduates' performance in real school situation and their attitude about the quality of the B.Ed. programs.

4.14 Defining the Levels of Opinion, Attitude and Performance

According to the scoring scheme followed in this study, each of the items/areas/attitude/respondents were supposed to get a maximum five and a minimum one point score. From these points, “3”, the middle point, was decided as the criterion mean. The items/areas/attitude statements, etc. respondents scored above three were considered as positive and below three were considered as negative responses. Which scored equivalent or almost equivalent to three were considered as average performance/ opinion/attitude.

4.15 Report Writing

The concluding phase of the research study ‘Report Writing’ started as early as the data processing and analysis parts were accomplished. The writing of the thesis was done on the basis of the research objectives as well as the research findings and experience of the researcher. Before writing the report a chapterization plan was developed with the approval of the supervisor. It included in all seven chapters as mentioned in the content part. A number of books and manuals- American Psychological Association (1987), Tapan (1993), College of Education (1977), OPIE (2004) on research report writing were consulted and the recognized style of report writing was followed. The report was processed using the computer package MS word and the whole things from statistical analysis to report writing and computer compose were done by the researcher herself.

4.16 Summary

The descriptive survey method of investigation was used in the present study. This was done to evaluate the quality of B.Ed. programs offered by NU and SoE/BOU. Three sets of questionnaires, one observation rating scale and two information sheets were used to gather data. The instruments were pre-tested on groups similar to the original respondents. After incorporation of all the suggestions the tools were submitted to the Ph.D. adviser for final approval. At this stage some valuable suggestions were also received and the instruments were finally approved after reconstructing them as per the suggestions and recommendations.

The tools were administered on 162 respondents, which included 18 principal/course coordinators, 72 teacher educators/tutors and 72 B.Ed. graduates. Out of this 162 respondents, 89 were male and 73 were female respondents. Besides, information were gathered from the records of the sampled teacher education institutions and face to face discussion with the respondents.

The data were processed by the researcher herself in both quantitative and qualitative ways. Descriptive (mean, percentage, SD, rank order) and inferential statistics (F test, t test, Pearson's Product Moment correlation and regression analysis) were computed in order to analyze the data and interpret the findings of the study.

Chapter 5

PRESENTATION OF FINDINGS

This chapter presents, analyzes and interprets the data gathered in support of the research objectives determined at the outset of the study. These are discussed under three major sections. The first section deals with the findings on quantitative and qualitative evaluation of the input, process and the output variables. In the second section the co-relational aspects of the said variables and the results of regression analysis have been described. Section three presents the analysis of findings on the personal and professional characteristics of the respondents.

5.1 Evaluation Results of Input, Process and Output Variables

The first step in the analysis of the findings on evaluation of input, process and output variables was to record the educational and professional qualifications as well as the in-service training status of the faculty and administrators (principals and B.Ed. course coordinators) of the sampled TTCs and the B.Ed. tutorial centers of SoE/BOU. In the second step the frequencies of responses, i.e., the response pattern to each of the opinion items of the input and process variables of different groups of respondents (graduates, teacher educators/tutors and principals/B.Ed. course coordinators) were recorded (Annexes 14-16). Following that the mean scores of all the opinion items, major variables as well as their rank orders were calculated (Annexes 17-19). Besides, average opinion scores of the input and process variables (Figure: 5.15); overall mean opinion scores about the quality of the B.Ed. programs (Figure: 5.16); overall opinion by gender (Figure 5.17) as well as summary of overall findings of the opinion scores (Table: 5.21) were prepared. In addition, a detailed discussion on the strengths and the weaknesses of the selected variables was also done based on the quantitative and qualitative data collected through questionnaires and discussion with the respondents.

Under output variables the output statistics, pass rates and classes obtained, of the graduates in the B.Ed. final examinations of different teacher education institutions were computed. For identifying the classroom teaching performances of the B.Ed. graduates of the TTCs and BOU a three dimensional analysis, i.e., item wise, major

area wise as well as overall mean performance scores were calculated. Respondents' attitude was determined simply by computing the mean attitude scores following Likert's method of analysis. Besides, some statistical analysis, like F test, correlation and multiple regression analysis were done to look at the significance of the differences, direction and magnitude of relationships among the variables and to identify the impact of input and process variables on two major output variables, namely (1) graduates' classroom teaching performance; and (2) graduates' attitude towards quality of the B.Ed. programs. The summary of all these findings are presented in the following sub-sections.

5.1.1 Evaluation Results of the Input Variables

A total of eight (08) variables were subjected to investigation under this area. They were: (1) educational qualifications of the faculty; (2) professional qualifications of the faculty; (3) in-service training received by the faculty; (4) curricula of the B.Ed. programs; (5) infra-structural facilities of the teacher education institutions; (6) student support services; (7) professionalism and scope of professional development of the faculty; and (8) instructional materials and aids. The findings were as follows.

5.1.1.1 Educational Qualifications of the Faculty

Educational Qualifications of the Principals and the Course Coordinators

Table 5.1 shows the educational qualifications of the principals of the govt. and the private TTCs and the course coordinators of the B.Ed. tutorial centers of SoE/BOU.

Table 5.1
Highest Educational Qualifications of the Principals and the
B.Ed. Course Coordinators

Institution	Total	Master		M.Phil.		Ph.D.		F Value
		N	%	N	%	N	%	
Govt. TTCs	6	5	83.33	-	-	1	17.67	1.00
Private TTCs	6	6	100	-	-	-	-	
TCs of SoE/BOU	6	6	100	-	-	-	-	

The data reveal that vast majority (83.33%) of the government TTC principals had master level of education. None received educational qualification equivalent to M.Phil. Only one (17.67%) earned Ph.D. All the principals of the private TTCs and the

B.Ed. course coordinators of BOU were master degree holders. Although a little difference in educational qualifications of the principals and course coordinators was surfaced by the data, however, it was not found significant by the calculated F value.

The findings imply that the heads of the teacher education institutions were simply master degree holder. It also indicates that the heads were either not motivated for higher studies, or they might had lack of scope for higher studies at both personal and institutional levels. As education is the major agency of positive change, the higher education could have helped the heads of the teacher education institutions, to a great extent, in providing professional guidance to their faculty as well as for internalizing the critical and quality issues of the teacher education programs, which in turn can help to improve the quality of the B.Ed. programs.

Educational Qualifications of the Teacher Educators and the Tutors

There were a total of 119 teacher educators working in the six selected govt. TTCs during the period of collecting data, i.e., in 2006. All of them were found to have master level of education in different disciplines. None of them acquired Ph.D. or M.Phil. The six private TTCs had in total 64 teacher educators. Of them 60 (93.75%) had master degree, while four (6.25%) had general education up to bachelor degree. A

Table 5.2
Highest Educational Qualifications of the Teacher Educators and the Tutors

Institution	Total	Bachelor		Master		M. Phil.		Ph.D.		F Value
		N	%	N	%	N	%	N	%	
Govt. TTCs	119	-	-	119	100	-	-	-	-	6.00*
Private TTCs	64	4	6.25	60	93.75	-	-	-	-	
TTCs of SoE/ BOU	96	-	-	92	95.83	3	3.13	1	1.04	

* significant at $P \leq 0.05$

total of 96 tutors were found working in the six sampled B.Ed. tutorial centers of SoE/BOU. Of them 92 (95.83%) possessed master degree, three (3.13%) M.Phil. and only one (1.04%) Ph.D. The differences in their educational levels were significant at 95% confidence level.

The findings indicate that all the teacher educators of the govt. TTCs had simply master level of education. This was perhaps resulted from the same reasons as was assumed in case of the educational level of the principals and the B.Ed. course

coordinators. The findings further imply that the teacher educators of the private TTCs had the lowest level of education. The mushrooming growth of private TTCs without fulfillment of the required criteria of setting up of private TTCs and sheer absence of a proper monitoring system of the status of fulfillment of these criteria by the concerned authority were possibly responsible for their lowest level of education. According to the findings the tutors of the B.Ed. program of BOU had the highest level of education in comparison to the teacher educators of the govt. and the private TTCs. In BOU system, there was no provision of appointing permanent tutors for its B.Ed. program. Rather, it generally utilized the academic services, based on specific criteria set by BOU (memo No.: SSS/tutor appointment rules/72/02/1821(18), dated: 20/03/2003), of the faculty of the TTCs, training institutions and the colleges, where the TCs were located. Under these criteria teachers received minimum second class in all academic levels starting from SSC up to master and had minimum three years teaching experience were offered B.Ed. tutorship. Besides, under this criteria, teachers held senior positions like assistant professor and above were offered priority in appointing as the tutors. These were perhaps the reasons of a little higher level of education of the tutors of the B.Ed. program of SoE/BOU.

There is no doubt that education is a critical factor to enhance one's professional capability. The UNICEF report (2000:14) said, based on different study findings, educational level of a teacher affects educational quality and student achievement depends largely on teachers command of subject matter. It is especially important for teacher educator who creates the architects of human resources. Recognizing the fact, the first Education Commission Report of the country suggested "the educational qualification of the teachers at the teacher training institutes should be raised and more senior educational service posts including posts of professors, created for degree-level teacher training institutes" (GoB, 1974:78).

5.1.1.2 Professional Qualifications of the Faculty

Professional Qualifications of the Principals and the Course Coordinators

All the principals of the sampled private TTCs completed professional education. A half of them had B.Ed. and the other half had M.Ed. degrees. In the government TTCs also one-half of the principals possessed B.Ed., one third (33.33%) had M.Ed. and one (16.66%) had no professional degree. Among the B.Ed. course

coordinators of SoE/BOU two-thirds (66.66%) had no professional degree at all. The F value indicates the differences regarding professional qualifications of the three groups of the managers, i.e., principals of the govt. and the private TTCs as well as the B.Ed. course coordinators of the TCs were significant at expected confidence level.

Table 5.3
Professional Qualifications of the Principals and the B.Ed. Course Coordinators

Institution	Total	B.Ed.		M.Ed.		None		F Value
		N	%	N	%	N	%	
Govt. TTCs	6	3	50	2	33.33	1	16.66	5.81*
Private TTCs	6	3	50	3	50	-	-	
TCs of SoE/BOU	6	2	33.33	-	-	4	66.66	

* significant at $P \leq 0.05$

It is obvious from the data that the TCs of SoE/BOU were in very poor state in regard to professional education background of the B.Ed. course coordinators. Different factors may be held responsible for it. One of them may be under the BOU system the practice was that the heads of the institutions, where the TCs were located, as ex-officio became the B.Ed. course coordinators and having a professional degree was not mandatory for them to hold the position of B.Ed. course coordinator. Another possible significant reason need to be mentioned here that majority, 13 out of 17, of the B.Ed. TCs of BOU were located in govt. TTCs of which a good portion (16.66%) of the principals, as found in this study, had no professional education background, but as ex-officio they were appointed as the B.Ed. course coordinators. Moreover, a number of B.Ed. tutorial centers, four out of 17, were located in general colleges and training institutes, where the heads of the institutions naturally did not require to possess any professional degree, like B.Ed. and M.Ed, to become B.Ed. coordinators. For all these reasons perhaps it was not an uncommon phenomenon that two-thirds of the B.Ed. course coordinators of BOU were without any professional education background.

Professional Qualifications of the Teacher Educators and the Tutors

Out of 119 teacher educators from the six sampled govt. TTCs, 55 (46.22%) had B.Ed. level of professional education. More than one-third (36.13%) had M.Ed., while a good number, 21 (17.65%), had at all no professional education. The number of B.Ed. degree holders in private TTCs was 29 (45.31%) and it was 31 (48.44%) in case of

Table 5.4
Professional Qualifications of the Teacher Educators and the Tutors

Institution	Total	B.Ed.		M.Ed.		None		F Value
		N	%	N	%	N	%	
Govt. TTCs	119	55	46.22	43	36.13	21	17.65	10.23*
Private TTCs	64	29	45.31	31	48.44	4	6.25	
TTCs of SoE/BOU	96	50	52.08	46	47.17	-	-	

* significant at $P \leq 0.05$

M.Ed. Four (6.25%) of them had no professional education. The scenario of the tutors of BOU was different. There was found none without any professional degree. The differences among the groups were significant.

Professional educational background is a precondition for appointing and posting of the teacher educators in the TTCs, either government or private. The private TTCs stringently followed this in the interest of getting institutional affiliation from NU. BOU also strictly followed the criteria in selecting tutors for its B.Ed. program. But, in the govt. TTCs the concerned authorities, i.e., MoE and DISHE were found not to follow the set provision strictly, despite the existence of a gazette notification (Bangladesh Gazette, 1989:4) of appointing no teacher in the govt. TTCs without professional education background. Consequently, posting of a good number of teachers, without professional education background, from general colleges to the TTCs became a common phenomenon. This was a violation of Bangladesh Civil Service Recruitment Rules of teacher appointment and posting in the TTCs, which might impact negatively the quality of teacher education program. Observing the situation SESIP in the report of one of its workshops (March 2004:V) strongly recommended appointment of persons as TTC principals and educators who were trained and had experience and commitment to teacher education. The study report of UNICEF (2000:13) indicated, quoting from Darling-Hammond, 1997, "the highest quality teachers, those most capable of helping their students learn, have deep mastery of both their subject matter and pedagogy." Accordingly, professional development of the teacher educators and tutors, both in terms of pedagogical skill and subject knowledge, are essential for quality achievement of their students, i.e., teacher trainees.

5.1.1.3 In-service Training Received by the Faculty

In-service Training Received by the Principals and the Course Coordinators

A cursory look of the data in Table 5.5 shows that all the government TTC principals and the B.Ed. course coordinators of SoE/BOU received in-service training in the country. One half of the principals of the private TTCs had such training. In regard to overseas training, one half of the govt. TTC principals and distance B.Ed. course coordinators were found to have received it, while none from the private TTCs

Table 5.5
In-service Training Received by the Principals and the B.Ed. Course Coordinators

Institution	Total	Domestic		Overseas		Training in ODL	
		N	%	N	%	N	%
Govt. TTCs	6	6	100	3	50	-	-
Private TTCs	6	3	50	-	-	-	-
TCs of SoE/BOU	6	6	100	3	50	-	-
		F = 5.00*		F = 2.50*		-	-

* significant at $P \leq 0.05$

availed this opportunity. It is significant to mention here that none from the three groups of program managers received training in open and distance learning. The differences among the groups regarding domestic and overseas training were significant, indicating the differences in receiving in-service training as a fact.

In-service Training Received by the Teacher Educators and the Tutors

Table 5.6 presents the data on in-service training of the teacher educators and the tutors. The data reveal that the majority, 82 (68.91%), of the teacher educators of the government TTCs received domestic training and one out of four (24.37%) attended

Table 5.6
In-service Training Received by the Teacher Educators and the Tutors

Institution	Total	Domestic		Overseas		Training on ODL	
		N	%	N	%	N	%
Govt. TTCs	119	82	68.91	29	24.37	-	-
Private TTCs	64	19	29.69	-	-	-	-
TCs of SoE/BOU	96	69	71.88	25	26.04	3	3.13
		F = 19.32*		F = 10.67*		-	-

* significant at $P \leq 0.05$

overseas training. The B.Ed. tutors of BOU were a little more privileged as 69 (71.88%) of them participated in country training and one-fourth (26.04%) in overseas training. Merely three (3.13%) of the tutors of the B.Ed. of BOU got in-service training on open and distance learning. The scenario was depressing in the case of the private TTCs, where only 19 (29.69%) received in-service training and none got the scope for overseas training. The differences, in both types of training, were found significant.

The above findings lead to infer that the private TTCs were in the most disadvantaged position in terms of in-service training of the teacher educators, especially overseas training. Also, a significant portion of the faculty of the govt. TTCs and the tutors of BOU failed to receive such training, especially on distance education the BOU tutors had almost no training background. Ahmmod in his research paper (2005:39) mentioned although BOU organized some tutors' training workshop but not as frequently as it was in the early stage. He categorically mentioned in his paper that in case of some specific programs tutors were trained up initially, however, there was no such program organized in recent years despite many new tutors joined. Although there was a Tutor's Handbook published by BOU, but that was not distributed regularly. These factors perhaps were responsible for almost no training status of the BOU tutors on distance mode delivery. As stated by UNESCO (2001:2) in-service training is essential for the teacher for their continuous professional development. It can help overcome shortcomings of pre-service teacher education program and keep abreast teachers of new knowledge and practices. This can have a direct impact on student achievement (UNICEF, 2000:14). UNICEF further quoting from different case studies conducted in Bangladesh, Botswana, Guatemala, Namibia and Pakistan said in-service training throughout a carrier contribute significantly to student learning. But, the depressing fact was that a great majority of the teacher educators of the private TTCs and a considerable number of the other two institutions were not offered such training opportunities.

5.1.1.4 Curricula of the B.Ed. Programs

The opinions of different groups of respondents about the quality of B.Ed. curricula are presented in Table 5.7 by mean opinion scores. In determining the mean opinion about curriculum, with other input and process variables, a five point opinion scale, comprised of both positive and negative statements, was employed. A positive

statement rated '1' was given '1' point score, rated '2' was given '2' point scores and so on. The negatively oriented statements were rated in a reverse way. Thus, the mean scores of each of the opinion statements of a group as well as the overall mean scores of all the input and process variables were computed. Accordingly, opinion score of a statement as well as the mean opinion score of a variable were supposed to be a maximum 'five' and a minimum 'one'. In interpreting the mean opinion scores, a point of reference of three (3.0) was considered as the criterion or average mean for determining the positive and negative opinions. According to this, the items which scored above 'three' were termed as positive opinions and which scored below three were labeled as negative opinions. The items/areas which scored equivalent or almost equivalent to the criterion mean was considered as average.

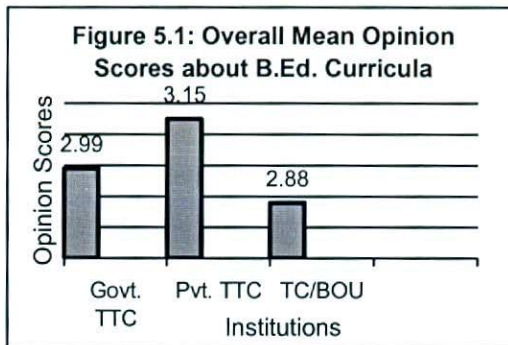
Table 5.7
Mean Opinion Scores of the Respondents regarding Quality of the B.Ed. Curricula

Respondents	Mean Opinion Scores						F Value
	Govt. TTCs		Pvt. TTCs		TCs-SoE/BOU		
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
B.Ed. Graduates	3.06	0.58	2.96	0.45	2.74	0.42	2.57
Teacher Educator/Tutors	2.88	0.73	3.24	0.70	2.68	0.70	4.30*
Principals/ Course Coordinator	3.02	0.66	3.25	0.67	3.21	0.98	.073

* significant at $P \leq 0.05$

Using the above mentioned point of reference of '3.0' as the criterion mean it is evident from the data in Table 5.7 that the B.Ed. graduates and the principals of the govt. TTCs expressed average level of opinions regarding the B.Ed. curriculum offered by NU, but the teacher educators expressed clearly negative opinion with a mean score of 2.88, which differed by 0.12 point from the criterion mean. The opinions of the private TTC respondents were different. There the principals and teacher educators indicated positive opinions, while the graduates were negative about it. From the TCs of SoE/ BOU only the course coordinators showed positive view about the quality of distance B.Ed. curriculum, while the two other groups - tutors and graduates obtained mean opinion scores (2.68 and 2.74) much lesser than the criterion mean of 'three', i.e., they expressed negative opinions about the quality of curriculum of distance B.Ed. program. The overall mean opinion scores of different groups of respondents of the

institutions as exhibited in Figure 5.1 show that the respondents of the govt. TTCs and TCs/BOU were, in an average, negative about the quality of the curricula of the B.Ed.



programs offered by NU and SoE/BOU, while private TTC respondents were little positive about the curricula of NU. As indicated by the SDs all the groups were homogenous in their opinion and as per the F values only the differences among the teacher educators and the

tutors were significant. The finding implies that the opinions of the groups regarding the quality of the B.Ed. curricula were different. The variations may be attributed to the differences in educational and professional background of the faculty of different institutions; in-service training received by them; scope of professional development and other relevant matters responsible for developing and shaping the mental state of the teacher educators regarding the various aspects of a program as well as required to give a program quality shape. It is a recognized fact that curriculum development is a continuous process. Unfortunately, it was not established as a common phenomenon in the area of our secondary teacher education programs. This concern was echoed in a survey report on teacher education by BANBEIS (2004:16) saying "the curriculum of the training institutions needs continuous modernization; this perhaps is not happening in Bangladesh." A search on this issue showed that in post independent Bangladesh and before the inception of SESIP the curriculum of face to face B.Ed. was thoroughly revised only once under SEDP during 1990s with a view to improving the quality of B.Ed. (SESIP, April 2002:16) and the curriculum of distance B.Ed. was never revised or renewed thoroughly in two decades of its inception in 1985. The few improvements, which took place in the curricula of both the modes of B.Ed. programs remained limited in bringing only some changes in the contents and titles of the subjects or in introduction of a new subject, which failed to meet the ensuing demands of education in the rapidly changing context of world as well as national educational scenario. The low level of opinions of the respondents of the government TTCs and the TCs of BOU regarding the B.Ed. curricula may be, therefore, resultant from that long absence of B.Ed. curriculum renewal and modification initiatives. So there was all need to

modernize the B.Ed. course as it was not conducive to develop core generic competencies of the teachers (SESIP, NOV, 2001:6)

Strengths of the B.Ed. Curricula

TTCs (Govt. and Private.): The B.Ed. curriculum helped the trainee students to learn about the social, philosophical, psychological and historical bases of education. The curriculum provided them theoretical ideas on pedagogical issues, for example, how to teach; how to evaluate; what methods and techniques to be followed in teaching and learning process; how to conduct co-curricular activities; theories and teaching practices; how to manage and create favorable classroom situation; etc. Besides, the curriculum included some contemporary issues like gender; population education; etc. According to the respondents, all these helped the B.Ed. students to become confident in teaching and improving their pedagogical skills to some extent.

B.Ed. Tutorial Centers, SoE/BOU: The respondents ventilated the same ideas to that of the TTC respondents except the areas of contemporary issues and ideas, which according to them were not included in the curriculum of distance B.Ed. program.

Weaknesses Associated with the B.Ed. Curricula

TTCs (Govt. and Pvt.): The respondents of the govt. and the private TTCs identified a number weaknesses of the face to face B.Ed. curriculum offered by NU through the govt. and the private TTCs. According to them, the curriculum was traditional; teacher centric; loaded with theoretical aspects; memorization based; not well sequenced; did not reflect on required contemporary issues except a few and failed to meet practical demand of the trainee students. It provided very limited scope of creative thinking and attached less importance to the contents of school teaching subjects. From this curriculum students failed to achieve practical experience about various modern, student centric and participatory teaching-learning methods and techniques, which are the main focus of modern pedagogical theories and concepts. The curriculum also provided students no opportunity to be involved in social activities. Information and communication technology (ICT) and computer education was almost absent in the curriculum. It also did not focus on development of research capabilities of the teacher educators as well as trainee students. In addition the respondents opined that the B.Ed. curriculum was irrelevant with the real school and classroom situation.

B.Ed. Tutorial Centers, SoE/BOU: In the view of the respondents of BOU, the curriculum of distance B.Ed. was also very much old, traditional, theoretical and full of repetition. Current contents and issues were ignored in this curriculum. The syllabuses of some of the courses were too lengthy to finish within stipulated course duration which created a load for the students. There was quite an absence of ICT and computer education in the curriculum. Besides, there was lack of compatibility, both in terms of course and content, with the school curriculum. They further revealed that distance B.Ed. curriculum did not provide the students required opportunity to participate in co-curricular activities and teaching practice was very much neglected in it, which in fact failed to provide students any scope of teaching practice in real school and classroom situation except a few TP sessions at the end of each semester held within the campus of the TCs through a process of simulation and micro teaching.

From the weaknesses identified by the respondents it was crystal clear that the secondary teacher education curricula offered by NU and BOU were traditional. According to UNESCO (2002:10) the traditional teacher education curriculum is teacher centered, based on behaviorist assumption, transmits knowledge and regards the teacher as technician. As a result this has become increasingly challenged and coherence between theory and practice of teaching has become imperative. In the wake of such thinking, rethinking and restructuring of teacher education curriculum has taken place in many countries. Bangladesh also needs such an initiative to revitalize its teacher education curricula so that it can armor the future teaching force of the country with modern knowledge, concepts, skills and attitude required for quality teaching, which is the most urgent need in the present context of declining quality of the secondary education of Bangladesh.

5.1.1.5 Infrastructural Facilities of the Institutions

One of the important aspects relating to quality of an education program is availability of required infra-structural facilities. The findings of the inquiry on the availability of these facilities in the teacher education institutions are presented in Table 5.8. The significant findings, as gleaned from the data, were that all the groups of respondents from the three types of institutions expressed a positive opinion with regard to the infra-structural facilities of their respective TTCs and tutorial centers. It

was further observed that the majority of the groups of respondent obtained mean opinion scores much higher than the criterion mean of 'three'.

Table 5.8
Mean Opinion Scores of the Respondents regarding Infrastructural Facilities of the Teacher Education Institutions

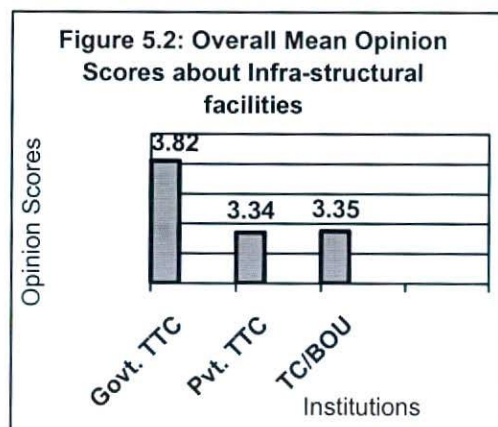
Respondents	Mean Opinion Scores						F Value
	Govt. TTCs		Pvt. TTCs		TCs SoE/BOU		
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
B.Ed. Graduates	3.96	0.59	3.11	0.95	3.29	0.78	7.12*
Teacher Educator/Tutors	3.41	0.81	3.51	0.63	3.45	0.89	0.88
Principals/Course Coordinators	4.08	0.29	3.40	0.69	3.32	0.83	2.53

* significant at $P \leq 0.05$

The overall mean opinion scores of the three types of institutions were also much higher than the criterion mean. The govt. TTC respondents obtained the highest mean opinion score (3.82), while they were much lower and almost same for the private

TTCs (3.34) and TCs of BOU (3.35). The findings reveal availability of good infrastructural facilities in the govt. TTCs to offer a B.Ed. in comparison with two other types of institutions. This may be attributed to different kinds of development funding provided to the govt. TTCs under various development projects, like SEDP, SESDC, PROMOTE, SESIP, etc. But,

as observed by the researcher and as were mentioned by the respondents, the private TTCs never enjoyed such facilities. They never received any subvention from any source. As those were completely privately managed they were not capable to provide infra-structural facilities as the govt. TTCs had. In case of the B.Ed. of SoE/BOU, the fact was that although the TCs were located in govt. TTCs and other established institutions having good infra-structural facilities, however, due to absence of any deal between BOU and the housing institutions about the use of required existing facilities (library, laboratory, common room, etc.) they could not be made utilize for conducting the distance B.Ed. tutorials, except the classroom facilities. This was possibly the main



reason of comparatively the lower level of opinion of the BOU respondents regarding the infra-structural facilities of the TCs.

Infrastructure is related with quality of education. When there is adequate facilities like bigger room; supply of potable water; availability of furniture and space; lavatory; laboratories- all have an impact on critical learning environment. As quoted by UNICEF (2000:4) different studies conducted in India, Nigeria and Latin America (Charran and Chau, 1996 and Pemycuick,1993 and Willium, 2000) found different aspects of physical learning environment to be strongly related with student's learning outcomes. But, significant to mention here is that the researcher, during her visit to the private TTCs for the purpose of data collection, found strong scarcity of required physical facilities there. This was also found supported in different reports (BANBEIS, 2004, TQI-SEP, 2006, SESIP, TQI-SEP 2008, etc.). But, the opinions ventilated by the respondents of the private TTCs, as found in this study, on infra-structural facilities did not conform with the reality, which in other word indicated misreporting or over reporting of the actual physical condition of the private TTCs by the respondents. Several factors may be held responsible for this one of which might be due to weakness in research tool construction and its administration in collecting the data. Anther factor may be lack of required knowledge and understanding of the private TTC respondents about the pre-requisites of a quality teacher education institution of which physical facilities is a crucial part. As found in this study the private TTC respondents had the lowest level of education and in-service training background, in comparison with those of the govt. TTCs and TCs of BOU, which are important means for acquisition of required knowledge and understanding. Besides, the private TTCs were found characterized with some other deficiencies, like majority of the faculty of these institutions were working on part time basis; colleges were often closed and classes held on Fridays only in majority of the cases; students did not need to attend the class regularly; and absolute majority of the private TTCs were housed in rented building with only a few classrooms without other required facilities. Students paid only occasional visit just to get information about examination or payment (TQI-SE 2006). For all these reasons perhaps the private TTC respondents were not aware of the standard of required physical facilities of a teacher education institution and getting a B.Ed. certificate was more important for the studnets rather than looking at the quality of physical facilities.

Strengths of the Infrastructural Facilities

Govt. TTCs: The govt. TTCs had huge physical structure, which included own building; sufficient number of classrooms and corridors with proper air and ventilation and movement facilities; adequate seating arrangements in classrooms with required chalk and white boards; electricity and pure drinking water facilities; adequate room for laboratory and library; separate principal, staff and office rooms; hall room; good toilet facilities; female and male hostels to accommodate hundreds of students at a time with good dining facilities; common room for the students; big campus with good location; huge building; play ground; mosques, approaching roads connecting well different parts of the TTCs, etc.

Private TTCs: Respondents mentioned presence of required buildings; classrooms with required seating arrangements and board facilities; library and laboratory; good toilet and facilities of pure drinking water as the strengths of the private TTCs. But, as mentioned earlier the researcher found majority of the above mentioned facilities to exist scantily and not up to the mark.

B.Ed. Tutorial Centers of SoE/BOU: As the TCs were located in govt. TTCs, general colleges and established training institutions, they enjoyed good physical facilities in terms of classrooms; playground; mosque; approach roads; big campus; etc.

Weaknesses Associated with Infrastructural Facilities

Govt. TTCs: The respondents of the government TTCs identified a number of weaknesses, like absence of laboratory facilities for various practical oriented school subjects, except the science subjects and absence of auditorium and playground in some of the TTCs. They also reported that the classrooms were small in size and had lack of required and suitable furniture and other facilities to conduct participatory teaching-learning. The TTCs also had absence of computer laboratory for use of both students and the teacher educators and micro-teaching laboratory for teaching practice.

Private TTCs: The weaknesses as mentioned by the private TTC respondents were asymmetrical to those of the govt. TTCs. Besides, they identified some additional weaknesses, like absence of own building; separate common room for female students; hall room; playground; etc. During this study the researcher also found almost all of the

private TTCs to be located in rented houses with inadequate office space and few classrooms without proper air and ventilation. It was further noticed in many of the TTCs, the same buildings were used for multi-purpose like school, computer training and coaching centers, etc. Therefore, academic atmosphere, in term of physical structure, of a teacher education institutions was almost absent there. Besides, as mentioned by the respondents, as the private TTCs were running on fully commercial basis with limited financial ability, paid by the students, and as they never received any financial subvention from any source, they were unable in providing infrastructural facilities properly. National University, the affiliation authority of these private TTCs also apparently failed or was indifferent in taking any measure to ensure the required physical facilities of the affiliated private. TTCs.

B.Ed. Tutorial Centers of SoE/BOU: The respondents of BOU reported total absence of laboratory and library facilities for the B.Ed. students. Also there were no computer and micro-teaching laboratory for them. The female students had no access to separate common room and toilet facilities. The tutors had no seating arrangement in the TCs, which made them unable to coordinate and interact among themselves on different academic aspects of the program required for quality transaction of the tutorial session.

5.1.1.6 Student Support Services

As could be gleaned from the data in the following table on student support services, only the principals of the government TTCs reported a positive opinion (3.13),

Table 5.9
Mean Opinion Scores of the Respondents regarding Student Support Services in the B.Ed. Programs

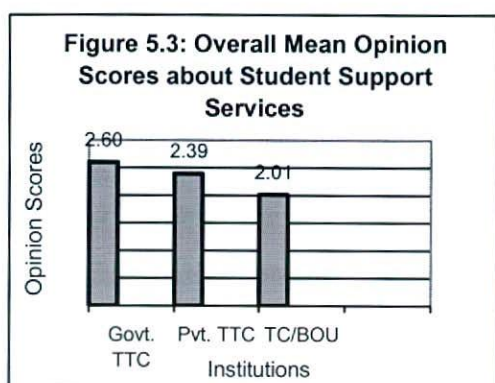
Respondents	Mean Opinion Scores						F Value
	Govt. TTCs		Pvt. TTCs		TCs- SoE/BOU		
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
B.Ed. Graduates	2.18	0.64	2.03	0.73	1.75	0.55	2.84
Teacher Educator/Tutors	2.48	0.58	2.62	0.52	1.96	0.63	8.75*
Principals/Course Coordinators	3.13	0.74	2.53	0.48	2.31	1.11	1.59

* significant at $P \leq .05$

which was slightly higher than the criterion mean (3.00). The other two groups, namely

graduates and teacher educators opined negatively (2.18 and 2.48) about the student support services offered by their institutions. All the three groups of respondents of the private TTCs and BOU also revealed negative opinions. Their opinions were even much lower than the criterion mean. It indicates the respondents of BOU opined the most negatively the student support services provided to distance B.Ed. students with a mean opinion scores of only 1.75 by the graduates, 1.96 by the tutors and 2.31 by the course coordinators.

A cursory look of the overall mean opinion scores of the institutions also reveals the same fact, i.e., negative opinions about the student support services by the



respondents of all the three categories of institutions. The findings imply that the student support services provided by the govt. and the private TTCs as well as the TCs of BOU were not up to the mark. In other word, all the three types of institutions were unable to provide required support services

for their B.Ed. stakeholders. It further reveals the situation of BOU was the worst and their mean opinion score was much lower (2.01) than those of the TTCs, both government (2.60) and private (2.39). In a SWOT analysis study on BOU conducted by Dekkers (1994:19) also explored that the student support services, offered by BOU, was not up to the standard and he identified it as a major threat to proper functioning of BOU system. The findings of the present study again reveal the same fact, i.e., the same unexpected situation with regard to student support services still exists, even after 14 years of Dekker's study. The studies of Ahmmod (2005) and Akhter (2004) on the tutorial support services of BOU, which is a vital part of student support services, also revealed that the student support service was beset with many problems.

The SD values show almost all the respondents were homogeneous in their perception, which means the respondents of different institutions perceived the student support services negatively. The differences among the opinion scores of the teacher educators by type of institution were found significant. It indicates the quality of the student support services offered by various institutions varied in quality. This may be attributed to the inattentiveness or incapability of the teacher education institutions in

providing the student support services properly. But, for a quality output quality program delivery is a pre-requisite, which depends largely on the quality of student support services. Therefore, support services need to be improved so that it can help in solving students' problems and at the same time can become more active in promoting intellectual development of the students (The Commonwealth of Learning, 1993:1)

Strengths of the Student Support Services

Govt. TTCs: There were adequate books in the libraries with required seating and reading arrangements for the learners. They had laboratories with some apparatus. Students could avail adequate hostel and dining facilities, etc.

Private TTCs: Some of the respondents mentioned about library facilities, guidance and counseling services provided by the teacher educators to the students.

B.Ed. Tutorial Centers of SoE/BOU: Flexibility in completion of the program under which students could continue for ten consecutive years to complete the B.Ed. was viewed as a major strength of the distance B.Ed. program. The provision of taking re-examination only in the subject(s) of failure for qualifying the B.Ed., which was absent in the system of NU B.Ed.; radio and television programs to support the students' self learning process; supply of well written self-learning modules on all the B.Ed. courses; and supply of them to all the students were other significant strengths stated by the course coordinators, tutors and graduates of BOU.

Weaknesses Associated with Student Support Services

Govt. TTCs: The govt. TTC graduates revealed dissatisfaction with a number of aspects. For example, students were not provided with academic calendar at the commencement of academic session. The libraries were old and full of obsolete materials. There was absence of latest and recent books, references, journals, papers, reports, primary and secondary curricula, etc. The time allocated for library use was inadequate and unsuitable. The seating arrangement for study in the library was not proper. There was sheer absence of modern apparatus and chemicals in the laboratories to conduct experimentation. Besides, the TTCs neither had any audio-visual opportunity for the students, nor were there any IT facilities like computer, internet, audio-video conferencing, etc. Also there was an absence of scope of telephonic contact

between students and faculty on academic affairs and services of providing academic guidance and counseling to the trainees.

Private TTCs: In the private TTCs there were severe lacking of student support services. These included absence of academic calendar; scarcity of books especially on pedagogy in the libraries; absence of journal, magazine, report, paper, etc.; absence of required reading arrangement and book issuing facilities in the library; lack of laboratory facilities for all practical oriented subjects; absence of computer and IT facilities. One particular weakness of the private TTC was that the students were not awarded any scholarship or provided any stipend, as the govt. TTC students received, although both implemented the same B.Ed. curriculum under the same academic rules, regulations and leadership of National University.

B.Ed. Tutorial Centers of SoE/BOU: The distance B.Ed. program was found characterized with many problems. The major weakness identified was delayed receipt of course materials. Others included absence of academic calendar; library facilities; laboratories; guidance and counseling facilities; technological facilities like radio, TV, computer, internet, multimedia, etc., both in the TCs and the RRCs. Besides, there were acute information gaps between the students and tutors as well as with RRCs with regard to deadline of registration and submission of examination fees. Difficulty in getting examination result and faulty result sheets were some other significantly noted problems. Moreover, the media programs transmitted for the students through Bangladesh Television and Bangladesh Betar (radio) were inadequate; old; lecture based and not compatible with the B.Ed. courses offered in different semesters. Also the transmission time of the media programs, especially the BTV programs were not suitable for the learners.

Student support services have direct implication on quality of any professional education program like B.Ed. Providing some of the services needs huge financial involvement and the TTCs and TCs of SoE/BOU might be incapable to provide them. However, there are many other services fulfillment of which simply depends on authority's willingness, promptness, efficiency and motivation to provide them. If all these work together and hand in hand better student support services are not impossible to provide, which in turn could ensure better implementation of the B.Ed. programs with expected quality.

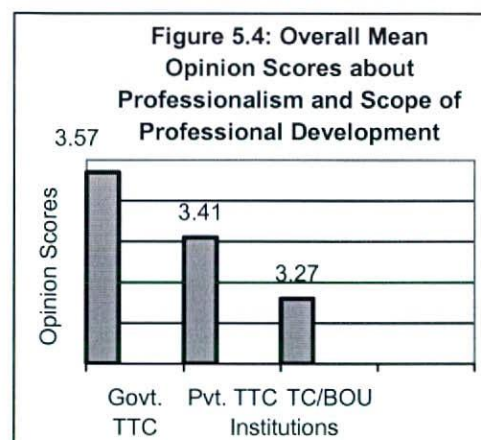
5.1.1.7 Professionalism and Scope of Professional Development of the Faculty

Table 5.10 furnishes the evaluation data on teacher educators' professionalism and scope of professional development. A cursory look into the data reveals that all the

Table 5.10
Mean Opinion Scores of the Respondents regarding Professionalism and Scope of Professional Development

Respondents	Mean Opinion Scores						F Value
	Govt. TTCs		Pvt. TTCs		TCs-SoE/BOU		
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
B.Ed. Graduates	4.03	0.81	3.79	0.79	3.40	0.15	2.77
Teacher Educator/Tutors	3.04	0.40	2.97	0.55	2.99	0.63	0.12
Principals/Course Coordinators	3.65	0.21	3.48	0.33	3.42	0.59	0.53

three groups of respondents of the govt. TTCs opined positively regarding this inquiry. Of them the B.Ed. graduates' opinion got the highest score (4.03). The graduates and the principals of the private TTCs ventilated positive opinions regarding professionalism and scope of professional development of the faculty, but the TEs attached negative opinion with a mean score (2.97) below the criterion mean. Likewise the graduates' opinion of the govt. TTCs the private TTC graduates also scored the highest mean opinion score (3.79). The findings of BOU were asymmetrical to that of the private TTCs, i. e., positive opinions were expressed by the graduates and the course coordinators and negative by the tutors. The overall mean opinion scores shown in Figure 5.4 reveal that, on average, the respondents of all the three types of institutions were positive with the highest mean score expressed by the respondents of the govt. TTCs and the lowest by the respondents of SoE/BOU. According to the SDs the respondents did not vary in expressing their perception. The F values also indicate that the samples did not differ



significantly in respect to their responses about professionalism and scope of professional development of the faculty.

Strengths Associated with Professionalism and Scope of Professional Development

Govt. TTCs: As observed by the respondents the teacher educators were punctual and dedicated to their professional duties and responsibilities; carefully played their roles and responsibilities; were knowledgeable in their subjects of teaching; came to the TTCs regularly; entered the classrooms in time and made proper use of allocated time period for lesson delivery; were motivated in discharging their responsibilities; had knowledge and skills in pedagogy; and held positive attitude to their profession.

Private TTCs: The identified strengths were similar to those of the govt. TTCs, for example teacher educators were sincere and helpful to the students; punctual, regular and careful in playing roles and responsibilities; knowledgeable in teacher education; motivated and positive about their profession of a teacher educator; etc.

B.Ed. Tutorial Centers of SoE/BOU: The tutors were sincere; punctual; regular; highly experienced and dedicated to their profession. They had mastery in their subjects of teaching and pedagogical contents. They were also very much cordial to the students and in fulfillment of their academic needs. The tutors were motivated and held positive mind in discharging their responsibilities as tutors of the distance B.Ed. program.

Weaknesses Associated with Professionalism and Scope of Professional Development

Govt. TTCs: One of the significant weaknesses as identified by the respondents was that some of the teacher educators had lack of required efficiencies of a teacher educator. Other weaknesses as mentioned were mainly related with lack of professional development opportunities of the faculty. Accordingly, the faculty lacked in required scope within the institution to develop themselves professionally. The TTC authorities were not conscious of it and did not organize any in-house staff development program for the faculty. Another mentionable weakness in this regard was that the faculty had very limited scope of promotion to higher positions. According to the respondents, it was a major cause of their mental dissatisfaction in delivering the desired roles and

responsibilities. Besides, the TTCs had no published journals to provide scope to the teacher educators to share and escalate their intellectual and research capabilities. They also had no technological facilities (computer, use of internet, etc.) to improve their skills in technology, which is a major driving force of modern education system of 21st century.

Higher education is a vital means of professional development, especially for a person works in the arena of teacher education. But, the teacher educators of the TTCs had almost no scope of it at the institutional level. Those who were eager to pursue it at personal level were not allowed by the authority and did not get study leave due to absence of such provision. As regards training, domestic or overseas, offered under various programs and projects, as reported by the respondents, were not distributed objectively. Resultantly, the same persons received repeated opportunities while others at all did not receive it despite having required qualifications and needs for training. Again those who received training did not disseminate and apply properly their newly acquired knowledge and skills to the fellow colleagues and in the teaching-learning process of the TTCs, which could have acted as a means of professional development of other teacher educators of the same institutions.

Private TTCs: The respondents of the private TTCs reported lack of scope for professional development opportunities for the teacher educators of the private TTCs. As reported by them, they received much lesser in-service training opportunities in the country from their counterpart in the govt. TTCs and they never received any overseas training from any corner. They also had no access to computer and other technological facilities. For all these reasons the teacher educators of the private TTCs failed to gather required and modern knowledge and skills in teacher education. Non-publication of any magazine and journal was another weak area of these TTCs. The teacher educators had no scope of promotion and this was found supported by the background data of them collected as part of this study, where all the teacher educators were apparently holding the position of lecturer and it simply happened due to absence of any carrier path or promotion opportunity in the private TTCs.

B.Ed. Tutorial Centers of SoE/BOU: Alike the respondents of the government TTCs the BOU respondents also expressed almost the similar views. Besides, one significantly mentioned weakness was tutors' lack of required knowledge and skills

about distance mode delivery of an education program and they were not oriented on it by the relevant authority, i.e., BOU.

The findings clearly indicate the faculty of the sampled teacher education institutions, particularly the private TTCs had very limited opportunity of professional development. As stated by Robinson and Latchem (2003:18), “The lack of professional development and support for teacher educators may lead them to be a conservative force in any change and innovation.” This situation is, therefore, not expected for a teacher education institution offers B.Ed. program. According to UNICEF (2000:15) professional development may take many forms, both off site and on site kinds of programs. Combination of both could be effective ways for teachers to advance their professional knowledge, skills and attitude.

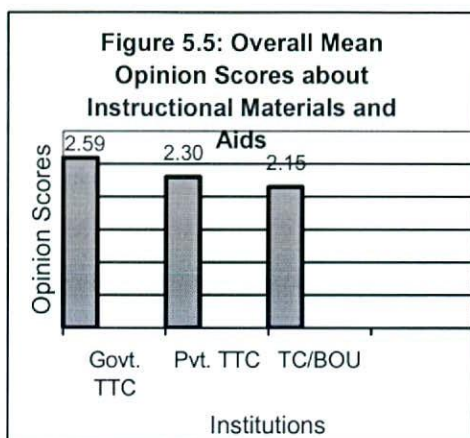
5.1.1.8 Instructional Materials and Aids

Data concerned to the inquiry on availability of instructional materials and aids and their use in the sampled teacher education institutions are furnished in Table 5.11.

Table 5.11
Mean Opinion Scores of the Respondents regarding Instructional Materials and Aids

Respondents	Mean Opinion Scores						F Value
	Govt. TTCs		Pvt. TTCs		TCs-SoE/BOU		
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
B.Ed. Graduates	2.47	0.61	2.18	0.67	2.28	0.51	1.39
Teacher Educator/Tutors	2.26	0.47	2.26	0.55	1.96	0.49	2.72
Principals/Course Coordinators	3.03	1.14	2.45	0.32	2.22	1.00	1.29

As shown by the data, merely the principals of govt. TTCs expressed just average level of opinion about the inquiry. The other two groups, graduates and teacher educators, expressed negative views regarding the issue and their mean opinion scores were much lower than the criterion mean. From the private TTCs all the three groups expressed negative opinions. The opinions of the respondents of BOU were also found convergent to that of the private TTCs. A cursory look at the data further shows the tutors of SoE/BOU showed the least opinion (1.96), which was 1.04 point lower than the criterion mean. The overall mean opinion scores of the three types of institutions



were also found significantly lower than the criterion mean, i.e., negative. Likewise the opinion about student support services, here also the distance B.Ed. respondents registered the most negative opinion (2.15). These findings imply that there prevailed a depressing scenario in all the sampled institutions in terms of availability and use of instructional aids

and materials in the teaching-learning process. The studies conducted by Dean under TQI-SEP (2007:18) and PROMOTE (2004:5) found little evidence of teaching aids and materials in the secondary schools of the country. This may be attributed to some extent to lack of required practice in use of teaching aids and materials in the TTCs by the students as well as the teacher educators and the tutors. Lack of required funding and institutional support in collecting and/or buying these; absence of monitoring by the relevant authority; lack of motivation on the parts of the teacher educators and tutors in their use may be among the other possible reasons of this poor state of teaching aids and materials and their use in the TTCs and the B.Ed. tutorial centers of SoE/BOU.

Strengths with regard to Instructional Materials and Aids

Govt. TTCs: The govt. TTCs had some aids and materials on different subjects of teaching. The laboratories also had some apparatus to support experimentation done by the B.Ed. students. The classrooms had required chalk and white boards.

Private TTCs: The private TTCs had some aids and materials, like chalk board; hand made and collected teaching aids to conduct the instructional process.

Tutorial Centers of SoE/BOU: The students of distance B.Ed. program were provided with self-learning modules on all courses of the distance B.Ed. program. Availability of chalk board and chalks were found as other identified strengths.

Weaknesses Associated with Instructional Materials and Aids

Govt. TTCs: According to the findings the govt. TTCs although possessed some instructional aids and materials, but in many of the cases they were inadequate, old and

traditional. The TTCs lacked required funds in purchasing them. Where some aids and materials exist suffered from lack of proper storage facilities. The major weakness regarding their use was that the teacher educators were not motivated in their use, which resulted in less or almost no use of existing materials and aids in the teaching-learning process. Besides, the TTCs had strong scarcity of sports and game materials for use of the students; severe lack of educational technologies, like computer, internet and audio-visual facilities; etc. The science laboratories did not have the required and modern apparatus and there was no equipment or audio-visual facility to conduct micro teaching for teaching practice of the B.Ed. students.

Private TTCs: The opinions of the respondents of the private TTCs were almost the same as that of the government TTCs. Additionally, they mentioned the teacher educators of the pvt. TTCs had lack of proper knowledge and skills in use of aids and materials, which made them unable to reap expected results from the use of teaching aids and materials whatever they used. In addition, there was shortage of required books on different subject areas of the B.Ed. and what existed were not of good quality.

B.Ed. Tutorial Centers of SoE/BOU: The respondents of BOU also opined in the same way of their counterparts in the govt. and the private TTCs. One significant finding in this regard was that whatever instructional materials and aids the institutions, where the TCs were located, had for use of their regular students were not made use for delivery of tutorial classes of distance B.Ed. program. Moreover, the distance B.Ed. students had no access to library and laboratory facilities and as such they were deprived of any use of teaching aid and materials. The tutors never collected any teaching aids and materials personally and did not make use of any. BOU authority also never provided any such aids and materials to support the B.Ed. tutorial classes implemented in the sampled TCs. As instructional materials students only received self-learning modules on different courses of studies, but they were old, written in traditional way and were full of theoretical and obsolete information.

5.1.2 Evaluation Result of the Process Variables

The process variables included a total of nine variables, namely (1) methods and techniques; (2) teaching practice; (3) co-curricular activities; (4) evaluation process; (5) academic environment; (6) program duration; (7) class duration; (8) teacher-student

ratio; and (9) admission procedure. The following subsections present the findings on evaluation of the said variables.

5.1.2.1 Methods and Techniques followed in the TTCs and TCs

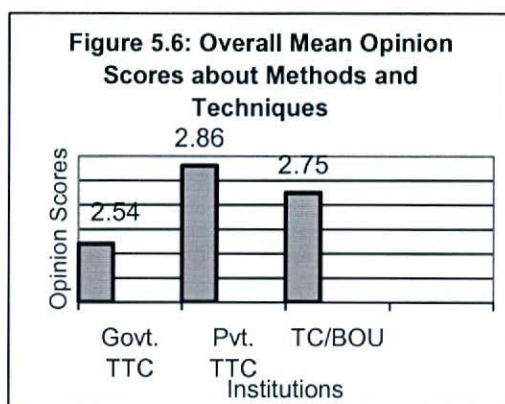
Various methods and techniques are used to involve learners in the teaching-learning process or in the training program, such as questioning during lectures, simulation, reflecting after reading, etc. They are used to obtain the learning objectives which are the new behaviors that one wants his/her learners to use when they return to their jobs (www.nwlink.com). The effectiveness of an education or a teacher education program, therefore, largely depends on the quality of methods and techniques used. Therefore, in this study the effectiveness of the methods and techniques used in the TTCs and TCs for B.Ed. curricula delivery was assessed as part of the quality evaluation drive of the teacher education programs. The findings are presented in the following table (5.12).

Table 5.12
Mean Opinion Scores of the Respondents regarding Methods and Techniques used in the B.Ed. Course Delivery

Respondents	Mean Opinion Scores						F Value
	Govt. TTCs		Pvt. TTCs		TCs-SoE/BOU		
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
B.Ed. Graduates	2.99	0.60	2.92	0.59	2.90	0.59	1.35
Teacher Educator/Tutors	2.97	0.71	2.93	0.52	2.74	0.68	0.88
Principals/Course Coordinators	1.67	1.75	2.72	0.58	2.61	0.98	1.40

It is evident from the data that all the respondent groups of the govt. and private TTCs as well as the B.Ed. tutorial centers of BOU expressed negative opinions regarding the teaching-learning methods and techniques followed in the B.Ed. curricula delivery of their institutions. The significant finding in this regard was that among all the process variables 'methods and techniques' was the lone area about which none of the respondent groups from any of the institutions opined positively. The mean opinion score of the principals of the government TTCs was the lowest (1.67) among all, which was almost a half of the criterion mean. This may be due to their, as administrators, not having much exposure to the methods and techniques followed by their teacher educators. The other group mean opinion scores ranged between 2.61 to 2.99, i.e.,

below than the reference point. The overall mean opinion scores of different institutions were also much lower than the criterion mean of 'three'. This explicitly indicates the traditional character of the teaching-learning process being followed in the secondary teacher education institutions of the country. It is significant to mention that the govt.



TTC respondents, on the whole, attached the lowest opinion (2.54), while the private. TTC respondents expressed the highest (2.86) one. The reasons behind the negative opinions about the prevalence of use of teaching-learning process of traditional character by all the three groups of respondents were perhaps from lack of knowledge

and skills as well as professional training of the faculty on conducting modern, activity oriented and student centric participatory methods and techniques. The lowest opinion expressed by the respondents of the government TTCs may be due to, as found in this study (Tables 5.5 and 5.6), a good number of the principals and teacher educators of the govt. TTCs in last few years received in-service training, both in-country and overseas, on modern theories, concepts and application of instructional strategies as well as on other pedagogical issue. The knowledge and skills acquired by them might have developed a critical insight in them on objective assessment of the teaching-learning methods and techniques being followed in the TTCs in offering B.Ed. courses. Besides, the findings of the present study (Table 5.4) showed a number of teachers educators in the govt. TTCs had no professional background, who were naturally not acquainted with modern pedagogical concepts and ideas. It was, therefore, not unnatural that the instructional strategies conducted by them were of traditional character. All these might have exerted a combined impact in expressing the lowest level of opinion by the govt. TTC respondents and the situation was vice versa in case of the private TTC respondents where majority of the teacher educators did not receive any in-service training conducive for professional development.

According to the SDs, it is clear that the respondents in the groups were not dispersed in their opinions. The F values indicate the respondents did not differ significantly across the groups. It means all were of the same opinion about the little

effectiveness of the teaching-learning methods and techniques of the secondary teacher education programs, i.e., B.Ed. offered by the TTCs and BOU.

Strengths of Methods and Techniques

Govt. TTCs: The teacher educators were sincere in delivery of their lessons and had mastery of their subjects of teaching. A few of them tried to employ modern participatory approach of teaching-learning methods and techniques in the instructional process. Few used teaching aids to supplement the lesson delivery and made the students use laboratories in practical oriented science teaching subjects. The teacher educators used to describe the goals and objectives of the lessons and presented them in organized manner with adequate preparation. They used to encourage the students to ask questions and tried to address the questions raised by the students. The teacher educators also tried to explain complex ideas and problems to develop a clear basis of understanding of the students about them. Students were allowed to ventilate their ideas and those were valued sincerely by the teacher educators.

Private TTCs: The teacher educators were sincere in conducting the teaching-learning process and a few used teaching aids to supplement the lesson delivery. The other strengths were: the teacher educators stated the goals and objectives of the lessons clearly and presented them in organized way; encouraged students to ask questions to express their ideas; respected their opinions; made constructive criticism of students' works and ideas; tried to resolve students' academic problems; etc.

B.Ed. Tutorial Centers of SoE/BOU: Tutors were sincere and had good understanding of the methods and techniques to be used in subjects of teaching. Students participated actively in the instructional delivery of the tutorial classes. Tutors encouraged students to ask questions and express their ideas on various problems and lessons. They tried to solve the problems raised by the students; integrated modern ideas and concepts wherever necessary; and made constructive criticism on students' ideas and opinions.

Weaknesses Associated with Methods and Techniques

Govt. TTCs: The methods and techniques followed in the govt. TTCs were mainly traditional and teacher centered. Lecture method and didactic approach were the main

strategies in use and, therefore, had strong lacking of active participation of the students in the teaching-learning process. Consequently, the students failed to acquire hand on experience on different aspects of B.Ed., which needed practical experience, and even on use of various participatory teaching-learning methods and techniques they received theoretical concepts only. Besides, there was at all no use of modern educational technology (computer, multimedia, internet, audio-video, etc.) in the teaching-learning process. Required and varied teaching aids and materials were also not in use. The teacher educators did not integrate modern concepts and ideas in their lesson presentation and the whole instructional process was almost memorization based. Students were not provided opportunity to think creatively, work actively and develop ability of analysis and self-reflection. Moreover, some of the teacher educators had lacking in modern pedagogical knowledge and skills.

Private TTCs: The weaknesses identified by the private TTC respondents were almost the same to that of the government TTCs. They further added that the private TTC teacher educators used to conduct the instructional strategies without required preparation. As the private TTC teacher educators were part timer and had another main job, this perhaps did not provide them adequate time and motivation to take required preparation.

B.Ed. Tutorial Centers of SoE/BOU: Although technology is an integral part of distance education system, it was quite absent in the instructional process of B.Ed. tutorial system of BOU. There was at all no use of computer, internet, multi-media and other audio-visual aids and materials by the tutors and the learners. Teaching aids were never used in tutorial class delivery and there was at all no use of laboratory work for science teaching subjects. The methods used were merely lecture and discussion and had quite absence of the characteristics of open and distance mode delivery. Varied and participatory teaching-learning methods were not made use and the delivery process remained into 'one to one' and 'one to whole' mode of delivery. The tutors had lack of knowledge in distance mode pedagogy and as a result they used to deliver the teaching-learning process following face to face mode delivery.

The findings clearly indicate that the teaching-learning methods and techniques used in the B.Ed. of different institutions, govt. TTCs, private TTCs and TCs/BOU, were quite traditional. According to the Newsletter of TQI-SEP (July, 2007) such

teaching-learning is an incomplete form of teaching-learning, which only keeps stagnant in information giving and taking. But teaching-learning should be beyond this and in addition providing information, engagement and synthesis should be its part through which more active learning will take part where students will talk more and teacher will talk lesser; where teacher is a facilitator rather than transmitter and where open-ended questions will be asked to make students to think creatively. In fact the education system of Bangladesh needs such an instructional delivery process for holistic development of its future generation. Preparing the secondary school teachers to that goal is the responsibility of the secondary teacher education institutions.

5.1.2.2 Teaching Practice of the B.Ed. Programs

Teaching practice is regarded as central to any teacher education program. It gives the student teacher the opportunity to put into practice the theory and content of different subjects learned through participating in the instructional strategies used in curriculum delivery. Thus, it helps the trainee teacher to gain hand on experience in improving their teaching capabilities in terms of some generic teaching skills, like classroom management, observation, use of chalkboard and teaching aids, key teaching-learning skills, evaluation skills, etc. In the B.Ed. programs of NU and BOU teaching practice is compulsory. How effectively were these done in the said programs were, therefore, assessed as part of this study. The data gathered in this regard are presented in Table 5.13.

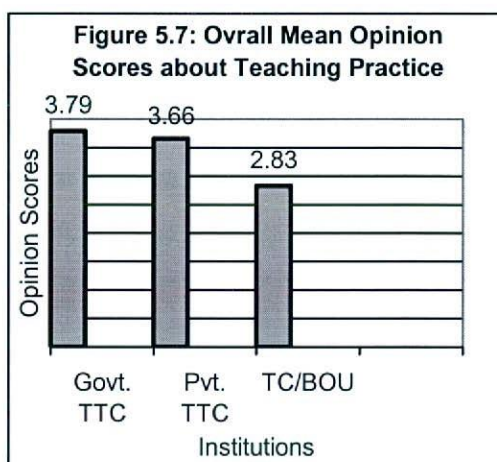
Table 5.13
Mean Opinion Scores of the Respondents regarding Teaching Practice of the B.Ed. Programs

Respondents	Mean Opinion Scores						F Value
	Govt. TTCs		Pvt. TTCs		TCs-SoE/BOU		
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
B.Ed. Graduates	3.60	0.80	3.12	0.68	2.79	0.48	8.97*
Teacher Educator/Tutors	3.51	0.51	3.76	0.43	2.96	0.77	11.66*
Principals/Course Coordinators	4.28	0.31	4.11	0.68	2.75	0.94	8.73*

* significant at $P \leq 0.05$

As shown by the data, the views expressed by all the three groups of respondents of the govt. and private TTCs regarding teaching practice were positive.

The mean opinion scores of the principals in both the types of TTCs were much higher than the criterion mean, i.e., much positive. The opinions of the teacher educators and the graduates of the TTCs were also positive. In quite contrast to their views all the three groups of respondent of the TCs/BOU, graduates, tutors and course coordinators, expressed negative opinions about the teaching practice of the distance B.Ed. program.



The overall mean opinion scores of the respondents of the three types of institutions also reflect the same findings, i.e., positive opinions by the govt. and private TTC respondents and negative by the BOU respondents. The overall mean scores of the TTCs were much higher than the point (03) of criterion mean. These findings clearly indicate that the quality of teaching

practice of face to face B.Ed. offered through the govt. and the private TTCs was of good quality. This was also much better than the teaching practice followed in distance B.Ed., which further implies the fact that the teaching practice of the distance B.Ed. program of BOU was below standard. As evident by the SDs, the respondents were dispersed in their opinions. However, the calculated F values indicate that the variations among the three categories of the respondents of different institutions were significant at 95% confidence level.

It is to be noted here that a comparison of the findings on teaching practice and the teaching-learning methods and techniques followed in the govt. and the private TTCs reveals a contrasting scenario, which indicates the quality of methods and techniques followed in these institutions was below standard, but the respondents' opinion regarding quality of teaching practice was positive, i.e. good. This contrasting scenario naturally could strike one's mind as in general it is expected that the better the quality of methods and techniques of a teacher education program the better will be the quality of teaching practice. But, the findings show an inverse relationship, in cases of the govt. and the private TTCs, between the two variables.

In a search of the possible reasons responsible for this contrasting finding, the researcher explored that the face to face B.Ed. offered by the govt. and the private TTCs always followed the same procedure of teaching practice conducted under the

same academic rules and regulations of NU. These rules and regulations of teaching practice was revised and given a new shape under SESIP and was introduced in all the TTCs, both public and private, from 2004, two years prior to the introduction of the new national B.Ed. curriculum, i.e., during the old B.Ed. program. As reported by the respondents, this new TP included some new and positive aspects, as for example a two-stage implementation process; scope of reflection and debriefing on TP, done at the first stage, with the fellow students and supervisors and accordingly adopting corrective measures at the second stage to eliminate the shortcomings of the first stage; frequent visits by the supervisors in practicing schools; observation of full TP sessions of the students and giving on the spot feedback to the practicing students, etc. All these factors presumably contributed to increase the efficiency of TP even under the old B.Ed. curriculum and might have influenced the respondents of the TTCs to express positive opinions regarding TP, despite having negative view with regard to instructional methods and techniques as many of them obtained B.Ed. during the period 2004 to 2006.

In case of distance B.Ed. program, the curriculum itself earmarked a very small time to conduct the TP, two or three days only at the end of each semester. Again the TP was completely tutorial centre based and had no provisions to conduct them in real classroom or in school situation. There TP was implemented within the TCs and in the forms of simulation and microteaching in which a student, on average, got five to six minute time to demonstrate his/her teaching skills and thus failed to get scope of developing teaching skills based on a full practice session. Students' teaching skills were also evaluated and formally marked based on observation of segmented part(s) of a TP. According to Hussain (UGC, 2002:100) these were major weaknesses of TP of distance B.Ed. and the SoE never considered the practice teaching sessions seriously and hence this important segment of distance B.Ed. program failed to go through any quality measures. In this context the negative opinion stated by the respondents of distance B.Ed. could be termed as a vital area to improve for overall development of the B.Ed.

Strengths of Teaching Practice

Govt. TTCs: According to the respondents of the govt. TTCs, teaching practice was one of the strongest areas of B.Ed. offered by their institutions. Accordingly, the

strengths of TP were: systematic implementation of teaching practice; full utilization of teaching practice time; conducted in effective manner; giving required demonstration lesson by the teacher educators; critical examination of the lesson plans prepared by the students and giving constructive feedback on them; frequent supervision with provision of full time observation of teaching practice sessions by the supervisors; providing feedback on identified weaknesses; provision of adequate TP classes in schools; use of required teaching aids during the TP sessions; giving practical idea on lesson plan preparation and its various steps, etc. Besides, the heads and the subject teachers of the teaching practice schools, in general, were cooperative to the trainees. Thus, the govt. TTC respondents found their teaching practice conducted through standard practices, which by and large helped the students to improve their teaching quality.

Private TTCs: The private TTC respondents termed the teaching practice of their institutions as adequate and systematic. They also found it helpful to improve the quality of teaching of the B.Ed. students. The other strengths of the teaching practice were similar to those as mentioned by the govt. TTC respondents.

B.Ed. Tutorial Centers of SoE/BOU: The respondents identified some specific strengths, like systematic, timely and regular implementation of the teaching practice; getting practical experience on lesson plan preparation; giving required demonstration lessons by the tutors; etc.

Weaknesses Associated with Teaching Practice

Govt. TTCs: Despite having positive opinion and identifying a number of strengths regarding the teaching practice the respondents still had some concerns about it. They were: unsuitable time for teaching practice; non allocation of required marks for it; late start of TP and in some cases non-cooperation from school authorities to implement teaching practice properly. They further observed the lesson plans students developed as part of the TP were not fully applicable in real situation of the secondary schools. The teacher educators found the amount of transport allowances very scanty to supervise the TP sessions properly in schools with which, according to the respondents, making frequent visits in schools to supervise the TP was almost impossible. It was also troublesome for them to supervise the school based teaching practice in absence of official transports.

Private TTCs : The views of the private TTC respondents were asymmetrical to those of the government TTCs. In addition, they mentioned that teaching practice was not conducted properly in the private TTCs as was desired in the curriculum. Students did not attend the TP classes regularly and were not motivated to have teaching practice in schools. One special problem found associated with the private TTCs was that the TTCs had no laboratory schools, as the govt. TTCs had, to practice TP by the students. So the private TTCs suffered in conducting TP and the secondary schools were sometimes reluctant to extend required cooperation in this regard.

B.Ed. Tutorial Centers of SoE/BOU: According to the respondents the weaknesses of the TP were: inadequate time allocation; absence of provision to conduct and supervise TP in real school situation and thus following an ineffective model of TP held in the tutorial centers in an unrealistic simulated situation; etc. The other deficiencies included insufficient number of TP class; attaching less importance to it in the curriculum; absence of required and proper micro teaching facilities to develop students' competency in TP; non-use of required teaching aids by both teachers and students during the demonstration lessons and TP sessions, etc. Absence of any provision of observing students' full TP session in the TCs and non-existence of supervision system of TP at school level by the course tutors or relevant personnel were some other perennial problems of the TP of distance B.Ed. program. All these forced the students to accomplish the B.Ed. without required knowledge and skills on TP.

5.1.2.3 Co-curricular Activities of the B.Ed. Programs

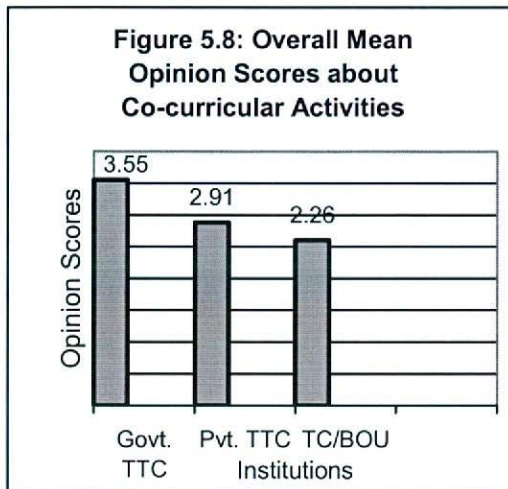
The data presented in the following table show mean opinion scores of the

Table 5.14
Mean Opinion Scores of the Respondents regarding Co-curricular Activities of the B.Ed. Programs

Respondents	Mean Opinion Scores						F Value
	Govt. TTCs		Pvt. TTCs		TCs-SoE/BoU		
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
B.Ed. Graduates	3.19	0.61	2.58	0.61	2.50	0.47	12.80*
Teacher Educator/Tutors	3.56	0.57	3.44	0.51	2.38	0.62	31.08*
Principals/Course Coordinators	3.89	0.78	2.72	0.57	1.91	1.21	7.36*

* significant at $P \leq 0.05$

respondents on evaluation of co-curricular activities practiced in the TTCs and the TCs of SoE/BOU. Likewise the findings on teaching practice all the groups, i.e., graduates, teacher educators and principals of the government TTCs expressed positive opinions regarding co-curricular activities of the B.Ed. program implemented in their institutions. The views of the groups of respondents of the private TTCs were quite opposite. There the graduates and the principals showed negative opinions, while the teacher educators opined it positively with a mean opinion score of 3.44. All the three groups of respondents of the tutorial centers of BOU revealed quite negative opinions



regarding co-curricular activities of distance B.Ed. program. The overall mean opinion scores indicate that, on average, the govt. TTC respondents were positive about the co-curricular activities of their institutions. Their mean opinion score was much higher than the criterion mean. But, the respondents of the private TTCs and the TCs/BOU were negative about it. The

mean opinion score (2.26) of the BOU respondents was much lower than the reference point. It is clear from the findings that the govt. TTCs attached much importance to it and were much careful of conducting co-curricular activities as a vital part of their B.Ed. program offering what the private TTCs did not do, despite offering the same B.Ed. curriculum. It is observed from private TTC visits as well as in different reports, meetings, studies (Morris, 2006, SESIP, 2004) that the private TTCs were conducting the B.Ed. by flexing many of the rules, set by NU, for example regular holding of class; students' regular attendance and conducting TP under same criteria set by NU for both public and private TTCs, etc. These reasons with other institution related factors might have led the private TTCs to conduct the co-curricular activities in an undesirable manner. The worst situation of BOU may be due to its mode of delivery where students had the opportunity to meet occasionally with the tutors, twice a month only. Again attending those tutorial sessions was not compulsory for the students, except only two classes during a six-month semester. Obviously this situation was not in favor of conducting co-curricular activities by the students of distance B.Ed. in desired manner.

Strengths of Co-curricular Activities

Govt. TTCs: There was provision of adequate co-curricular activities in the govt. TTCs. These were conducted regularly in the form of assembly in all the govt. TTCs. Besides, varieties of other co-curricular activities, like sports and games; cultural and religious programs; publication of wall and printed magazines; debate; science fair; study tour; picnic; etc. took place round the academic session. The TTCs had adequate room (field, hall room, open space, classrooms, etc.) to conduct those activities well. The teacher educators were experienced in conducting them and the co-curricular activities took place in organized way. Students, as full time and residential students, had adequate time and scope to participate in these activities. The teacher educators were cooperative and students were enthusiastic to participate in co-curricular activities. As a result of all these factors, the B.Ed. graduates were able to complete the course with required knowledge, skills and attitude about co-curricular activities.

Private TTCs: Students were interested to participate in co-curricular activities. Limited scale of activities, like publication of wall and yearly magazines took place in few of the private TTCs. In one TTC fair on teaching aids held.

B.Ed. Tutorial Centre of SoE/BOU: Nothing positive was identified.

Weaknesses Associated with Co-curricular Activities

Govt. TTCs: The respondents of the government TTCs indicated that the B.Ed. trainees did not have adequate time to participate in physical activities as in the B.Ed. routine little time was spared for it. Another significant weakness to mention here that sometimes overemphasis laid by the students on co-curricular activities hindered the implementation of regular curricular activities.

Private TTCs: The private TTC respondents were dissatisfied with many of the aspects of the co-curricular activities conducted in their TTCs. According to them, students had not much scope to participate in co-curricular activities. The time allocated for it in the B.Ed. routine of the private TTCs was also scarce. There were absence of creative and thought provoking co-curricular activities, like debate; science fair and competition; social activities; etc. Whatever co-curricular activities took place were also not organized properly.

B.Ed. Tutorial Centre of SoE/BOU: The respondents of the tutorial centers expressed some concerns regarding co-curricular activities. This indicated that co-curricular activities failed to receive due importance in distance B.Ed. program and its curriculum. The B.Ed. routine spared no time for its implementation. The students were disinterested to participate in it because of their simultaneous work; study load; and irregular attendance in the tutorial class. The tutors also did not provide any scope of co-curricular activities to the distance B.Ed. students as the curriculum did not desire it. Consequently, the distance B.Ed. students graduated without acquiring any required practical background in co-curricular activities, except little theoretical concepts about it as included in the contents of B.Ed. module(s).

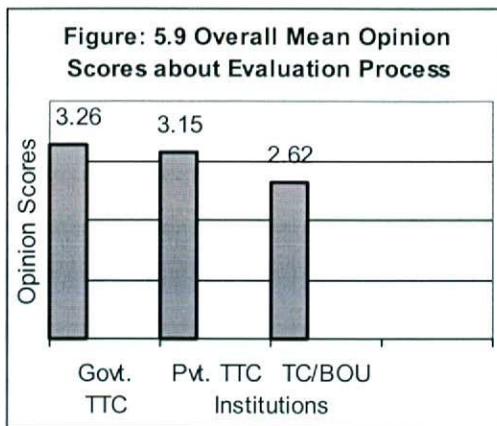
5.1.2.4 Evaluation Processes followed in the B.Ed. Programs

Table 5.15
Mean Opinion Scores of the Respondents regarding Evaluation Process of the B.Ed. Programs

Respondents	Mean Opinion Scores						F Value
	Govt. TTCs		Pvt. TTCs		TCs-SoE/BOU		
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
B.Ed. Graduates	3.18	0.66	3.22	0.58	2.66	0.50	7.13*
Teacher Educator/Tutors	3.00	0.71	3.24	0.75	2.84	0.48	2.23*
Principals/Course Coordinators	3.60	1.00	3.00	0.46	2.35	0.26	5.59*

* significant at $P \leq 0.05$

On the query about quality of evaluation processes of the B.Ed. programs, the respondents of different institutions were found to opine differently. The graduates, teacher educators and principals of the govt. TTCs were, on average, positive about the evaluation process of the B.Ed. imparted by their institutions. Of them the principals expressed the highest opinion with a mean score of 3.60 followed by the graduates (3.18). The teacher educators were just positive with a mean equivalent to the criterion mean (3.00). All the groups of respondents of the private TTCs also had positive opinions about the evaluation process of their institutions. The findings of BOU were quite reverse where all the groups expressed negative opinions about the evaluation system of distance B.Ed. program. On the whole, the respondents of the govt. and the private TTCs found to opine positively the evaluation procedure of their B.Ed., while



the respondents of BOU did it negatively. It is evident from these findings that the evaluation system of the distance B.Ed. was not satisfactory. The F values clearly indicate that all the groups differed significantly by type of teacher education institution in regards to their opinions about the evaluation system followed in the B.Ed. programs.

Strengths of Evaluation Process

Govt. TTCs: The evaluation process included a good combination of internal and external assessment, where both were valued with importance to judge students' academic achievements. Besides, the evaluation process was systematic; examinations held in time; assessments of students' academic performance especially the internal assessments were done objectively.

Private TTCs: Mentioned the strengths same as to that of the govt. TTCs. Additionally, the pvt. TTC respondents identified the provision of moderation of the marks obtained in internal and external assessment by an external evaluator, if the mark of any subject(s) of a student in internal assessment was 20% higher than his/her mark of the same subject in external assessment and awarding the mark(s) of external examination as the final one instead of the average of the two as a significant strength of the evaluation system. According to them, this system prevented the teacher educators of the private TTCs from over marking the student in internal assessment, which was a major weakness of the evaluation procedure of NU B.Ed. before 2004.

B.Ed. Tutorial Centers of SoE/ BOU: Timely holding of the semester final examinations; objective assessment of the assignments and answer scripts; good quality of question papers; etc. were identified as the strengths of BOU's evaluation system.

Weaknesses Associated with Evaluation Process

Govt. TTCs: According to the respondents of the govt. TTCs the evaluation system was beset with a plethora of shortcomings, as for example the system was not

conducive to assess students' holistic (knowledge, skills and attitude) development, which is the major goal of education. Besides, it was unable to measure students' progress on a continuous basis, which indicates formative assessment was absent there. The publication of the results of the B.Ed. final examinations was late. Distribution of marks between internal and external assessments was not appropriate. Students were not given creative and thought provocative assignments. The assignments were not checked properly and constructive feedbacks were not provided to the students. The assignments were not returned to the students before the examination. In some cases, students were not evaluated impartially in the internal assessments. In general, the evaluation system was traditional, memorization based and examination oriented.

Private TTCs: The observed weaknesses of the private TTC respondents were: students were not given thought provoking, creative and analytical assignments; the assignments prepared by the students were not checked properly and returned back with feedback in time; examination results were published late; the internal assessment was not always done in objective manner and there was a tendency of over marking to show a good academic performance of the students of the private TTCs. They further mentioned the distribution of marks between the internal and external examinations was improper.

B.Ed. Tutorial Centers of SoE/BOU: The weaknesses found inherent with the evaluation system of BOU B.Ed. were: incapability to measure holistic development (knowledge, skills and attitude) of trainees' behavior; not checking of the Tutor Marked Assignments (TMA) in proper way; not providing feedback on them and not returning the TMA back to the students; etc. Besides, without exception criticisms were found on three more areas: (1) inordinate delays in publication of semester final examination results; (2) large number of errors in the B.Ed. final result sheets, which created severe harassment on part of the students to make them correct from the examination division of BOU located in main campus of Gazipur; and (3) the process of certificate collection under which the students required to travel to Gazipur to apply for and collect certificates for which they sometimes needed few days. All these caused severe inconveniences and financial hardship for many of the distant B.Ed. students. In addition, the handling process of students' inquiries, complaints and appeals regarding examination result anomalies was not found service oriented. Moreover, the evaluation

system was termed by the respondents as certificate based, which was used by the graduates as a ticket for entry into and survive in the teaching profession as well as getting an on job increment. The studies conducted by McWilliams and Akhter (2006:19) and Akhter (2004:262-263) also identified these as the innate problems of the evaluation procedure of the B.Ed. of BOU.

The above findings clearly indicate that the evaluation systems of both the face to face B.Ed. of NU and the distance B.Ed. of BOU were examination oriented and certificate based. As stated by Jain and Ambika (2001:64), "Quality should not be determined by formal examinations alone but by the utility of what is learnt. Utilization of skills and knowledge is very important to the learner and quality is ultimately the practical utility of knowledge and skills." Another important finding was that students did not receive feedback on the assignments of the B.Ed. programs. This was also found as a common phenomenon of distance B.Ed. program in the studies of Akhter (2004) and Sharma (2002). According to Ebel and Frisbie (1986:14) the major function of evaluation is to provide feedback to the teachers and students. This provides an opportunity for the teachers to modify the instructional process and to provide pointers to students as where to develop and how. So, these findings need attention in any initiative of improving the quality of evaluation system of B.Ed. programs.

5.1.2.5 Academic Environment of the Teacher Education Institutions

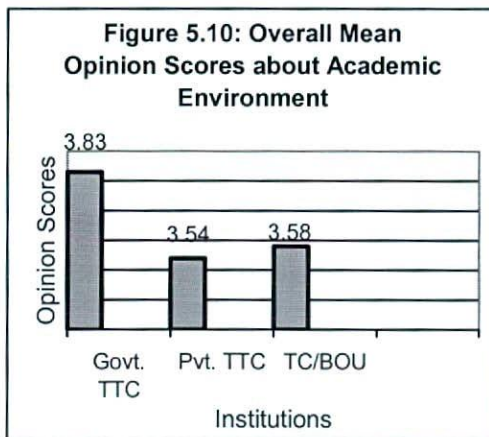
Academic environment is an indicator of quality of any education program. It affects the ability of a teacher to provide quality education. In response to the inquiry about the standard of academic environment of the teacher education institutions, all the groups of respondents, graduates, teacher educators/tutors, principals/ coordinators

Table 5.16
Mean Opinion Scores of the Respondents regarding Academic Environment of the Teacher Education Institutions

Respondents	Mean Opinion Scores						F Value
	Govt. TTCs		Pvt. TTCs		TCs-SoE/BOU		
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
B.Ed. Graduates	3.89	0.78	3.64	0.82	3.51	0.89	1.32
Teacher Educator/Tutors	3.60	0.55	3.73	0.34	3.61	0.68	0.43
Principals/Course Coordinators	4.00	0.27	3.24	0.27	3.61	0.56	5.59*

*significant at $P \leq 0.05$

of the TTCs, both govt. and private, as well as the TCs of BOU were found to obtain mean scores much higher than the criterion mean (0.3). This indicates all the groups were happy with the academic environment prevailed in their respective institutions. The respondents were homogeneous in their opinion, but the differences among the principals and coordinators were only found significant. The overall mean opinion



scores of all the three types of institutions were also found positive. However, they differed in magnitude in which the respondents of the govt. TTCs expressed the highest opinion (3.83). The private TTC and BOU respondents exhibited almost similar level of opinions, which were about 0.20 point lower than that of the govt. TTCs. This implies the fact that the academic environment of the govt.

TTCs was better than that of the private TTCs as well as the TCs of BOU. This may be due to the presence of extensive facilities there in terms of infrastructure, human resources, in-service training facilities, etc., required for conducting an education program through quality process. As found in this study the private TTCs had lack of many of these facilities. The tutorial centers of BOU also had no provision to make use of all the existing facilities of the institutions where the TCs were located and they were never provided by BOU. These, may be, were the factors responsible for the comparatively lower levels of opinions expressed by the respondents of private TTCs and tutorial centers of BOU.

Strengths of Academic Environment

Govt. TTCs: The academic environment of the govt. TTCs was found characterized with regular holding of class; no session jam; timely commencement and completion of the program; well educated, trained and adequate number of experienced and motivated force of teacher educators; etc. Other factors held responsible for creating good academic environment were: the teacher educators maintained good academic relation with the students; the principals provided required supports to the teacher educators in conducting the class effectively; regular holding of staff meeting, where strengths and

weaknesses of the program were discussed and required corrective measures were sought out on the problems; and strict following of the academic rules and regulations of the B.Ed. program. Besides, the TTCs had good physical facilities to conduct the academic activities and the teacher educators were much careful of maintaining good academic environment there.

Private TTCs: The teacher educators maintained good academic relation with the students and provided good academic support. The principals provided required supports to the teacher educators in conducting the class. Regular experience sharing meeting held there and required measures were taken accordingly.

Tutorial Centers of BOU: The tutorial centers had well educated and experienced set of tutors. There held regular tutorial class (twice a month). Tutors played their roles and duties with due responsibility. Academic rules and regulations were maintained strictly.

Weaknesses Associated with the Academic Environment

Govt. TTCs: Despite having positive opinions the respondents identified some problems such as: the principals did not supervise the academic activities in the classroom regularly; scarcity of required teachers in some of the subjects of teaching; posting of large number of teachers in the TTCs without any professional education background; teacher educators' lack of knowledge and skills in research; and scarcity of technical support staff, equipment and chemicals in the laboratories. Another mentionable weakness was that the academic activities of the TTCs were never monitored by any external authority or by the National University, which is crucial for maintaining quality of any academic environment. There was also no national level institution to maintain a common academic standard in the quality of B.Ed. offered by different institutions.

Private TTCs: The private TTC respondents identified almost the same problems as were identified by the respondents of the government TTCs. Additionally, financial insolvency to increase infrastructural and manpower facilities; irregular attendance of the students in the classrooms; lack of communication between the teacher educators and students due to students' absenteeism; inadequate teaching staffs; small spaced and

inadequate classrooms; absence of required laboratory, library and IT facilities were some other reported barriers in creating good academic environment in the pvt. TTCs.

B.Ed. Tutorial Centers of SoE/BOU: The respondents of distance B.Ed. opined that the course coordinators of the TCs did not supervise the tutorial activities. They further reported lack of coordination between the course coordinators and tutors regarding implementation of tutorial services; absence of required laboratory, library, computer and IT facilities; non-supervision of the tutorial activities by concerned authority of BOU; non use of teaching aids in tutorial service delivery; lack of research, technologies and required audio-visual programs as some other barriers of creating good academic environment in the B.Ed. tutorial centers of SoE/BOU.

5.1.2.6 Duration of the B.Ed. Programs

Table 5.17 presents the evaluation data regarding students' opinion about the duration of the B.Ed. programs offered by NU and BOU. The data indicates that the B.Ed. graduates and the teacher educators of the government TTCs expressed negative

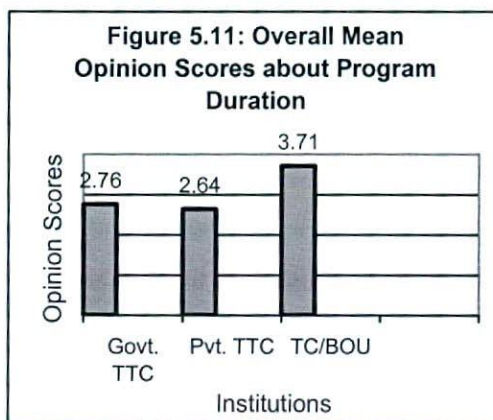
Table 5.17
Mean Opinion Scores of the Respondents regarding Duration
of the B.Ed. Programs

Respondents	Mean Opinion Scores						F Value
	Govt. TTCs		Pvt. TTCs		TCs-SoE/BOU		
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
B.Ed. Graduates	2.92	1.50	3.04	1.57	3.63	1.41	1.53
Teacher Educator/Tutors	2.37	0.97	2.21	1.52	3.67	1.37	10.25*
Principals/Course Coordinators	3.00	0.89	2.67	1.63	3.83	0.75	1.61

*significant at $P \leq 0.05$

opinions as regards to the B.Ed. program duration of NU. The opinion of the principals was also almost similar. In the private TTCs, the graduates perceived the duration of NU B.Ed. little positively, while the other two groups did it negatively. As observed by Morris (2006:5), from the private TTCs students can easily get a B.Ed. certificate without fulfilling the requirements of regular class and others. Moreover, absolute majority of the B.Ed. students of the private TTCs were working as school teachers and doing B.Ed. without any formal leave for which they were possibly unable to attend a B.Ed. with longer duration. Perhaps, these were the reasons for the private TTC

graduates not taking into cognizance the program duration rationally and as an important factor. The duration of distance B.Ed. was found satisfactory, i.e., positive by all the three groups of respondents of the TCs of BOU. Despite these variations among the group mean opinion scores, the overall mean opinion scores of the three types of



institutions shows that the respondents of the TTCs, both govt. and private, in general were holding negative opinions about the existing face-to-face B.Ed. program duration, while it was valued much positively by the BOU respondents with a mean opinion score (3.71) much higher than the criterion mean. It is to be mentioned here that the

length of the B.Ed. of NU was of 10 months duration (up to 2005-2006 session). But, as found in this study and reported in different studies and reports, the B.Ed. curriculum of NU was full of theory and was difficult to finish within this stipulated time period. Perhaps this was one of the reasons for which the respondents of the TTCs termed the B.Ed. program duration inadequate to finish the whole curriculum. Besides, considering the need for developing a solid basis in teaching, i.e., in pedagogy as well as school teaching subjects, the existing program duration of NU was not adequate for a professional education program like B.Ed. and the duration of similar programs of many other countries were longer than it. From this perspective, the responses of the TTC respondents with regard to B.Ed. program duration could not be termed irrational and unjustified. It was also judged as one of the most disliked area of B.Ed. by the respondents of a study conducted by SESIP (March 2004:37). Recognizing this fact different education commission reports of the country recommended to extend the B.Ed. program duration. The Secondary Teacher Education Taskforce Report (SESIP, April 2002:18), quoting the views of the participants, mentioned "ten month B.Ed. was too short, and that the course should be extended to eleven or twelve months". The workshop report of SESIP (Nov. 2001:6) also suggested to lengthen the B.Ed. program duration of NU. The distance B.Ed. program was of two years duration from the very beginning, which practically was long enough to complete the professional degree. This possibly encouraged the distance B.Ed. respondents to exhibit positive opinion about the program duration of distance B.Ed. program.

Strengths of Program Duration

Govt. TTCs: No strength was identified.

Private TTCs: The short program duration helped the working school teachers to pursue B.Ed. degree in a short period of time. They did not need to stay for long time outside the schools and could achieve B.Ed. without any leave from the schools. Schools and classes also had not to suffer from long absence of the subject teachers. Thus, the program duration was identified cost effective and suitable for both the teacher trainees and schools.

B.Ed. Tutorial Centers of SoE/BOU: Program duration was adequate and conducive for working students to complete the program in a relaxed manner without having too much study and work loads at a time.

Weaknesses Associated with Program Duration

Govt. TTCs: Because of short program duration it was difficult on the parts of the teacher educators and students to teach and complete the B.Ed. curriculum satisfactorily with maintaining required standard. Students did not get adequate time to participate in general classes and especially in the teaching practice sessions with satisfaction and in a quality manner.

Private TTCs: Some termed the B.Ed. program duration short to conduct the program with required quality.

B.Ed. Tutorial Centers of SoE/BOU: No weakness was identified by the respondents.

5.1.2.7 Class Duration of the B.Ed. Programs

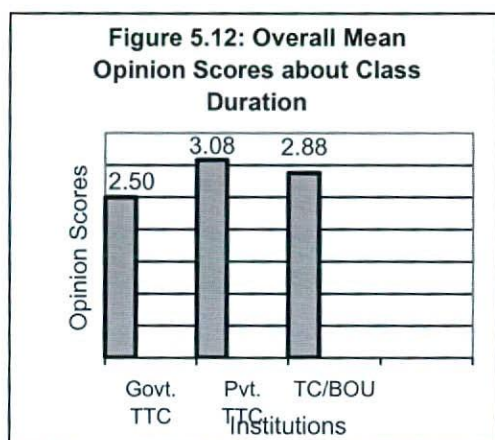
Table 5.18 furnishes the data on the inquiry of quality of the B.Ed. class duration. The data reveal that all the three groups: graduates, teacher educators and principals of the government TTCs were negative in their opinions regarding B.Ed. class duration. The mean opinion score of the teacher educators was even very low, only 1.96. In the private TTCs two groups out of three, graduates and teacher educators, were negative and the principals were positive about it. In the TCs of BOU, graduates and tutors also

exhibited negative views regarding the length of tutorial class, while the course coordinators held just average level of opinion towards it.

Table 5.18
Mean Opinion Scores of the Respondents regarding Class Duration of the B.Ed. Programs

Respondents	Mean Opinion Scores						F Value
	Govt. TTCs		Private TTCs		TCs/BOU		
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
B.Ed. Graduates	2.71	1.33	2.58	1.38	2.96	1.27	0.49
Teacher Educator/Tutors	1.96	0.75	2.83	1.24	2.67	1.58	3.38*
Principals/Course. Coordinators	2.83	0.75	3.83	0.75	3.00	1.67	1.31

* significant at $P \leq 0.05$



On average, the opinions of the respondents of the govt. TTCs and the TCs of BOU about the class duration were negative. The private TTC respondents' opinion score was slightly, 0.08 point, higher than the criterion mean, i.e. average opinion. From these findings it could be said that the class duration of the TTCs and TCs were inadequate to conduct B.Ed.

classes/tutorials. This critical mind of the respondents may be emerged from their practical experiences in managing and attending B.Ed. classes/tutorial sessions of only 45 to 50 minutes duration each, which they found not suitable for offering academic activities of a professional education program like B.Ed. A cursory look of the SDs exhibits little dispersion among the respondents within the groups. The differences among the teacher educators and the tutors were only proved to be significant.

Strengths of Class Duration

TTCs (Govt. and Private): The respondents of the govt. TTCs identified no strengths of existing class duration. A few of the private TTC respondents took it positively and

mentioned that they could finish the classes early and thus could manage their teaching tasks in the school simultaneously with taking the B.Ed. due to short class duration.

B.Ed. Tutorial Center of SoE/BOU: Nothing was mentioned as strengths.

Weaknesses Associated with Class Duration

Government TTCs: The class duration was inadequate to conduct the classes of B.Ed. particularly as the teacher-student ratio was more than the norm. As a result lecture method was mainly followed and students' active participation in the teaching-learning process was neglected. Individual attention was also not possible to pay during the teaching-learning process because of short class duration.

Private TTCs: No problem was identified.

B.Ed. Tutorial Centers of SoE/BOU: Only two days tutorial class in a month with sessions of 45 minutes each were inadequate to finish the B.Ed. syllabus through quality process.

5.1.2.8 Teacher Student Ratio

The data on evaluation of existing class size and teacher-student ratio are presented in the following table. As illustrated by the data, all the three groups of the

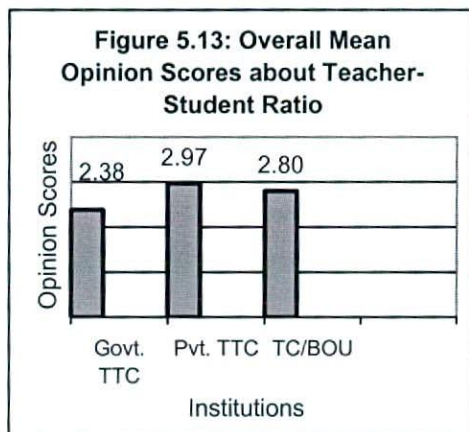
Table 5.19
Mean Opinion Scores of the Respondents regarding Teacher Student Ratio in the B.Ed. Programs

Respondents	Mean Opinion Scores						F Value
	Govt. TTCs		Pvt. TTCs		TCs- SoE/BOU		
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
B.Ed. Graduates	1.92	1.06	2.58	1.38	3.21	1.25	6.54*
Teacher Educator/Tutors	2.38	1.17	2.67	1.40	2.88	1.61	0.65
Principals/Course Coordinators	2.83	0.41	3.67	1.03	2.33	1.03	3.55*

*significant at $P \leq 0.05$

respondents from the government TTCs expressed negative opinions about the teacher-student ratio of their respective institutions. Of them the graduates attached the lowest

opinion with only 1.92 point of mean opinion score. The graduates and teacher educators of the private TTCs also ventilated negative opinions regarding it, but the principals were positive towards the inquiry. Thus, five out of six respondent groups of the TTCs perceived negatively the class size of their B.Ed. program. With regard to teacher-student ratio in the tutorial class, the course coordinators and the tutors showed



negative opinions, while the graduates viewed it positively. Despite these mixed reactions, the respondents of all the three types of institutions, on average, expressed negative opinions regarding teacher-student ratio in the B.Ed. classrooms. The findings further reveals that the govt. TTC respondents had the lowest opinion (2.38) and the private TTC respondents expressed

the highest (2.97) opinion regarding teacher-student ratio. According to the SDs the respondents were little dispersed in their opinion. The graduates and the heads of the institutions differed significantly in their opinion.

Strengths of Teacher-student Ratio

Nothing was mentioned by the respondents of the TTCs and BOU in this regard.

Weaknesses Associated with Teacher-Student Ratio in the Classroom

Government TTCs: The high teacher-student ratio in the classroom was a barrier to participatory learning; formative assessment; giving individual attention and taking remedial measures.

Private TTCs: Classroom activities could not be conducted with desired norms and practice and quality due to large class size. Individual attention was also not possible to pay to the participating students.

B.Ed. Tutorial Centers of SoE/ BOU: Conducting tutorial in a classroom with high tutor-student ratio was very difficult to manage.

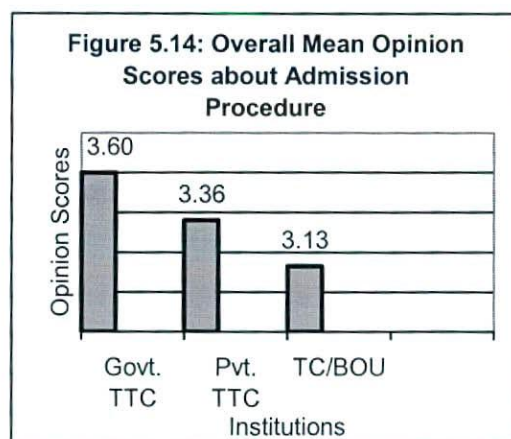
5.1.2.9 Admission Procedure of the B.Ed. Programs

As illustrated by the evaluation data in Table 5.20 on admission procedure of the B.Ed. programs, the principals and the graduates of the govt. TTCs found to bear positive opinions, while the teacher educators expressed negative opinion (2.88) about it. The opinion of the principals was positive and apparently very high (4.17). In the private TTCs the principals were also found to express very high (4.50) and positive opinions. The opinion of the B.Ed. graduates was average and it was negative for the teacher educators. The opinions of the respondents of the TCs of BOU were almost

Table 5.20
Mean Opinion Scores of the Respondents regarding Admission Procedure of the B.Ed. Programs

Respondents	Mean Opinion Scores						F Value
	Govt. TTCs		Pvt. TTCs		TCs- SoE/BOU		
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
B.Ed. Graduates	3.75	1.11	3.00	1.41	3.38	0.97	2.42
Teacher Educator/Tutors	2.88	1.23	2.58	1.21	2.50	1.10	0.67
Principals/Course Coordinators	4.17	0.75	4.50	0.55	3.50	0.84	2.98

similar to those of the TTCs. Significant to mention here is that teacher educators of all the three type of institutions were dissatisfied with the admission procedures of the respective institutions, which obviously threw a challenge regarding the quality of the



admission procedures. Despite the fact the respondents of all the institutions, on average, were positive about the quality of the admission procedures of the respective teacher education institutions. The respondents of the govt. TTCs had the most positive opinion with a mean score of 3.60 and the BOU respondents had the least opinion (3.13) about it.

Strengths of Admission Procedure

Govt. TTCs: The written form of admission test followed by viva voce can screen students of good caliber and academic background to admit into the B.Ed. program

offered by the govt. TTCs. This is to be mentioned here that the govt. TTCs followed an admission test system to admit students in the B.Ed. program in a search of enrolling students with good academic basis.

Private TTCs: Provided opportunity to all the applicants, desired to get admission in the private TTCs, to get enrolled into the B.Ed. program.

B.Ed. Tutorial Centers of SoE/BOU: Transparent admission procedure, based on set criteria, provided all to have access into the program.

Weaknesses Associated with Admission Procedure

Government TTCs: No flaws or loopholes were identified.

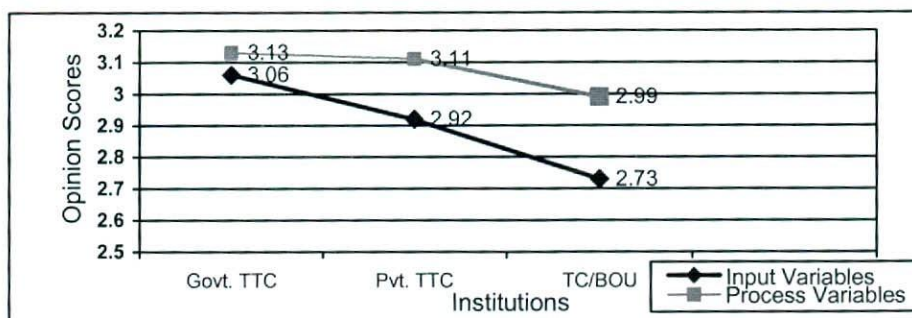
Private TTCs: Absence of admission test did not allow in screening good students to be admitted in the private TTCs.

B.Ed. Tutorial Centers of SoE/ BOU: The formalities one needs to complete for admission and registration into the B.Ed. program of BOU were cumbersome.

5.1.2.10 Overall Opinion Scores about the Input and Process Variables by Type of Institution

The data in figure 5.15 exhibit the status of respondents' overall opinions about the input and process variables, subjected to inquiry under this study, by type of institution. As indicated by the data, the respondents of the govt. TTCs, on the whole, were positive about the process variables and they had just average level of opinion about the input variables. The finding was quite reverse for BOU respondents, i.e., negative in cases of both the types of variables. The private TTC respondents were found to have mixed views, i.e., positive about process variables, while negative about input variables. Further analysis of the data lines shows respondents of all the three institutions had better opinions regarding process variable than the input one. These findings clearly indicate that all the three institutions were in weak state in providing required inputs to conduct the B.Ed. programs efficiently. However, despite the deficiencies they were somehow imparting their programs, but not in so much efficient

Figure 5.15
Average of the Opinion Scores about the Quality of the Input and Process Variables by Type of Institution



way as shown by the overall mean opinion scores of process variable, which were very close to the criterion mean. Another important finding was that the TCs of BOU failed to conduct both the aspects, input and process, of their B.Ed. in desired manner or satisfactorily. The status of the govt. TTCs was also not that much good in terms of input and process variables.

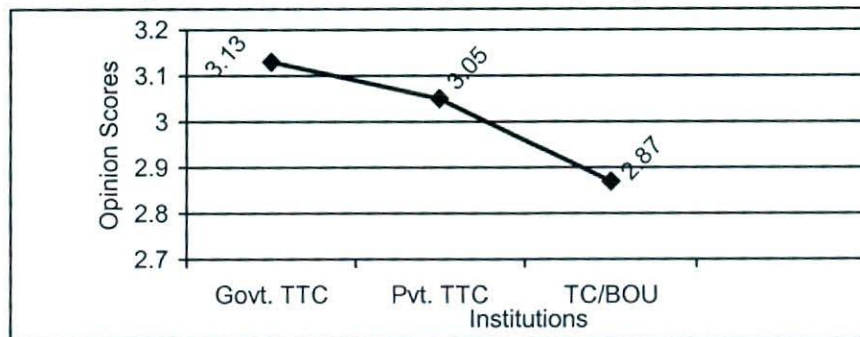
To make a whole system properly functional and to reap quality output different parts of it, i.e., the variables need to work efficiently, both independently and in relation to other variables. Also the efficiency of process variables depends largely on efficiency of input variables. Similarly the quality of output of a program is dependant on the quality of input and process variables. The teacher education institutions, therefore, need to be careful to make all its parts equally functional as well as to try to steadily escalate their level of functioning, essential for imparting quality B.Ed.

5.1.2.11 Overall Opinion Scores about the Quality of the B.Ed. Programs by Type of Institution

The data depicted in the following (Figure: 5:16) figure express the fact that the govt. TTC respondents, on the whole, had positive opinions (3.13) about the quality of B.Ed. program offered by their institutions. The respondents of the private TTCs expressed average opinion, while the respondents of BOU judged it negatively. The finding further reveals, despite having positive opinion the mean opinion scores of the govt. TTCs was very close to the criterion mean. It indicates the respondents of the govt. TTCs respondents had little positive opinion regarding the quality of the B.Ed. of their institutions. All these findings imply the teacher education institutions offering

B.Ed. under NU and BOU obviously need to improve the quality of their programs by improving the status of different input and process variables attached with the systems.

Figure 5.16
Total Opinion Scores of the Respondent by Type of Institution



5.1.2.12 Summary of Findings of the Opinion Scores

A total of 14 variables, five input variables and nine process variables, were subjected to investigation under the opinion scale employed in this study. The overall findings (Table 5:21) reveal that, on average, the respondents of all the three types of institutions had positive opinions about four variables out of 14, namely (1) infrastructural facilities; (2) professionalism and scope of professional development; (3) academic environment; and (4) admission procedure. All of them had negative opinions about same number of variables, namely (1) student support services; (2) instructional materials and aids; (3) methods and techniques; and (4) teacher-student ratio. They showed mixed opinions with regard to other six variables. For example the private TTC respondents expressed positive opinion about the curriculum, while the govt. TTC and BOU respondents viewed it negatively. Regarding teaching practice and evaluation process the respondents of the TTCs, both govt. and private, were positive while the respondents of BOU were negative about it. The program duration was perceived positively only by the BOU respondents and about class duration, merely the private TTC respondents were found positive. As regards co-curricular activities, only the govt. TTC respondents were positive and the other two groups were negative.

Further analysis of the data reveals the govt. TTC respondents showed positive opinions in seven variables (two input and five process), private TTC respondents in eight variables (three input and five process) and the respondents of BOU exhibited it to only five (two input and three process) out of 14 input and process variables

subjected to the opinion scale. A comparison between the input and process variables shows all the respondent groups had better opinions about the process variables.

Table 5.21
Summary of Opinions of the Respondents about the Quality of Different
Input and Process Variables of the B. Ed. Programs

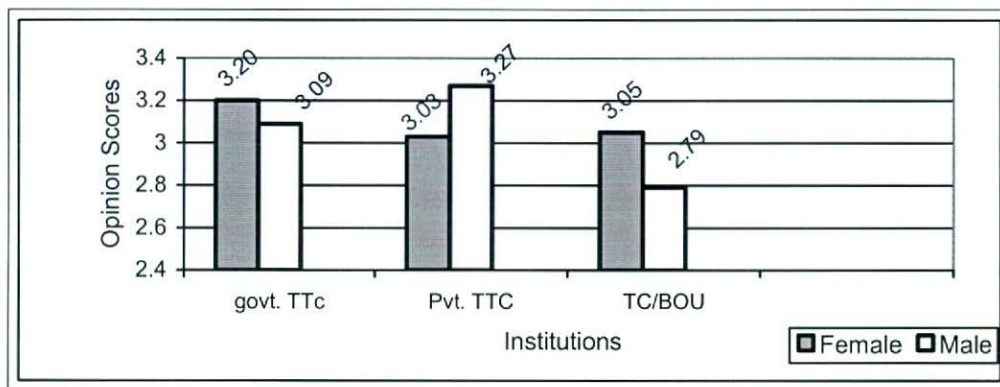
Variable	Govt. TTC		Private TTC		BOU	
	$\bar{X}$	Rank	$\bar{X}$	Rank	$\bar{X}$	Rank
Input Variables						
1. Curriculum	2.99	8	3.15	6.5	2.88	6.5
2. Infrastructural Facilities	3.82	4	3.34	5	3.35	3
3. Student Support Services	2.60	10	2.39	13	2.01	14
4. Professionalism and Scope of Professional Development	3.57	5	3.41	3	3.27	4
5. Instructional Aids and Materials	2.59	11	2.30	14	2.15	13
Process Variables						
6. Methods and Techniques	2.54	12	2.86	11	2.75	10
7. Teaching Practice	3.79	2	3.66	1	2.83	8
8. Co-curricular Activities	3.55	6	2.91	10	2.26	12
9. Evaluation process	3.26	7	3.15	6.5	2.62	11
10. Academic Environment	3.83	1	3.54	2	3.58	2
11. Program Duration	2.76	9	2.64	12	3.71	1
12. Class Duration	2.50	13	3.08	8	2.88	6.5
13. Teacher-student Ratio	2.38	14	2.97	9	2.80	9
14. Admission Procedure	3.60	3	3.36	4	3.13	5

The rank orders of the opinion scores reveal govt. TTCs respondents attached the highest opinion about academic environment followed by TP. For private TTC respondents it was reverse, i.e., TP topped the list followed by academic environment. Professionalism and scope of professional development; infrastructural facilities; and admission procedure were the other variables among the first five favorably opined variables of the govt. and private TTCs. In BOU, program duration topped the list followed by academic environment. Infrastructure; professionalism; and admission procedure held the third, the fourth and the fifth positions. Teacher-student ration was opined as the last one, in the rank order, by the govt. TTC respondents, while teaching aids and materials by the private TTC respondents and SSS by the BOU respondents.

5.1.2.13 Opinion by Gender

Figure 5.17 presents the data on overall mean opinion scores of the respondents of different teacher education institutions by gender. As per the data, both the female and the male graduates of the government and the private TTCs, on average, held positive opinions regarding the quality of B.Ed. imparted by their institutions. In case of BOU, the female respondents were found positive, while the male were negative

Figure 5.17
Overall Opinion of the Respondents by Gender



about it. In the govt. TTCs and TCs of BOU female respondents expressed little higher opinions, while in the private TTCs male respondents ventilated higher opinion. The difference between the opinion scores of both the sexes in BOU was only found significant at desired confidence level. The distance B.Ed. program of BOU made an opportunity for the females to continue their studies without hampering their family and professional lives. It also created an immense scope for them to enhance their professional and social status by acquiring an additional qualification simultaneously with continuing their job. This was possibly the reason of why the female graduates took the distance B.Ed. more positively despite some intricate weaknesses in it, as were identified in this study.

5.1.3 Findings on the Output Variables

This section presents findings on the output variables, which included data on output statistics of B.Ed. final examinations and its outcome. Under output statistics, pass rates in the B.Ed. final examinations and classes obtained by the graduates were

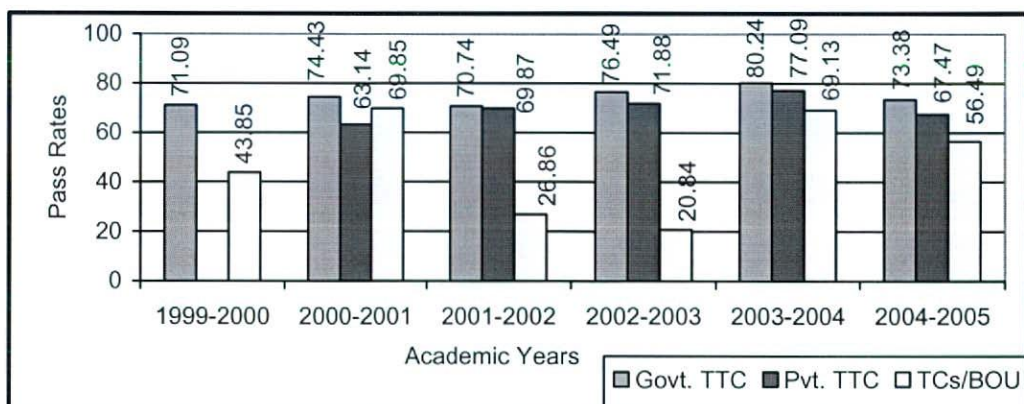
identified based on the data collected from the TTCs and BOU. The outcome of the B.Ed. program was assessed in terms of the graduates' teaching performances in actual classrooms of the secondary schools where they were working and the respondents' attitudes, developed out of the B.Ed., about the quality of the programs, which was assessed based on Likert's Five point attitude scale.

5.1.3.1 Output of the B.Ed. Final Examinations

5.1.3.1.1 Pass Rate

The data in Figure 5.18 furnish the scenario on overall pass rates of the three types of institutions in the B.Ed. final examinations. In the academic years started from 1999 to 2004, the overall pass rates of the govt. TTCs always remained the highest and moved between 70.74% to 80.24%. The pass rates of the private TTCs were apparently little lower than those of the govt. TTCs with a minimum 63.14% to a maximum 77.09% pass rates. The pass rates always remained the lowest in distance B.Ed. program compared to those of the govt. and the private TTCs, except in 2001. It was extremely low in 2002 and in 2003, only 26.86% and 20.84% respectively.

Figure 5.18
Pass Rates in the B.Ed. Final Examinations of the Sampled TTCs and the TCs of BOU in Years 2000 – 2005



Pass rate of the private TTCs was not found for academic year 1999-2000

5.1.3.1.2 Class Obtained by the B.Ed. Graduates

Data on class obtained by the B.Ed. graduates indicate that there were not much variations between the results of the B.Ed. final examinations of the govt. and the

private TTCs. The percentages of students of the govt. TTCs, who got first class always remained higher than those of the pvt. TTCs, except academic year 2000- 2001. However, the overall results, in terms of first and second class receivers, of the govt. and the private TTCs in different academic years were almost the same. Significant to mention here is that the differences between the outputs, i.e., the results of the B.Ed. examinations of BOU and the TTCs, both govt. and private, were huge. In BOU none received first class in 2002 and 2003 and only three (0.13%) obtained it in year 2001.

Table 5.22
Class Obtained by the Students of the Sampled TTCs and the TCs of BOU in B.Ed. Final Examinations from 2000 – 2005 (in percentage)

Academic Year	Govt. TTCs		Private TTCs		TCs of BOU	
	1 st Class	2 nd Class	1 st Class	2 nd Class	1 st Class	2 nd Class
2004 – 05	25.62	74.38	21.49	78.51	-	-
2003 – 04	29.78	70.22	27.62	72.38	-	-
2002 – 03	22.58	77.45	19.27	80.73	nil	100
2001 – 02	20.45	79.55	17.98	82.02	nil	100
2000 – 01	13.85	86.15	15.65	84.35	0.13 (3)	99.87
1999 – 00	8.45	91.55	-	-	-	100
Total Average	20.00	80.00	20.40	79.60		100

¹ '-' indicates data were not received from BOU

It is a recognized fact that distance education generally deals with underprivileged and under-reached in terms of academic background, distance, location as well as working, familial and social status. From this viewpoint, it could be assumed that the distance B.Ed. program of BOU was dealing with second category students, achievement of whom were presumably low for various reasons. As a result, the distance B.Ed. students were not able to spend adequate time and effort to do a brilliant result in their course of studies. Besides, due to absence of full time contact between the tutors and teacher trainees, as tutorials held in TCs only twice a month, they were perhaps not motivated to study hard for doing a better result. All these factors might have a combined impact on the low level of outputs, i.e., pass rate and class obtained by the distance B.Ed. students.

5.1.3.1.3 Class Obtained by Gender

The gender-wise data reveal some apparent variations in the TTCs in obtaining 1st and 2nd classes by the graduates in different academic years started from 2000 to

2005. In majority of the years female got more first class. The overall finding of these years shows a little variation (1.50%) in favor of female students of the govt. TTCs in getting first class. In comparison to the govt. TTCs, more variation was seen in the overall result of the private TTC graduates, where also females got more first class. Their overall result, in terms of first class, was almost 12% higher than that of their male counterparts and 5% from the female students of the govt. TTCs. These findings indicate female students of both the govt. and private TTCs were performing better in

Table 5.23
Gender-wise Data on Class obtained by the Students of the Sampled TTCs
in B.Ed. Final Examinations from 2000 - 2005 (in percentage)

Academic Year	Govt. TTCs				Private TTCs			
	1st Class		2 nd Class		1 st Class		2 nd Class	
	Female	Male	Female	Male	Female	Male	Female	Male
2005	24.68	28.03	75.32	71.97	29.51	16.51	70.49	83.49
2004	32.84	24.24	67.16	75.76	42.67	17.45	57.33	82.54
2003	24.06	20.33	75.94	79.67	28.16	11.31	71.84	88.69
2002	20.62	20.27	79.38	79.73	16.00	17.86	84.00	82.14
2001	12.91	14.93	87.09	85.07	16.57	14.77	83.43	85.23
2000	9.39	7.69	90.61	92.31	-	-	-	-
Overall	20.75	19.25	79.25	80.75	26.67	15.58	73.33	84.42

Gender-wise output statistics of the B.Ed. program of BOU was not provided by the Examination Division of BOU

the B.Ed. final examination and female students of the private TTCs had a much better performance. This may be attributed to their sincerity and integrity to their course of studies than those of their counterpart.

5.1.3.2 Performance of the B.Ed. Graduates in Real School Situation

The quality of teacher performance largely depends on the quality of the teacher education program they undergo. The assessment of the teaching-learning process conducted by the graduates of a teacher education program can provide empirical evidence on overall quality of the program they underwent. Therefore, an attempt was made in this study to assess the impact of the input and process variables of the B.Ed. programs on classroom teaching performance, a major output variable, of the B.Ed. graduates of the sampled teacher education institutions. To this end, the classroom teaching performance of 72 graduates, who obtained B.Ed. degrees between years 2001-2005, were observed. Of them 24 were from govt. TTCs, 24 from private TTCs

and 24 from BOU, a description of which could be seen in Annex 12. The graduates were working in secondary schools and taught a variety of subjects (Annex 13). Each graduate was observed for two consecutive days. Observation was done using a structured format of five points scale (Annex 7). It included a total of 81 observation items divided into eight major areas of teaching-learning process. They were: (a) classroom environment; (b) classroom management; (c) planning lessons; (d) presentation of lessons; (e) use of chalkboard; (f) use of teaching aids; (g) summarization of the lessons; and (h) evaluation process. Under presentation of lessons the mean performance of the B.Ed. graduates in two sub-areas, namely (1) participation students and (2) use of life oriented examples were again computed by averaging the mean scores of the relevant items.

The findings of observation were processed in five major ways: Firstly, The frequencies of all the observed data of the B.Ed. graduates' performance against each of the observation items for two consecutive days were determined (Annexes 20-22). Secondly, summary of performance (Annex 24) of the graduates was prepared based on the frequencies of two days observations. Thirdly, mean performance scores (Annexes 30-32) of all the three groups of B.Ed. graduates were calculated according to the areas of investigation stated above. Fourthly, overall performance scores of the graduates of the three types of institutions were computed (Figure 5:20), and Finally, mean performance scores of the graduates by gender were calculated (Figure 5.21). The following sub-sections present the findings of these analyses.

5.1.3.2.1 Item-wise Performance of the Graduates

A. Classroom Environment

The classroom environment is an important influencing factor of success of teaching-learning activity. Teacher can have significant impact on levels of student motivation and teaching-learning through creating good class environment. Creating a good classroom environment is fundamental to this success (CFIDC, Northern Illinois University p. 16). Tasker (DFID, 2008:4) in her status report on primary education of Bangladesh said "The classroom environment, both physical and emotional, can either help or hinder learning." The teachers, therefore, need to take into consideration different aspects of classroom environment, like size of the classroom, usability and visibility of chalkboard, adequacy and arrangement of furniture, cleanliness of the

student and classroom, motivation of the student, etc. for creating effective classroom environment. These are the significant factors contributing to the quality and success or failure of a teaching-learning process, which are supposed to be achieved by the B.Ed. graduates. The findings on this inquiry are presented below.

1. Size of the Classroom

Size of the classrooms where the B.Ed. graduates were teaching was adequate, as per eye estimation of the observers, in majority of the schools. It was adequate in 85% schools of the graduates of the govt. TTCs, 90% of the graduates of BOU and 71% of the private TTC graduates.

2. Usability of the Chalkboard

Chalkboard is an essential part of teaching-learning process. In fact it works as a reflection mirror of students' and teachers' level of understanding. The boards were very much usable in absolute majority of the classrooms (93.75%), where the govt. and private TTC graduates were teaching. The situation was also favorable, but little inferior in distance B.Ed. graduates' practicing schools, where chalkboard was found usable in 83.75% classes.

3. Visibility of the Chalkboard

The blackboards were clearly visible in 100% classrooms of the govt. TTC graduates. In cases of the private TTC and BOU graduates the percentages, 91.67% and 97.22% respectively, were also quite high.

4. Adequacy of Furniture in the Classrooms

A vast majority (85.42%) of the classrooms of the govt. and private TTC graduates' practicing schools had adequate furniture. The situation of the classrooms of the graduates of BOU B.Ed. was little better, where 93.75% of the schools had required furniture in the classrooms.

5. Availability of Textbooks with Students

Little more than eighty percent of the students in the classrooms of the private TTC and BOU graduates had textbooks with them. In the govt. TTC graduates' practicing classrooms overwhelming majority (91.67%) of the students had textbooks too.

6. Cleanliness of the Students

Except a few (8.33%), the pupils in the classrooms of the graduates of BOU were physically neat and clean. Their dresses were neat and clean too. The scenario was

slightly different in the classrooms of the govt. and the private TTC graduates. There one out of five pupils was not found neat and clean.

7. Pupils' Enthusiasm in Receiving Lesson

As regards to pupils' enthusiasm in receiving lesson, three-fourths of the pupils in the practicing schools of the govt. and private TTC graduates were found eager in receiving the lessons. The situation was a little better in the classrooms of BOU graduates. There 83.33% pupils were found eager in receiving the lesson. Still about one-fourth were unmotivated about it.

8. Cleanliness of the Classroom

As regard to cleanliness of the classroom, the situation was almost the same in cases of all the govt. and private TTC graduates. There about two-thirds of the classrooms observed were judged by the observers to be clean and tidy. In case of BOU, graduates 81.25% classrooms were in neat and clean conditions. It means one-third of the classrooms of govt. and private TTC graduates and one-fifth of the BOU graduates' classrooms were not clean.

B. Classroom Management

Good classroom management is an important part of quality pedagogy. "Classrooms that are trusting, caring and inclusive foster learning" (Tasker, 2008:4). Lardizabal et. al. (1995: 268) stated "good classroom management establishes an atmosphere which permits activities to be carried on efficiently and economically. It ensures wise use of both the teacher's and the pupil's time, efforts and energies." But, one of the most difficult problems that confront a beginning teacher is classroom management. So, B.Ed. as a pre-service teacher education program should develop this competency of its graduates. Following are the findings on how much the B.Ed. graduates were able to acquire the competency of quality classroom management as a result of their course of studies in the B.Ed. programs.

9. Entering Classroom

As was observed 100% of the graduates of govt. TTC entered the classrooms in time. Also absolute majority (95.83%) of the graduates from private TTCs and BOU did so.

10. Classroom Management

Less than forty percent of the graduates of govt. and private TTCs, 39.58% and 31.25% respectively, did required classroom management to create conducive environment for

teaching and learning. The percentage of distance B.Ed. graduates, who did it, was above average, 54.17%. Still a significant portion of them did not do that.

11. Recapitulation of the Previous Lesson

Pedagogic theory and literature on effective learning stress the need to scaffold learning by relating any new topic to previous learning. It is little disconcerting to note that only 58.33% of the sampled govt. TTCs demonstrated this effective strategy. The percent was a little higher (60.42%) for private TTC graduates. More number of the graduates (72.92%) of BOU was found to practice it.

12. Creating Pupil Friendly Environment

It was surely a depressing fact that significant percentages of the B.Ed. graduates of the govt. and private TTCs, 33.33% and 39.58% respectively, were observed to be not capable in creating pupil friendly teaching-learning environment in the classrooms. The BOU graduates were little more skilled in this regard as one-fourth could not do it.

13. Preparation of the Teachers

The great majority (83.33%) of the graduates of the govt. and private TTCs came to the classroom with required preparation. For BOU the percentage was a little lower, 75%.

C. Planning Lessons

A lesson plan is an indispensable tool of a teacher. It gives a general overview of the goals to be achieved and the learning experiences to be provided (Gregorio, 1976:203) "Successful teaching depends, for a considerable part, on successful planning. With good planning there exists the potential to improve instruction and make teaching more effective" (Dhand, 1990:XV). So "once the teacher has decided that they want the students to learn, then should plan appropriate learning process/strategies or activities to enable the outcomes to be met" (Tasker, 2008: 15). To teach successfully, therefore, one should plan appropriately. In the B.Ed. curricula, lesson plan occupies significant role, both theoretically and practically, in order to motivate the students to plan and develop the knowledge and skills of its preparation and implementation. The following sub-points describe the findings on how much the B.Ed. graduates were able to achieve this competency.

14. Preparation of Lesson Plan

Of the observed 48 classes of govt. TTC graduates, there were lesson plans prepared by the graduates in only nine (18.75%) classes. It happened merely in 6.25% classes of the

private TTC graduates. Among the BOU graduates more prevalent use of lesson plan was found. One-third of them had a short lesson plan with them during teaching.

15. Stating Objectives in Behavioral Term

Stating lesson's objectives is an essential part of a lesson plan. The majority of the B.Ed. graduates of all the three types of institutions, who prepared lesson plans, stated these in their plan. The percentages were 87.5% from govt. TTCs, 66.67% from private TTCs and 75% from BOU. From these findings it is clear that still a significant portion stated the objectives in general form instead of behavioral term.

16. Writing the Behavioral Objectives in Correct Form

Little more than one-half of the govt. TTC graduates and two-fifths of the BOU graduates could write the objectives correctly. Lamentably none of private TTC B.Ed. graduates was able to write them in correct form.

17. Correctness of the Teaching-learning Strategy Mentioned

The teaching-learning processes depicted in the lesson plan were found appropriate in the classes of 77.78% govt. TTC graduates, one-third of the private TTC graduates and one-fourth of the distance B.Ed. program graduates. A large segment (33.33%) of the private TTC graduates and significant portions of two other institutions failed to include them appropriately.

18. Appropriateness of the Teaching Aids and Materials Listed

Teaching-learning aids and materials listed in the lesson plan were observed as appropriate in all the lesson plans of the govt. TTC graduates and in one-third of the private TTC and BOU graduates' prepared lesson plan. Accordingly, two-thirds of the private TTC and BOU graduates failed to include appropriate materials and aids.

19. Appropriateness of Assessment Questions in the Lesson Plan

Questions set for assessment seemed to be appropriate in the majority of all the cases. About 77% of the govt. TTC graduates, 100% of the private TTC graduates and 62.50% of the BOU graduates mentioned them appropriately. Still 23% of the govt. TTC graduates and about 40% of BOU graduates could not mention them properly.

D. Presentation of Lesson

In recent years, there has been an increased concern among educational practitioners, policy makers and researchers about the effectiveness of teaching. Therefore, the "how" of teaching is now being given as much significance as the

“what” and the “why” circles (Dhand, 1990:XIII) in order to ensure quality of teaching. To teach successfully with required quality one, therefore, should know how to facilitate quality learning experiences, i.e., teaching-learning process. Quality teaching encompasses plethora of pedagogical aspects, understanding and implementation skills which are necessary for a teacher to ensure quality of her/his teaching. In this study, an attempt was made to assess how much the B.Ed. graduates could achieve these and were practicing in real school situation and the findings as explored were as follows.

20. Language of Presentation

Simplicity is power. Use of simple language can be an effective means to help learners to understand even a complex idea. All the govt. TTC teachers were found to use simple language in their classroom transaction of the lessons. The percentages were also very high in cases of private TTC (93.75%) and BOU graduates (95.83%). Only a few of them used complex language.

21. Audibility of Voice

Audibility of voice of the teacher influences pupils' learning positively. Voice of almost 90% graduates of both public and private TTCs were quite audible. From BOU graduates, 76% had a voice audible to the students in back of the classroom. It indicates one-fourth of the BOU graduates failed to perform up to desired level of expectation.

22. Clarity of Pronunciation

A vast majority of the graduates in all groups had good pronunciation. However, the performance of BOU graduates was the best. About 90% of them spoke in pleasant voice, which was 88% for govt. TTC graduates. A much lesser number (71%) of private TTC graduates had such good pronunciation. The findings reveal that the private TTC graduates were not as aware as the govt. TTC and BOU graduates.

23. Smoothness of Presentation

Presentation of lesson was smooth for great majority of all the graduates, except 23% in govt. TTC, 16.67% for private TTC and only 12.50% of the BOU graduates.

24. Reflection of Goals and Learning Outcomes in Teaching-learning Process

Goal and learning outcomes of a lesson are the guiding principles of a teaching-learning process. Half of the govt. TTC graduates conducted the teaching-learning activities based on predefined objectives and learning outcomes stated in the curriculum. This was done by about two-fifths of the BOU graduates. The finding of

private TTCs was much deplorable. Merely 18.75% of them were found to do it, i.e., four out of five private TTC graduates did not follow it.

25. Impartiality as a Teacher

Impartiality of the teacher is a precondition of good teaching. Each student should feel that he/she is treated objectively and none is neglected. Despite this about 30% of the distance B.Ed. graduates were not careful in this regard. A higher percentage of the private (35.41%) and govt. TTC (41.67%) graduates also did not handle the students in impartial way.

26. Understanding of Subject Curriculum

Curriculum is the blueprint of any education program. Having required understanding of the curriculum of the subject of teaching is, therefore, an imperative for a teacher. The observation of the field investigators noted understanding of the subject curriculum by absolute majority (85.42%) of the govt. TTC graduates. Nearly ninety percent of the BOU graduates had such understanding. The scenario of private TTCs was found a little depressing, where less than fifty percent (47.92%) graduates had such knowledge of their subject curriculum.

27. Attention to the Students

Although majority of the govt. TTC and BOU graduates were found attentive to the students throughout the class, however, still 39.58% of the govt. TTC graduates and 29.17% of the BOU graduates failed to exhibit such attention to their learners. Little more than half (52.08%) of the private TTC graduates paid such attention.

28. Citing Relevant Example

In teaching-learning process citation of appropriate examples is necessary to facilitate students' learning. Majority of the graduates (68.75%) from the govt. TTCs, 60.42% from the private TTCs and two-thirds from BOU cited such example when felt necessary. This indicates there was not much variations among the three groups of graduates in use of relevant examples and significant segments, 31.25% to 39.58%, of them still neglected using them.

29. Providing Scope for Discussion among the Students

The emerging concept of the desired role of a teacher in the classroom is as a facilitator. There learners will learn themselves through sharing, discussing and interacting with the peers and the teacher's responsibility is to facilitate or mentor their learning. But a quite unsatisfactory situation was found to prevail among the groups of

graduates. Only one out of three govt. TTC graduates and little more than one-fourth of the private TTC and BOU graduates offered students such opportunity.

30. Use of Standard Bangla Language

In a standard classroom situation it is expected that the teacher uses standard form of the language in lesson delivery in order to develop a standard basis of communication skills in the learners. Significant findings in this regard were that overwhelming majority of the B.Ed. graduates (93.75%) of the govt. TTCs and absolute majority of the private TTC and BOU graduates (81.25% and 79.17% respectively) used standard Bangla in their mode of delivery.

31. Higher Order Questioning

Questioning has distinct advantage in teaching-learning process. Questioning through its two ways communication process involves learners mentally into the learning process and makes them think of a problem critically. It is therefore desired that teacher should ask the student questions frequently and the questions should be creative and a combination of lower to higher order skills. Majority of all the three groups exhibited good performance in this regard of whom BOU performed the best (83.33%). The percentage (60.41%) of govt. TTC graduates was much lower from them and the performance of private TTC graduates was little more than average (54.17%).

32. Use of Hand on Experience

There is a saying in education- if we hear we forget, if we see we remember, if we do we sustain. In fact learning becomes permanent when learners learn directly through hand on experience or by the use of learning by doing method. But, only about one-fourth of the govt. TTC graduates and one-third of the BOU graduates provided this scope to their pupils. The portion of the graduates of private TTCs who gave such scope was depressing, only 19.51%.

33. Pleasant Presentation

Pleasant presentation of a lesson can make learning joyful and interesting. Majority of the graduates of all the three groups presented their lessons in this way. The BOU graduates' performance was the best (70.83%) in this regard. Almost the same portion of the govt. TTC graduates did in similar way. In case of private TTC graduates the percentage was little low, 64.58%. The findings indicate 30% to 35% graduates were still required to improve this trait of a competent teacher.

34. Patience of the Teacher in Case of Wrong Answer

Majority of the graduates remained patient in case of wrong answers made by the students. The percentage of such positive behavior was the highest (75%) in private TTC graduates and the lowest in BOU graduates, 56.25%. About two-thirds of the private TTC graduates showed this trait. The findings show still a large number of graduates of all types used abusive language, which worked as de-motivational factor towards students' learning.

35. Opportunity for Ventilation of Students' Opinion

Majority of the private TTC and BOU graduates (64.56% and 62.50%) offered such opportunity. The number of the govt. TTC graduates was small, only 25%. It indicates three-fourths of the govt. TTC graduates and two-fifths of the private TTCs and BOU graduates failed to provide such scope to form and express students' opinion.

36. Appreciation of Students' Thinking and Attitude

Teachers' appreciative outlook works as a great motivating factor for the learners. However, still 27% of the govt. TTC graduates, 37.50% BOU graduates and 43.30% private TTC graduates did not appreciate students' thinking, creativity and attitudes.

37. Discouraging Route Memorization

Memorization of some facts and figures is necessary in the process of learning. However, overemphasis on it is a barrier to participatory learning. Majority of all the types of graduates were found to discourage students to do so. Still significant portions of them, 31.25% govt. TTC, 39.58% private TTC and 35.17% of the BOU graduates, encouraged their students to employ this technique as the prime mode of learning.

38. Teacher's Dependency on Textbook

Little less than 50% of the graduate teachers of the govt. and the private TTCs and about 55% of BOU were fully dependent on textbooks during their lesson delivery, although they could have made use of some other instructional materials on the subject matter.

39. Explaining Complex and Abstract Concepts

Quite a majority of the B Ed graduates, 81.25% from govt. TTCs, 79.17% of private TTCs and 85.40% of BOU, explained the abstract ideas and complex concepts before the students. Still about 20% of the graduates did not practice it.

40. Practice of Group Work

As a participatory approach group work has been proved very much effective. But, it is pity to mention that about 80% of the govt. TTC graduates did not made use of any

group work. The percentages (93.74%) of such graduates, who did not offer any group work, from the private TTCs and BOU were also extremely high.

41. Use of Modern Teaching-learning Methods and Techniques

It is disappointing to mention that an overwhelming majority of the graduates (88.33%) of the govt. TTC, 79.17% of the private TTC and three-fourths from BOU did not make use of modern teaching-learning methods and techniques (group work, pair work, brain storming, peer review and other participatory techniques). It reveals that the majority of the graduate teachers, irrespective of types of institution, were still used to in using traditional methods and techniques like lecture and questioning.

42. Use of Varied Teaching-learning Strategies

Observers noted little evidences of varied teaching-learning methods used by the groups of graduates. Only about 15.00% govt. TTC and 25.00% BOU graduates were found to employ varied methods and techniques which included lecture, questioning, discussion, quiz, writing task, etc. The percentage of private TTC graduates was further low, merely 20.00%. The findings indicate that still an overwhelming majority of the graduates were not making use of varied methods and techniques.

43. Use of Lecture Method

The lecture method is characterized with one way communication, where the teacher is the key provider and pupils are passive listener. Experimentally this method has been proved less effective. The disappointing fact was that 79% of the private TTC, 73% of the BOU graduates and 86.33% govt. TTC graduates used lecture method.

44. Encouraging Students for Self-learning

In an ideal teaching-learning situation it is expected that the teacher will not spoon feed the learner, rather will encourage students to learn themselves by using different means. About a half of the BOU graduates encouraged their students to learn themselves. The govt. TTC graduates, who practiced this strategy, constitute only 37.50% and the percentage was further lower for private TTC graduates (27.08%). For BOU the percentage of such graduates was 52.08. It is gleaned from the findings that still about a half of the BOU graduates and an overwhelming majority of the govt. and private. TTCs were not encouraging the learners for self-learning.

45. Providing Students Scope for active Participation in Teaching-learning Process

Less than one-fourth of the graduates of the three types of institutions provided opportunity to the learners to be actively engaged in the teaching-learning process. This teaching-learning scenario of the graduates raises a question, in terms of participatory

approach, about the quality of the B.Ed., especially the one managed by the private TTCs.

46. Make Students Reading from the Book

From the observation there was a clear trend to make students reading of textbook line by line by more than half of the graduates of all the three groups of graduate teachers.

47. Questing Technique

The question-answer method has some specific advantages over lecture method. Conducting this method requires the teachers to follow a whole to specific approach, i.e., first asking question to the class as a whole and then to specific student(s). Findings reveal that slightly more than a half of the govt. and private TTC graduates and little more than 60% of the BOU graduates did not follow this properly. Rather, they first asked questions directly by pointing at certain students specifically.

48. Answering to the Questions by the Students

In response to the questions asked, students of about 44% classes of the govt. TTC graduate teachers responded in chorus. This percentages was pretty high (72.92) for private TTC and 52.08% for the BOU graduates' classrooms. It indicates a large number of the graduate teachers of the three types of sampled institutions were not made skilled in questing technique.

49. Open versus Closed Questions

The questions asked by about three-fourths of the govt. TTC and two-thirds of the private TTC graduates were book based, i.e., closed type (questions with fixed answer and usually obtained directly from the text books). The questions were quite traditional too. Reflective questions, which provoke pupil's thinking process, were seldom asked. The percentage of the BOU graduates, who exercised this undesirable practice, i.e., asked closed questions was comparatively lower (36.35%).

50. Repetition of Same Questions to a Number of Students

Repetition of the same question(s) helps reinforcement of learning, however excessive use of it creates monotony and bars students think creatively and intelligently. Findings show that two-thirds of the govt. TTC graduate teachers asked the same question (s) to a number of students. Little more than one half of the private TTC graduates (54.17%) did the same and it was highly prevalent among the BOU graduates (77.08%).

51. Eliciting Answers from the Learners

In an ideal teaching-learning situation active participation of pupils in question-answer session is essential. It is teacher's responsibility to deploy different means to elicit

answers from the learners. About 80% of the govt. TTC graduates did it efficiently. The percentages of private TTCs and BOU graduates were far lower, about 55% and 63%, indicating still a good number of them need to develop this skill of a good teacher.

52. Organization of the Lesson

Three-fourths of the govt. TTC graduates presented their lesson in an organized way. The capacity of BOU graduates was much positive with about 82% of them delivering the lesson in an organized manner. A lesser number of the private TTC graduates (62.50%) could do it.

53. Mastery of the Subject

Sound knowledge in the subject of teaching is a prerequisite of a competent teacher. It makes the teacher confident in teaching. Overwhelming majority of the graduates of the govt. and private TTCs, 95.83% and 93.75% respectively, were observed to have sound understanding in their subjects of teaching. The percentage was little lower for BOU graduates (81.25%), but was still very high.

54. Attention to the Slow Learners

Absolute majority of the B.Ed. graduates of the government and the private TTCs as well as BOU did not pay attention to the slow/weak learners during the teaching-learning process

55. Time Management

Majority of the graduates of all types of institutions exhibited competency in time management. The graduates of distance B.Ed. did the best (85.42%) followed by the govt. TTC graduates (77.08%). The private TTC graduates (58.33%) sharply differed from them. It means they wasted a considerable amount of time with the affairs other than academic activities.

56. Calling by Name

Calling by name is a good motivation for the learners in receiving lesson. This was practiced by 72.91% govt. TTC graduates. The percentage of private TTC graduates was little lower (66.67%), while it was little more for BOU graduates (85.42%).

57. Focus on Individual Difference

Some variations were observed in this regard among the three groups of graduate teachers. Vast majority of the private TTC graduates (83.33%) were indifferent to this issue during their presentation in the classrooms. The percentages of such graduates constituted 66.67% for the govt. TTCs and 58.33% for the BOU graduates.

58. Use of Appreciative Language

Use of appreciative language (like very good, good, well done, etc.) in recognition of student's work plays a conducive role in building student's confidence in the teaching-learning process. Majority of the graduates of all types did it satisfactorily. Still about one-third graduates of the govt. TTCs, 38% of private TTCs and 30% from BOU graduates were not found to have made use of this.

59. Relating Lesson with Life Experience

It is easier for pupils to assimilate and accumulate new experiences if they can be associated with their practical life experience. More than fifty percent of the govt. TTC and distance B.Ed. graduates made use of the learners' practical life experience. The practice of such behavior was very low in private TTC graduates, merely 31.25%. The findings indicate a great majority (69.75%) of the private TTC and two-fifths of the govt. TTC and BOU graduates did not relate lessons with pupils' practical life experience.

60. Taking Students Out of Classroom

Although many of the lessons given by the graduates of government and private TTCs demanded to take students out of the classroom to help them acquire direct experience, however, it was done by merely 13.33% graduates of the govt. TTCs and 7.69% of the private TTCs. For BOU graduates the percentage was very low, only 3.57%.

61. Moving around the Classroom

Moving around the classroom is an instant mechanism of monitoring student's progress in the classroom. This practice was done by 60.42% BOU graduates. The percentage of the govt. TTC graduates was little lower, 56.25%, and less than one-third of the private TTC graduates (27.08%) were found to monitor students' progress in this way.

62. Providing Feedback

Here also was found a contrasting i.e. both positive and negative scenario. About 60% of the graduates of govt. TTCs and BOU provided feedback on students' performance. But, the performance of private TTC graduates was negative. Only one-third of them provided feedback to the students.

63. Reflection of Gender Perspective

There existed a mixed group of male and female students in 20.83% classes of the govt. TTC graduate teachers. Out of this, 70% classes were gender sensitive, i.e., the graduate teachers paid equal attention to both the genders. Out of 62.50% such classes

of the private TTC graduates, 63.33% were conducted in gender neutral way. For BOU graduates it was 90% out of 41.67% mixed classes.

64. Synthesis of the Lesson

Synthesis of a lesson helps learners to recapitulate what was taught and thereby strengthen and consolidate their learning. Observation shows that the highest number of the graduates of BOU (66.67%) practiced this in their lesson delivery. The percentage of govt. TTC graduates was 62.50% and the number of private TTC graduates was little lower, only 52.08%. Findings show still 35% to 50% of the graduates did not synthesize the lessons of their teaching at the end.

65. Giving Idea about Next Lesson

Giving an idea about the next day lesson is conducive for student's mental preparation. About 60% of the BOU and private TTC graduates were observed to follow it. The percentage of the govt. TTC graduates who did it was half. It indicates still 40 to 50 percent of the graduates did not give a prior idea of the next day's lesson.

66. Leaving Classroom with Concluding Remarks

More than fifty percent (54.17%) of the govt. TTC graduates left the classroom suddenly without giving any concluding remarks. Comparatively lower number (43.75%) of the private TTC graduates did it and only about 30% of the BOU graduates showed this unexpected behavior.

E. Use of Chalkboard

Use of chalkboard is an indispensable part of teaching-learning process. It facilitates student learning. However, effectiveness of its use depends on how qualitatively the teacher can make use of it. If the writing on board is not planned, decent, clear, large adequate and visible from the back, the effectiveness of its use will be threatened. Knowing about these aspects is important part of pedagogy, which students can learn through B.Ed. and how much were they able to do it is important in assessing the quality of teaching. The following parts present the findings on this investigation.

67. Frequency of Use of Chalkboard

Effective use of chalkboard can help learners to form concepts, solve problems and mirror them to others. Absolute majority of all the groups of graduate teachers used the chalkboard according to requirements. Only 2.08% graduates of govt. TTCs, 8.33% of

private TTCs and 10.42% from BOU did not make use of chalkboard even once, although it became necessary at certain points.

68. Legibility of the Writings on the Chalkboard

Writings of approximately 98% of the graduates of govt. TTCs and 91% of the private TTCs as well as BOU, who used chalkboard, were legible.

69. Size of the Writing

In about 90% classes of the graduates of the TTCs, govt. and private, as well as BOU, who wrote on the board, the writing was large and distinct to read from the back.

F. Use of Teaching Aids

Instructional process, irrespective of types of teaching methods and techniques, requires adequate and appropriate teaching aids to accomplish the job with better quality. A quality learning experience, therefore, not only depends on careful planning, positive classroom environment, use of different techniques and strategies, but also selection of appropriate aids and their proper use. Good selection of aids and their proper use have significant impact on quality of student's learning outcomes. In B.Ed. much emphasis has, therefore, been attached to use of teaching aids, both theoretically and practically, so that B.Ed. graduates can make of their use in their real classroom teaching. But, what the reality tells? The findings on this search are presented below.

70. Use of Required Teaching Aids in Teaching-learning Process

Effective use of appropriate teaching aids plays significant role in helping learners to form concepts. Moreover, the use of teaching aids makes the lesson interesting. About 69% of the government TTC graduates did not use teaching aids at all. The percentages of non-users were 62.50 for private TTCs and 56.25 for BOU graduates.

71. Relevancy of Teaching Aids with the Lesson

The teaching aids used were related with the objectives and contents of the lessons in all the cases of govt. TTC graduates. But, 11.11% of the private TTC and 28.57% BOU graduates used teaching aids which were not directly related with the lesson.

72. Proper Use of Teaching Aids

About 94% of the graduates of govt. TTCs, who used teaching aids, could use them properly. This percentages were little lower in cases of private TTCs and TCs of BOU. One-third of the private TTC graduates and three out of five of the BOU graduates failed to make proper use of the aids and materials.

G. Summarization of Lesson

Summarization of lesson is a crucial part of teaching. It helps to recapitulate and reinforce learning and thereby helps to consolidate the quality of learning outcomes. How much this essential step was maintained by the graduates in their teaching-learning process was assessed to see the impact of B.Ed. program on it. The findings revealed the following.

73. Summarization Done

About 70% of the govt. TTC and BOU graduates did it effectively. The percentage was much lower (52.02%) for private TTC graduates. This finding indicates almost about one half of the private TTC graduates and significant portion (30%) of other institutions, govt. TTCs and BOU, did not summarize the lessons they taught.

74. Drilling Work

Students were given drilling work for reinforcement of their learning by majority of the graduate teachers in all the three cases. However, still one-third of the private TTC graduates and about one-fourth of the govt. TTC and BOU graduates did not give any drilling work.

75. Briefing about Drilling Work

Majority of the govt. TTC and BOU graduate teachers clearly explained the drilling work to the learners. However, still 35.42% and 29.17% respectively did not do it at all. The number of private TTC graduates, who did not explain the drilling work, was more than fifty percent (56.25%).

H. Assessment/Evaluation Procedure

Evaluation is part and parcel of teaching. Nevo said, as quoted by Cohen, Manion and Morrison (1996:369), assessment can help to diagnosis student's particular strengths, weaknesses, difficulties and needs for curriculum planning as well as provides feedback to students and teachers which can help to improve learning and teaching. In addition it helps to know to what extent intended learning outcomes have been achieved, to chart rates of progress in learning, to compare students' achievement and what achievement students have achieved. Ebel and Frisbie (1986:13) opined "The purpose of evaluation is to make judgments about the quality or worth of something- an educational program, worker performance or proficiency, or student attainments". It is, therefore, expected a teacher education program should equip its students with required

knowledge and skills of evaluation procedure. How much the sampled B.Ed. graduates could achieve these, as was searched in this study, are presented below.

76. Continuous Assessment

During the teaching-learning process pupils were continually assessed by 64.54% graduates of the govt. TTC, 62.50% of the private TTCs and 77.08% of the TCs of SoE-BOU. This finding explicitly shows continuous assessment was not done by about one-third of the said graduates.

77. Basis of Assessment

Two-thirds of the govt. TTC graduates and little more than half of the private TTC as well as BOU graduates conducted the assessment on the basis of predefined objectives/learning outcomes of the lesson.

78. Giving Short Questions to Write

About 46% graduates of the govt. TTCs, 31.25% from private TTCs and 43.75% from BOU gave short questions to write as part of the assessment process. It means majority did not give writing tasks to the students.

79. Use of Oral Questions

Pupils were assessed through oral quizzes (short questions from the books) by absolute majority of all the three categories of graduates.

80. Identifying Learners with Difficulties

As regards to the identification of pupils with learning difficulties the situation was not observed encouraging. Merely 10.42% graduates of govt. TTCs, 16.67% from private TTCs and 20.83% of BOU graduates identified such pupils. Thus, the overall scenario could be termed as deplorable in all the three types of institutions.

81. Use of Remedial Teaching

Those who identified pupils with learning difficulties a tiny proportion of them, 6.25% of govt. TTC graduates, 12.50% of private TTC graduates and 18.75% of the distance B.Ed. graduates, arranged remedial measures for them. This obviously represents a gloomy scenario in terms of use of remedial measures by the B.Ed. graduates.

5.1.3.2.2 Performance of the B.Ed. Graduates in Selected Areas

Table 5.24 presents the mean performance scores of the B.Ed. graduates by major areas of observation. It was done by averaging the mean scores of all the items

related to the selected areas of observation. Mean score 'three' was used as the criterion mean in analyzing the mean performance scores. The areas, which achieved mean performance scores above 'three' were termed as satisfactory or positive performance and those which scored below 'three' were judged as unsatisfactory, i.e., negative performance. The items, which scored equivalent to 'three' were considered as average performance.

Table 5. 24
Mean Performance Scores of the B.Ed. Graduates in Selected Areas
Observed in Real School Situation

Major Areas	Govt. TTC		Private TTC		SoE/BOU		F Value
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
1. Classroom Environment	4.06	0.39	3.79	0.65	4.10	0.61	2.09
2. Management	3.66	0.71	2.90	0.66	3.82	0.78	20.12*
3. Planning Lesson	2.70	0.63	2.30	0.70	2.76	0.58	3.73*
4. Presentation of Lesson	3.23	0.34	3.00	0.49	3.30	0.38	15.43*
5. Participation of Students	1.13	0.35	1.09	0.59	1.12	0.55	2.10
6. Use of Life Oriented Example	2.73	0.63	2.23	0.89	2.57	0.71	2.90*
7. Use of Chalkboard	4.48	0.59	4.27	4.27	4.18	0.97	0.98
8. Use of Teaching Aids	2.91	0.62	2.99	1.19	2.99	0.87	0.70
9. Summarization of Lesson	3.55	0.54	2.73	0.70	3.22	1.00	2.09*
10. Evaluation Procedure	3.17	0.60	2.77	0.54	2.99	0.53	2.83*

* significant at $P \leq 0.05$

As per the above mentioned criteria, the performance of the B.Ed. graduates of the govt. TTCs were satisfactory in six and unsatisfactory in four areas. They performed very well in terms of classroom environment and use of chalkboard, where their performance scores were above 4.00. They performed well in the areas of management; presentation of lesson; summarization of lesson; and evaluation procedure where the performance scores ranged from 3.00+ to 4.00. All of their performance were below the criterion mean, i.e., unsatisfactory in planning lessons; participation of students; use of life oriented examples; and use of teaching aids.

The graduates of the private TTCs did positive, i.e., satisfactory performance in only three areas and unsatisfactory in seven areas. Their performance were very good in use of chalkboard; good in classroom management; and just average in presentation of lesson. It was unsatisfactory in the areas of classroom management; planning lesson;

participation of students; use of life oriented examples; use of teaching aids; summarization of lesson; and evaluation procedure.

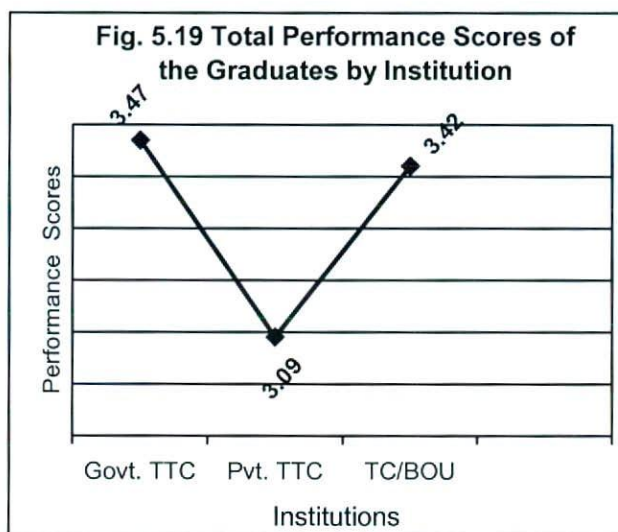
The B.Ed. graduates of BOU had above average level of performance in five areas and below average in three areas. Like the govt. TTC graduates they also showed very good performance in the use of chalkboard and classroom environment. They performed well in classroom management; presentation of lesson as well as in summarization of lesson. Use of teaching aids; planning lesson; participation of students; use of life oriented examples; and evaluation procedure were the areas where the BOU graduates showed negative performance.

The highlights of comparison of the performance of the three groups show that all of them had very good performance in use of chalk board and classroom environment and good performance in presentation of lessons. The performance of all the groups were unsatisfactory in planning lesson; participation of students; use of life oriented examples; and use of teaching aids. The groups of graduates exhibited varied performance in other areas. For example, graduates of the govt. TTCs and BOU performed well in the areas of classroom management and summarization of the lesson, while the private TTC graduates' performance were not good there. Regarding evaluation procedure, only the govt. TTC graduates did well and the private TTC and BOU graduates performed poorly. Further comparison shows that all the graduates had the highest performances in use of chalkboard and the lowest in ensuring students' participation in the teaching learning process. They also performed low in planning lesson and use of life oriented examples.

The calculated F values indicate the differences among the three groups were significant in the areas of classroom management; presentation of lesson; planning lessons; summarization of lesson; evaluation procedure; and use of life oriented examples. The magnitude of difference was the highest (20.12) in the area of classroom management followed by presentation of lessons (15.43). In both the areas, private TTC graduates' performance was the lowest and unsatisfactory. Also in four other significantly differed areas: presentation; use of life oriented examples; summarization of lesson; and evaluation procedure the performance of the graduates of the private TTCs was the lowest and unsatisfactory. In the area of use of teaching aids the govt. TTC graduates performed the lowest.

5.1.3.2.3 Overall Performance of the B.Ed. Graduates by Institution

Figure 5.19 shows the overall performance of the B.Ed. graduates of all the three types of sampled institutions. The data indicate that the performance scores of the govt. TTC and BOU graduates were much higher than the criterion mean, which differed from the criterion mean by 0.47 point in case of the govt. TTCs and 0.42 point in BOU. In private TTCs, it was almost equivalent to the criterion mean. It implies that the performance of the govt. TTC and the BOU graduates were well. In comparison to them it was much lower for the private TTC graduates, which was almost average. This may be attributed to, as was mentioned before, awarding B.Ed. certificate to the private TTC students by not fulfilling the academic requirements of the B.Ed. program. Resultantly, they failed to acquire required competencies of a teacher to perform their desired roles in



the classroom, which in other words jeopardizing the secondary education of the country. According to TQI-SEP (2008:11) “The schools who employ them can not be assured in any way of their quality as teachers. Ultimately of course, it is the students themselves who will suffer and the vital cause of advancing education in Bangladesh will be further hampered.”

5.1.3.2.4 Personal Observation of the Field Observers

The classroom teaching observation sheet of the graduate teachers included, in addition to an observation rating scale, three more inquiries - one closed and two open ended questions for the field observers' personal assessment and comments on the effectiveness of the teaching performance of the B.Ed. graduates. The findings from these questions were as follows:

Inquiry No. I: How much efficiently the graduates delivered their lessons?

Table 5.25, presents the data on this inquiry. According to the personal opinions of the observers, very few of the graduates taught the lesson very much effectively on both days of observation. Majority of the graduates of all the sampled TTCs and TCs of BOU taught effectively on both 1st and 2nd days of observation. Still significant percentages of the graduates did not teach in effective way in two days of observation. Few of the private TTC graduates' teaching performances were not at all effective in both days of observation and it happened on the second day of observation in case of BOU. On average about 58% of the govt. TTC graduates could deliver their lesson effectively on the first day of observation, while the rest 42% failed to present in effective way. The percentage of effective teaching of them was approximately 83 on the second day, indicating a significant improvement of teaching quality of the

Table: 5.25
Field Observers' Personal Observation on Level of Effectiveness of the Classroom Teaching Performance of the B.Ed. Graduates

Level of Effectiveness	Observation Data					
	Govt. TTC		Private TTC		TC/BOU	
	1st day	2 nd Day	1st day	2 nd Day	1st day	2 nd Day
Very much effective	-	01 (4.17%)	01 (4.7%)	01 (4.17%)	01 (4.17%)	03 (12.50%)
Effective	14 (58.33%)	09 (79.17%)	11 (45.83%)	12 (50%)	14 (58.33%)	17 (70.83%)
Not effective	10 (42%)	4 (16.66%)	10 (41.17%)	9 (37.50%)	9 (37.50%)	02 (8.33%)
Not all effective	-	-	02 (4.33%)	02 (8.33%)	-	02 (8.33%)

graduates on the second day of observation. About 50% of the graduates of the private TTCs, on average, taught effectively on the first day and on the second day 54.17% did it. In case of BOU B.Ed. graduates, about 62% could teach their lesson effectively on the first day. On the second day, the percentage of effective teaching of the BOU graduates was about 83, indicates a 21% improvement in their quality of teaching. By averaging the data of two days observation it is found that 71% of the teaching of the govt. TTC graduates was effective. For private TTCs the percentage of effective teaching was 52 and in case of BOU it was 73%, i.e., almost the same to that of the govt. TTC graduates' performances. Further analysis indicates the performance of the

graduates were lower on the first day, which was perhaps due to un-informed visits paid by the field observers to the schools of the B.Ed. graduates.

Inquiry No. 2: According to you, how many percent of the learners could achieve the learning outcomes through the lesson delivery of the graduates?

As per observation of the research assistants, 56% of the learners achieved the learning outcomes on the first day of observation of the govt. TTC graduates' classes and on second day the percentage was about 67. During the private TTC graduates' delivery of lessons, 46% of the learners could achieve the learning outcomes on the first day and it was done by 48% students on the second day indicating a little improvement. In case of BOU graduates the percentages of learners, who could achieve the learning outcomes, was 57 on the first day and 67 on the second day of observation. The overall findings show, on average, 62% learners in the govt. TTC graduates' classrooms, 47% in the private TTC graduates' classrooms and in case of BOU graduates 62% achieved the learning outcomes during the two days observation.

Inquiry No. 3: In your observation, what are the areas need to pay more attention in delivery of the B.Ed. programs offered by the government TTCs/ private TTCs/BOU?

Govt. TTCs

The observers suggested to pay more focus on some aspects of the teaching-learning process of the govt. TTCs in order to develop required competencies of the future secondary school teachers. They were: use of learner centered and participatory approach of teaching-learning strategies; use of teaching aids in lesson delivery; planning lessons and motivation about their use; use of varied teaching-learning methods and techniques; good management of class time; establishing good teacher-student relationship; make learners to participate actively; develop proper evaluation skill, especially formative assessment skill; identifying slow learners and arrange remedial teaching for them; inclusive education; etc.

Private TTCs

The areas to be focused in the B.Ed. offered by the private TTCs, as suggested by the observers, were similar to those of the govt. TTCs. They further suggested for bringing examples from practical life and near environment during the teaching-

learning process; creating learner-friendly environment instead of fearful environment; allowing students to express their own opinion; focusing on pedagogical aspects of lesson delivery; develop thought provoking questioning skills; good management of time; etc.

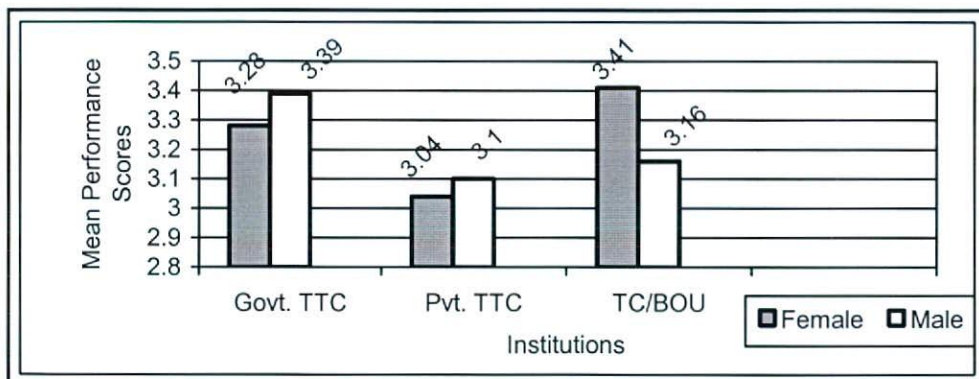
Tutorial Centers of BOU

The findings regarding the areas of improvement were the same as those of the government TTCs. Some more were added for BOU B.Ed., such as develop communication skills of the graduate teachers in terms of use of standard Bangla language; presenting lessons in lively way; linking the lesson with previous one; increase questioning skills; increase students' participation and attention in the teaching-learning process; increase classroom management skills; paying attention to all students equally; and addressing the backbenchers in terms of discipline and academic activities; etc.

5.1.3.2.5 Performance of the B.Ed. Graduates by Gender

Figure 5.20 reveals that the performance of both the genders of all the three types of teacher education institutions were above average. The performance of the

Figure 5.20
Mean Performance Scores of the Graduates by Gender



female graduates of the government and the private TTCs were slightly lower than those of the male graduates, but the differences were not statistically significant. In case of BOU, female graduates performed much better than their counterparts and the

difference was significant at desired confidence level. These may be due to, as was assumed before, female students' more sincerity and perseverance in their B.Ed. course of study because of the scope of having an excellent opportunity of continuing their study simultaneously with maintaining their full time working status and family life, which was never possible in the B.Ed. programs offered by the TTCs.

5.1.4 Attitude of the Respondents towards Quality of the B.Ed. Programs

Respondents' attitude towards the quality of the B.Ed. programs were determined by the scores obtained in the attitude scales (Annexes 26, 27 and 28) and following the rules given by Kubiszyn and Borich (1993:177) for determining positive and negative attitudes. According to them, the margin of dividing positive and negative attitudes is a mean rating of 3.00. If a mean score is equal or greater than 3.00, a positive attitude exists and if the score is less than 3.00 then a negative attitude exists. Based on these criteria, four kinds of analyses of the attitude scales of different groups of respondent were done. Firstly, the numbers of positively and negatively viewed attitude statements were determined for each of the respondent groups by type of institution (Table 5.26). Secondly, the mean attitude scores of different groups of respondents (Table 5.27) were measured. Thirdly, the overall mean attitude scores (Figure 5.21) of different institutions were calculated. Finally, the respondents' attitude was defined by gender (Figure 5.22).

5.1.4.1 Number of Positively and Negatively viewed Attitude Statements

The findings of the TTCs and BOU on this inquiry are presented in Table 26. As emerged from the data, graduates and principals of the govt. and the private TTCs expressed positive attitude in overwhelming majority (90%-95%) of the attitude statements. The teachers educators showed positive attitude in comparatively lower number (55%) of the statements. In the private TTCs the percentage was much higher (70%). In BOU, graduates and coordinators showed positive attitude towards majority of the statements, but for tutors the finding was reverse, i. e., negative attitude was expressed (55%) in majority of the statements. The overall findings indicate positive attitude to express in highest number of statements (85%) by the private TTC

respondents followed by the govt. TTC respondents (80%). The percentage (62%) of positively viewed attitude statements was the lowest in case of BOU. Significant to mention here that in all the three cases the teacher educators/tutors exhibited negative attitude in the highest number of attitude statements.

Table: 5.26
Number and Percentage Distribution of the Attitude Statements by
Type of (Positive/Negative) Attitude

Respondents	Govt. TTCs		Private TTCs		TCs-SoE/BOU	
	Positive Attitude	Negative Attitude	Positive Attitude	Negative Attitude	Positive Attitude	Negative Attitude
Graduates	19 (95%)	01 (5%)	18 (90%)	02 (10%)	15 (75%)	05 (25%)
Teacher Educators/ Tutors	11 (55%)	09 (45%)	14 (70%)	06 (30%)	09 (45%)	11 (55%)
Principals/Course Coordinators	18 (90%)	02 (10%)	19 (95%)	01 (5%)	13 (65%)	07 (35%)
Overall	48 (80%)	12 (20%)	51 (85%)	09 (15%)	37 (62%)	23 (38%)

Total number of attitude statements was 20 for each of the respondent groups

5.1.4.2 Mean Attitude of the Groups of Respondents

Table 5.27 presents the mean attitude scores of the three groups of respondents by type of institution, detail of which could be seen in Annexes 26-28. As gleaned from the data all the three groups of respondents- graduates, teacher educators and principals from the govt. and private TTCs expressed positive attitude regarding the quality of the face to face B.Ed. offered by their respective institutions. From BOU, the graduates and the course coordinators bore positive attitude, while the tutors viewed it negatively

Table 5.27
Mean Attitude Scores of the Respondents regarding Quality of the
B.Ed. Programs

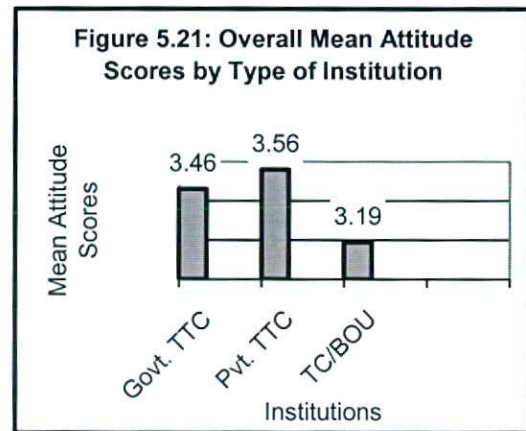
Respondents	Mean Attitude Scores and SDs						F Value
	Govt. TTC		Private TTC		BOU		
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
Graduates	3.69	0.42	3.64	0.44	3.46	0.44	1.56
Teacher Educators/Tutors	3.07	0.69	3.31	0.92	2.94	0.65	5.65*
Principals/Course Coordinators	3.57	0.69	3.90	0.70	3.57	0.69	2.26

$p \leq 0.05^*$

with a mean attitude score of 2.94, little lower than the reference point. Taking into cognizance this finding of the tutors of BOU, who were the main practitioner of distance B.Ed., there naturally comes a question about the quality of distance B.Ed program. It is further revealed by the data that teacher educators and tutors attached the lowest attitude, with significant difference, about the quality of the respective B.Ed. programs.

5.1.4.3 Overall Mean Attitude Scores

The overall mean attitude scores by institution show that the respondents of both the government and the private TTCs and SoE/BOU, on average, exhibited positive attitudes regarding the quality of their respective B.Ed. programs. This finding is not in conformity with the findings on total performance scores, where the respondents of private TTCs showed much lower performance than that of the govt.



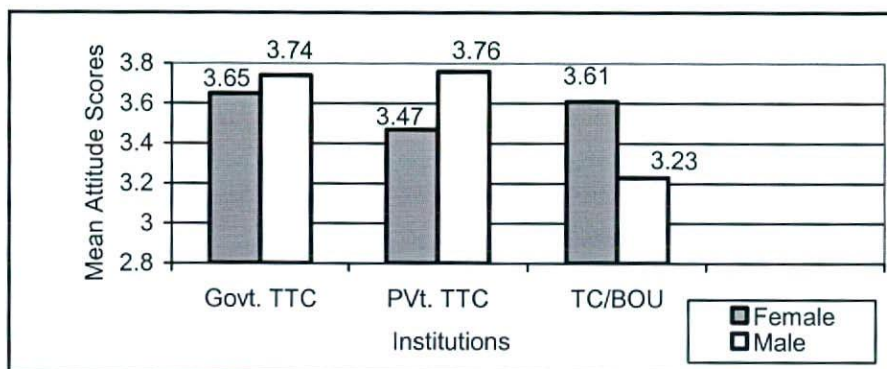
TTCs and BOU graduates. This mismatch again indicates either the respondents of the private TTCs, in an attempt to hide the shortcomings of their program, wanted to highlight the quality of their B.Ed. program or due to lack of required knowledge, understanding, perception and training background, as found in this study, they failed to assess their program offering critically and objectively.

5.1.4.4 Attitude by Gender

The data in Figure 5.22 reveal the mean attitude of the respondents by gender. As revealed by the data, both the female and male respondents of all the three types of institutions were of positive attitude about the quality of the B.Ed. programs. Still, some differences between the genders of different institutions with regard to their attitude are apparent from the tabled data. For example, the male students of the govt. TTCs had 0.09 point higher attitude from that of the female students. In the private

TTCs the difference was 0.29 point and in favor of the male too. The difference was the highest (0.38) in case of BOU and there the female respondents showed higher attitude as were they expressed more positive opinions about the quality of distance B.Ed.

Figure 5.22
Mean Attitude Scores of the Graduates about Quality of the B.Ed. Programs by Gender



program than their male counterpart. However, only the difference between the genders of BOU was found significant. This may be due to the same reason as was mentioned in case of the findings on opinion scores of the BOU respondents by gender.

5.1.5 Suggestions for Improvement of Quality of the B.Ed. Programs

All the three groups of respondents from the TTCs and the TCs of SoE/BOU were asked to put two specific suggestions for overall improvement of the quality of the concerned B.Ed. programs. In addition, the researcher during her discussion with groups of respondents sought their views for further improvement of the B.Ed. programs offered by the govt. and the private TTCs and School of Education of BOU. The summary of the findings were as follows.

Government Teachers' Training College

Improve the B.Ed. curriculum by making it modern and timely, need-based and practical oriented; provide all the teacher educators opportunity for in-service training; send back the teacher educators of the TTCs, who have no professional background, to general college or take required measures to train them immediately and stop the

practice of posting and appointing teacher educators in the TTCs without any B.Ed. or M.Ed.; make adequate scope of promotion and higher studies for the teacher educators; provide the TTCs with ICT and technological facilities, like computer, internet, OHP, multimedia, etc.; regular monitoring and supervision of the academic activities by both internal and external authorities; put more emphasis on development of good teaching skills and competencies of the teacher trainees rather than emphasizing more on memorization based written examination; extend the B.Ed. program duration as well as the class duration to a reasonable and international standard; ensure use of teaching aids in transaction of teaching-learning activities; develop a controlling mechanism for all the TTCs in order to ensure quality of the B.Ed.; and establish a national body to oversee and coordinate the B.Ed. programs of the country and to develop a central mechanism to maintain quality and establish a common accepted standard of the secondary teacher education program, i.e., B.Ed.

Private Teachers' Training College

Appoint required number of qualified and experienced subject based teacher educators on regular and full time basis in the private TTCs; offer adequate scope of in-service training, both in-country and overseas, to the teacher educators as were offered to the teacher educators of the govt. TTCs; develop a regular supervision mechanism by the relevant authority to oversee the implementation status of the academic activities of the private TTCs; extend the program duration of B.Ed.; make the teaching-learning strategies modern and learner centric; strengthen library, laboratory and classroom facilities; make the B.Ed. curriculum modern, practical oriented and compatible to school curriculum; emphasize on implementation of teaching practice in expected form; take measures for regular holding of class and ensure students' regular attendance; provide private TTC teacher educators salary as per the national pay scale through including the TTCs under the MPO (Monthly Pay Order) system as has been done for private level secondary schools; provide scope of promotion to the teacher educators to offer them a carrier ladder in order to attract quality teacher educators; provide financial assistance to the private TTCs from the government, projects to improve their physical facilities; eliminate all sort of discrepancies between the govt. and the private TTCs in offering opportunities as both are affiliated with the NU system; and finally, strict monitoring of the private TTCs by NU in terms of its establishment conditions

and academic rules and regulations; and introduce punitive measures or cancel affiliation in case of non- fulfillment of those criteria.

Tutorial Centers of BOU

Give emphasis on teaching practice by extending its duration and making it practical field, i.e., school oriented with introduction of a proper supervision system by experienced teacher educators/tutors; ensure students' attendance in tutorial session; increase the quality of instructional materials, i. e., the modules of distance B.Ed. program; handover of all the course materials to the students within one week of student admission/registration; develop proper coordination between the TCs and the RRCs regarding implementation of B.Ed. with due quality; arrange tutor training and orientation program on a regular basis; hold regular discussion between the tutors and concern authority(s) of BOU on the strengths and weaknesses of the tutorials and the academic aspects of the program and taking remedial measures accordingly; supply of course and reference materials in the tutorial center libraries for use of the tutors and students; declare results within two months of each semester final examination; make the examination result sheets free of error; renew and modify the decades old distance B.Ed. curriculum; provide library, laboratory and IT facilities for the students in the TCs as well as in the RRCs; and make easy the system of collection and distribution of certificates, testimonials and other examination related documents through decentralizing the distribution system to the RRCs. Another important suggestion was appoint tutors for all the subjects of B.Ed. in all the B.Ed. tutorial centers. It is to be noted here that the tutors appointment rules of BOU has made a provision that if any subject of any program in any tutorial center enrolls students less than 10, no tutor will be appointed for that particular subject in that tutorial center. As per this rule and in the context of declining B.Ed. enrolment some of the subjects, especially English, Mathematics, and Science were offered without any subject tutors in some of the TCs, which as mentioned by the respondents resulted a huge suffering to the students of those particular subjects and, therefore, they demanded providing tutors against all the B.Ed. subjects and in all the tutorial centers.

5.2 Interrelationship among the Input, Process and Output Variables and the Regression of them on Performance and Attitude of the B.Ed. Graduates

In this study classroom performance and attitude of the B.Ed. graduates, under the output variable, were considered as the two major dependable variables. The various input and process variables as included in this study were taken as the independent variables. In order to see the interrelationship among these variables correlations were computed using the Pearson's Product Moment (PPM) method. Finally, regression analysis was done in order to determine the impact of the input and process variables on the B.Ed. graduates' classroom teaching performance and attitude. The findings of these analyses have been presented in the following sub-sections.

5.2.1 Correlation of the B.Ed. Graduates' Performance and Attitude with the Input and Process variables

5.2.1.1 Correlation of Performance with Input and Process Variables

Table 5.28 presents the findings of correlation of the B.Ed. graduates' performance with each of the input and process variables. As could be gleaned from the data, the relationships of majority of the variables in the govt. TTCs and the TCs of BOU and some of the private TTCs were positive, i.e., the higher the quality of the input and process variables the higher was the performance of the graduates. In the private TTCs majority of the variables were negatively correlated with the graduates' performance, indicating that in the private TTCs with low quality of majority of the input and process variables, the graduates had comparatively higher level of performance.

According to the interpretation of a correlation coefficient, given by Best and Khan (2005:374), only student support services of the government TTCs had moderate (0.40 to 0.60) relationships with the performance of the graduates. Professional qualifications, in-service training, instructional aids and materials, professionalism and scope of professional development, methods and techniques, teaching practice, co-curricular activities and academic environment had low (0.20 to 0.40) level of correlation with the graduate teachers' performance. The rest had low (0.20 to 0.40) to negligible (0.00 to 0.20) correlation. In the private TTCs infrastructural facilities had the most negative relationship and other variables had negligible to low negative

relation. There only three variables: academic environment, program duration and teacher-student ration showed positive correlation. It indicates a different scenario in case of the private TTCs, i.e., despite poor status of the input and process variables, especially the infrastructural facilities, the graduates' performance were not so bad. This unusual situation demands further investigation on the issue to explore the real causes of mismatch.

Table 5.28
Correlation of Classroom Performance of the B. Ed. Graduates with their
Opinions regarding the Input and the Process Variables

Correlation between Classroom Performance of the Graduates and	r		
	Govt. TTC	Private TTC	SOE/BOU
Input Variables			
Educational Qualification	-0.21	-0.12	0.17
Professional Qualification	0.28	-0.20	0.00
In-service Training	0.32	-0.28	-0.13
Curricula	0.18	-0.02	-0.39
Instructional Aids and Materials	0.37	-0.24	0.02
Infra-structural Facilities	0.01	-0.46	-0.02
Student Support Services	0.56	-0.23	0.16
Professionalism and Scope of Professional Development	0.33	-0.23	0.01
Process Variables			
Methods and Techniques	0.24	-0.15	0.14
Teaching Practice	0.29	-0.29	0.15
Co-curricular Activities	0.33	-0.06	0.09
Evaluation Procedure	0.01	-0.20	-0.09
Academic Environment	0.39	0.18	0.01
Program Duration	-0.06	0.15	0.12
Class Duration	0.09	-0.16	0.08
Teacher-student Ratio	0.12	0.28	0.39
Admission Procedure	0.18	-0.20	0.22

In case of BOU, curriculum, in-service training, infrastructural facilities and evaluation procedure had negative correlation with graduates' performance. Other variables had low to negligible positive correlation with graduates' performance. None of the input and process variables of any of the three types of institutions developed substantial (0.60 to 0.80) or high level (0.80 to 1.00) of correlation with graduate teachers' performance in real classroom situation.

5.2.1.2 Correlation of Attitude with Input and Process Variables

The attitude of the graduate teachers was found to be significantly correlated with majority of the input and process variables (Table 5.29) in all the three types of institutions. The correlation of graduates' attitude with the input and process variables was apparently stronger than that with their performance. Here majority of the variables of all the three types of institutions were positively correlated.

The positive and significant relationship indicates that the graduates, who had higher performance and attitude, also regarded highly the quality of the input and the process variables. The negative correlation means that the particular variables had no correlation with the graduates' performance and attitude. The findings further implies that the factors which showed significant positive correlations with the graduates' performance and attitude can exert significant influence on the quality of B.Ed. program.

Table 5.29
Correlation of Attitude of the B.Ed. Graduates with their Opinion about the Input and the Process Variables

Correlation between Attitudes of the Graduates and	r		
	Govt. TTC	Pvt. TTC	SoE/BOU
Input Variables			
Educational Qualification	0.31	-0.23	-0.04
Professional Qualification	-0.16	0.34	0.00
In-service Training (domestic)	0.09	0.31	0.01
Curricula	0.30	0.14	0.50
Instructional Aids and Materials	0.55	0.40	0.36
Infra-structural Facilities	-0.04	0.34	-0.10
Student Support Services	0.19	0.13	0.21
Professionalism and Scope of professional Development	0.20	0.55	0.55
Process Variables			
Methods and Techniques	0.43	0.17	0.23
Teaching Practice	0.38	0.25	0.39
Co-curricular Activities	0.43	0.18	0.28
Evaluation Procedure	0.56	0.18	0.51
Academic Environment	0.35	0.41	0.14
Program Duration	-0.19	-0.06	0.08
Class Duration	0.31	0.21	0.09
Teacher-student Ratio	0.32	0.18	-0.01
Admission Procedure	0.24	0.39	0.60

5.2.2 Correlation among the Input and the Process Variables

Tables 5.30, 5.31 and 5.32 present the data on interrelationship of the input and the process variables of the govt. TTCs, private TTCs and BOU. In many of the cases, for example teaching aids and materials; infrastructure; student support services; methods and techniques; teaching practice; evaluation procedure; academic environment; professionalism and scope of professional development; etc. of the three types of institutions, the relationship were found positive and significant. Some were also negatively correlated with some of the variables. The positive correlation indicates that the higher the opinion of the quality of the variables the higher was its influence in increasing the quality of other variables, i.e., there is significant positive interrelationship among these variables. The negative correlation indicates that there was no correlation among the variables with each other.

In the govt. TTCs and TCs of BOU overseas training was not found correlated with any of the other variables. Program duration, teacher-student ratio, class duration and admission procedures were not found significantly related with absolute majority of the variables.

In the TCs of BOU the curriculum had no correlation with any other variable, while it was evident in the govt. and the private TTCs in positive direction. Teaching aids and materials had positive correlation with maximum number of variables in the govt. TTCs and BOU. In the private TTCs curriculum had such relationship with other variables.

Table 5.30

Correlation among the Input and Process Variables of the Govt. TTCs

	Edn Qual.	Prof. Qual.	Dom. Train	Over. Train	Curri	Aids Mat.	Infra	SSS	Meth. Tech.	TP	Co-curr.	Eva. Procd.	Acad. Env.	Prof.	Prog. Dur.	Class Dur.	Class Size	Adm. Procd.
E. Q.	1.00	.17	-.05	-.23	-.11	-.17	-.07	-.08	-.31	-.32	-.25	-.23	-.19	.03	-.188	-.05	-.02	.21
P. Q.		1.00	-.49*	.25	.09	.09	.13	.04	.09	.33	-.14	.15	.04	.02	.10	.31	-.14	.49*
D. T.			1.00	.13	.07	.20	-.09	-.08	-.18	.14	-.27	-.19	.08	-.50*	-.22	.14	.15	.19
O. T.				1.00	.38	.06	-.003	-.11	-.09	-.15	.37	.13	-.09	.03	.22	.11	.23	-.06
Curri					1.00	.36	.40	.41*	.46*	.57**	.44**	.34	.24	.09	-.19	-.1	.12	.156
A.M.						1.00	.36	.71**	.66**	.65**	.50*	.62**	.69**	.54**	-.09	.22	.24	.35
Infra							1.00	.46*	.44*	.51*	.28	.23	.51*	.37	.01	-.35	-.23	.27
S.S.S.								1.00	.54**	.52**	.46*	.33	.52**	.39	.11	.16	.16	.17
M.T.									1.00	.74**	.51*	.52*	.46*	.70**	-.28	-.07	-.01	0.41
T.P.										1.00	.37	.47*	.68**	.54**	-.08	.09	-.13	.39
Cocur.											1.00	.46*	.30	.13	.11	.26	.17	.10
E. P.												1.00	.38	.28	-.34	.16	.53**	.21
A. E.													1.00	.60**	-.32	-.16	-.07	.423*
Prof.														1.00	-.347	-.183	-.06	.18
P. D.															1.00	.56**	.30	-.12
C. D.																1.00	.32	-.22
T.S.R.																	1.00	-.20
A. P.																		1.00

*** Correlation is significant at the 0.01 level, ** Correlation is significant at the 0.05 level

Legend

E.Q. = Educational qualification	A.M. = Aids and materials	Cocur. = Co-curricular Activities	C.D. = Class Duration
P.Q. = Professional qualification	Infra = Infra-structural facilities	E.P. = Evaluation Process	T.S.R. = Teacher Student Ratio
D.T. = Domestic training	S.S.S. = Student Support Services	A.E. = Academic Environment	A.P. = Admission Procedure
O.T. = Overseas training	M.T. = Methods and Techniques	Prof. = Professionalism	
Curri = Curriculum	T.P. = Teaching Practice	P.D. = Program Duration	

Table 5.31
Correlation among the Input and Process Variables of the Private TTCs

	Edn Qual.	Prof. Qual.	Dom. Train	Over. Train	Curri	Aids Mat.	Infra	SSS	Meth. Tech.	TP	Co-curr.	Eva. Proc.	Acad. Env.	Prof.	Prog. Dur.	Class Dur.	Class Size	Adm. Proc.
E. Q.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P. Q.		1.00	.28	-	.11	.03	.15	-.07	.17	.19	.17	.03	.07	.10	.14	.34	-.09	.06
D. T.			1.00	-	-.16	.19	.03	.15	.30	.27	.05	.12	.14	.07	.04	.17	.17	-.19
O. T.				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Curri					1.00	.41*	.45*	.37	.61*	.54**	.43**	.68*	.45*	.47*	-.33	-.21	.43*	.09
A.M.						1.00	.70**	.18	.47*	.49*	.30*	.64**	.77**	.39	.12	.34	.31	.30
Infra							1.00	.26	.68**	.62**	.36	.76**	.73**	.54**	.07	.20	.05	.20
S.S.S.								1.00	.66**	.65**	.55**	.42*	.45*	.46*	-.118	.28	.16	.17
M.T.									1.00	.86**	.67**	.74**	.65**	.61**	-.08	.35	.31	.17
T.P.										1.00	.58**	.80**	.70**	.68**	-.03	.33	.27	.09
Co-cu.											1.00	.48*	.48*	.53**	-.14	.12	.23	.10
E. P.												1.00	.71**	.58**	.13	.53**	.40	.21
A. E.													1.00	.68**	.17	.28	.32	.04
Prof.														1.00	.03	.15	.16	.14
P. D.															1.00	.29	.11	.04
C. D.																1.00	.41*	.65**
T.S.R.																	1.00	.25
A. P.																		1.00

*** Correlation is significant at the 0.01 level

** Correlation is significant at the 0.05 level

Table 5.32
Correlation among the Input and Process Variables of the B.Ed.Tutorial Centers of BOU

	Edn Qual.	Prof. Qual.	Dom. Train	Over. Train	Curri	Aids Mat.	Infra	SSS	Meth. Tech.	TP	Co-curr.	Eva. Procd.	Acad. Env.	Prof.	Prog. Dur.	Class Dur.	Class Size	Adm Procd
E. Q.	1.00	.16	.26	.15	-.08	-.30	-.28	-.05	-.14	-.19	.23	-.15	-.19	-.14	.10	.16	.04	.30
P. Q.		1.00	-.14	-.12	-.17	-.20	-.32	.11	-.32	-.20	.33	.07	-.20	-.25	.07	.46*	.18	-.01
D. T.			1.00	-.22	-.10	-.31	-.17	-.24	-.17	-.14	-.17	-.33	-.16	-.36	.24	.44*	.18	-.13
O. T.				1.00	-.05	-.10	-.23	.13	.13	.02	.06	-.13	-.06	.13	.19	-.20	.24	.28
Curri					1.00	.11	-.05	.26	.06	.35	.35	.24	.08	.14	.11	.18	.08	.05
A.M.						1.00	.55**	.46*	.63**	.53**	.07	.54**	.55**	.60**	-.42*	-.35	.03	.46
Infra							1.00	.51*	.63**	.46*	-.32	.47**	.75**	.30	-.41*	.37	.06	.20
S.S.S.								1.00	.45*	.51*	.23	.70**	.42*	.39	-.23	-.29	.15	.31
M.T.									1.00	.75**	-	.53**	.83**	.781**	-.32	-.57	-.08	.35
T.P.										1.00	-.14	.65**	.63**	.58**	-.25	-.32	.03	.30
Cocur.											1.00	.07	-.57**	-.25	.13	.38	.26	.13
E. P.												1.00	.60**	.64**	-.38	-.25	-.13	-.38
A. E.													1.00	.64**	-.40	-.51*	-.10	.23
Prof.														1.00	-.19	-.48*	-.19	.48
P. D.															1.00	.38	.39	.17
C. D.																1.00	.22	-.06
T.S.R.																	1.00	.11
A. P.																		1.00

*** Correlation is significant at the 0.01 level

** Correlation is significant at the 0.05 level

5.2.3 Findings of the Regression of Input and Process Variables on Performance and Attitude of the Graduates

5.2.3.1 On Performance of the Graduates

Table 5.33 shows the summary of the multiple regression analysis for the prediction of extent of use of performance of the B.Ed. graduates of the govt. TTCs. The purpose was identifying the variables, input and process, and their extent of prediction on graduates' performance as a result of obtaining B.Ed. from different teacher education institutions. A total of eight input variables and nine process variables were processed in the regression analysis.

Table 5.33
Summary of Multiple Regression Analysis for the Prediction of Extent of Performance of the Graduates of the Govt. TTCs, Private TTCs and TCs/BOU

Variables	Prediction of Performance					
	Govt. TTC		Private TTC		SoE/BOU	
	R ²	F	R ²	F	R ²	F
Input Variables						
Educational Qualification	0.011	0.245	0.013	0.298	0.030	0.686
Prof. Qualification	0.008	0.174	0.044	1.009	0.000	0.000
In-service Training	0.011	0.245	0.079	1.881	0.018	0.397
Curriculum	0.033	0.748	0.000	0.006	0.151	3.912
Student Support Services	0.310	9.868	0.051	1.185	0.025	0.573
Professionalism	0.107	2.646	0.051	1.194	0.009	0.207
Infra-structure	0.000	0.001	0.212	5.906	0.000	0.009
Ins. Aids and Materials	0.140	3.571	0.054	0.011	0.001	0.013
Combined Prediction	0.490		0.504		0.234	
Process Variables						
Methods and Techniques	0.059	1.375	0.024	0.537	0.018	4.967
Teaching Practice	0.085	2.053	0.083	2.004	0.022	3.807
Co-curricular Activity	0.106	2.602	0.003	0.066	0.007	5.086
Academic Environment	0.151	3.914	0.031	0.709	0.000	2.991
Evaluation Procedure	0.000	0.002	0.041	0.929	0.008	9.872
Admission Procedure	0.031	0.713	0.040	0.906	0.046	1.358
Class Duration	0.009	0.189	0.013	0.297	0.007	1.89
Teacher-student Ratio	0.014	0.311	0.079	1.885	0.153	2.494
Program Duration	0.003	0.073	0.024	0.536	0.029	0.790
Combined Prediction	0.405		0.349		0.284	

The examination of the R^2 column of govt. TTCs reveals that, under input variables, student support services (SSS) yielded the highest contributions to the variation in graduates' performance and by itself this variable account for about 31% of the total variance. The variable instructional aids and materials had the second highest prediction (14%) followed by professionalism and scope of professional development of the teacher educators (10.7%). Educational and professional qualifications and in-service training exerted little impact on graduates' performance with only 01% prediction of each, while infrastructure was found account for no variance. The input variables together contributed about 49% of variation in the extent of performance. This means that 51% of the total variation of performance was explained by other input variables.

In case of process variables, 40% of the variance of performance was contributed by the process variables entered into regression analysis. Hence 60% of the variance of performance is attributable to the variables not included in this study. Here under process variables academic environment had the highest (15.1%) prediction followed by co-curricular activities with 10.6% variance. Teaching practice, methods and techniques, admission procedure also had significant prediction, which contributed for 8.5%, 5.9% and 3.1% variance in graduates' performance. Evaluation procedure, teacher-student ratio and program duration were found to create almost no prediction in this regard.

From the examination of the R^2 column of private TTCs it could be gleaned that the input variables together contributed for 50% variance and it was 40% for process variables. Under input variables infrastructure had the highest prediction (21.2%) in the extent of performance of the graduates followed by in-service training with 7.9% variance. SSS, professionalism and instructional aids and materials, each of them exert 5% variations. Professional qualification of the teacher educators also had significant impact (4.4%) on graduates' performance. Under the process variables teaching practice had the highest prediction and it was accounted for 8.3% of the total variance. Among the other variables teacher student ratio contributed 7.9%, admission and evaluation procedures 4% each, academic environment 3.1%, methods and techniques and program duration 2.4% each of the total variance of the performance of the private TTC graduates. Co-curricular activity had almost no effect on it.

The analysis of R^2 column of BOU demonstrates that the total combined effect of the input variables was 23% on the performance of the BOU graduates. It means

77% of their performance was influenced by other input variables. Curriculum had the highest (15.1%) effect on the graduates' performance followed by 2.5% effect of student support service, 1.8% by in-service training and 01% by professionalism and scope of professional development of the tutors. Educational and professional qualifications of the tutors, infrastructure of the tutorial centers and instructional aids and materials had no effect on the extent of the graduates' performance. The process variables together exerted combined effect of 28.4% of the variance and here teacher student ratio had the highest effect (15.3%). Co-curricular activities, academic environment had no impact on the graduates' performance.

A comparison of the R^2 columns indicate that the combined prediction of the input and process variables on the extent of performances of the govt. and the private TTC graduates were almost same although the extent of effect varied among the variables. In case of BOU the combined impact of the input variables was lesser than that of the TTCs, both govt. and private. It means development of performance of distance B.Ed. graduates is attributable to some other process variables not included in this study. The combined impact of the process variables was also much lesser and perhaps emerged from the same reason. The results further indicate that input variables had higher prediction on the performance of the graduates of the TTCs, while in case of BOU the combined impact was higher for process variables.

5.2.3.2 On Attitude of the Graduates

The summary of stepwise multiple regression analysis of the input and process variables for the prediction of attitude of the graduates about quality of B.Ed. are presented in Table 34. The analysis of data in column " R^2 " shows that, under input variables, instructional aids and materials accounted for the highest (30.20%) contribution to the variation in the extent of attitude of the govt. TTC graduates. In case of the private TTCs and SoE/BOU, professionalism and scope of professional development was the most responsible factors for variation in extent of attitude, 29.80% and 20.60% respectively. Among the process variables, evaluation had the most prediction (31.00%) on the variation of attitude of the graduates in the govt. TTCs and it was academic environment and admission procedure in cases of the private TTCs (17.10%) and SoE/BOU (30.40%).

The analysis of the combined prediction indicates that in the govt. TTCs the prediction of input and process variables were higher than those of the private TTCs

and BOU. In cases of the TTCs, both govt. and private, the combined impact of input variables were higher, while it was reverse in SoE/BOU.

Table 5.34
Summary of Multiple Regression Analysis for the Prediction of Extent of Attitude of the Graduates of the Govt. TTCs, Private TTCs and TCs/BOU

Variables	Prediction of Performance					
	Govt. TTC		Private TTC		SoE/BOU	
	R ²	F	R ²	F	R ²	F
Input Variables						
Educational Qualification	0.095	2.313	0.028	0.298	0.041	0.036
Prof. Qualification	0.025	0.566	0.032	1.009	0.012	0.259
In-service Training	0.006	0.138	0.004	1.881	0.001	0.018
Curriculum	0.088	2.135	0.021	0.006	0.003	0.056
Student Support Services	0.037	0.851	0.016	1.185	0.044	1.009
Professionalism	0.039	0.884	0.298	1.194	0.206	9.710
Infra-structure	0.001	0.029	0.107	5.906	0.009	0.205
Ins. Aids and Materials	0.302	9.504	0.157	0.011	0.129	3.260
Combined Prediction	0.678		0.491		0.436	
Process Variables						
Methods and Techniques	0.184	4.967	0.027	0.537	0.051	1.170
Teaching Practice	0.148	3.807	0.062	2.004	0.148	3.824
Co-curricular Activity	0.106	2.602	0.032	0.066	0.080	1.921
Academic Environment	0.120	2.991	0.171	0.709	0.019	0.415
Evaluation Procedure	0.310	9.872	0.032	0.929	0.202	7.795
Admission Procedure	0.058	1.358	0.150	0.906	0.304	12.04
Class Duration	0.097	2.363	0.043	0.297	0.008	0.187
Teacher-student Ratio	0.102	2.494	0.034	1.885	0.001	0.004
Program Duration	0.035	0.790	0.003	0.536	0.001	0.002
Combined Prediction	0.575		0.473		0.545	

A comparison of the combined prediction of performance and attitude of the B.Ed. graduates reveal that the input and process variables had more prediction on the extent of variation of attitude in all the three types of teacher education institutions.

5.3 Personal and Professional Characteristics of the Respondents

The findings on the personal and professional characteristics of the respondents of the three types of teacher education institutions were as follows (Annexes 31 to 40).

5.3.1 Respondents of the Government Teachers' Training College

B.Ed. Graduates

Among the 24 graduate respondents of the government TTCs, 62.50% were female. Majority (62.50%) were from the age group 31 – 40 years. On average 87.50% were below 40 years. Little more than fifty percent (54.17) were master degree holders and the rest had bachelor level of education. About 42% obtained first class in the B.Ed. In-service training was received by majority (58.33%) of the graduates. Significant segment (41.67%) of them were working in government schools. Three-fourths had less than 10 years of teaching experience. The highest percentage (41.67) of the graduates belonged to the monthly family income group of Tk.10,001 to 15,000 (Annex 32).

Teacher Educators

The total number of respondents of teacher educators from the government TTCs was 24. They consisted of 29.17% males and 70.83% females. The ages of the respondents varied from 29 to 49 years. Two-thirds (66.66%) were from 31 to 40 years of age group. The respondents' average age was 38.95 years.

Of the teacher educators, 8.33% were in the rank of associate professor, while 45.83% were assistant professor and the rest were lecturer. About 92% were master degree holder. Only 8.33% earned M.Phil. and none obtained Ph.D. Approximately 63% had M.Ed. level of professional degree and 37% completed B.Ed. Two-thirds received in-service training and 37.50% got the opportunity of overseas training.

Those who got overseas training were found to receive training on different aspects of teacher education program as well as on ICT. The areas of trainings included teacher training; teacher education curriculum development; basic computer skill; educational administration and management; instructional materials design; professional development, etc. The majority of the overseas training was received from Christchurch College of New Zealand. A few were in the Philippines and India. The durations of the overseas training were from minimum two weeks to maximum four months period. Local training included areas like communicative English language teaching; materials development; gender development; research methodology; population education; participatory teaching-learning method; basic computer skill and its application; educational management, different subject based training; TOT on

different subjects; AIDS; curriculum dissemination; research methodology, participatory teaching and learning; basic ICT skills; resource center management; low cost materials development; environmental education; teaching science and mathematics, etc. The trainings were imparted by NAEM, NCTB, BIAM, PROMOTE, HSTTI, British Council, SESIP, FSSAP –II, etc. Training duration varied from one day to five months period. The teaching experience of the respondents ranged between 1 to 20 years. Majority (41.67%) reported to have 6 to 10 years of teaching experience. The next highest percentage (29.17%) of the respondents had 01 to 05 years of teaching experience. Hundred percent teacher educators of the govt. TTCs were working on full time basis (Annex 33).

Principals

All the six principals of the sampled government TTCs were male. Two-thirds (66.66%) were above 50. All were holding professor rank. Five (83.33%) of them had master degree and one (16.67%) obtained Ph.D. Five had experience less than five years as principal. Fifty percent had M.Ed. and 33.33% had B.Ed. degree. The rest 16.67% had at all no professional background. Four (66.67%) had teaching experiences in the TTCs, while the rest did not. One half had 21 to 30 years of teaching experience in different educational institutions and 16.67% had more than 30 years. Two-thirds were in full time position and one-third in charge. All got domestic training and 50% received overseas training (Annex 34).

5.3.2 Respondents of Private Teachers' Training College B.Ed. Graduates

Majority (58.33%) of the respondents were male. Majority (54.17%) belonged to age group 31 – 40 yrs and 25% were below 30. Almost three-fourths had master level of education and the rest had education equivalent to degree. Almost 42% obtained first class in the B.Ed.. Merely one-fourth received in-service training and rest had none. All the private TTC B.Ed. graduates were working in non-government schools. Two-thirds (66.67%) had experience of 1 to 10 years. The highest percentage (38%) had monthly family income of Tk.5001 to Tk.10,000 and 29.17 percent's income was Tk.10.000 to 15,000 (Annex 35).

Teacher Educators

Out of 24 respondents 37.50% were female. The ages of the respondents varied. The youngest age respondent was 27 and the oldest was 64. The average age was 36.58. Most respondents (54.17%) belonged to 31- 40 years age category. Some (8.33%) belonged to 61 – 65 years age category. It means the majority of the teacher educators of the private TTCs were of young age.

All the teacher educators (100%) were simply holding the position of lecturer. Cent per cent obtained master degree. All had professional background of which 54.17% had B. Ed. and 45.83% obtained M.Ed. Little more than half (54.17%) of the teacher educators had less than five years of teaching experience. Fifty four percent of them were working on part time basis. Only one-third of the teacher educators received in-service training and two-thirds did not receive any training. The areas of their training were neither varied nor much related with aspects related to teacher education program. This included areas like teaching in feeder school, educational administration and management, communicative English, population education, basic computer course, question setting and moderation, etc. None of the teacher educators received overseas training (Annex 36).

Principals

Out of six principals, five were male and one was female. All had master degree and none received any higher degrees. One half had B.Ed. and the rest half had M.Ed. level of professional degree. About 67% earned less than five years of teaching experience in the TTCs. Unlike their counterparts of the govt. TTCs all of them were teaching in the B.Ed. classes. One half were working on full time basis and the rest half were in charge. One half received domestic training in scanty and not that much relevant areas. None received overseas training (Annex 37).

5.3.3 Respondents of the Tutorial Centers of SoE/ BOU

B.Ed. Graduates

The BOU graduates constituted of 45.83% male respondents. About 46% of them were below 30. One-fourth were between 31-40 and only 8.33% were in age group 41 to 50. One half of them had master degree and the rest had bachelor level of education. None received first class in the B.Ed. Less than one-fifth (16.67%) were working in govt. schools. Majority (54.17%) had teaching experience of 11 to 20 years

and about two-fifths (41.67%) had monthly family income of Tk.5,001 to 10,000 (Annex 38).

Tutors

Among the tutor respondents, majority (54.17%) were female. Majority (70.84%) belonged to age group 41-50. The tutors' average age was 44.46 yrs. The lowest age was 34, while the highest one was 50 years.

Of the respondents one-fourth (25%) were lecturers and majority (54.17%) were holding the position of assistant professor. Two (4.33%) were associate professors. Absolute majority (95.43%) had master degree and only one (4.57%) had M.Phil. degree. Little more than fifty percent (54.17%) obtained B.Ed. degree, while 45.43% had M.Ed. Only one-third received in-service training of domestic type and 40% obtained overseas training. On average 29.17% had experience between 1- 5 years, 33.33% had experience of 6 - 10 years and 37.50% had experience from 11 to 15 years as tutors of BOU (Annex 39).

B Ed Course Coordinators

Five out of six coordinators were male. All were above 50 and of professor rank. Hundred percent had master degree. None received M.Phil. or Ph.D. degree. Only two (33.33%) had B.Ed., while the other four (66.66%) had no professional education. None was found to take tutorial class in the TCs. All received in-country training. One half obtained overseas training. Their areas of training were as varied as those of the govt. TTC principals (Annex 40).

5.4 Conclusion

The above analyses provide a picture of the status of the quality of the B.Ed. programs imparted by govt. TTCs, private TTCs and BOU, in terms of some input, process and output variables. Findings show that the B.Ed. programs offered by different teacher education institutions had some strengths as regards to the input and the process variables subjected to inquiry. Still they were beset with some common weaknesses, like outdated curricula; scarcity of students support services; scanty teaching aids and materials and their use, traditional teaching-learning methods and techniques followed in curricula delivery; high teacher student ratio; small contact hour; etc. The distance B.Ed. program had some particular problems like unsatisfactory

teaching practice; absence of co-curricular activities; weak evaluation procedure; etc. The specific weakness of the private TTC was inadequate co-curricular activities. Both the govt. and private TTC respondents identified short program duration as a significant weakness of the B.Ed. program offered by NU, while the two years length of BOU B.Ed. was termed as a strength of that program.

The pass rates of the govt. and private TTCs were much higher than those of BOU, which were in fact very low. The percentages of first class receiver were significant and almost the same in the govt. and private TTCs. There about one-fifth received first class in the sampled years, while none from BOU got first class except a few (0.13%) in academic session 1999-2000. Almost equal number of male and female students in the govt. TTCs received first class, but in private TTCs the number of female students was much higher in receiving first class.

Despite some weaknesses of the key input and process variables the performance of the graduates of the govt. TTCs and BOU were good and it was just average for the graduates of the private TTCs. The private TTC graduates' performance was much lower than their counterparts in the govt. TTCs and BOU. All the three groups of the graduates had very good performance in term of use of chalkboard and classroom environment. BOU and govt. TTC graduates were good in presentation, but it was average for pvt. TTC graduates. All had unsatisfactory performance in planning lessons; participation of students; use of life oriented examples; and use of teaching aids. In classroom management and summarization of lessons the govt. TTC and BOU graduates showed good, i.e., satisfactory performances, while unsatisfactory by the private TTC graduates. The total performance of the graduates of the private TTCs was much lower and almost of average level.

The attitude of the respondents of the TTCs, both govt. and private, and BOU were positive about the quality of B.Ed. of their own institutions. The level of attitude of the BOU respondents was much lower. The difference in attitudes by gender was significant only in case of BOU.

Majority of the input and process variables had significant positive correlation with the performances of the B.Ed. graduate of the govt. TTCs and BOU, while majority were negatively correlated with the performance of the graduates of the private TTCs. On the contrary majority of the variables were found to have positive and stronger correlation with the attitudes of the respondents of all the three types of institutions. Also significant positive intra-correlation was found to exist among some

of the input and process variables, like aids and materials; infrastructure; student support services; methods and techniques, teaching practice, co-curricular activities; evaluation procedure; academic environment and professionalism and scope of professional development; etc. in all the three institutions. In case of BOU, curriculum did not show any significant correlation with any of the input and process variables.

In the govt. and private TTCs, the total influence of the input variables on graduates' performances was higher than that of the process variables. At BOU process variables exerted more impact. In the govt. TTCs, SSS yielded the highest contribution in variation of graduates' performance. Instructional aids and materials had the second highest impact and professionalism and scope of professional development was the third most influencing variable. Teaching practice, Infrastructure, admission procedure also had significant prediction. In the private TTCs infrastructure had the highest prediction and at BOU the highest predicting variable was teacher-student ratio. Comparatively the input and the process variables had more prediction on the graduates' attitude than their performance.

The significant findings regarding the background characteristics of the respondents indicate that the graduates, teacher educators/tutors and the principals/course coordinators of the govt. TTCs and BOU had higher educational qualification and in-service training status, both domestic and overseas, while the teacher educators of the private TTCs and the principals had better professional education background. The teacher educators and tutors of the govt. TTCs and BOU were more aged and experienced, full timer, holding higher positions than their counterparts of the private TTCs. Almost half of the teacher educators and principals of the private TTCs were working either on part time basis or on charge which was not a case for the govt. TTCs.

Chapter 6

COMPARATIVE ANALYSIS OF THE TEACHER EDUCATION PROGRAMS

The findings on the comparative analyses of the input, process and output variables of different teacher education programs are presented in this chapter under two sub-headings: (1) comparative analysis of the government and the private TTCs; and (2) comparative analysis of NU and BOU.

6.1 Comparative Analysis of the Govt. and the Private TTCs

6.1.1 Comparison of Input and Process Variables

6.1.1.1 Comparison of Educational and Professional Qualifications of the Faculty

Table 6.1 shows the results of comparison between the govt. and the private TTCs in terms of educational and professional qualifications as well as in-service training status of the faculty.

Table 6.1
Comparison of the Educational and Professional Qualifications and In-service Training Status of the Principals and the Teacher Educators of the Government and the Private TTCs

Principals	Group Mean		t	Teacher Educators	Group Mean		t
	Govt. TTCs	Pvt. TTCs			Govt. TTCs	Pvt. TTCs	
Edn. Qualification	2.33	2.00	1.00	Edn. Qualification	2.00	1.93	2.80*
Prof. Qualification	2.33	2.50	0.42	Prof. Qualification	2.18	2.88	1.88*
Dom. Training	2.00	1.50	2.24*	Dom. Training	1.68	1.29	5.46*
Overseas Training	1.50	1.00	2.24*	Overseas Training	1.24	1.00	4.52*

* significant at $P \leq 0.05$

The data in the above table reveal that the principals of the govt. and the private TTCs had no significant differences in their educational and professional qualifications, but they differed significantly in the areas of training, both domestic and overseas. In both the areas the principals of the govt. TTCs received more opportunities of training.

The teacher educators of both the types of TTCs differed significantly in all the four areas of investigation. According to this finding, the teacher educators of the govt. TTCs had higher educational qualification than their private TTC counterpart. They also received more opportunities of in-service training, both domestic and overseas. The teacher educators of the private TTCs possessed better professional qualification.

6.1.1.2 Comparison of Opinion Scores of the Graduates

A cursory look of the data in table 6.2 reveals that the graduates of the govt. TTCs had apparently higher level of opinions than their counterpart of the private TTCs

Table 6.2
Comparison of the Mean Opinion Scores of the Graduates of the Government and the Private TTCs in terms of Input and Process Variables

Input Variables	Group Mean		t	Process Variables	Group Mean		t
	Govt. TTC	Pvt. TTC			Govt. TTC	Pvt. TTC	
Curriculum	3.06	2.96	0.64	Methods and Techniques	2.99	2.92	1.24
Aids & Mats.	2.47	2.18	1.53	Teaching Practice	3.60	3.12	2.22*
Infrastructure	3.96	3.11	3.50*	Co-curricular Activity	3.19	2.58	4.10*
SSS	2.18	2.03	0.74	Evaluation Procedure	3.18	3.22	0.19
Professionalism	4.03	3.79	1.03	Academic Environment	3.89	3.64	1.09
				Program Duration	2.92	3.04	0.28
				Class Duration	2.71	2.58	0.32
				Teacher-student Ratio	1.92	2.58	1.88*
				Admission Procedure	3.75	3.00	2.04*

* significant at $P \leq 0.05$

in absolute majority of the input and process variables. However, as per the t values their differences were found significant only in four areas, namely infrastructural facilities; teaching practice; co-curricular activities; and admission procedure. The pvt. TTC graduates expressed significantly better opinion about teacher-student ratio.

6.1.1.3 Comparison of Opinion Scores of the Teacher Educators

In a similar way, a comparison between the opinion scores attained by the teacher educators of the govt. and the private TTCs reveals that the private TTC teacher educators ventilated higher opinions in majority of the input and process variables, but the differences were proved significant in only four areas, such as curriculum; teaching

practice; class duration; and teacher-student ratio. The govt. TTC teacher educators did not show higher opinion in any of the input and process variables.

Table 6.3
Comparison of the Mean Opinion Scores of the Teacher Educators of the Government and the Private TTCs in terms of Input and Process Variables

Input Variables	Group Mean		t	Process Variables	Group Mean		t
	Govt. TTC	Pvt. TTC			Govt. TTC	Pvt. TTC	
Curriculum	2.88	3.24	1.75*	Methods and Techniques	2.97	2.93	0.18
Aids & Mats.	2.26	2.26	0.02	Teaching Practice	3.51	3.76	1.88*
Infrastructure	3.41	3.51	0.45	Co-curricular Activity	3.56	3.44	0.79
SSS	2.48	2.62	0.84	Evaluation Procedure	3.00	3.24	1.10
Professionalism	3.04	2.97	0.53	Academic Environment	3.60	3.73	1.00
				Program Duration	2.37	2.21	0.29
				Class Duration	1.96	2.83	2.96*
				Teacher-student Ratio	2.38	2.67	1.71*
				Admission Procedure	2.88	2.58	1.01

* significant at $P \leq 0.05$

6.1.1.4 Comparison of the Opinion Scores of the Principals

As could be gleaned in Table 6.4, the principals of the govt. TTCs found the infrastructural facilities of their institutions, under input variables, more adequate

Table 6.4
Comparison of Mean Opinion Scores of the Principals of the Government and the Private TTCs in terms of Input and Process variables

Input Variables	Group Mean		t	Process Variables	Group Mean		t
	Govt. TTC	Pvt. TTC			Govt. TTC	Pvt. TTC	
Curriculum	3.02	3.25	0.43	Methods and Techniques	1.67	2.72	1.41
Aids & Mats.	3.03	2.45	1.20	Teaching Practice	4.28	4.11	0.54
Infrastructure	4.08	3.40	2.21*	Co-curricular Activity	3.89	2.72	2.95*
SSS	3.13	2.53	1.66	Evaluation Procedure	3.60	3.00	1.71*
Professionalism	3.65	3.48	1.12	Academic Environment	4.00	3.24	4.86*
				Program Duration	3.00	2.67	1.83*
				Class Duration	2.83	3.83	1.90*
				Teacher-student Ratio	2.83	3.67	1.94*
				Admission Procedure	4.17	4.50	.45

* significant at $P \leq 0.05$

and suitable from that of the private TTCs at the expected significance level. They differed significantly with higher opinion scores in four areas of the process variables,

namely co-curricular activities; evaluation procedure; academic environment; and program duration. The principals of the private TTCs expressed significantly higher opinions regarding class duration and teacher student ratio.

6.1.2 Comparison of Output Variables

6.1.2.1 Comparison of the Performance of the Graduates

A glance of the following table denotes that the govt. TTC graduates did better performance than did by their counterpart of the private TTCs in all the areas of their classroom teaching, except in use of teaching aids. But the differences were proved significant in six of the observed areas: management; planning lesson; use of life oriented examples; summarization of lesson; and evaluation procedure.

Table 6.5
Comparison of Mean Performance Scores of the Graduates of
the Government and the Private TTCs

Variables	Group Mean		t
	Govt. TTC	Private TTC	
Classroom Environment	4.06	3.79	1.65
Management	3.66	2.90	3.79*
Planning Lesson	2.70	2.30	2.12*
Presentation	3.23	3.00	1.61
Participation of Students	1.13	1.09	1.29
Use of Life Oriented Examples	2.73	2.23	2.11*
Use of Chalkboard	4.48	4.27	1.10
Use of Teaching Aids	2.91	2.99	0.35
Summarization of lesson	3.55	2.73	2.34*
Evaluation Procedure	3.17	2.77	2.21*

* significant at $P \leq 0.05$

6.1.2.2 Comparison of Attitude of the Respondents

Among the different groups of respondents, only the teacher educators were found to show significantly different attitude in favor of the private TTCs. It indicates the private TTC teacher educators were more positive in their attitude towards the quality of the B.Ed. program offered by their institutions.

Table 6.6
Comparison of the Mean Attitude Scores of the Respondents of
the Government and the Private TTCs

Respondents	Group Mean		t
	Govt. TTC	Private TTC	
Graduates	3.69	3.64	0.40
Teacher Educators	3.07	3.31	1.98*
Principals/Course Coordinators	3.57	3.90	1.05

* significant at $P \leq 0.05$

6.2 Comparative Analysis of NU and BOU

6.2.1 Comparison of Input and Process Variables

6.2.1.1 Comparison of Educational and Professional Qualifications of the Faculty

Comparison between Government TTCs and TCs/BOU

Data in Table 6.7 reveal that the principals of the government TTCs possessed significantly better professional qualification than the B.Ed. course coordinators of the tutorial centers of BOU. The tutors of BOU had better educational and professional qualifications than the teacher educators of the govt. TTCs. In the areas of domestic and overseas training no significant difference existed between the principals and the course coordinators as well as the teacher educators and the tutors.

Table 6.7
Comparison of Educational and Professional Qualifications and In-service
Training Status of the Principals/Course Coordinators and the Teacher
Educators/Tutors of the Govt. TTCs and the TCs of BOU

Principals/ Course Coordinators	Group Mean		t	Teacher Educators/Tutors	Group Mean		t
	Govt. TTC	TC/ BOU			Govt. TTC	TC/ BOU	
Edn. Qualification	2.33	2.00	1.00	Edn. Qualification	2.00	2.04	1.84*
Prof. Qualification	2.33	1.33	2.54*	Prof. Qualification	1.48	2.18	8.20*
Dom. Training	2.00	2.00	00	Dom. Training	1.69	1.72	0.47
Overseas Training	2.00	2.00	00	Overseas Training	1.24	1.26	0.28

* significant at $P \leq 0.05$

Comparison between Private TTCs and TCs/BOU

A peep into the following table reveals that the differences between almost all the pairs of means of the teacher educators and the tutors as well as the principals and the course coordinators differed significantly with the sole exception in educational qualifications of the principals and the course coordinators. According to this finding the TC coordinators got more opportunities of in-service training, both domestic and overseas, while the private TTC principals possessed better professional qualification. The tutors of BOU had better educational qualification and in-service training background, both domestic and overseas, than their counterpart of the private TTCs. With regard to professional qualification the BOU tutors were again in better position.

Table 6.8
Comparison of Educational and Professional Qualifications of the Faculty
of the Private TTCs and the TCs of BOU

Principals and Course Coordinators	Group Mean		t	Teacher Educators and Tutors	Group Mean		t
	Pvt. TTC	TC/ BOU			Pvt. TTC	TC/ BOU	
Edn. Qualification	2.00	2.00	.00	Edn. Qualification	1.94	2.04	2.62*
Prof. Qualification	2.50	1.33	3.80*	Prof. Qualification	1.47	2.89	3.49*
Dom. Training	1.50	2.00	2.24*	Dom. Training	1.30	1.72	5.74*
Overseas Training	1.00	1.50	2.24*	Overseas Training	1.00	1.26	4.72*

* significant at $P \leq 0.05$

6.2.2.2 Comparison of Opinion Scores of the Graduates

Comparison between Government TTCs and TCs/BOU

As revealed by the data in the above table, the graduates of the govt. TTCs and the TCs of BOU differed significantly in the areas of infrastructural facilities; student support services; and professionalism and scope of professional development under the input variables. Under the process variables they exhibited significantly different opinions with regard to teaching practice; co-curricular activities; evaluation procedure; and teacher student ratio. Almost in all the cases, the graduates valued more the B.Ed. program offered by the Govt. TTCs except the sole area of teacher-student ratio, where the BOU graduates expressed significantly higher level of opinion.

Table 6.9
Comparison of the Mean Opinion Scores of the B.Ed. Graduates of the Government TTCs and BOU in terms of Input and Process Variables

Input Variables	Group Mean		t	Process Variables	Group Mean		t
	Govt. TTC	TC/BOU			Govt. TTC	TCs/BOU	
Curriculum	3.06	2.74	2.12	Methods and Techniques	2.99	2.90	1.54
Aids & Mats.	2.47	2.28	1.19	Teaching Practice	3.60	2.79	4.25*
Infrastructure	3.96	3.29	3.09*	Co-curricular Activity	3.19	2.50	4.51*
SSS	2.18	1.75	2.54*	Evaluation Procedure	3.18	2.66	3.13*
Professionalism	4.03	3.40	2.16*	Academic Environment	3.89	3.51	1.59
				Program Duration	2.92	3.63	1.69
				Class Duration	2.71	2.96	0.66
				Teacher-student Ratio	1.92	3.21	3.86*
				Admission Procedure	3.75	3.38	1.24

* significant at $P \leq 0.05$

Comparison between Private TTCs and TCs/BOU

As could be gleaned in Table 6.10 the graduates of the private TTCs and the

Table 6.10
Comparison of the Mean Opinion Scores of the B.Ed. Graduates of the Private TTCs and BOU in terms of Input and Process Variables

Input Variables	Group Mean		t	Process Variables	Group Mean		t
	Pvt. TTC	TC/BOU			Pvt. TTC	TC/BOU	
Curriculum	2.96	2.74	1.74	Methods and Techniques	2.96	2.90	0.31
Aids & Mats.	2.18	2.28	0.54	Teaching Practice	3.12	2.79	1.98*
Infrastructure	3.11	3.29	0.71	Co-curricular Activity	2.58	2.50	0.09
SSS	2.03	1.75	1.55	Evaluation Procedure	3.22	2.66	3.64*
Professionalism	3.79	3.40	1.37	Academic Environment	3.64	3.51	0.54
				Program Duration	3.04	3.63	1.35
				Class Duration	2.58	2.96	0.98
				Teacher-student Ratio	2.58	3.21	1.64
				Admission Procedure	3.00	3.38	1.07

* significant at $P \leq 0.05$

TCs/BOU did not differ significantly in any of their opinion scores under the input variables. They differed significantly only in two areas of the process variables, namely teaching practice and evaluation procedure. In both the areas private TTC graduates opined the services offered by their institution better.

6.2.2.3 Comparison of the Opinion Scores of the Teacher Educators and the Tutors

Comparison between Government TTCs and TCs/BOU

The comparative data in Table 6.11 denote that the teacher educators of the govt. TTCs expressed significantly higher opinions than the tutors of the TCs/BOU in the areas of aids and materials and student support services under the input variables. From the cluster of output variables they expressed higher opinions regarding teaching practice and co-curricular activities. The tutors of the TCs expressed significantly higher opinions about program and class duration.

Table 6.11
Comparison of the Mean Opinion Scores of the Teacher Educators of the Government TTCs and the Tutors of the TCs of BOU in terms of Input and Process Variables

Input Variables	Group Mean		t	Process Variables	Group Mean		t
	Govt. TTC	TC/BOU			Govt. TTC	TC/BOU	
Curriculum	2.88	2.68	1.04	Methods and Techniques	2.97	2.74	1.14
Aids & Mats.	2.26	1.96	2.14*	Teaching Practice	3.51	2.96	2.93*
Infrastructure	3.41	3.45	0.14	Co-curricular Activity	3.56	2.38	6.87*
SSS	2.48	1.96	3.01*	Evaluation Procedure	3.00	2.84	0.96
Professionalism	3.04	2.99	0.35	Academic Environment	3.60	3.61	0.07
				Program Duration	2.37	3.67	3.80*
				Class Duration	1.96	2.67	2.10*
				Teacher-student Ratio	2.38	2.88	0.41
				Admission Procedure	2.88	2.50	0.25

* significant at $P \leq 0.05$

Comparison between Private TTCs and TCs/BOU

The teacher educators of the private TTCs expressed significantly higher opinions in the areas of curriculum; instructional aids and materials; and student support services from the group of input variables. They also showed significantly higher opinions about teaching practice; co-curricular activities; and evaluation procedure under the process variable. The tutors of the TCs of BOU ventilated significantly higher opinion only about the program duration of the distance B.Ed. program.

Table 6.12

Comparison of the Mean Opinion Scores of the Teacher Educators of Private TTCs and the Tutors of the TCs of BOU in terms of Input and Process Variables

Input Variables	Group Mean		t	Process Variables	Group Mean		t
	Pvt. TTC	TC/BOU			Pvt. TTC	TC/BOU	
Curriculum	3.24	2.68	3.03*	Methods and Techniques	2.93	2.74	1.13
Aids & Mats.	2.26	1.96	1.94*	Teaching Practice	3.76	2.96	4.43*
Infrastructure	3.51	3.45	0.26	Co-curricular Activity	3.44	2.38	6.43*
SSS	2.62	1.96	3.96*	Evaluation Procedure	3.24	2.84	2.19*
Professionalism	2.97	2.99	0.13	Academic Environment	3.73	3.61	0.77
				Program Duration	2.21	3.67	5.15*
				Class Duration	2.83	2.67	1.04
				Teacher-student Ratio	2.67	2.88	1.07
				Admission Procedure	2.58	2.50	0.51

* significant at $P \leq 0.05$

6.2.2.3 Comparison of Opinion Scores of the Principals and the B.Ed. Course Coordinators

Comparison between Government TTCs and TCs/BOU

Among the four input variables two, namely infrastructural facilities and student support services were found to be perceived in significantly favorable way by the

Table 6.13

Comparison of the Mean Opinion Scores of the Principals of the Government TTCs and the Coordinators of the TCs of BOU in terms of Input and Process Variables

Input Variables	Group Mean		t	Process Variables	Group Mean		t
	Govt. TTC	BOU			Govt. TTC	BOU	
Curriculum	3.02	3.21	0.43	Methods and Techniques	1.67	2.61	0.29
Aids & Mats.	3.03	2.22	1.20	Teaching Practice	4.28	2.75	5.19*
Infrastructure	4.08	3.32	2.21*	Co-curricular Activity	3.89	1.91	2.95*
SSS	3.13	2.31	1.68*	Evaluation Procedure	3.60	2.35	1.34
Professionalism	3.65	3.42	1.12	Academic Environment	4.00	3.61	4.85*
				Program Duration	3.00	3.83	3.90*
				Class Duration	2.83	3.00	1.94*
				Teacher-student Ratio	2.83	2.33	1.93*
				Admission Procedure	4.17	3.50	1.91*

* significant at $P \leq 0.05$

principals of the govt. TTCs. It means the govt. TTCs had more infrastructural facilities than that of the TCs of BOU and they could provide better student support services to

their students. Five of the process variables, namely teaching practice; co-curricular activities; academic environment; teacher-student ratio; admission procedure were also perceived in significantly better way by the principals of the govt. TTCs. The course coordinators of BOU expressed higher opinions about program and class durations.

Comparison between Private TTCs and TCs/BOU

The computed t values of the comparison of the pairs of mean opinion scores of the principals and the course coordinators of the private TTCs and the TCs of BOU show that the principals of the pvt. TTCs demonstrated significantly higher opinions

Table 6.14
Comparison of the Mean Opinion Scores of the Principals of the Private TTCs and the Coordinators of the TCs of BOU in terms of Input and Process Variables

Input Variables	Group Mean		t	Process Variables	Group Mean		t
	Pvt. TTC	TC/BOU			Pvt. TTC	TC/BOU	
Curriculum	3.25	3.21	0.65	Methods and Techniques	2.72	2.61	0.79
Aids & Mats.	2.45	2.22	1.09	Teaching Practice	4.11	2.75	1.81*
Infrastructure	3.40	3.32	1.16	Co-curricular Activity	2.72	1.91	1.24*
SSS	2.53	2.31	1.77*	Evaluation Procedure	3.00	2.35	3.87*
Professionalism	3.48	3.42	0.58	Academic Environment	3.24	3.61	0.26
				Program Duration	2.67	3.83	3.18*
				Class Duration	3.83	3.00	1.92*
				Teacher-student Ratio	3.67	2.33	0.92
				Admission Procedure	4.50	3.50	2.61*

* significant at $P \leq 0.05$

regarding student support services under input variables and teaching practice; co-curricular activities; evaluation procedure; class duration; and admission procedure from the list of process variables. The course coordinators of the TCs exhibited higher opinion about the program duration of distance B.Ed. program as did by the tutors.

6.2.2 Comparison of Output Variables

6.2.2.1 Comparison of the Performances of the B.Ed. Graduates

Comparison between Government TTCs and TCs/BOU

The comparative results of the teaching performance of the B.Ed. graduates of the govt. TTCs and BOU, in real classroom situation, are furnished in Table 6-15. A

Table 6.15
Comparison of the Mean Performance Scores of the Graduates of the
Government TTCs and BOU

Variables	Group Mean		t
	Govt. TTC	TC/BOU	
Classroom Environment	4.06	4.10	0.26
Management	3.66	3.82	0.74
Planning Lesson	2.70	2.76	0.30
Presentation	3.23	3.30	0.66
Participation of Students	1.13	1.12	0.43
Use of Life Oriented Examples	2.73	2.23	2.27*
Use of Chalkboard	4.48	4.18	0.65
Use of Teaching Aids	2.91	2.99	1.43
Summarization of Lesson	3.55	3.22	0.78
Evaluation Procedure	3.17	2.99	1.16

significant at $P \leq 0.05$

glance of the t values shows that the performance of the B.Ed. graduates of the govt. TTCs and BOU did not differ significantly in any of the areas of investigation of their teaching performance except use of life oriented examples. It clearly indicates the graduates of both the govt. TTCs and BOU obtained teaching competencies, whether satisfactory or not, of almost same level from the respective B.Ed. programs.

Important to mention here that the findings on some of the input and the process variables showed a better quality of the govt. TTC B.Ed. than that of BOU. But, this finding was not reflected in the performance of the graduates of the govt. TTCs, who showed almost similar level of performance with that of BOU graduates. This was, may be, because of the flexibility in mode of offering of the distance B.Ed. for which it could attract, equally with the govt. TTCs, in-service school teachers of same and good quality, who had no choice but to come to distance B.Ed. program due to their working status and other familial and social reasons. Another possible reason may be was that despite shortcomings in some of the predictors of the distance B.Ed. program, the same groups of teacher educators of the govt. TTCs worked as the tutors of distance B.Ed. program, who perhaps helped the distance B.Ed. students to achieve almost similar level of performance to that of the govt. TTCs.

Comparison between Private TTCs and TCs/BOU

The graduates of the private TTCs and BOU differed significantly in three areas, namely management; planning lesson; and presentation. In all the three areas, the performance of the graduates of BOU were much better and the graduates of the private TTCs failed to show better performance in any of the areas of observation.

Table 6.16
Comparison of the Mean Performance Scores of the Graduates of the Private TTCs and the TCs of BOU in terms of Input and Process Variables

Variables	Group Mean		t
	Private TTC	TC/BOU	
Classroom Environment	3.79	4.10	1.62
Management	2.90	3.82	4.34*
Planning Lesson	2.30	2.76	2.49*
Presentation	3.00	3.30	2.08*
Participation of Students	1.09	1.12	1.09
Use of Life Oriented Examples	2.23	2.57	1.70
Use of Chalkboard	4.27	4.18	0.92
Use of Teaching Aids	2.99	2.99	0.72
Summarization of Lesson	2.73	3.22	1.10
Evaluation Procedure	2.77	2.99	1.25

* significant at $P \leq 0.05$

This result obviously indicates a better quality of BOU's B.Ed. program than the private TTC one. But, this finding contradicts with the findings on comparison of the input and process variables of the two types of institutions, where the private TTC B.Ed. was perceived more positively by the concerned respondents. This indicates a need to explore the causes of mismatch of the findings on graduates' performance from the findings on input and process variables of the B.Ed. programs of the private TTCs and BOU.

6.2.2.2 Comparison of Attitude of the Respondent

Comparison between Government TTCs and TCs/BOU

With regard to the attitude of different groups of respondents of the govt. TTCs and BOU, no significant difference was noticed. The visible differences between the pairs of attitude scores, therefore, may be due to chance or sampling error.

Table 6.17
Comparison of the Mean Attitude Scores of different Respondent Groups of the Government TTCs and the Tutorial Centers of BOU

Respondents	Group Mean		t
	Govt. TTC	TC/BOU	
Graduates	3.69	3.46	1.65
Teacher Educators/Tutors	3.07	2.94	1.15
Principals/Course Coordinators	3.57	3.57	1.05

* significant at $P \leq 0.05$

Comparison between Private TTCs and TCs/BOU

Data in Table 6.18 show that there existed a significant variation between the attitude scores of the teacher educators of the private TTCs and the tutors of the TCs of BOU which went in favor of the private TTCs.

Table 6.18
Comparison of the Mean Attitude Scores of different Respondent Groups of the Private TTCs and the Tutorial Centers of BOU

Respondents	Group Mean		t
	Private TTC	TC/BOU	
Graduates	3.64	3.46	0.01
Teacher Educators/Tutors	3.31	2.94	3.20*
Principals/Course Coordinators	3.90	3.57	1.77

* significant at $P \leq 0.05$

6.3 Summary

To summarize, this chapter presents the findings on comparative analysis of the govt. and the private TTCs as well as NU and BOU in terms of the input, process and output variables. The findings indicate the govt. TTC principals received more in-service training than their counterpart of the private TTCs. The teacher educators of the govt. TTCs also possessed better educational qualification and training, both domestic and overseas, than their counterpart of the private TTCs, but the private TTC teacher educators had better professional qualification than that of the govt. TTCs.

Between the govt. TTCs and BOU, the principals of the govt. TTCs had better professional qualifications. The educational and professional qualifications of the tutors of BOU were better than those of the govt. TTCs. None of the groups differed significantly in their in-service training status.

The principals of the private TTCs possessed better professional qualification than their counterpart, i.e., B.Ed. course coordinators of the TCs/BOU. The tutors of BOU were in better position in terms of educational and professional qualifications than their counterpart of the private TTCs. Both the coordinators and the tutors of the TCs/BOU got more training opportunities.

Regarding opinions about the various input and the process variables, the govt. TTCs were found to have more infrastructural facilities than the private TTCs. They were also in better position in the areas of teaching practice; co-curricular activities; and admission procedure. The respondents of the private TTCs valued more the B.Ed. curriculum; class duration and teacher student ratio of their institutions.

The comparison between the govt. TTCs and TCs/BOU indicates better infrastructural facilities and student support services of the govt. TTCs. They also had better TP; co-curricular activities; academic environment and professionalism of the faculty. The BOU respondents were more satisfied about program duration.

Between the pvt TTCs and TCs/BOU, teaching practice; co-curricular activities; evaluation procedure; admission procedure; class duration; students support service; aids and materials; etc. of the private TTC B.Ed. were opined in better way.

The performance of the graduates of the govt. TTCs and BOU differed significantly only in use of life oriented examples, where the govt. TTC graduates did better. The performance of the pvt TTC graduates were significantly lower than that of the BOU graduates in three vital areas of classroom teaching-learning process, namely management; planning lesson; and presentation. The govt. TTC graduates showed better performance in couple of areas, namely classroom management; planning lessons; use of life oriented examples; summarization of lesson; and evaluation procedure than those of the private TTC graduates.

The respondents of the govt. TTCs and BOU did not show any significant difference in their attitude. Between the govt. and the private TTCs, the teacher educators of the private TTCs were found to express significantly higher attitude. They also attached higher attitude than the tutors of BOU regarding the quality of their B.Ed.

In fine it may be noted that the respondents, particularly those who had no overseas exposure and little training experience, rated different variables comparing those with their perceived standard. As they had no overseas experience and limited domestic training exposure, many of them might not had ideas of better standard teacher education program, which were available elsewhere. This was perhaps one of the reasons for rating different input, process and output variables by them with higher perception and opinion.

Chapter 7

MAJOR FINDINGS AND RECOMMENDATIONS

This chapter summarizes the study, presents major findings, draws conclusions and proposes some recommendations for quality improvement of the secondary teacher education programs of National University and Bangladesh Open University.

7.1 Summary of the Study

The study attempted to evaluate the quality of secondary teacher education programs, i.e., B.Ed. offered by NU and BOU following systems approach. Specifically it sought to achieve the following research objectives.

1. To assess the effectiveness of the input variables of the existing secondary teacher education programs of Bangladesh offered by National University and Bangladesh Open University.
2. To assess the effectiveness of the process variables of the said secondary teacher education programs.
3. To assess the effectiveness of the secondary teacher education programs in terms of output and outcome variables.
4. To compare the quality of the teacher education programs offered by different institutions in terms of the identified input, process and output variables;
5. To identify specifically the strengths and the constraints against qualitative teacher education programs implementation; and
6. To suggest remedial measures for overall quality improvement of the secondary teacher education programs of Bangladesh.

The study was a descriptive survey in nature. It used both qualitative and quantitative approaches of research design to determine the quality of different input, process and output factors responsible for quality implementation of the B.Ed. programs.

The study was conducted in 18 teacher education institutions (6 govt., 6 private and 6 TCs of BOU). The sample constituted of 162 respondents. It included 72 B.Ed. graduates taking four from each of the institutions (24 from govt. TTCs, 24 from private TTCs and 24 from TCs of BOU), 72 teacher educators selected through the same

process and 18 program managers (six principals of the govt. TTCs, six principals of the private TTCs and six B.Ed. course coordinators of the TCs of BOU).

Data were gathered by means of three questionnaires, one classroom teaching observation checklist and two institutional information sheets. The questionnaires were developed for three categories of respondents- graduates, teacher educators/tutors and principals/course coordinators of the TTCs/TCs. They were developed based on the pre-defined input, process and output variables. The input variables included educational and professional qualifications as well as in-service training status of the faculty; B.Ed. curriculum; infrastructural facilities of the institutions; student support services; professionalism & scope of professional development; and instructional materials & aids. The process variables were: methods and techniques; teaching practice; co-curricular activities; evaluation process; academic environment; program duration; class duration; teacher-student ratio; and admission procedure. The output variables included B.Ed. final results (pass rates and class obtained); Teaching performance of the B.Ed. graduates; and attitude of the respondents towards quality of B.Ed. programs.

The teaching performance of the graduates was evaluated with the use of an observation checklist. The variables assessed under it were classroom environment; class management; use of teaching aids; planning lesson; presentation; participation of students; use of life oriented examples; use of chalkboard; summarization of lesson; and evaluation procedure.

The non-parametric statistical techniques- mean, percentage, SD and rank were used to present the data. ANNOVA and t test were run, under parametrical technique, to test the significance of differences in the responses of the respondents. Pearson's product moment correlation was used to determine the correlations between and among the variables and regression analysis to identify the predictors of the dependent variables.

7.2 Findings on the B.Ed. Program of the Govt. TTCs

7.2.1 Findings on the Input Variables

1. About 83% of the principals had master degree. Only one (17.67%) earned Ph.D. All the teacher educators had master degree and none pursued any higher degree.
2. Little more than 80% of the principals and teacher educators had professional education and the rest 20% had not such background.

3. All the principals received in-country in-service training. A half of them attended overseas training. Four out of five teacher educators got in-service training held in the country and 29% attended overseas training. The areas of their training were numerous, varied and teaching profession related.

On average the respondents of the govt. TTCs -

4. Ventilated negative opinion (2.99) about the quality of NU B.Ed. curriculum. The positive aspects they found were that the curriculum gave them some theoretical concepts and ideas about child psychology; teaching learning methods and techniques; evaluation process; teaching practice; co-curricular activities; etc., which helped the students to become confident in teaching. The identified weaknesses were traditional, theoretical and rote memorization based curriculum; not well sequenced; teacher centric; non-use of participatory teaching-learning process; non reflection of contemporary issues; lack of practical aspects and ICT; lack of scope to participate in social activities; etc.
5. Exhibited positive opinion (3.82) about the infrastructural facilities. According to them the TTCs had huge physical structure with required building; classroom; furniture; hall room; laboratory; library; good toilet; hostel; open space; playground; mosque; connecting road; wall; etc. The weaknesses were that some TTCs had no auditorium and playground. Besides, the size of the classrooms and the furniture were inadequate and non-supportive to conduct participatory teaching-learning. There was also absence of computer laboratory.
6. Revealed negative opinion (2.60) about the student support services provided to the B.Ed. students. The strengths were: library with adequate books; laboratory with some apparatus; common room for use of female students; hostel and dining facilities; etc. The areas of dissatisfaction were: students were not provided with academic calendar in time; lack of modern library and laboratory facilities; inadequate and unsuitable time and improper seating arrangements for library use; absence of latest books, references, journals, reports, etc. in the library; absence of audio-visual, computer, IT and internet facilities; lack of scope of telephonic contact between the teacher educators and students; and absence of counseling cell to provide students academic guidance and counseling.
7. Perceived positively (3.57) about professionalism and scope of professional development. The positive aspects indicate that the teacher educators were

punctual; dedicated; knowledgeable and skilled; conscious about proper use of time; etc. The reported concerns were lack of opportunities of higher education and training for professional development of the faculty; absence of staff development program in the TTCs; and limited scope for career ladder. Besides, there were absence of seminar room; academic journal; research practice; technological facilities like computer; internet; IT; etc. essential for professional development of the teacher educators. One important weakness was that those who received training did not disseminate the new knowledge and skills to the colleagues, which could be a great help to improve them professionally. Also those were not implemented properly in the B.Ed. program delivery of the TTCs.

8. Opined negatively (2.59) about availability of instructional aids and materials and their use. According to them the TTCs had stock of some aids and materials; lab apparatus; etc. But, those were inadequate; old fashioned; and traditional. The TTCs had not adequate fund to buy them as per need and suffered from absence of proper storage facilities. The teacher educators had lack of motivation to prepare or collect them personally. Besides, the TTCs had strong scarcity of educational technologies and ICT facilities to use in the teaching-learning process as well as sports and game materials.
9. Expressed positive opinions in two out of three input variables.
10. Ventilated the highest opinion about infrastructure and the lowest was about instructional aids and materials.
11. Revealed average opinion (3.06) about the overall quality of the input variables.

7.2.2 Findings on the Process Variables

12. Expressed negative opinion (2.54) about the teaching-learning methods and techniques, followed in the Govt. TTCs. According to the respondents the teacher educators were knowledgeable and some of them got training on participatory teaching-learning process. The goals and objectives of the lessons were described clearly. Lessons were presented in organized way and complex ideas were explained to the students. But, still traditional and teacher centric lecture method was in place. Resultantly, students lacked active participation in teaching-learning process. There was no use of modern technology and ICT in the

teaching-learning process. Also there was shortcomings in use of required and varied teaching aids and materials.

13. Opined positively (3.79) about teaching practice. According to the respondents the strengths were: systematic, timely and efficient management of teaching practice with full utilization of the allocated time. Providing required demonstration lesson and good supervision with giving required feedbacks were some other salient positive features. The concerns were late start of TP; unsuitable time and inadequate marks for it; unwillingness of school especially good performed schools to give required time and good class for TP. The lesson plan taught to the students was unsuitable to apply in real classroom situation.
14. Revealed positive opinion (3.55) regarding co-curricular activities. The co-curricular activities conducted in the govt. TTCs were identified as regular; varied; creative; systematic; thought provoking; and adequate. The TTC authorities had required capacity in providing support for its implementation. The only weakness was that students had not adequate opportunity to participate in physical activities. The overemphasis to co-curricular activities by the students sometimes created impediments in implementing the main curricular activities.
15. Perceived positively (3.26) the evaluation process followed in the govt. TTCs. Accordingly, the evaluation system was a good combination of internal and external assessment. Timely holding of examination; objective assessment; etc. were some other stated strengths. The weaknesses identified were: the evaluation procedure was unable to assess students' holistic development (knowledge, attitude and skills) and had lack of scope for proper formative assessment. Other lacking were late result; inappropriate mark distribution between internal and external examinations; absence of creative and thought provoking assignment; not checking the assignment properly; not providing feedback; and not returning them to the students back in proper time; etc.
16. Viewed the academic environment of the TTCs positively (3.83). The strengths were: regular class; no session jam; timely completion; well educated and well trained teacher educators; good relation between the teacher educators and the students; regular staff meeting on academic issues; strict following of academic rules and regulations; etc. The weaknesses identified were absence of regular academic supervision by the principals; scarcity of teacher educators in some

subjects; posting of some teachers without professional background in teacher education; faculty's lack of knowledge and skill in action research; inadequate support staff in the laboratory; absence of external supervision; etc.

17. Expressed negative opinion (2.76) about program duration of the B.Ed. As quoted by the respondents, the existing B.Ed. syllabus was difficult to complete within the stipulated 10 months time. No strength was identified in this regard.
18. Held negative opinion (2.50) regarding class duration. According to the respondents, the existing class duration was not conducive to conduct participatory teaching and learning. As a result lecture method was mainly followed and individual attention could not be paid.
19. Opined negatively (2.38) the teacher student ratio. It was perceived as a barrier to participatory teaching-learning and in paying individual attention.
20. Attached positive opinion (3.60) about the admission procedure of the govt. TTCs. It helped the TTCs to get admitted students of good caliber. No weakness was identified in this regard.
21. Expressed positive opinions in five process variables. On average, the highest opinion was about academic environment and the lowest in teacher-student ratio.
22. Showed positive opinion (3.13) about the overall quality of the process variables.

7.2.3 Findings on the Output Variables

23. The pass rates in the B.Ed. final examinations moved from 71% to 80% during the study period from 2000 to 2005.
24. On average 20% students got first class during 2000 to 2005. The female students, on average, got little more first class than their counterpart.
25. The performances of the B.Ed. graduates were satisfactory in classroom environment; class management; presentation; use of chalkboard; summarization of lesson and evaluation process. They performed unsatisfactorily in planning lessons; participation of students; use of life oriented examples; and use of teaching aids.
26. The graduates had the highest performance (4.45) in use of chalkboard and the lowest (1.13) in participation of students.
27. The overall teaching performance (3.47) of the B.Ed. graduates was satisfactory.

28. On average, the respondents had positive attitude (3.46) about the quality of the B.Ed. program offered by the govt. TTCs.
29. Majority of the input variables had positive correlations with the graduates' performance and attitude. Student support services had moderate correlation with performance and instructional aids and materials had it with attitude. Others had low to negligible correlations with them.
30. Almost all the process variables had low to negligible positive correlations with the graduates' performance. Methods and techniques, co-curricular activities and evaluation procedure had moderate relationships with their attitude, while the relationships were low to negligible in case of other variables.
31. The input variables had in total 49% prediction on graduates' performance and it was 68% on attitude. Student support services had the highest prediction (31%) on performance, while instructional aids and materials had it on attitude (30%).
32. The combined impact of the process variables on graduates' performance was 40.50%. The impact on attitude was 58%. Academic environment had the highest effect (15%) on performance and evaluation procedure had it (31%) on attitude.
33. On average, the input and the process variables had more impact on attitude of the respondents than their performance.
34. Between the input and process variables, the combined impact of the input variables was higher on graduates' performance and in formation of their attitude.
35. Student support services; professionalism and scope of professional development; instructional aids and material; methods and techniques; co-curricular activities; teaching practice; academic environment; educational qualifications; curriculum; etc. had good impact on govt. TTC graduates' performance and attitude.

7.3 Findings on the B.Ed. Program of the Private TTCs

7.3.1 Findings on the Input Variables

1. All the principals had master degree. The percentage was 93.75 for the teacher educators. In other word 6% of the private TTC teacher educators were simply bachelor degree holder. None had higher education beyond master.
2. All the principals and 94% of the teacher educators had professional background.

3. A half of the principals and around 30% of the teacher educators attended in-country training in scanty areas, which were not much varied. None of the principals and teacher educators got overseas training.

On average the respondents -

4. Opined positively (3.15) the B.Ed. curriculum of NU. In their view the strengths and the weaknesses were similar to those of the govt. TTCs.
5. Ventilated positive opinion (3.34) about the existing infra-structural facilities of the private TTCs. According to them the TTCs had required housing facilities; classrooms; black boards, libraries; laboratories; toilets and pure drinking water facilities although the researcher found, during the data collection, them to exist inadequately. The respondents mentioned some significant weaknesses like- rented house without required number of room, space and proper air and ventilation; absence of common room for female students; absence of required hall room, playground, open space, office room, staff room, campus, etc.
6. Expressed negative opinion (2.39) about student support services. According to the respondents there was sheer lacking of student support services alike the govt. TTCs. One lacking especially related to the private TTCs was that the students were not awarded any scholarship or given any stipend as the govt. TTC students received although both were under academic control of NU. Providing library facility and academic guidance and counseling to the students were few quoted strengths of the B.Ed. program of the private TTCs.
7. Gave positive view (3.41) about the professionalism of the teacher educators and scope of their professional development. The identified strengths were: the teacher educators were helpful; punctual and careful in discharging their duties. One of the important weaknesses was part time status of the teacher educators and for that they suffered from lack of professionalism. They also had lack of professional development opportunities, like in-service training, both in-country and overseas, and no scope of carrier ladder. Besides, there was no computer and internet facilities; journal and academic magazine; etc. to escalate the professional capabilities of the teachers and teacher trainees. Resultantly, they lag behind modern concepts and ideas about teacher education and required motivation to render their services properly.

8. Expressed negative opinion (2.30) about instructional aids and materials and their use. As per the findings, the private TTCs had some simple low cost aids and materials and few of the teacher educators made use of them. The weaknesses were asymmetrical to those identified by the govt. TTC respondents. Additionally they opined that the TEs lacked skills in proper use of aids and materials.
9. Expressed negative opinion in two out of five input variables.
10. Expressed the highest opinion about professionalism and scope of professional development and the lowest in instructional aids and materials.
11. Attached negative opinion (2.92) about the overall quality of input variables.

7.3.2 Findings on the Process Variables

12. Revealed negative opinion (2.86) about methods and techniques used in B.Ed. curriculum delivery of the private TTCs. The strengths and the weaknesses as identified were asymmetrical to those of the govt. TTCs. They further reported that teacher educators delivered lesson without having required preparation.
13. Attached positive opinion (3.66) about the teaching practice. The problems and positive aspects they indicated were similar to those of the govt. TTCs. The respondents further noted that the teaching practice was not conducted in desirable manner; students did not attend teaching practice regularly; and were not motivated to perform them in actual form. Another significant problem was non-existence of any laboratory school of the private TTCs, which impeded implementation of teaching practice to some extent.
14. Ventilated negative opinion (2.91) about the co-curricular activities. The co-curricular activities were conducted there scantily and remained limited to publication of wall magazines and in some cases debate. The scheduled time for co-curricular activities was scarce and had absence of creative and thought provoking activities. They were also not conducted in organized way. Consequently, students failed to achieve practical skills in conducting them.
15. Opined positively (3.15) about the overall quality of evaluation procedure. The respondents observed almost the same weaknesses as did by the govt. TTC respondents. Also they explored some strengths like them. Additionally, the system of cross checking of internal evaluation score with external examination score and the rescoring process, in case of 20% variations between the two, was

appreciated by the respondents and according to them it helped to stop manipulation, to some extent, in the internal assessment.

16. Perceived positively (3.54) the academic environment of the private TTCs. As mentioned by the respondents there exist rapport and good academic relation between the teacher educators and the students. The principals were supportive to the teacher educators and there held regular staff meeting. The weaknesses were similar to those of the govt. TTCs. They further identified financial insolvency to provide required supports for creating good academic environment in the private TTCs. Inadequate and small sized classrooms; irregular attendance; lack of communication between the teacher educators and students due to absenteeism; absence of required laboratory and library facilities were some other problems against creating good academic environment in the private TTCs.
17. Exhibited negative view (2.64) about the length of B.Ed. program. The problem was that the curriculum content could not be delivered properly due to short program duration. Despite some took it positively opining that the working students could pursue B.Ed. degree easily due to short program duration. They also found the duration as cost effective.
18. Had average opinion (3.08) about the class duration. According to the respondents due to short class period working students could manage their work and study together and the school did not suffer much from teacher's absence in the school and as such it was termed by them as cost effective.
19. Expressed negative opinion (2.97) about teacher-student ratio. The classroom activities could not be conducted with desired norms and practice due to large class size. Individual attention was also not possible to pay.
20. The respondents expressed positive opinion (3.36) about the admission procedure. To them non-existence of any admission test in the private TTCs opened the door for all willing candidates to be admitted. Some opined due to absence of admission test good students could not be screened.
21. Expressed positive opinions in five process variables out of nine.
22. Revealed positive opinion (3.11) about the overall quality of process variables.

7.3.3 Findings on the Output Variables

23. The pass rate of the private TTCs in the B.Ed. final examinations moved between 63.14% - 77.09% during the period 2000 - 2005.

24. On average one-fifth of the total graduates received first class.
25. Female students did better results in the B.Ed. final examinations. On average, about 27% of them got first class in against of 16% male students.
26. The B.Ed. graduates' classroom teaching performance was satisfactory in merely two area- classroom environment and use of chalkboard. Their performance was just average in presentation and unsatisfactory in five areas- management; planning lesson; participation of students; use of life oriented examples; use of teaching aids; summarization and evaluation procedure. They had the lowest performance in participation of students and the highest in use of chalkboard.
27. The total performance (3.09) of the B.Ed. graduates was almost equal to the criterion mean i.e. average.
28. The respondents, on average, expressed positive attitude (3.56) about the quality of the B.Ed. offered by the private TTCs.
29. Almost all the input and process variables had negative correlations with the performance of the graduates. Relationships of majority of the variables with attitude were also negative. Only infrastructure had moderate while others had low and negligible relations with performance. In case of attitude, professionalism and instructional aids and materials had moderate and the others had low to negligible correlation with it.
30. The input variables had in total 50% prediction on graduates' performance and the impact was 49% on attitude. Infrastructure had the highest prediction (21.2%) on performance while professionalism had the highest impact (29.8%) on attitude.
31. Majority of the process variables developed negative correlations with the graduates' performance. On the contrary, almost all the process variables had positive correlations with attitude.
32. The total prediction of the process variables on graduates' performance was 40% and on attitude 47%. Teaching practice had the highest prediction (8.3%) on performance and academic environment had it (17%) on attitude.
33. The combined impact of the input variables on performance and attitude were higher than that of the process variables.
34. Student support services; professionalism and scope of professional development; infrastructure; aids and material; teaching practice; teacher-student ratio;

professional qualification; curriculum; etc. had good impact on the private TTC graduates' performance and respondents' attitude.

7.4 Findings on the B.Ed. Program of BOU

7.4.1 Findings on the Input Variables

1. All the B.Ed. course coordinators and the tutors of the TCs of BOU had master level of education. Few of the tutors had M.Phil. (3.13%) and Ph.D. (1.04%).
2. Three-fourths of the course coordinators had no professional degree like B.Ed. and M.Ed., but all the tutors possessed it.
3. All the course coordinators received in-service training in the country in varied areas. A half of them got overseas training. About three-fourths of the tutors attended in-country training and one-fourth received overseas training.
4. A few (3.13%) of the tutors got in-service training in open and distance learning (ODL) and no course coordinators received such training.

On average the respondents:

5. Expressed negative opinion (2.88) about distance B.Ed. curriculum. According to the respondents although the curriculum provided some theoretical bases about pedagogical issues, however, it was old; traditional; theoretical; and full of repetition. It ignored the contemporary issues and was too lengthy. Besides, it lacked in co-curricular activities; school level practice teaching; compatibility with school curriculum.
6. Viewed positively (3.35) the existing infra-structural facilities of the tutorial centers. The TCs had good infrastructural facilities in terms of classroom; open space; playground; size campus; etc. But, there was absence of separate common room and toilet facilities for female students. Students had no canteen facilities and the tutors had no sitting arrangement on tutorial day.
7. Opined negatively (2.01) about the students support services provided to distance B.Ed. students. The most reported problem was late receipt of the course materials. Others were absence of library and laboratory facilities; absence of journal, magazines, audio-video facilities; ICT; technology; and counseling and guidance facilities in the TCs. Absence of adequate, appropriate and relevant media (radio and television) program was another significant problem. Information gap of the TCs with concern RRCs and SoE regarding deadlines of

registration and submission of examination fees as well as late and erroneous result were some other problems. Still the program had some positive aspects like flexibility in time of completion; system of taking re-examination only in the subject(s) of failure; airing of radio and TV program to support students' self learning, which were identified as great supports for the distance B.Ed. students.

8. Expressed positive view (3.27) regarding professionalism and scope of professional development. The positive aspects were- the tutors were sincere; punctual; highly educated; dedicated; had mastery of their subjects of teaching; and were cordial to the learners. The challenges were similar to those of the govt. TTC respondents. One significant problem was that the tutors and the TC coordinators lacked in knowledge and skills of distance teaching-learning process and BOU did not organize any training/orientation program for them.
9. Ventilated negative opinion (2.15) about availability and use of teaching aids and materials. BOU never provided any aids and materials, except chalk and duster, for use in the tutorial service delivery. The tutors also never collected them on their own and never made their use.
10. Expressed positive opinion about two out of five input variables.
11. Revealed the highest opinion about infrastructure and the lowest in student support services.
12. Opined negatively (2.73) about overall quality of the input variables.

7.4.2 Findings on the Process Variables

13. Expressed negative view (2.75) regarding methods and techniques used in the delivery of tutorial class. The most reported weakness was that the tutorial sessions were conducted following the instructional strategies of face to face mode of teaching, which was not an ideal practice for distance learning.
14. Revealed negative opinion (2.83) about teaching practice. The reported weaknesses were: insufficient time allocation for teaching practice; irrelevancy of the teaching practice with real situation; no scope to perform teaching practice in real school situation; lack of required demonstration lesson; inadequate time allocation; attaching less importance; absence of provision to supervise teaching practice in schools; etc. Still the respondents mentioned a number of strengths like systematic, timely and regular implementation of TP sessions; giving

required demonstration lesson; and provide hand on experience on lesson plan preparation; etc.

15. Opined negatively (2.26) about co-curricular activities. One significantly observed weakness was that the distance B.Ed. curriculum did not include practice of any co-curricular activity and the tutorial routine spared no time for it. Resultantly, the distance B.Ed. students graduated without having any practical experience in real school situation.
16. Attached negative opinion (2.62) about the evaluation process. The concerns identified were similar to those identified by the TTC respondents. One prime problem of BOU was faulty result sheet, which made the students to suffer a lot. The centralized system of collecting testimonials, certificate, etc. was a great bothering for the students resided in distant places and they termed it against the concept of distance education. Timely holding of semester final examination; objective assessment of student' achievements; good pattern of questions for examination; etc. were mentioned as the strengths of the distance B.Ed. program.
17. Perceived positively (3.58) the academic environment of the TCs. Well educated and experienced force of tutors; regular holding of tutorial class; responsible discharge of the roles and responsibilities of the tutors; strict maintenance of academic rules and regulation; etc. played conducive role in creating such favorable environment there. The observed barriers were non supervision of the tutorial class by the course coordinators; lack of coordination and meeting between the tutors and TC coordinators and concern BOU authority; absence of laboratory and library facilities; lack of teaching aids and materials; etc.
18. Expressed positive opinion (3.71) about the distance B.Ed. program duration and no problem was identified in this regard. The two years program duration was found adequate to complete the curriculum smoothly, which helped the working students to manage well their job, study and family responsibility together.
19. Ventilated negative opinion (2.88) about the tutorial class duration. According to the finding, the length of tutorial class was inadequate to complete the full B.Ed syllabus of different semesters.
20. Demonstrated negative opinion (2.80) about tutor-student ratio. Good tutorial class management; required discussion and individual attention became difficult due to high teacher-student ratio.

21. Expressed positive opinion (3.13) about admission procedure, but reported of a monotonous and cumbersome admission process.
22. Showed negative opinion (2.73) about overall quality of the process variables.

7.4.3 Findings on the Output Variables

23. The pass rates in the distance B.Ed. final examinations were always low and moved between 20.84% to 69.85% during 2000 - 2005.
24. The number of students who got first class was very few in the distance B.Ed. of BOU. In year 2001 only three (0.13%) got it and in years 2000, 2002 and 2003 none of the distance B.Ed. students received first class.
25. The distance B.Ed. graduates showed satisfactory performance in five observed areas of the classroom teaching. They were: classroom environment; management; presentation; use of chalkboard; and summarization of lesson. Their performances were unsatisfactory in the areas of planning lesson; participation of students; use of life oriented examples; use of teaching aids; and evaluation procedure. They had the highest performance in use of chalkboard and the lowest in participation of students.
26. On average the respondents expressed positive attitude (3.19) towards the quality of distance B.Ed. program.
27. All the input and process variables had low to negligible correlations with the graduates' performance. Curriculum and professionalism had moderate relationships with attitude, while other had low to negligible relations with it.
28. The input variables had in total 23% prediction on graduates' performance and the impact was 28% for process variables. Curriculum and teacher-student ratio had the highest and almost same prediction (15.1%) on the graduates' performance.
29. Input variables created 44% influences on the graduates' attitude. The impact of process variables on attitude was 55%. Admission procedure exerted the most influence (40%) on attitude.
30. The process variables created more impact on the graduates' performance and attitude than the input variables.
31. Curriculum; teacher-student ratio; program duration, educational qualification; student support services; professionalism; aids and materials; teaching practice;

co-curricular activities; evaluation procedure; etc. had good impact on respondents attitude and performance.

7.5 Findings on Comparison of the Institutions

7.5.1 Govt. TTCs and Private TTCs

1. There were no significant difference between the educational and professional qualifications of the principals of the govt. and the private TTCs.
2. The teacher educators of the govt. TTCs had significantly higher educational qualifications, but the private TTC TEs had better professional qualifications.
3. The principals differed significantly in the area of in-service, both in-country and overseas, training and the principals of the govt. TTCs were in better position. The govt. TTC teacher educators also got more in-service training.
4. The graduates of the govt. TTC expressed significantly higher opinions in the areas of infra-structure, teaching practice, co-curricular activities; and admission procedure. The private TTC graduates showed significantly higher opinion only about teacher student ratio. In other areas they had no significant difference.
5. Significantly higher opinion was expressed by the teacher educators of the govt. TTCs only in teaching practice. The private TTC teacher educators had higher opinions in two areas, namely teacher students ratio and admission procedure.
6. The principals of the govt. TTCs were found to have significantly higher opinions about infrastructural facilities; co-curricular activity; evaluation procedure; academic environment and teacher-student ratio. The private TTC principals showed significantly higher opinion in the variable of program duration.
7. The overall mean opinion scores (3.13) of the govt. TTC respondents was higher than that (3.05) of the private TTCs, which was just average.
8. In both the types of institutions, the mean opinion scores of the process variables were higher than those of the input variables. The govt. TTC respondents expressed higher opinions in both the input and process variables.
9. The govt. TTC graduates had little higher pass rates, in the B.Ed. final examinations of the sampled academic years, than the graduates of the private TTCs. However, the percentages of first class receivers were almost same (20%) for both types of TTCs.

10. The B.Ed. graduates of the govt. TTCs performed significantly better in half of the observed areas of their classroom teaching. They were classroom management, planning lesson; use of life oriented examples; summarization of the lesson; and evaluation procedure. The private TTC graduates failed to show significantly better performance in any of the observed areas.
11. The overall teaching performance of the govt. TTC graduates (3.47) was much higher than that of the private TTC graduates, which was average (3.09).
12. The private TTC respondents expressed higher attitude about the quality of their B.Ed. program, but not proved statistically significant.
13. In the govt. TTCs majority of the input and process variables had positive correlations with the performance and attitude of the respondents. The situation was reverse in the private TTCs, i.e., negative relationships existed in majority of the cases.
14. The combined predictions of the input variables on the govt. and private TTC graduates' performances were almost same.
15. The combined impacts of the input variables on the performances and attitudes of the graduates were higher than those of the process variables in both the TTCs.
16. In both the TTCs, the total effects of input and process variables were higher on attitude than the performance of the graduates.

7.5.2 Government TTCs and TCs/BOU

17. The govt. TTC principals achieved significantly higher professional qualification than the coordinators of the TCs of BOU. The tutors of BOU acquired significantly better educational and professional qualifications than the teacher educators of the govt. TTCs.
18. None of the groups of principals/coordinators and tutors/teacher educators differed significantly in the area of in-service training.
19. The govt. TTC graduates exhibited significantly higher opinions in infra-structural facilities; student support services; professionalism and scope of professional development; teaching practice; co-curricular activity; and evaluation and admission procedures. The BOU graduates showed better opinion about teacher-student ratio.

20. Teacher educators of the govt. TTCs exhibited significantly higher opinions about instructional aids and materials; student support services; teaching practice; and co-curricular activities. The tutors had more favorable opinions about program and tutorial class durations.
21. The opinions of the TTC principals were significantly higher in infrastructure; student support services; teaching practice; co-curricular activity; academic environment; teacher student ratio; and admission procedure. The course-coordinators of BOU had better opinions about program and tutorial class durations.
22. The govt. TTC graduates had much higher pass rates than that of the graduates of BOU. The percentage of graduates, who received first class, was also much higher in the govt. TTCs.
23. The overall opinion (3.13) about the quality of the B.Ed. was higher for the govt. TTCs than that of BOU (2.87).
24. The govt. TTC respondents expressed positive opinion regarding both input and process variables while the responses were negative in both cases of TCs/BOU.
25. The govt. TTC B.Ed. graduates performed significantly better in use of life oriented examples. The other areas of performance of the graduates did not differ significantly between the govt. TTCs and BOU.
26. The overall teaching performance (3.47) of the govt. TTC graduates was almost same to that (3.42) of the private TTC graduates.
27. The respondents of the govt. TTCs and BOU did not differ significantly in their attitude about the quality of the concerned B.Ed. programs.
28. The combined predictions of both the input and process variables on the performance and attitude were higher in the govt. TTCs than those of the TCs/BOU, where process variables had stronger prediction on both the aspects.

7.5.3 Private TTCs and TCs/BOU

29. The course coordinators of the TCs attained significantly lower professional education than the principals of the private TTCs.
30. The tutors of BOU also received more in-service training than the teacher educators of the pvt. TTCs without any differential in educational qualification.

31. The graduates of the private TTCs showed significantly higher opinions in teaching practice and evaluation procedure. The graduates of the BOU did not exhibit higher opinion in any of the input and process variables.
32. The teacher educators of the private TTCs scored significantly higher opinions in curriculum; teaching aids and materials; student support services; teaching practice; co-curricular activity; and evaluation procedure. It was done by the BOU tutors only in program duration.
33. Student support services; teaching practice; co-curricular activity; evaluation procedure; class duration and admission procedure were the areas where the private TTC principals revealed significantly higher opinions. The course coordinators of distance B.Ed. did it only about program duration.
34. The overall opinion of the pvt. TTC respondents regarding the quality of their B.Ed. was average (3.05), but higher than that of the respondents of BOU, which was in fact unsatisfactory (2.87).
35. The overall opinion scores of the respondents of BOU (2.73) and the private TTCs (2.92) regarding the input variables were negative and lower than the mean opinion scores about process variables.
36. The private TTC respondents, on average, expressed positive opinion in process variable and negative about input variable. The BOU respondents had negative opinions in both input and process variables.
37. The pass rates of the private TTC graduates in the B.Ed. final examination was much higher than the pass rates of BOU B.Ed. The percentage of first class was also much higher than that of BOU.
38. The graduates of the TCs/BOU showed significantly better performance in the areas of management; planning lesson; and presentation. The private TTC graduates failed to perform better in any of the areas of investigation on the status of graduates' classroom teaching performance.
39. The overall teaching performance (3.42) of the graduates of BOU was higher than the performance (3.09) of private TTCs which was almost average.
40. The private TTC teacher educators attained significantly higher attitude (3.56) than the tutors of the TCs (3.19) regarding the quality of the B.Ed. offered by their institutions.

41. The finding of multiple regression analysis was as same as to that of the comparison between the govt. TTCs and TCs of BOU.

7.6 Conclusions

From the findings of this study the following conclusions may be drawn:

7.6.1 About Government TTC B.Ed. Program

1. Absolute majority of the principals and all the teacher educators had master level of education.
2. Significant percentages, about 20%, of the principals and the teacher educators had no professional education background.
3. All the principals and four-fifths of the teacher educators received in-country training. A half of the principals and nearly one-third teacher educators got overseas training. The areas of their training were varied related to their profession.
4. Two aspects of the input variables- infrastructural facilities and professionalism and scope of professional development were found effective. Quality of curriculum; student support services; and instructional aids and materials were not up to the mark.
5. Five process variables out of nine, teaching practice; co-curricular activities; evaluation procedure; academic environment; and admission procedure were found supportive in conducting the B.Ed. with quality. Program duration; class duration as well as teacher student ratio had negative impact on it.
6. The govt. TTC B.Ed. was effective in terms of both input and process variables.
7. The overall quality of the B.Ed. was at acceptable level without sex differential. Still there remains much need to improve the quality of B.Ed. as the mean opinion score was close to the criterion mean.
8. Among all the variables academic environment ranked number one followed by teaching practice. The teacher student ratio was the weakest area followed by class duration.
9. Out of 14 variables of the opinion scale a half were opined positively. This finding demands further improvement of the weak areas for running a B.Ed. with due quality.

10. Almost all the input and process variables, irrespective of positive or negative status, were characterized with some positive aspect as well as some limitations.
11. The overall pass rate of the govt. TTCs in the B.Ed. final examination was good.
12. The percentage of first class receivers was also good without sex difference.
13. The B.Ed. program of the govt. TTCs was able to develop teaching competencies of their graduates in majority of the areas of teaching-learning process. Still there is all need to develop their efficiency and motivation in planning lesson; use of teaching aids; increase students' participation; and use of life oriented examples.
14. Their overall teaching performance of the B.Ed. graduates was satisfactory, without any sex differential, but not that much high and as such needs further improvement.
15. The respondents developed positive attitude about overall quality of the B.Ed.
16. Absolute majority of the input and process variables were positively correlated with the graduates' performance and attitude, but the relationship was not much strong. Comparatively attitude had stronger correlations with the input and process variables.
17. The input variables had more impact on the performance and attitude of the respondents.
18. Student support services; professionalism and scope of professional development; instructional aids and material methods and techniques; co-curricular activities teaching practice; academic environment; educational qualifications; curriculum; etc. were the major variables to effect the quality of the teacher education program offered by the govt. TTCs.

7.6.2 About Private TTC B.Ed. Program

1. All the principals and overwhelming majority of the teacher educators had master degree. Few of the teacher educators (6%) had bachelor level of education. None had any higher education beyond master.
2. All the principals and absolute majority of the teacher educators (96%) attained professional degree.
3. Half of the principals and two-thirds teacher educators received no in-service training in the country. None of them got overseas training. The areas of their training were neither varied nor much related to their profession.

4. Curriculum; infrastructure and professionalism- these three input variables of the private TTC B.Ed. were perceived as effective. Student support services and instructional aids and materials were not in satisfactory condition.
5. Out of nine process variables four namely teaching practice; evaluation procedure; academic environment; and admission procedure were viewed as effective by the respondents, while class duration was opined averagely. The unfavorable aspects were methods and techniques; co-curricular activities; program duration; and teacher-student ratio.
6. The private TTC B.Ed. had low efficiency in terms of input variables and it was effective in case of process variables.
7. Teaching practice was the strongest area followed by academic environment. The weakest area was use of teaching aids and material followed by student support services.
8. Respondents showed positive opinion in eight variables and negative in six and thus the finding throws a need to improve the quality of the private TTC B.Ed. through improving the unsatisfactory areas.
9. The pass rate was little lower than that of the govt. TTCs. The number of first class receiver was good.
10. The private TTC B.Ed. could develop graduates' skills in only use of chalk board. It failed to develop teacher's competencies in overwhelming majority of the areas - classroom management; planning lesson; use of teaching aids; presentation; participation of students; use of life oriented examples; summarization and evaluation procedure.
11. The B.Ed. graduates had the highest performance in use of chalkboard and the lowest in participation of students.
12. The total performance of the graduates was just average without sex differential.
13. On average the respondents bore positive attitude about the quality of B.Ed.
14. Despite positive opinion in majority of the input and process variables the graduates performed below average in absolute majority areas of their teaching performance.
15. Absolute majority of the independent variables had negative correlations with performance and attitude of the graduates. The state of relationship with quite

majority of the variables was low. Attitude had higher correlations with the input and process variables.

16. Student support services; professionalism and scope of professional development; infrastructure; aids and material; teaching practice; teacher-student ratio; professional qualification; curriculum; etc. had good impact on the private TTC graduates' performance and respondents' attitude.

7.6.3 About BOU B.Ed. Program

1. All the TC coordinators obtained simply master degree. Absolute majority of the tutors had master degree and few had M.Phil. and Ph.D.
2. Three-fourths of the coordinators had no professional education. All the tutors had professional education background.
3. All the coordinators received in-service training of domestic type. A half got overseas training. Quite majority of the tutors received in-service training, both domestic and overseas. Contents of training were face to face training related.
4. A few (3.13%) of the tutors received training in open and distance learning, but none of the B.Ed. course coordinators of the TCs received such kind of training.
5. Two input variables- infrastructural facilities and professionalism and scope of professional development were proved to be effective.
6. Out of nine process variables two-thirds, namely methods and techniques; teaching practice; co-curricular activities; student support services; evaluation procedure; class duration and teacher student ratio were identified as unsatisfactory and needs to be strengthened for quality delivery of distance B.Ed. program.
7. Program duration was the strongest area followed by academic environment. The weakest area was student support services followed by teaching aids and materials.
8. Out of 14 input and process variables subjected to opinion scale, five were found effective and the rest nine were not up to the mark.
9. The overall qualities of input and process variables were not unsatisfactory.
10. The over all quality of distance B.Ed. was also not satisfactory.
11. The pass rates in the B.Ed. final examinations were low. The number of students received first class was unbelievably low and almost nil.

12. The graduates performed satisfactorily in majority of the areas of teaching.
12. The graduates showed the most satisfactory performance in use of chalkboard and it was the most unsatisfactory in participation of students.
13. The total performance of the distance B.Ed. graduates was satisfactory.
14. The attitude of the respondents was positive about the quality of distance B.Ed. The female students were more positive with significant difference.
15. Despite negative opinions about majority of the input and process variables the graduates' overall performance and performance in great majority of the observed areas were satisfactory.
16. The extent of correlations of the input and process variables with performance and attitude were comparatively lower than that of the govt. and private TTCs.
17. The process variables had more impact on the performance and attitude of the respondents than that of the input variables.
18. Curriculum; teacher-student ratio; program duration, educational qualification; student support services; professionalism; aids and materials; teaching practice; co-curricular activities; evaluation procedure; etc. had good impact on respondents attitude and performance.

7.6.4 On Comparison of the B.Ed. Programs of Different Institutions

1. The principals of the govt. and the private TTCs had similar level of educational and professional background. The coordinator of the TCs had lower professional education than the principals of the govt. and private TTCs.
2. The govt. TTC principals and the TC coordinators received more training, both domestic and overseas, than the private TTC principals.
3. The teacher educators of the govt. TTCs and the tutors of the TCs attained more educational qualifications than the private TTC teacher educators. The teacher educators of the private TTC and the tutors of the TCs obtained better professional qualifications than the teacher educators of the govt. TTCs.
4. The govt. TTC teacher educators and the tutors of the TCs received more domestic and overseas training than the TEs of the private TTCs. Their areas of training were more varied and profession related.
5. The quality of the govt. TTC B.Ed. was significantly better than the private TTC B.Ed. in terms of infra-structure; TP; co-curricular activities; admission

procedure; evaluation process and academic environment. It was better from the BOU's B Ed in the above areas except academic environment and additionally in the areas of student support services, professionalism and scope of professional development and instructional aids and materials. The BOU B.Ed. was more effective in terms of program duration.

6. The private TTC B.Ed. was more effective than the B.Ed. of BOU in the areas of curriculum; aids and materials; SSS; TP; co-curricular activities; evaluation procedure; class duration and admission procedure.
7. The performances of the govt. TTCs and BOU graduates were almost same. They did not differ significantly in any of the areas of performance. Their performances were better than the performance of the private TTC graduates.
8. The govt. TTC graduates did better in the areas of management; planning lessons; summarization of the lesson; and evaluation procedure than the private TTC graduates. The graduates of BOU showed better performance in management; planning lesson; and presentation. The pvt. TTC graduates failed to perform better than the govt. TTC and the BOU graduates in any of the areas of their performance.
9. The graduates of all the institutions performed the best in use of chalkboard and the lowest in participation of students, where all the graduate groups' performances were unsatisfactory.
10. The respondents of all the three institutions showed positive attitude about the quality of B.Ed. It was highest for the private TTC B.Ed. and the lowest about BOU B.Ed.
11. The female respondents of BOU expressed significantly higher opinion and attitude about distance B.Ed. program.
12. The pass rate of the govt. TTCs B.Ed. final exam was the highest. The private TTC pass rate was near to it, while it was the lowest in case of BOU B.Ed.
13. Almost similar percentages, one-fifth, of the graduates of the govt. and the private TTCs received first class in the B.Ed. final examination. It was extremely low and almost nil in BOU B.Ed.
14. There was no sex differential in the performances of the govt. and the private TTC graduates, but the BOU female students performed significantly higher.

15. The govt. TTC B.Ed. was the best in terms of the findings on input, process and output variables.
16. The B.Ed. of BOU was the weakest one in terms of input and process variables.
17. The private TTC B.Ed. was ineffective in terms of input variable, but effective in process variable.
18. Majority of the input and process variables were positively correlated with the performance and attitudes of the respondents of the govt. and private TTCs. In case of private TTCs the direction was negative in majority of the variables.
19. The prediction of the input and process variables were lower on the performance and attitude of the BOU respondents than those of the govt. and private TTCs.
20. In the TTCs, govt. and private, the combined impact of input variables was stronger, while in BOU process variable was found to have stronger impact.
21. All the teacher education institutions showed better efficiency in process variables than the input variables.
22. The combined impact of input variables was higher on attitude than performance in all the three types of institutions.

7.7 Implications and Recommendations

Based on the findings of this study, the following recommendations are made.

7.7.1 General Recommendations

1. In order to enhance the professional capabilities of the faculty of the teacher education institutions they should be offered opportunity to pursue higher education. For this the following steps could be taken: (1) the concern authorities like DSHE, MoE, NU should offer the faculty of the govt. and the pvt. TTCs scopes of higher education like MS, M.Phil. and Ph.D.; (2) the various development agencies, projects and programs in their education sector development plan should offer scope of higher education to potential and willing faculty of the TTCs and the TCs of BOU; (3) IER-Dhaka, IER-Rajshahi, BOU, NU should offer programs for the teacher educators and tutors to pursue higher education; (4) the faculty should be encouraged to pursue higher studies at personal level for which existing rule of higher study should be simplified; and finally (5) incentive, in the forms promotion and financially, should be given.

2. Professional education background is an imperative for the teacher educators. However, a significant portion of the faculty of the govt. TTCs, a few of the private TTCs and TCs had no professional background, which might have adverse impact on the quality of their B.Ed. To improve the situation (1) the existing rule of appointment and posting of teacher educators in the TTCs should be strictly followed; (2) those who were already posted/appointed without professional background should be withdrawn/terminated or should be offered scope to pursue B.Ed./M.Ed. immediately under institutional arrangement.
3. Recurrent in-service training or refresher course is a precondition for improving teacher's efficiency and sustain their acquired knowledge and skills, which has in turn great impact on quality of an education program. Although a significant number of the govt. TTC teacher educators and the tutors received a plethora of scopes of in-service training, however, still many had not had that opportunity and the pvt. TTC faculties were very much deprived in this regard. To eradicate the discrepancies (1) equal opportunity should be given to potential candidates irrespective of type of institution; (2) quota should be maintained for different institutions; (3) candidates should be selected through an objectively set criteria and process; (4) priority should be given to them who never had opportunity of training; and (5) institutions should adopt in-house staff development initiative.
4. The quality of curriculum greatly determines the quality of an education program. To improve the quality of secondary teacher education program B.Ed. curricula of both NU and BOU should be (1) renewed, modernized, updated, made participatory and relevant and declined content load; (2) included modern, contemporary, new and emerging ideas and (3) revised and revamped on regular basis to adjust with changing needs. Important to mention that under TQI-SEP a new national B.Ed. curriculum with above features has been implemented in all the govt. and the private TTCs since 2006 and by BOU from 2008. Measures should be taken by the concern institutions for their quality implementation.
5. Student support service is a prerequisite for delivery and receiving of a program satisfactorily and qualitatively. Unfortunately all the teacher education institutions were very poor in terms of students support services. To improve the services for the students of B.Ed. programs of different institutions should be provided with (1) adequate and updated books; journals; magazines; audio-visual

facilities; guidance and counseling services; etc. and (2) academic calendar at the commencement of the program to develop a clear mental setting of the students. One important finding regarding students support services was that all the teacher education institutions had almost no IT facilities for which the following should be done: (1) set up of computer laboratory in each of the TTCs and TCs; (2) provide internet and multimedia facilities; (3) establish a networking among the institutions to share idea about the services; and (4) pursue with development partners to extend their cooperation in providing IT and technological facilities.

6. All the faculties of the teacher education institutions should be provided with required opportunities for their professional development. For this they will have to be offered (1) on job promotion opportunity; (2) in-service training opportunity; (3) required facilities for professional development like IT facilities, seminar room, library with required journals, magazines, etc.; (4) organize in-house staff development program; and (5) develop a culture of sharing, dissemination and application of the new ideas and skills within and between the institutions.
7. To develop a culture of using teaching aids and materials the steps below should be taken: (1) the TTCs and the tutorial centers should be provided with required instructional aids and materials, especially which are difficult to prepare or collect individually, locally and institutionally; (2) encourage the teacher educator/tutors to prepare or collect and use them effectively; (3) provide required fund to the TTCs and the TCs by the relevant authority to purchase required aids and materials; (4) provide training to the faculties regarding preparation and proper use of teaching aids and finally (5) strict monitoring to ensure use of aids in the teaching-learning process by setting up a committee in each of the teacher education institutions.
8. The govt. TTCs although demonstrated good efficiency in regard to infra-structural facilities, the private TTCs and TCs were found to have some problems in this regard. To improve the overall situation the private TTC and BOU authorities should take immediate measures, like (1) provide required classrooms with adequate in size; (2) create required room for laboratory, library and staff rooms; (3) have own building for offering the B.Ed. with required space, air and

- ventilation; (4) provide separate toilet and common room facilities for female students; (5) take other required measures as per findings of this study.
9. Efficiency of a program delivery largely depends on teaching-learning methods and techniques used. The teacher education programs offered by all the institutions were found ineffective in terms of teaching-learning methods and techniques and were found dominated by lecture method. To make the teaching-learning process effective (1) it should be made participatory through use of varieties of participatory methods and techniques; (2) make sure use of required teaching aids, technologies and ICT in instructional delivery; (3) provide the faculty participatory mode of training on modern and student centric teaching-learning methods and techniques; and (4) make mandatory use of participatory teaching-learning methods and techniques in the curriculum delivery of teacher education institutions. This is to mention here that under TQI-SEP a major shift has taken place in the TTCs from lecture based teaching-learning process to a participatory teaching-learning process since 2006 and at BOU from October/2008. The TTC and BOU authorities should nurture it to give that an effective and durable shape.
 10. Teaching practice is the most important segment of B.Ed program. It helps to armor B.Ed students with required teaching competency. To improve the quality of it the teacher education institutions need (1) allocate more emphasis and time on TP; (2) give required preparation for it to the students; (3) increase the school internship period for TP; (4) strengthen the TP through frequent supervision and monitoring by the relevant personnel and authority, etc.
 11. Although the academic environment of all the three types of institutions was judged positively, however, unfortunately all were found to have severe lacking of supervision by both internal and external authorities. For further strengthening of the academic environment of the TTCs and the TCs their academic activities should be monitored and supervised regularly by (1) the principals of the TTCs and the coordinators of the TCs internally; (2) representatives of NU and BOU externally; and (3) setting up of a national body to oversee the academic activities of the institutions.
 12. Suitable program duration helps to offer a program effectively. The NU B.Ed. program duration was found not suitable to offer it with required quality. In

order to give the NU B.Ed. a quality shape the duration of the B.Ed. should be extended reasonably and it could be made minimum one and a half years to maximum two years.

13. Contact hour is important to deliver a lesson effectively and particularly to make lesson participatory and student centric. The class/tutorial durations of the B.Ed. programs of NU and BOU were found inadequate to conduct them efficiently. To improve the situation the contact hour of the TTCs and TCs should be extended. Under TQI-SEP contact hour in the TTCs has been doubled, but SoE/. BOU is yet to take any such initiative, which should be done immediately with due importance.
14. High teacher-student ratio is a barrier to effective teaching and learning. But the problems prevailed in the TTCs and TCs of BOU. To improve the teaching-learning situation in the TTCs and the TCs, the number of students should be restricted to 30-35 per section.
15. Students' active participation in teaching-learning process is the main thrust of modern education and vital for meaningful learning. Unfortunately all the graduate groups' performance were extremely low in this area. To improve the situation (1) student centric and participatory methods and techniques should be made use in B.Ed. curriculum delivery; (2) provide B.Ed. students opportunity to acquire hand on experience on it; (3) provide training to the teacher educators/tutors on participatory teaching-learning process/tutorial services; and (4) write the course materials of the B.Ed. in participatory way.
16. Planning lesson and use of life oriented examples are two fundamental aspects of a good lesson. Lamentably the graduates of all the institutions performed unsatisfactorily in these areas. To improve the situation the following should be done (1) give more emphasis on lesson plan preparation in the B.Ed. programs offered by the TTCs and TCs/BOU; (2) develop students' skill of preparing lesson plan suitable to apply in the context of secondary schools; (3) develop skill of the B.Ed. students of integrating life oriented examples in lesson plan and made their use during the process; (4) motivate the students to make plan in their future course of teaching and use them properly; (5) set up a monitoring committee in DSHE, NU and BOU to spot check whether their graduates follow lesson plan in their course of teaching in the schools.

17. Evaluation is important for proper judgment of the effectiveness of a program or one's achievement. The findings expressed some deficiencies in this regard for all type of institutions although the TTCs perceived it positively. However to introduce a more effective evaluation procedure for the B.Ed. programs the requirements are: (1) introduce a system which will evaluate students' holistic development; (2) put more focus on formative assessment; (3) introduce creative and thought provoking questions for both formative and summative evaluation; (4) publish the B.Ed. results in time; and (5) create a balance between internal and external evaluation.
18. Input and process variables are the determinants of the quality of output variables of any education program. Weak status of these variables is a major impediment against quality implementation of the B.Ed. programs. To improve the situation (1) the govt. TTCs should pay focus on improving the quality of the said variables, specially on the input variables; (2) The private TTCs too should give strong emphasis of its input variables and enriching the process variables; and (3) BOU desperately needs to improve the quality of both the input and process variables by eliminating the weaknesses identified in this study.
19. Develop an environment of total quality management in all the teacher education institutions for quality assurance of the B.Ed. programs is essential. The TTCs and BOU should take required steps to that end under which quality assurance steps should be taken at both formative and summative stages of implementation.

7.7.2 Recommendations for the B.Ed. of the Government TTCs

In this study the B.Ed. offered by the govt. TTCs was found the most effective, among the three programs, in terms of the input, process and output variables despite having some mentionable deficiencies as indicated by the findings. For further improvement and consolidation of the quality of the B.Ed. of the govt. TTCs the following should be taken: (1) take measures to sustain the existing good aspects of different input, process and output factors; (2) take initiative for their further improvement and (3) take measures to eliminate the weaknesses where exist. The specific aspects need to focus are (1) increase IT and technological facilities; (2) increase the size of the classrooms and change the

shape of furniture to support participatory teaching-learning; (3) provide modern apparatus for the laboratory and latest books, journal, reports for the library; etc.

7.7.3 Recommendations for the B.Ed. of BOU

There found some deficiencies exclusively associated with the distance B.Ed. program. To improve the situation SoE/BOU should take some measures like (1) provide training to the tutors and the coordinators on open and distance teaching and learning; (2) put due emphasis on teaching practice and make it school oriented; (3) make provision of co-curricular activities in the distance B.Ed. curriculum; (4) make the evaluation effective by eliminating the deficiencies as identified in this study; (5) supply of course materials in time for which the process of developing, printing and distributing course materials should be begin quite ahead so that the materials can reach to the students in time; (6) air and telecast adequate radio and TV programs suitable to course contents and relevant to the semesters; (7) provide library and laboratory facilities in the TCs; (8) provide technological facilities for watching audio-video programs and computer facilities for the B.Ed. students either in the TCs or RRCs (9) identify the reason of low pass rate and almost absence of first class by conducting research study and (10) take measures for improvement of overall service delivery of the input and process variable.

7.7.4 Recommendations for the B.Ed. of the Private TTCs

The private TTCs need to be improved some areas to offer the B.Ed. with desired quality. They are: (1) provide opportunity of in-service training to the faculty by the TTCs themselves; (2) provide opportunity of in-service training by different institutions, projects and programs; (3) ensure required infra-structural facilities with adequate building, room and space; (4) provide required student support services like laboratory, library, computer, e-mail, audio-video facilities; (5) appoint adequate teaching staff for all the courses; (6) appoint at least 50% full time teaching staff; (7) introduce scholarship for the meritorious students with financial assistance from NU or DSHE, etc.; (8) offer professional development opportunity for the faculty like promotion, training; (9) give emphasis on the areas of teaching where graduates performed unsatisfactorily;

(10) put emphasis of improvement of weak areas with more focus on input variables; (11) strictly follow the academic rules and regulations of teaching practice, internal assessment, etc. and (12) strict monitoring of the activities of the pvt. TTCs and in case of dissatisfaction take required punitive measures.

7.7.5 Further Studies

1. A Longitudinal Study to Evaluate the Quality of the B.Ed. of NU/BOU based on the Variables of the Present Study
2. Teaching Practice of Distance B.Ed. Program of Bangladesh Open University: Possibilities and Challenges
3. Quality Assurance Practices of Secondary Teacher Education Program of Bangladesh
4. A study on the Validity and Reliability of the Evaluation System of the B.Ed. of NU/BOU
5. Performance of the Private TTC B.Ed. and Its Impact on the Quality of Secondary Education
6. A feasibility Study on Use of ICT in Secondary Teacher Education Program of Bangladesh

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জাতীয় বিশ্ববিদ্যালয়
গাজীপুর

ফোন : ৯২৯১০১৬
ফ্যাক্স : ৯২৯১০৩৭

সূত্র নং ০১(১০১) জাতীঃ বিঃ/প্রশাঃ/অংশ-৪/৮৯-২০০০/৩/৫২৬২ ১৪ ফাল্গুন ১৪১২/২৬ ফেব্রুয়ারি ২০০৬

জনাব সেলিনা আক্তার
সহকারী অধ্যাপক
স্কুল অব এডুকেশন
বাংলাদেশ উন্মুক্ত বিশ্ববিদ্যালয়
গাজীপুর

বিষয় : পিএইচ.ডি. গবেষণার প্রয়োজনে বিভিন্ন বেসরকারি শিক্ষক প্রশিক্ষণ কলেজ থেকে উপাত্ত সংগ্রহের অনুমতি
প্রদান প্রসঙ্গে

জনাব

উপর্যুক্ত বিষয়ে আপনার ১৩/০২/২০০৬ তারিখের আবেদনের পরিপ্রেক্ষিতে ভাইস-চ্যান্সেলর মহোদয় আপনাকে
পিএইচ.ডি. গবেষণার স্বার্থে নিম্নবর্ণিত শর্তে জাতীয় বিশ্ববিদ্যালয়ের অধিভুক্ত বেসরকারি শিক্ষক প্রশিক্ষণ কলেজসমূহ
থেকে তথ্য/উপাত্ত সংগ্রহের অনুমতি দিয়েছেনঃ

শর্ত :

১. আপনি গবেষণার স্বার্থে কেবল গবেষণার সাথে সম্পর্কযুক্ত তথ্য/উপাত্ত সংগ্রহ করতে পারবেন।
২. তথ্য/উপাত্ত সংগ্রহের পূর্বে আপনাকে স্ব স্ব কলেজ কর্তৃপক্ষের অনুমতি গ্রহণ করতে হবে।

২৬/০২/০৬
(শমশের-উজ্-জামান)
রেজিস্ট্রার (অরপ্রাণ্ড)



বাউবি/প্রশা-১(১০০)/৯৯/ ৫৫৫৫

তারিখ : -১২-২০০৫

জনাব সেলিনা আক্তার
পি-এইচ. ডি. গবেষক
শিক্ষা ও গবেষণা ইনস্টিটিউট
ঢাকা বিশ্ববিদ্যালয়, ঢাকা
ও
সহকারী অধ্যাপক
স্কুল অভ এ্যাডিউকেশন
বাংলাদেশ উন্মুক্ত বিশ্ববিদ্যালয়
গাজীপুর-১৭০৫।

বিষয় : পি-এইচ. ডি. গবেষণার প্রয়োজনে বাউবি পরিচালিত দূরশিক্ষণে বি. এড. প্রোগ্রামের বিভিন্ন টিউটোরিয়াল কেন্দ্র, পরীক্ষা বিভাগ এবং স্টুডেন্ট সাপোর্ট সার্ভিসেস বিভাগ থেকে উপাত্ত সংগ্রহের অনুমতি প্রসঙ্গে।

জনাব,

উপর্যুক্ত বিষয়ে আপনার ১৪-১১-২০০৫ তারিখের আবেদনের প্রেক্ষিতে আদিষ্ট হয়ে জানাচ্ছি যে, আপনাকে পি-এইচ. ডি. গবেষণার প্রয়োজনে বাউবি পরিচালিত দূরশিক্ষণে বি. এড. প্রোগ্রামের বিভিন্ন টিউটোরিয়াল কেন্দ্র, পরীক্ষা বিভাগ এবং স্টুডেন্ট সাপোর্ট সার্ভিসেস বিভাগ থেকে উপাত্ত সংগ্রহের অনুমতি প্রদান করা হ'ল।

ধন্যবাদান্তে,

(মহাঃ শফিকুল আলম)

উপ-পরিচালক (পার্সোনেল), অতিরিক্ত দায়িত্বপ্রাপ্ত

অনুলিপি :

সদয় অবগতি ও কার্যার্থে :

- ১। আঞ্চলিক পরিচালক/ভারপ্রাপ্ত আঞ্চলিক পরিচালক, -----আঞ্চলিক কেন্দ্র, বাউবি।
- ২। পরিচালক, স্টুডেন্ট সাপোর্ট সার্ভিসেস বিভাগ (পূর্বাঞ্চল ও পশ্চিমাঞ্চল), বাউবি।
- ৩। পরীক্ষা নিয়ন্ত্রক, বাউবি।
- ৪। একান্ত সচিব, উপাচার্যের দপ্তর, বাউবি। উপাচার্য মহোদয়ের সদয় অবগতির জন্য।
- ৫। সংশ্লিষ্ট/ব্যক্তিগত নথি।

Admin-04-2

ANNEX 3

Description of the Data Collection Instruments

Instruments	Nature of Data Collected
1. Questionnaire for B.Ed. graduates	• Background information • Opinion about input and process variables • Attitude about quality of B.Ed. • Open opinion about B.Ed. program
2. Questionnaire for teacher educators/tutors	• Background information • Opinion about input and process variables • Attitude about quality of B.Ed. • Open opinion about B.Ed. program
3. Questionnaire for principals/course coordinators	• Background information • Opinion about input and process variables • Attitude about quality of B.Ed. • Open opinion about B.Ed. program
4. Observation checklist	• Classroom teaching performance of the • B.Ed. graduates in real classroom situation
5. Institutional information sheet	• Enrolment data • Pass rate in the B.Ed. final examination • Class obtained in the B.Ed. final examination
6. Information sheet about academic background of the faculty	• Highest educational qualifications • Professional education background • In-service training(domestic and overseas)

ANNEX 4

Questionnaire for the B.Ed. Graduates

Dear Respondents,

The questionnaire has been prepared to collect data for a research study being conducted in fulfillment of my Ph.D. pursuing in the Institute of Education and Research, University of Dhaka. The main purpose of this study is to evaluate the quality of the B.Ed. programs offered by National University and Bangladesh Open University.

The questionnaire has four parts. The first part includes some questions on your background information. The second part has included an opinion scale to assess your opinions on different aspects of the B.Ed. program. There is an attitude scale in the third part while the last, i.e., the fourth part has some open ended questions.

Please read the questions and statements of the questionnaire carefully and sincerely and put tick mark (✓) against any of the possible answers. Besides, answer in writing wherever necessary.

Your thoughtful answer will provide valuable and needed data for the research study. Therefore, you are earnestly requested to answer all the items rationally and carefully so that objective information and required data could be derived on the present status of the B.Ed. program.

It is important to mention that this research study is being conducted entirely for academic purpose. So be assured that your answers will be kept confidential.

Thanks for answering the questionnaire with your valuable time.

Yours sincerely

(Selina Akhter)
Ph.D. Researcher
Institute of Education and Research
University of Dhaka

Part A: Background Information

1. Name of the respondents:

2. Name and address of the working school:

.....

3.a Obtained B.Ed. from which TTC/Tutorial Centre?

.....

3.b Type of the TTC: Government ☐ Non-government ☐

4. Sex: Female ☐ Male ☐

5. Age (in full year):

6. Educational qualification:

Degree Obtained	Division/Class	Year
SSC (Science/Humanities/ Commerce)		
HSC (Science/Humanities/Commerce)		
BA/BSS/BCom/BSc (pass course)		
BA/BSS/BCom/BSc (Honours)		
MA/MSS/MCom/MSc (Pass course)		
MA/MSS/MCom/MSc (Final)		
Others (please specify)		

7. Professional Degree:

Degree	Division/Class	Year
B.Ed.		
M.Ed.		
Others (Please mention)		

8. In-service training received:

In-country			Overseas		
Subject of training	Duration	Who offered?	Subject of training	Duration	Who offered?
1.			1.		
2.			2.		
3.			3.		
4.			4.		

9.a You are teaching in what kind of educational institution?

Primary Secondary College Madrasa

9.b What category is your working institution?

Government Non-government

10. Your teaching experience: years (in full year)

11. Mention the two elective subjects you chose for your B.Ed.

a. b.

12. If you took any optional subject in your B.Ed. please mention below (Applicable only for the students of the govt. and the private TTCs)

.....

13. What subject(s) do you teach in your school?

Class	Subjects of Teaching

14. What is the approximate monthly family income of your family (including you, your parents, husband/wife, brother, sister, children, etc.)?

Tk 0	-	Tk. 5000	
Tk. 5001	-	Tk. 10000	
Tk. 10001	-	Tk. 15000	
Tk. 15001	-	Tk. 20000	
Tk. 20001	-	Tk. 25000	
Tk. 25001	-	Tk. 30000	
Tk. 30001	&	Above	

Part B: Opinion about the B.Ed. Program

Please put tick (✓) mark against any of the given answer, which suits best to your opinion, for each of the following statement. Please answer based on the following guidelines.

A = Very High B = High C = Neutral D = Little E = None

Sl. No	Statements	Answer				
		A	B	C	D	E
A.	Opinion about B.Ed. Curriculum					
1.	The curriculum of the B.Ed. program was modern and updated.					
2.	From the B.Ed. curriculum it was possible to learn about modern teaching-learning methods and techniques.					
3.	In the B.Ed. curriculum much emphasis was attached to teaching practice.					
4.	It provided the students opportunity to participate in social work.					
5.	The B.Ed. curriculum included contemporary issues, like gender, population education, inclusive education, computer, ICT, environment, etc.					
6.	The B.Ed. curriculum matched with the needs of actual classroom situation of the secondary school.					
7.	There was no scope of acquiring practical knowledge and skills in the B.Ed. curriculum.					
8.	The curriculum was burdened with theoretical knowledge.					
9.	It was difficult to complete the whole B.Ed. syllabus within the stipulated program duration.					
10.	From the B.Ed. the students could achieve practical experience of conducting different kinds of co-curricular activities.					
B.	Opinion about Instructional Aids and Materials					
11.	There were required books/modules of B.Ed. in the TTC/TC.					
12.	The books/modules were of good quality.					
13.	The books/modules were kept adequately in the library of the TTC/TC for use of the students.					
14.	There were required teaching aids in the TTC/TC to support the instructional strategies.					
15.	The laboratory(s) of TTC/TC lacked in required equipment.					
16.	The TTC/TC had the facilities of modern educational technologies to use in the teaching-learning process.					
17.	There were required audio-visual facilities (radio, television, etc.) in the TTC/TC.					
18.	The teacher trainees had the opportunity to use the existing technological facilities.					

Sl. No	Statements	Answer				
		A	B	C	D	E
C.	Opinion about Infrastructural Facilities					
19.	There were required classrooms in the TTC/TC.					
20.	The classrooms had required sitting arrangements, like chair, table, desk, etc.					
21.	There was supply of required electricity in the classrooms.					
22.	The classrooms of the TTC/TC had required chalkboard, duster, etc.					
23.	For practical oriented subjects there were required laboratory(s).					
24.	The TTC/TC had its own playground.					
25.	There was a hall room in the TTC/TC.					
26.	There was good toilet facility in the TTC/TC for use of the students.					
27.	In the TTC/TC there was supply of pure drinking water.					
28.	For the female students there was a separate common room in the TTC/TC.					
D.	Opinion about Academic Environment					
29.	The academic environment of the TTC/TC was of good quality.					
30.	The teacher educators/tutors used to maintain cooperative relation with the students.					
31.	The principal/coordinator used to visit regularly the classroom transaction of the teaching-learning process.					
32.	The academic rules and regulation were strictly followed by the TTC/TC authority.					
33.	Classes used to hold regularly in the TTC/TC.					
34.	The TTC/TC had scarcity of subject based teacher educators /tutors to conduct the class regularly.					
E.	Opinion about Methods and Techniques					
35.	The teacher educators/tutors used to describe the goals, objectives and requirements of the lesson at the beginning.					
36.	The teachers/tutors used to present the lesson in organized way.					
37.	Modern technologies (computer, cassette player, OHP, video) were used in delivery of teaching and learning of the B.Ed.					
38.	The teacher educators/tutors used to conduct the teaching-learning process without having required preparation.					
39.	The teachers/tutors used to teach through integrating contemporary and modern ideas in their lesson presentation.					
40.	The teachers/tutors used to employ various modern methods and techniques (group work, project work, problem solving, pair work, demonstration, etc.) in their teaching.					
41.	The teacher trainees used to participate actively in the teaching-learning activities.					
42.	The teacher educators/tutors used to encourage the trainees to ask questions in the classroom.					

Sl. No	Statements	Answer				
		A	B	C	D	E
43.	The teacher educators/tutors had lack of adequate knowledge on the contents of subjects of teaching.					
44.	To make the students understand of the problems the teacher educators/tutors used to discuss them clearly.					
45.	The teacher educators/tutors used different kinds of teaching aids in their teaching.					
46.	The teachers/tutors used to teach through lecture method.					
47.	The teacher educators/tutors used to give the trainees opportunity to ventilate their own opinion.					
48.	The teachers/tutors used to honor the opinions of the students.					
F.	Opinion about Teaching Practice					
49.	In the B.Ed. program students were taught practically on lesson plan preparation.					
50.	The teacher educators/tutors used to explain the students clearly the various steps of a lesson plan.					
51.	The teachers/tutors used to examine critically the lesson plan prepared by the students and give feedback for improvement.					
52.	The teacher educators/tutors gave required number of demonstration lesson for orientation of the teacher trainees.					
53.	The demonstration lesson given by the teacher educators/tutors were up to the standard.					
54.	The B.Ed. students attended required number of teaching practice class in the secondary schools.					
55.	The teacher educators/tutors supervised regularly the teaching practice classes of the students in schools.					
56.	The teacher educators/tutors used to give constructive suggestions for improvement of the quality of teaching practice class in schools.					
57.	The lesson plan, learnt in the B.Ed. program is possible to apply in conducting regular class in the school.					
G.	Opinion about Co-curricular Activities					
58.	The B.Ed. program had adequate provision of co-curricular activities.					
59.	Students had enough scope to take part in physical exercise.					
60.	The time allocated for co-curricular activities was adequate.					
61.	In the TTC/TC students used to participate in different kinds of constructive co-curricular activities (like debate, science competition, participation in social activities, publication of wall/printed magazine, etc).					
62.	The co-curricular activities were conducted in organized way.					
63.	Students had lack in interest to participate in co-curricular activities.					
64.	The students could achieve the skill of conducting co-curricular activities from the B.Ed. program.					

Sl. No	Statements	Answer				
		A	B	C	D	E
H.	Opinion about Evaluation System					
65.	The evaluation system of the B.Ed. program of NU/BOU was modern.					
66.	It was possible to assess all the aspects of students' achievement (knowledge, skills and attitude) through the evaluation system of the B.Ed.					
67.	Students' achievement were regularly assessed through class test, assignment, quiz, etc.					
68.	The checked answer scripts were returned to the students in time.					
69.	The teacher educators/tutors used to provide the students constructive feedbacks on assignment, quiz, class test, etc.					
70.	The tutors/teacher educators used to conduct the internal assessment objectively.					
71.	The pattern of question paper of the final/semester final examination was good.					
72.	The final/semester final examination used to take place in time.					
73.	The result of B.Ed. examination was generally published late.					
74.	The B.Ed. graduates could receive their certificates, mark sheets and testimonials easily and smoothly.					
I.	Opinion about Student Support Services					
75.	The B.Ed. students were given academic calendar at the on set of the program.					
76.	In the library of the TTC/TC there was enough sitting arrangement for study of the students.					
77.	There were updated books, journals and magazines in the library for use of the students.					
78.	The B.Ed. students had opportunity to use computer and other technological facilities - internet, audio-video conferencing, etc.					
79.	In the TTC/TC there were arrangements for the students to listen to and watch educational radio and television programs.					
80.	The students could contact over telephone with the tutors to get academic advice (for BOU students).					
81.	The students used to receive good behavior and cooperation from the staffs of the TTC/TC/RRC/University.					
J.	Opinion about Professionalism and Scope of Professional Development					
82.	The teachers/tutors were dedicated to their own profession.					
83.	The teachers/tutors were careful in playing their roles and responsibility.					
84.	The teachers/tutors used to enter the classroom in due time.					

Sl. No	Statements	Answer				
		A	B	C	D	E
85.	The teacher educators/tutors utilized the class time properly.					
86.	The teacher educators/tutors had in-depth knowledge and understanding in their subjects of teaching.					
K.	Opinion about Admission Procedure, Program Duration, Class Size, Teacher-student Ratio					
87.	In the existing admission procedure of the B.Ed. of the TTC/TC good students can not be screened for admission.					
88.	The duration of the B.Ed. program of BOU/NU was ok.					
89.	The high teacher-students ratio in the B.Ed. of NU/BOU was a barrier against effective teaching and learning.					
90.	The time allocated for conducting the classes/tutorials of various subjects in the B.Ed. was inadequate.					

Part C: Attitude towards the Quality of the B.Ed. Program

General Instruction

Read the statements carefully. Each statement has five possible answers. Choose the best answer for each of the statements and put a tick mark (✓) on the appropriate column. Please answer the statements following the guidelines given below.

A = Strongly Agree B = Agree C = Undecided D = Disagree E = Strongly Disagree

Sl. No.	Statements	Response				
		A	B	C	D	E
1.	I am satisfied in acquiring a B.Ed. degree from BOU/NU.					
2.	Through the B.Ed. it is not possible to produce competent teachers for secondary education in the country.					
3.	The B.Ed. program is useful.					
4.	If I would have got an opportunity to enroll in any other teacher education program I would not take admission in the B.Ed. of NU/BOU.					
5.	The B.Ed. program seems to me attractive.					
6.	A teacher trainee can learn required aspects of teaching and learning from the B.Ed. program					
7.	The B.Ed. program is of high quality.					
8.	I wasted time by taking admission in to the B.Ed. program.					
9.	The B.Ed. program is viewed by the trainees practical and application oriented.					
10.	Many of my B.Ed. classmates had questions about its quality.					
11.	It is possible to achieve the required professional qualities of a teacher from the B.Ed.					
12.	The B.Ed. program does not address the reality of the secondary schools.					
13.	If the quality of the B.Ed. is not increased it will loose its acceptability to the stakeholders.					
14.	I enjoy the various aspects of the B.Ed. program.					
15.	Getting a certificate is the main goal of the students in the B.Ed. program.					
16.	If I did not take admission in the B.Ed. I would not have been able to become a good teacher.					
17.	I will encourage my fellow colleagues and known ones to enroll in the B.Ed. I completed.					
18.	I have become benefited in increasing my professional qualities from it.					
19.	I enrolled in the program to get the benefit of B.Ed. increment.					
20.	In my view the quality of the B.Ed. is increasing day by day.					

Part D: Open Questions

1.a Do you think the B.Ed. program of TTC/BOU is a quality program?

Yes ☐

No ☐

1.b If your answer is no please mention the reasons.

2.a Do you regularly prepare your lesson plan? Yes ☐ No ☐

2.b If do please supply copies of your lesson plan.

3. In your opinion what are the two major strengths of the B.Ed. program?

a.

b.

4. Please mention two specific weaknesses of it?

a.

b.

5. Please give two recommendations for improvement of overall quality of the B.Ed. program.

a.

b.

6. If you have any other opinion(s) please mention below.

ANNEX – 5

Questionnaire for the Teacher Educators/Tutors

Dear Respondents,

The questionnaire has been prepared to collect data for a research study being conducted in fulfillment of my Ph.D. pursuing in the Institute of Education and Research, University of Dhaka. The main purpose of this study is to evaluate the quality of the secondary B Ed programs offered by National University and Bangladesh Open University.

The questionnaire has four parts. The first part includes some questions on your background information. The second part has included an opinion scale to assess your opinion on different aspects of the B.Ed. program. There is an attitude scale in the third part while the last, i.e., the fourth part has some open ended questions.

Please read the questions and statements of the questionnaire carefully and sincerely and put tick mark (✓) against any of the possible answers. Besides, answer in writing wherever necessary.

Your thoughtful answer will provide valuable and needed data for the research study. Therefore, you are earnestly requested to answer all the items rationally and carefully so that objective information and required data could be derived on the status of the B.Ed. program.

It is important to mention that this research study is being conducted entirely for academic purpose. So be assured that your answers will be kept confidential.

Thanks for answering the questionnaire with your valuable time.

Yours sincerely

(Selina Akhter)

Ph.D. Researcher

Institute of Education and Research

University of Dhaka

PART A: Background Information of the Respondents

1. Name of the respondent:

2. Name of the TTC/Tutorial Center:

.....

District:

Division:

3. Present position in the TTC/College:

.....

4. Sex: Female

☐

Male

☐

5. Age (in full year) :

6. Highest educational qualification:

7. Professional qualification:

M.Ed. ☐

B.Ed. ☐

C-in-Ed ☐

8. In-service training received:

In-country			Overseas		
Subject of training	Duration	Who offered?	Subject of training	Duration	Who offered?
1.			1.		
2.			2.		
3.			3.		
4.			4.		

9. What subject(s) do you teach in the TTC/tutorial center?

- | | |
|----|----|
| a. | d. |
| b. | e. |
| c. | f. |

10. How many class(s) do you take, on average, every day?

.....

11. How long have you been teaching in the TTC/Tutorial center:

..... (in full year)

12. What is the type of your teaching position?

Full time

Part time

13. Please mention your work experience as a teacher of primary/secondary school (if any)

Experience	Year
Experience in primary school	
Experience in secondary school	

Part B: Opinion about the B.Ed. Program

Please put tick (✓) mark against any of the given answer, which suits best to your opinion, for each of the following statement. Please answer based on the following guidelines.

A = Very High B = High C = Neutral D = Little E = None

Sl. No.	Statements	Answer				
		A	B	C	D	E
A.	Opinion about B.Ed. Curriculum					
1.	The B.Ed. curriculum is relevant with the existing secondary school curriculum.					
2.	It is possible to complete the B.Ed. curriculum within stipulated time duration.					
3.	The B.Ed. curriculum is able to meet the needs of the secondary school teachers.					
4.	The curriculum needs to be updated and revised.					
5.	The B.Ed. curriculum is modern and timely.					
6.	Required importance has been given to teaching practice in the B.Ed. curriculum.					
7.	The curriculum is well sequenced.					
8.	The curriculum is overburdened with theory.					
9.	There is ample opportunity of learning about school teaching subjects through the present B.Ed. curriculum.					
10.	Students can acquire hand on experience about teaching-learning methods and techniques from the curriculum					
11.	Co-curricular activities have been given proper importance in the existing B.Ed. curriculum.					
12.	Students can get idea about modern evaluation methods and techniques from it.					
B.	Opinion about Instructional Aids and Materials					
13.	Your TTC/TC has required teaching aids and materials to conduct the instructional process.					
14.	The TTC/TC has required technological facilities like, internet, website browsing facilities, etc.					
15.	There are adequate apparatus for experiment in the science lab.					
16.	There is computer/computer lab in the TTC/TC.					
17.	There are required chalk board, flannel board, white board, etc.					
18.	The TTC/TC has required audio-video facilities (radio, television, etc.)					
19.	The institution has adequate sports and game materials.					
20.	There are required equipment for conducting microteaching					
21.	The teaching aids exist in the TTC/TC are not used adequately and properly.					

Sl. No.	Statements	Answer				
		A	B	C	D	E
C.	Opinion about Student Support Services					
22.	There is required library facility in the TTC/TC.					
23.	The library has adequate reference book, journal, magazine, etc.					
24.	The time allocated for library use is adequate.					
25.	There are adequate books on pedagogical subjects in the library.					
26.	There is inadequacy of books on school teaching subjects in the library.					
27.	The seating arrangement in the library is satisfactory.					
28.	Students are provided with academic calendar at the commencement of academic year.					
29.	There is arrangement of listening and viewing educational programs on radio and TV for the students.					
30.	Students are provided with scope of academic counseling and guidance outside the classroom.					
31.	There is a counseling cell in the TTC/TC for providing counseling to the students.					
D.	Opinion about the Infrastructural Facilities					
32.	There is required number of classroom in the TTC/TC.					
33.	The classrooms have required furniture.					
34.	The TTC/TC has a nice campus.					
35.	There is a playground in the campus of the TTC/TC.					
36.	The TTC/TC has adequate electricity facility.					
37.	There is adequate room for laboratory of different subjects.					
38.	The TTC has pure drinking water facility.					
39.	For the students there is common room facility.					
40.	The TTC/TC has a big hall room for organizing seminar and other programs.					
41.	There is required number of office space.					
42.	For female students there is separate rest room/toilet facility.					
43.	There is separate common room for the female students.					
44.	Classrooms of the TTC/TC have proper air and ventilation.					
E.	Opinion about Academic Environment					
45.	The academic environment of the institution is of good quality.					
46.	The principal/coordinator maintains co-operational relationship with the teacher educators/tutors.					
47.	Classes take place regularly in the TTC/TC.					
48.	The principal/coordinator regularly monitors the teaching-learning activities in the classroom.					
49.	There exists a mental gap between principal/ coordinator and the teacher educators/tutors.					
50.	The principal/coordinator is sincere in fulfilling the needs of the teacher educators/tutors and the students.					

Sl. No.	Statements	Perception				
		A	B	C	D	E
51.	The academic rules and regulations of the B.Ed. programs are practiced with flexibility in your TTC/TC.					
52.	The principal/coordinator makes aware the teacher educators/tutors of their academic roles and responsibilities.					
53.	There is lack of accountability of the teachers educator/tutors.					
54.	The teacher educators/tutors regularly exchange views and extend cooperation among themselves on academic affairs.					
55.	The principal/coordinator regularly arranges staff meeting with the teacher educators/tutors to review the quality of the B.Ed. and provides guidelines for improvement of its quality.					
56.	There is required number of teacher educators/tutors in all the subjects in your TTC/TC.					
57.	The teacher educators/tutors of the of the TTC/TC conduct research on different aspects of the B.Ed. program.					
58.	Due to lack of required financial support the academic activities of the institution suffer.					
59.	There is lack of academic supervision from NU/BOU					
60.	There is required technical staff in the laboratory(s).					
F.	Opinion about Professionalism and Scope of Professional Development					
61.	The teacher educators/tutors are dedicated to their own profession.					
62.	They have ample opportunity of professional development.					
63.	The TTC/TC organizes staff development program for professional development of the teacher educators/tutors..					
64.	Teacher educators/tutors are not conscious of their roles and responsibilities.					
65.	There are required technological facilities for the teacher educators/tutors(computer, internet, etc.) in the institution.					
66.	Teacher educators have opportunity of getting promotion in their work place (for TTC only).					
67.	Lack of professionalism exists in the principal/ course coordinator.					
G.	Opinion about Teaching Practice					
68.	The time allocated for teaching practice of the B.Ed. program is adequate.					
69.	Teaching practice of the B.Ed. program takes place in right time.					
70.	The method followed in practice teaching is effective.					
71.	The teacher educators/tutors give required number of demonstration lesson for the B.Ed. students.					
72.	Supervisor/teacher educator/tutor observes a full teaching practice session of the practicing students.					

Sl. No.	Statements	Answer				
		A	B	C	D	E
73.	Students are given proper feedback on the weaknesses of their teaching practice identified during the supervision.					
74.	The existing form of teaching practice was conducive in improving the teaching competencies of the trainee students.					
75.	Trainee students make use of required teaching aids in teaching practice class.					
76.	Teaching practice is accomplished with required importance in the B.Ed program.					
77.	Secondary schools allocate adequate time for teaching practice.					
78.	The head teacher and the assistant teachers of the practice teaching schools extend required cooperation to the students and the TTC in implementing the teaching practice.					
79.	Students are taught practically on preparation of lesson plan.					
80.	Teacher educators/tutors give constructive suggestions on structural and contextual aspects of the lesson plan.					
81.	Trainee students can acquire modern knowledge and skills on lesson plan preparation.					
82.	The knowledge and skills acquired through the B.Ed. practice teaching is not possible to apply in real classroom situation.					
H.	Opinion about Methods and Techniques					
83.	Modern teaching-learning methods and techniques are used in the delivery of the B.Ed. curriculum.					
84.	Modern technological facilities (computer, audio-video) are used in classroom teaching-learning process.					
85.	Teacher educators/tutors teach with the use of required teaching aids and materials.					
86.	The teaching-learning methods and techniques used in B.Ed. courses are traditional.					
87.	Teacher trainees of the TTC/TC actively participate in the teaching-learning process.					
88.	Teacher educators /tutors integrate modern ideas in the teaching of the subjects.					
89.	Teacher educators/tutors make constructive criticism on students' academic work.					
90.	Trainee teachers can learn practically about various teaching-learning methods and techniques.					
91.	From the B.Ed. teacher trainees can practically learn about how to conduct co-curricular activities in school.					
I.	Opinion about Co-curricular Activities					
92.	In the B.Ed. program there is arrangement of different types of co-curricular activities.					
93.	Programs like discussion, debate, etc. are organized in TTC/TC in observance of the different national and international days.					

Sl. No.	Statements	Perception				
		A	B	C	D	E
94.	In the class routine of B.Ed. program adequate time has been allocated for co-curricular activities.					
95.	The teacher trainees are reluctant to take part in the co-curricular activities.					
96.	As the B.Ed. students are over burdened with academic activities they have insufficient time to participate in co-curricular activities.					
97.	Co-curricular activities is a weak part of the B.Ed. program					
J.	Opinion about Evaluation Process					
98.	In the present evaluation system of the B.Ed. assessment of all aspects of students' achievement (knowledge, skills and attitude) has been taken in to consideration.					
99.	The distribution of marks between internal and external evaluation of the B.Ed. is appropriate (applicable for TTC only).					
100.	The B.Ed. students are given thought provoking and creative assignments.					
101.	Teacher educators/tutors evaluate the assignments, prepared by the students, properly.					
102.	Teacher educators/tutors give constructive opinions and feedback on the assignments.					
103.	The checked assignments are returned to the students back before the semester/final examination.					
104.	The B.Ed. final/semester final examination takes place in time.					
105.	The examination result is declared in time.					
106.	In the existing evaluation system of the B.Ed. students can be evaluated objectively.					
107.	B.Ed. students can achieve required knowledge and skills on assessment technique in classroom and in school.					
108.	The question papers prepared and used in semester/final examination of the B.Ed. are of good standard.					
K.	Opinion about Admission Process, Program Duration, Contact Hour and Teacher-student Ratio					
109.	The duration of the B.Ed. program is short.					
110.	Under the existing admission system of the B.Ed. students of good caliber can not be admitted.					
111.	The time allocated for classes/tutorials of various subjects is inadequate.					
112.	The big class size is a barrier in offering a good quality teacher education program.					

Part C: Attitude towards the Quality of the B.Ed. Program

General Instruction

Read the following statements carefully. Each has five possible answers. Choose the best answer for each of the statements and put a tick mark (✓) on the appropriate column given. Please answer the statements following the guidelines given below.

A = Strongly Agree B = Agree C = Undecided D = Disagree E = Strongly Disagree

Sl. No	Statements	Responses				
		A	B	C	D	E
1.	I am satisfied with quality of the B.Ed. offered by my TTC/TC					
2.	The B.Ed. program is unable to meet the needs of the trainees.					
3.	The standard of teaching practice of the B.Ed. is up to the mark.					
4.	I think the quality of the B.Ed. program should be further enhanced.					
5.	It is possible to provide effective teacher education within the present duration of the B.Ed. program.					
6.	The supervision of the B.Ed. teaching practice is nothing than an eye wash.					
7.	I am satisfied with the way the B.Ed. program is being conducted.					
8.	The B.Ed. program is merely a certificate based program.					
9.	It is possible to develop quality secondary school teachers through the present B.Ed. program.					
10.	If the teacher educators/tutors would have professionally more skilled the program could have achieved its desired outcomes.					
11.	The B.Ed. is being conducted in a traditional way.					
12.	The B.Ed. program is unable to attract good quality students.					
13.	The B.Ed. students can achieve the required competencies of a good teacher through the program.					
14.	The teaching-learning strategies used in the B.Ed. are obsolete.					
15.	The knowledge acquired through this program is not applicable to actual classroom situation of the secondary school.					
16.	I am happy to see that the students can achieve active teaching skills through the B.Ed. program.					
17.	The quality of B.Ed. makes me worried.					
18.	I am satisfied with the quality of training students receive from it.					
19.	Achieving the goal of the B.Ed. will be at stake if the B.Ed. is conducted in present manner.					
20.	Being a teacher/tutor of the program I feel self-complacent.					
21.	The B.Ed. is not an effective program.					
22.	The quality of B.Ed. program is increasing day by day.					

Part D: Open Ended Questions

1. a. Do you think that the present B.Ed. offered by the TTC/Bangladesh Open University is a quality teacher education program?

Yes

☐

No

☐

- b. If your answer is no then please mention why not.

2. Do you think the following aspects of the B.Ed. program offered by NU/BOU suffer from any quality problem? If your answer is yes please mention what the problems are and how could they be solved?

Subject	What are the problems?	How they could be solved?
Curriculum Yes ----- No -----	1. 2.	1. 2.
Teaching aids Yes ----- No -----	1. 2.	1. 2.
Infrastructural facilities Yes ----- No -----	1. 2.	1. 2.
Academic environment Yes ----- No -----	1. 2.	1. 2.
Practice teaching Yes ----- No -----	1. 2.	1. 2.
Teaching-learning strategy Yes ----- No -----	1. 2.	1. 2.

Subject	What are the problems?	How they could be solved?
Professionalism of the teachers and scope of professional dev. Yes ----- No -----	1. 2.	1. 2.
Admission procedure Yes ----- No -----	1. 2.	1. 2.
Class duration Yes ----- No -----	1. 2.	1. 2.
Teacher-student ratio Yes ----- No -----	1. 2.	1. 2.
B Ed program duration Yes ----- No -----	1. 2.	1. 2.

3. If you feel there are some other problems, other than the above mentioned areas, please write below.

a.

b.

4. Please write, in your view, two specific strengths and two specific weaknesses of the B.Ed. program offered by TTC/BOU.

Strengths:

1.

2.

Weaknesses:

1.

2.

5. Write two recommendations for overall improvement of the B.Ed. program.

1.

2.

ANNEX 6

Questionnaire for the Principals/ Course Coordinators

Dear Respondents

The questionnaire has been prepared to collect data for a research study being conducted in fulfillment of my Ph.D. pursuing in the Institute of Education and Research, University of Dhaka. The main purpose of this study is to evaluate the quality of the secondary B.Ed. programs offered by the National University and Bangladesh Open University.

The questionnaire has four parts. The first part includes some questions on your background information. The second part has included an opinion scale to assess your opinion on different aspects of the B.Ed. program. There is an attitude scale in the third part while the last, i.e., the fourth part has some open ended questions.

Please read the questions and statements of the questionnaire carefully and sincerely and put tick mark (✓) against any of the possible answers. Besides, answer in writing wherever necessary.

Your thoughtful answer will provide valuable and needed data for the research study. Therefore, you are earnestly requested to answer all the items rationally and carefully so that objective information and required data could be derived on the present status of the B.Ed. program.

It is important to mention that this research study is being conducted entirely for academic purpose. So be assured that your answers will be kept confidential.

Thanks for answering the questionnaire with your valuable time.

Yours sincerely

(Selina Akhter)

Ph.D. Researcher

Institute of Education and Research

University of Dhaka

Part A: Background Information of the Respondents

1. Name of the respondents:
2. Name of the TTC/Tutorial Center:
 District: Division:
3. Sex: Female ☐ Male ☐
4. Age (in full year) :
5. Highest educational qualification:
6. Professional qualification:
 M.Ed. ☐ B.Ed. ☐
7. Type of position:
 Full time principal ☐ Part time principal ☐
8. Experience as principal/coordinatoryear
9. Do you teach any subject in the TTC/TC? if any please mention the subject.

10. Teaching experience:

Experience	How Many Year(s)
Experience in Teacher Training College	
Experience in general college	
Experience in school	

11. In-service training received:

In-country			Overseas		
Subject	Duration	Who offered?	Subject	Duration	Who offered?
1.			1.		
2.			2.		
3.			3.		
4.			4.		

Part B: Opinion about the B.Ed. Program

Please put tick (✓) mark against the possible answer, which suits best to your opinion, for each of the following statements. Please answer following the guidelines given below.

A = Very High B = High C = Neutral D = Little E = None

Sl. No.	Statements	Answer				
		A	B	C	D	E
A. Opinion about Curriculum						
1.	The curriculum of the B.Ed. program of NU/BOU is modern and updated.					
2.	The B.Ed. curriculum is able to meet the needs of the students.					
3.	The B.Ed. curriculum does not conform to the actual classroom situation of the secondary schools.					
4.	The B.Ed. curriculum is loaded with theory.					
B. Opinion about Instructional Aids and Materials						
5.	There are adequate teaching aids in the TTC/TC.					
6.	The TTC/TC has required technological facilities (computer, internet, broadband, etc.)					
7.	There are standard and modern apparatus in the laboratory.					
8.	The library has updated books, magazines, journal etc.					
9.	In the TTC/TC there are audio-video facilities like radio, TV, audio-video cassette, CD, etc.					
10.	There classrooms have required blackboard, flannel board, white board, etc.					
C. Opinion about Student Support Services						
11.	Students get required library facilities in the TTC/TC.					
12.	The time allocated for library use by the students is adequate.					
13.	Students receive academic calendar at the beginning of academic year.					
14.	In the TTC/TC there are facilities of audio-video conferencing.					
15.	Students can receive telephonic advice and support from the TTC/TC/BOU.					
16.	B.Ed. students have access to laboratory facilities.					
D. Opinion about Infrastructural Facilities						
17.	In the TTC/TC there is adequate number of classrooms.					
18.	There is supply of required electricity in the classrooms.					
19.	The TTC/TC has its own playground.					
20.	There is required building facility.					
21.	In the classroom there is facility for multi-media use.					
22.	The TTC/TC has seating arrangement for teachers/tutors.					

Sl. No.	Statements	Answer				
		A	B	C	D	E
23.	The teacher educators'/tutors' rooms have required furniture.					
24.	The TTC/TC has its own hall room for use of the students.					
25.	There is required office space in the TTC/TC.					
E. Opinion about Academic Environment						
26.	In the TTC/TC there is required number of teachers/tutors.					
27.	There are required support staffs in the TTC/TC.					
28.	There are required technical staffs in the TTC/TC.					
29.	There is close communication between principal/coordinator and teachers/tutors.					
30.	The principal/ coordinator supervises regularly the classroom academic activities/tutorial sessions.					
31.	There holds regular staff meeting of the teacher educators/tutors.					
32.	Academic problems and possible way of their solution are discussed in the staff meeting.					
33.	There is job accountability of the teacher educators/tutors.					
34.	Teacher educators/tutors cordially help the principal/ coordinator in academic activities.					
35.	Teacher educators/tutors are overburdened with their various responsibilities.					
36.	Teaching activities of the teacher educators/tutors is hampered due to playing of other non-academic activities by them.					
37.	The authority of NU/BOU regularly supervises the academic activities of the B.Ed. program.					
38.	The teacher educators/tutors conduct research on different aspects of the B.Ed. program.					
39.	Various development activities are undertaken for improvement of the institutions based on the research findings.					
40.	Meeting with support staff holds in the institution regularly.					
41.	Problems and prospects of the institution are discussed in the meeting of the support staff.					
42.	Political influence works actively in the appointment and posting of the teacher educators/tutors.					
F. Opinion about Professionalism and Scope of Professional Development						
43.	The teacher educators/tutors regularly come to the TTC/TC.					
44.	The teacher educators/tutors enter the classroom timely.					
45.	The teacher educators/tutors come to the TTC/TC in time.					
46.	The teacher educators/tutors are conscious of playing their roles and responsibilities.					
47.	The teacher educators/tutors have required professional competencies.					

Sl. No.	Statements	Answer				
		A	B	C	D	E
48.	The teacher educators/tutors are motivated in offering B Ed efficiently.					
49.	The teacher educators/tutors are dedicated to their profession.					
50.	There is ample opportunity of promotion of the teacher educators in the TTCs/college.					
51.	The teacher educators/tutors have positive attitude towards their profession.					
52.	There are required technological facilities for the teacher educators/tutors.					
53.	The teacher educators/tutors have lack of knowledge and skills on pedagogical issues.					
54.	The competencies of the teacher educators/tutors are not up to the expectation.					
55.	The TTC/TC publishes its own journal.					
56.	The teacher educators/tutors lack in knowledge and skills in modern educational technology.					
G. Opinion about Teaching Practice						
57.	The practice teaching of the B.Ed. program takes place in time.					
58.	The time allocated for practice teaching is adequate.					
59.	The teacher educators/tutors give required number of demonstration lessons.					
60.	There is provision of micro-teaching in the B.Ed. program.					
61.	The teacher educators/supervisor regularly supervise/observe the practice teaching class of the students.					
H. Opinion about Methods and Techniques						
62.	The teaching-learning activities are conducted with the use of participatory methods and techniques.					
63.	The teacher educators/tutors have lacking in modern pedagogical knowledge and skills.					
64.	Modern technologies are used in the teaching-learning process.					
65.	The teacher educators/tutors use teaching aids in their regular teaching-learning process.					
I. Opinion about Co-curricular Activities						
66.	There is scope of required co-curricular activities in the B.Ed. program.					
67.	There is arrangement for physical activities for the B.Ed. students.					
68.	There is required number of instructor for conducting the physical activities of the students.					
69.	The B.Ed. students organize seminar, discussion, debate etc. on the occasion of different national and international days.					

Sl. No.	Statement	Answer				
J. Opinion about Evaluation System		A	B	C	D	E
70.	The present evaluation system of the B.Ed. program is valid and reliable.					
71.	Examination of B.Ed. held in time.					
72.	Examination result is published in due time.					
73.	The present evaluation system can measure all aspects of the students' achievement like knowledge, skills, attitude, personality, etc.					
74.	The number distribution between the internal and external examinations is appropriate (only applicable for national university examination).					
K. Opinion about Admission Procedure, Program Duration, Contact Hour and Teacher-student Ratio						
75.	The duration of B.Ed. program is inadequate.					
76.	The high teacher-student ratio in the B.Ed. is a barrier to maintain the quality of the teaching-learning process.					
77.	Almost all the students who admitted in the B.Ed. program come out successfully.					
79.	Under existing admission system meritorious students can be screened for admission in to the B.Ed. program.					
78.	The B.Ed. teaching-learning can not be organized effectively due to short duration of class period.					

Part C: Attitude towards the Quality of the B.Ed. Program

Read the following statements carefully. Each has five possible answers. Choose the best answer for each of the statements and put a tick mark (✓) on the appropriate column given at the right. Please answer following the guidelines given below.

A = Strongly Agree B = Agree C = Undecided D = Disagree E = Strongly Disagree

Sl. No.	Statements	Responses				
		A	B	C	D	E
1.	It is possible to produce good quality secondary school teachers through the existing B.Ed. program.					
2.	There is a need to improve the quality of the B.Ed. program to increase its acceptability.					
3.	The present B.Ed. program attracts people to enroll in it.					
4.	The B.Ed. program is not a satisfactory program.					
5.	The B.Ed. program is a modern teacher education program.					
6.	I do not feel motivated to inspire others to get admitted in to the B.Ed. program of BOU/NU.					
7.	The standard of B.Ed. is appreciable.					
8.	It is able to meets the demand of the secondary schools.					
9.	The B.Ed. program is being conducted in an ineffective way.					
10.	This program is merely a certificate oriented program.					
11.	It is being conducted in a traditional manner.					
12.	The teacher trainees can achieve high professional quality through the B.Ed. program.					
13.	I feel happy to be involved with such a teacher education program.					
14.	To me getting admitted in to the program means wastage of time.					
15.	The knowledge and skills acquired through this program is not up to the mark.					
16.	The secondary school teachers can achieve effective teaching skills through it.					
17.	The quality of B.Ed. makes me worried.					
18.	I am happy thinking that the trainees could receive effective training from the B.Ed. program.					
19.	It is not possible to achieve the desired goal of the B.Ed. in the way it is being conducted.					
20.	Being a teacher educator/tutor of the program I really feel self-complacency.					

Part C: Open Ended Questions

1. a. Do you think the B.Ed. of the TTC/BOU is a quality teacher education program?

Yes ☐

No ☐

- b. If your answer is no then please mention the reason.

2. Please mention two strengths and two weaknesses of the B.Ed. program according to your own view.

Strengths:

1)

2)

Weaknesses:

1)

2)

3. Please put forward two specific recommendations for overall improvement of the B.Ed. program of your institutions.

ANNEX 7

Rating Scale for Observation of the Classroom Teaching Performance of the B.Ed. Graduates in Real School Situation

General Information

1. Name of the teacher:

2. Name of working school and address:

.....

3. Sex: Female ☐ Male ☐

4. Name and address of the teacher training institution/tutorial center from where obtained the B Ed:

.....

5. The teacher education institution/TC belongs to which university?

National University ☐ Open University ☐

6. In which year the B.Ed. degree was obtained?

7. Subject and date of observation:

Observation	Date of observation	Time of observation		Class	Subject
		Starts	Finishes		
1st day					
2 nd day					

Observation of Classroom Teaching-learning Process

Please write the appropriate alphabet, which suits best to your opinion, on the right hand side columns against each of the following statements.

A = Completely Agree

B = Agree

C = Not Applicable

D = Disagree

E = Completely Disagree

Sl. No.	Subject of Observation	Observation	
Classroom Environment		1 st day	2 nd day
1.	The size of the classroom is appropriate.		
2.	The chalkboard of the classroom is suitable for use.		
3.	The students from their own seat can see the blackboard.		
4.	There are required furniture in the classroom.		
5.	The students have required textbook with them.		
6.	The students are neat and clean.		
7.	The students are enthusiasts to receive the lesson.		
8.	The classroom is neat and clean.		
Management			
9.	The graduate teacher came to the class in time.		
10.	To make the classroom environment suitable for teaching-learning he/she did required rearrangement.		
11.	The graduate teacher introduced the content of teaching with relevant example(s).		
12.	He/She created a student friendly teaching-learning environment in the classroom.		
13.	The teacher came to the class with required preparation.		
Planning Lessons			
14.	The graduate teacher prepared lesson plan/lesson note.		
15.	The behavioral objectives of the lesson were stated in the lesson plan/note.		
16.	The graduate teacher wrote the behavioral objectives correctly in the plan/note.		
17.	The teaching-learning methods and strategies mentioned in the plan/note were appropriate.		
18.	There was mention of appropriate teaching aids in the plan/note.		
19.	The evaluation technique mentioned in the plan/note was appropriate.		
Presentation of Lesson			
20.	The graduate teacher presented the lesson in simple language.		
21.	His/Her voice was loud enough to listen by the students.		

Sl. No.	Subject of Observation	Observation	
		1 st day	2 nd day
22.	His/Her pronunciation was clear and understandable.		
23.	The presentation of the graduate teacher was facile.		
24.	The graduate teacher conducted the teaching-learning strategies based on the objectives and learning outcomes.		
25.	He/She treated all students equally.		
26.	The graduate teacher had clear idea about the curriculum of the subject.		
27.	He/She paid attention to all the students.		
28.	The example(s) used by him/her was/were appropriate.		
29.	The graduate teacher involved the students to discuss the content of lesson among themselves.		
30.	He/She used standard Bangla language in the presentation.		
31.	The graduate teacher asked thought provoking questions to the students.		
32.	He/She taught through learning by doing method where ever necessary.		
33.	Presented the lesson joyfully.		
34.	Became impatient after getting wrong answer from the students.		
35.	The graduate teacher allowed the students to freely express their opinion.		
36.	He/She appreciated the students' opinion and creative thinking.		
37.	He/She inspired the students to memorize the contents.		
38.	The graduate teacher was fully dependent on textbook during the whole class period.		
39.	Explained the complex and abstract ideas to the students.		
40.	Involved the students in group activities (groups of two or more than two).		
41.	The graduate teacher employed modern teaching-learning techniques (brainstorming, role playing, debate, story telling, etc.).		
42.	He/She used varied methods and techniques.		
43.	Used lecture method in his/her presentation.		
44.	He/She inspired the students to acquire the skill of self-learning.		
45.	Created opportunity for the students to be involved in the learning process actively.		
46.	The graduate teacher read line by line from the book.		
47.	He/She asked the students questions individually instead of asking the whole class together.		
48.	All students answered in chorus to the questions.		
49.	The teacher asked closed questions (which could be answered from the book directly).		

Sl. No.	Subject of Observation	Observation	
		1 st day	2 nd day
50.	The graduate teacher asked the same questions to several students.		
51.	Tried to pull out answers from the students to the questions asked.		
52.	He/She presented the lesson in an organized manner.		
53.	He/She has deep knowledge and understanding of the subject matter.		
54.	The graduate teacher was especially careful about the slow learner/problematic students.		
55.	He/She was careful about use of time during presentation.		
56.	The graduate teacher called the students by name.		
57.	He/She helped the students to learn keeping in view their individual differences.		
58.	Praised the students for their activities with the use of motivational words like good, very good, excellent, etc.		
59.	He/She related the lesson with the practical life experience of the students.		
60.	The graduate teacher took the students in real environment (out of classroom) for giving them practical experience.		
61.	The graduate teacher monitoring students' activities by moving around the class.		
62.	He/She provided required feedback on students' activity/work.		
63.	Treated equally the students of both genders (Where coeducation exists).		
64.	He/She made the summary of the lesson.		
65.	He/She gave idea on the lesson of next class.		
66.	He/She finished the lesson abruptly and left the classroom.		
Use of Chalk Board			
67.	The graduate teacher used the chalkboard as per requirement.		
68.	The writing of the teacher on the board was clear and tidy.		
69.	The writing on the board was clearly viewable from the back.		
Use of Teaching Aids			
70.	The graduate teacher made use of required teaching aids in the teaching-learning process.		
71.	The teaching aid (s) used was/were relevant to the lesson presented.		
72.	He/She utilized the teaching aids properly.		

Sl. No.	Subject of Observation	Observation	
Summarization of the Lesson		1 st day	2 nd day
73.	The teacher made summary of the lesson at the end.		
74.	He/She made the students drilling for consolidating their learning.		
75.	The teacher clearly explained the students about the drilling work.		
Evaluation			
76.	The graduate teacher continuously assessed students' achievement.		
77.	He/She assessed whether the students achieved the predefined objectives/learning outcomes of the lesson.		
78.	Students were given brief written assignment in the class.		
79.	Students were asked oral questions.		
80.	The graduate teacher identified the slow learners.		
81.	He/She gave remedial measures to the weak and slow learners based on the findings of continuous assessment.		

Personal Comments of the Observer

Indicator	Day 1	Day 2
How much efficiently the graduate teacher delivered his/her lessons?	Very much effective ☐ Effective ☐ Not effective ☐ Not at all effective ☐	Very much effective ☐ Effective ☐ Not effective ☐ Not at all effective ☐
According to you how many percent of the students could achieve the learning outcomes of the lesson?		
In your observation, what are the areas need to pay more attention in the delivery of B.Ed. programs offered by govt. TTCs/ Private TTCs/SoE- BOU?		

Name of the observer:

Signature and date:

ANNEX 8

Practical Guidelines for Observation of the Classroom Teaching Performance of the B.Ed. Graduates

Following are some guidelines to be followed before, during and after the Observation. It will facilitate you to make the observation effective.

Before Observation

1. Hold a **pre-observation meeting** with the B.Ed. graduates to be observed. Discuss with them about the objective of the observation and the process to be followed.
2. **Internalize** the different parts and statements of the observation checklist so that you can use it efficiently and easily for the purpose of observation.

During Observation

3. Take a seat at the **back of the classroom** and keep a low profile so as not to distract the students.
4. During the presentation of the teacher **only observe**. Do not make any **intervention**. Also keep away from asking any question. Only work as a **silent observer** of the teaching-learning process.
5. Fill in one checklist for each classroom observation with pencil.
6. Observe both the **teacher** (B.Ed. graduate) and the **students**.
7. Keep a complete **neutral role** during the observation. Avoid making any **comments** either positive or negative.
8. At the end extend your thanks to the teacher and the students for their cooperation and leave the classroom silently without any comment.

After Observation

9. Take the opportunity to ask the teacher what she/he intended to teach. What was the **aim and objective (s)** of the lesson.
10. Consult the lesson plan prepared for the particular lesson and check whether the goal, objectives/learning outcomes are mentioned properly. Do not make any **comment about them**. If the lesson plan is not prepared just skip the issue.
11. **Critically rethink and recheck** the observation findings.
12. Fill in the checklist **as soon as the observation is over**. Please do not delay the recording of observation as it may be difficult to remember details which strike you at the moment.
13. Answer the open questions given at the end of the checklist simultaneously with the observation statements and write the answers in point or bullet.
14. Read the filled in checklist during your off time. Reflect on the whole matter and you can bring some changes if really feel as necessary.
15. Be sure that you have filled in/write all the closed and open ended questions. Your filling up and writings in the checklist also should be neat and legible so that it can be well understood by the researcher.
16. Finally put your signature at the front page of the observation checklist and keep with care for submission.

ANNEX 9

Information Sheet about Enrolment and Output Statistics of the TTCs and TCs/BOU

1. Name and Address of the TTCs/TCs:

.....

2. Established in:

3. Please provide the data on enrolment and output of the B Ed program of your institution in the following table.

Academic Year	Nos. of Students Enrolled		Nos. of Students Appeared in Final Exam		Nos. of Students Passed		Division/ Class Obtained			
	F	M	F	M	F	M	F	M	F	M
2004 - 05										
2003 - 04										
2002 - 03										
2001 - 02										
2000 - 01										
1999 - 00										
1998 - 99										

Signature
Principal/Coordinator
TTTC/TC

ANNEX 10

Information Sheet on Academic Background of the Faculty of the TTCs/TCs

Name of the TTC/TC:

Please provide the following information of the faculty of your institution as per the following table.

Name of the Tutors	Date of Birth	Edn. Qual.	Prof. Edn. (B Ed/M Ed)	Status of In-service Training				Trn. in ODL
				In-country		Overseas		
				Content	Duration	Content	Duration	
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								

Signature
Principal/Coordinator

ANNEX 11

List of Teachers' Training Colleges and B.Ed. Tutorial Centers of BOU

Division	Name of TTC/Tutorial Centre	Category
Dhaka	1. Mymensingh Female Teachers Training College, Mymensingh.	Govt. TTC
	2. Modern Teachers Training College, 90/A, New Circular Road, Mouchak, Dhaka 1217.	Private TTC
	3. Teachers Training College, Dhanmondi, Dhaka.	BOU TC
Rajshahi	1. Teachers Training College, Rangpur.	Govt. TTC
	2. Sirajganj B Ed College, Shirajganj.	Private TTC
	3. Teachers Training College, Rajshahi.	BOU TC
Sylhet	1. Teachers Training College, Sylhet.	Govt TTC
	2. Jalalabad Teachers Training College, House No. 123/2, Road No. 04, Block F, Shahjalal Upashahar, Sylhet.	Private TTC
	3. Government MC College, Sylhet.	BOU TC
Chittagong	1. Teachers Training College, Feni.	Govt. TTC
	2. Chittagong College of Education, Bakulia, Chittagong.	Private TTC
	3. Teachers Training College, Chittagong.	BOU TC
		Total
Barisal	1. Teachers Training College, Barisal.	Govt. TTC
	2. College of Education B Ed, Uttar Amanatganj Barisal.	Private TTC
	3. Begum Tofazzal Hossain Manik Mia Women College, Barisal.	BOU TC
Khulna	1. Teachers Training College, Jessore.	Govt TTC
	2. Sarwar Khan Teachers Training College, Khalishpur, Khulna.	Private TTC
	3. Teachers Training College, Khulna.	BOU TC

ANNEX 12

List of Schools where the Performance of the B.Ed. Graduates were Observed

Division	School	Nos. of Graduates			Tot.
		Govt. TTC	Pvt. TTC	TCS/BOU	
Dhaka	1. Biddaya Niketon High School, Mymensingh	1			1
	2. Mukul Niketon High School, Mymensingh	3			3
	3. National Bank School, Dhaka		2		2
	4. Siddheswary Girls' High School, Dhaka		2		2
	5. Agrani School and College, Dhaka			3	3
	6. Ekramunnessa High School, Dhaka			1	1
Rajshahi	7. Rangpur Zilla School, Rangpur	4			4
	8. Sabuj Kanon High School, Sirajganj		2		2
	9. Sirajganj Bahumukhi High School, Sirajganj		2		2
	10. Sher E Bangla High School, Natore			2	2
	11. Rajshahi Muslim High School, Rajshahi			2	2
Sylhet	12. Govt. Agragami High School, Sylhet	1	1		2
	13. Sonar Bangla High School, Goain Ghat, Sylhet	1	1	1	3
	14. Kishorimohon Girls' High School, Sylhet	1		2	3
	15. Amberkhana Girls' High School and College, Sylhet	1		1	2
	16. Jalalabad Cantoment high School, Sylhet		1		1
	17. Shahjalal Jamia Islamia School and College, Sylhet		1		1
	18. Gunobati Bahumukhi High School, Comilla	4			4
Chittagong	19. Renessa School and College, Chittagong		2		2
	20. Metropolitan Residential School and College		2		2
	21. Dr. Khastagir High School, Chittagong			2	2
	22. Chittagong Collegiate School, Chittagong			2	2
	23. Jessore Govt. Girls' High School, Jessore	2			2
Khulna	24. Jessore Zilla School, Jessore	2			2
	25. SOS Herman Mynor School, Khulna			4	4
	26. Khulna Engineering University School, Khulna		3		3
	27. Doulatpur Muhsin Secondary High School, Khulna		1		1
	28. Kashipur High School and College, Barisal	2			2
Barisal	29. Madhob Pasha Chandradip School and College, Barisal	1	2	2	5
	30. ARS Secondary Girls' High School, Barisal	1			1
	31. Nuria Secondary High School, Barisal			2	2
	32. Brazamohon High School, Barisal		1		1
	33. Mathuranath Public High School, Barisal		1		1
	Total	24	24	24	72

ANNEX 13

Subjects Taught by the Graduates in Secondary Schools

Subject	Graduates of			
	Govt. TTCs	Private TTCs	TCs/BOU	Total
Bangla	07	04	13	24
English	10	06	10	26
Mathematics	08	15	10	33
General Science	08	09	03	20
Social Science	02	03	06	11
Business Education	03	03	00	6
Agriculture Education	02	02	00	4
Physics	00	00	01	1
Chemestry	01	00	01	2
Biology	02	04	00	6
Islamiat	00	00	01	1
History	02	00	01	3
Economics	01	00	00	1
Home Economics	00	01	00	1
Geography	02	01	02	5
Total	48	48	48	144

ANNEX 14

Response Pattern to the Opinion Scales of the B.Ed. Graduates of the TTCs and BOU

Item No.	Frequencies														
	Govt. TTCs					Private TTCs					BOU				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
Opinion about Curriculum															
1	2	14	2	5	1	2	14	4	4	-	1	10	3	10	-
2	3	11	6	4	-	7	13	1	3	-	1	13	1	9	-
3	9	12	1	2	-	8	13	3	-	-	3	10	3	7	1
4	1	5	8	8	2	-	5	7	8	4	-	4	5	11	4
5	3	6	3	9	3	2	3	3	13	3	-	4	8	11	4
6	-	12	4	7	1	3	7	2	7	5	-	5	4	14	1
7	3	12	4	4	1	6	12	3	2	1	-	14	3	2	4
8	6	13	2	3	-	8	9	4	3	-	9	8	5	2	-
9	4	6	3	9	2	6	5	6	3	4	1	5	4	5	9
10	1	9	5	6	3	2	10	6	4	2	-	3	4	15	2
Opinion about Instructional Aids and Materials															
11	2	15	-	6	1	3	6	3	9	3	2	12	4	1	5
12	3	14	1	6	-	2	6	7	6	3	1	15	4	4	-
13	1	11	1	5	6	-	5	3	10	6	-	3	5	7	9
14	1	12	2	5	4	1	6	4	6	7	1	5	5	5	8
15	-	-	4	14	6	-	2	1	18	3	6	9	9	-	-
16	6	13	2	3	-	11	8	3	2	-	-	-	5	6	13
17	-	-	-	10	14	-	-	2	9	13	-	-	5	6	13
18	-	-	-	9	15	-	-	2	5	17	-	1	1	5	17
Opinion about Infrastructural Facilities															
19	10	11	-	3	-	7	8	4	2	3	5	14	1	4	-
20	12	10	-	1	1	8	9	-	6	1	4	16	2	2	-
21	12	10	-	2	-	8	11	2	2	1	5	12	5	2	-
22	13	10	-	1	-	9	12	-	3	-	5	16	2	1	-
23	4	4	5	6	5	2	4	1	9	8	-	4	2	6	12
24	14	7	-	2	1	2	5	-	4	13	6	9	2	5	2
25	9	11	1	2	1	3	3	3	8	7	4	7	2	6	5
26	10	11	1	1	1	3	11	2	6	2	5	10	3	2	4
27	12	6	-	5	1	5	7	1	9	2	3	9	2	7	3
28	6	6	2	3	7	3	3	2	8	8	2	4	4	5	9
Opinion about Academic Environment															
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
29	8	13	2	1	-	7	7	1	8	1	5	10	3	3	3
30	8	14	-	2	-	10	10	2	1	1	4	12	1	6	1

Item No.	Govt. TTCs					Private TTCs					TCs of BOU				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
31	3	8	3	6	4	7	15	-	-	2	3	4	2	12	3
32	12	10	-	2	-	2	12	4	5	1	5	13	2	1	3
33	15	6	2	-	1	6	12	4	2	-	6	12	3	3	-
34	6	11	1	3	3	4	6	4	3	7	-	2	8	5	9
Opinion about Methods and Techniques															
35	5	14	1	2	2	4	16	-	4	-	4	10	3	4	3
36	3	19	1	-	1	3	10	7	4	-	2	9	6	4	3
37	1	-	1	10	12	-	1	-	9	14	-	2	-	4	18
38	4	3	3	8	6	7	7	6	4	-	4	12	-	6	2
39	3	12	4	3	2	-	14	2	8	-	2	13	3	2	4
40	1	2	3	13	5	-	5	3	6	10	-	3	2	10	9
41	3	14	2	2	3	-	15	4	3	2	3	11	3	6	1
42	4	14	3	2	1	4	10	4	5	1	3	14	1	4	2
43	2	2	4	10	6	2	8	5	4	5	2	3	4	4	11
44	5	15	1	2	1	3	12	4	5	-	3	12	6	-	3
45	-	1	5	12	6	-	2	3	16	3	-	-	3	11	10
46	8	15	1	-	-	7	13	2	2	-	4	12	6	2	-
47	3	16	3	1	1	4	11	4	5	-	2	15	1	3	3
48	4	10	6	3	1	3	9	3	8	1	2	12	5	2	3
Opinion about Teaching Practice															
49	7	13	1	1	2	4	10	1	8	1	1	11	3	8	1
50	7	13	1	2	1	2	12	-	8	2	-	14	4	3	3
51	6	10	4	2	2	1	12	4	5	2	-	8	6	10	-
52	5	10	-	6	3	1	14	2	7	-	-	7	7	6	4
53	5	15	2	1	1	-	14	1	9	-	-	9	9	6	-
54	8	10	3	2	1	2	8	5	8	1	-	3	7	10	4
55	5	12	3	2	2	3	12	4	4	1	-	8	10	5	1
56	4	9	6	4	1	1	8	6	8	1	-	2	6	12	4
57	2	4	4	9	5	-	4	2	13	5	-	4	4	13	3
Opinion about Co-curricular Activities															
58	3	13	1	5	2	1	4	2	11	16	-	3	7	6	8
59	1	8	3	8	4	-	2	5	10	7	-	1	5	10	8
60	3	9	5	7	-	5	5	6	7	1	2	12	6	2	2
61	1	11	2	10	-	1	2	6	11	4	-	-	6	9	9
62	3	12	3	5	1	-	5	6	10	3	-	-	9	7	8
63	9	4	2	7	2	2	7	4	9	2	-	2	5	8	9
64	1	15	2	5	1	2	6	5	10	1	-	6	11	4	3
Opinion about Evaluation System															
65	2	4	6	9	3	2	2	2	8	-	-	8	3	11	2
66	2	3	6	11	2	2	8	2	12	-	-	6	5	13	-

Item No.	Govt. TTCs					Private TTCs					TCs of BOU				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
67	2	7	3	8	4	4	10	-	7	3	1	6	3	9	5
68	1	9	8	4	2	1	7	5	7	4	-	2	7	9	6
69	1	10	4	7	2	1	7	6	9	1	-	2	6	11	5
70	8	8	2	4	2	-	10	5	7	2	2	7	6	4	5
71	6	13	-	5	-	5	11	2	5	1	4	13	-	7	-
72	9	13	-	2	-	7	14	1	1	1	4	12	1	3	4
73	3	3	5	6	7	2	9	4	4	5	8	12	4	-	-
74	5	11	-	1	7	5	11	-	3	5	2	5	4	5	8
Opinion about Student Support Services															
75	3	5	1	4	11	2	5	2	5	10	4	2	-	6	12
76	3	9	1	7	4	3	3	2	7	9	-	1	5	9	9
77	5	9	4	6	-	-	-	2	11	11	7	11	5	1	-
78	-	-	2	7	15	-	1	4	3	16	-	-	1	4	19
79	-	1	1	5	17	-	2	4	18	-	-	1	-	3	20
80	2	6	-	6	10	6	6	1	3	8	-	1	3	8	12
81	-	-	-	-	-	6	6	1	3	8	-	3	4	6	11
Opinion about Professionalism and Scope of Professional Development															
82	6	14	3	-	1	6	10	3	5	-	6	8	3	3	4
83	7	12	3	1	1	5	13	1	5	-	4	10	1	5	4
84	14	7	1	1	1	8	13	1	2	-	6	8	4	6	-
85	7	13	2	2	-	4	12	1	7	-	2	11	4	7	-
86	6	10	6	2	-	5	7	4	8	-	5	11	4	-	4
Opinion about Admission Procedure															
87	1	2	6	8	7	5	4	5	6	4	-	4	1 1	5	4
Opinion about Program Duration															
88	5	7	2	5	5	5	6	3	3	7	2	4	5	3	10
Opinion about Teacher-student Ratio															
89	10	10	-	4	-	6	8	3	4	3	4	2	5	11	2
Opinion about Class Duration															
90	5	7	5	4	3	5	10	3	4	2	2	9	5	4	4

ANNEX 15

Response Pattern to the Opinion Scale of the Teacher Educators/Tutors of the TTCs and the TCs/BOU

Item No.	Frequencies														
	Govt. TTCs					Private TTCs					TCs/BOU				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
	Opinion about Curriculum														
1	1	12	5	5	1	6	12	-	6	-	5	9	1	8	1
2	2	12	3	6	1	7	7	2	6	2	7	11	2	3	1
3	0	10	7	6	1	4	12	3	4	1	-	14	2	8	-
4	1	4	2	3	14	3	5	1	6	9	1	7	3	3	10
5	2	5	5	8	4	4	6	2	10	2	1	4	7	11	1
6	2	12	2	5	3	10	11	2	1	-	1	5	1	10	7
7	0	6	10	4	4	1	7	7	7	2	-	8	7	8	1
8	7	9	2	4	2	12	4	4	3	1	6	9	5	3	1
9	1	6	8	8	1	4	4	4	12	-	1	8	1	13	1
10	1	8	6	6	3	8	4	1	8	3	-	2	2	11	9
11	2	7	7	7	1	8	8	2	4	2	-	-	4	10	10
12	0	8	8	6	2	8	6	2	6	2	1	7	3	10	3
	Opinion about Instructional Aids and Materials														
13	0	3	5	14	2	3	8	3	9	1	0	3	4	13	3
14	0	1	3	10	10	-	4	2	8	10	-	1	-	7	16
15	0	2	7	11	4	-	1	3	12	8	1	2	5	7	9
16	0	0	1	11	12	-	1	2	6	15	-	1	-	3	20
17	3	8	3	9	1	6	8	1	9	-	2	11	2	9	-
18	0	1	0	11	12	-	1	1	7	15	-	-	1	4	19
19	0	2	3	16	3	-	2	3	13	6	-	4	2	8	13
20	0	1	6	10	7	-	1	1	8	14	1	0	2	8	13
21	2	13	3	5	1	1	10	5	8	-	-	4	9	9	2
	Opinion about Student Support Services														
22	1	10	3	9	1	2	18	1	2	1	1	3	1	7	12
23	1	4	1	13	5	-	7	4	12	1	1	3	2	7	11
24	1	6	5	8	4	1	13	3	6	1	-	3	3	9	9
25	0	2	3	16	3	-	3	2	12	7	1	1	2	10	10
26	11	7	3	3	-	8	12	2	2	-	9	3	6	2	4
27	2	7	3	7	5	3	3	5	6	7	1	4	3	3	14
28	7	7	1	7	2	4	6	2	5	7	-	4	3	3	14
29	-	-	2	6	16	-	-	2	8	14	-	-	4	5	15
30	2	8	5	8	1	3	10	6	3	2	-	5	3	13	3
31	1	2	5	7	9	1	3	3	10	7	-	2	1	-	21
32	4	11	1	6	2	11	10	-	3	-	11	6	2	5	-

Opinion about Infrastructural Facilities																
Item No.	Govt. TTCs					Private TTCs					TCs of BOU					
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	
33	4	10	4	6	-	11	8	1	4	-	9	11	0	4	-	
34	9	9	2	3	1	5	3	8	3	5	17	6	-	1	-	
35	8	5	5	5	1	6	-	4	8	6	10	6	3	4	1	
36	8	6	4	3	3	12	7	2	1	2	13	3	5	3	-	
37	-	11	1	6	6	1	3	4	8	8	3	2	4	8	7	
38	7	8	1	5	3	15	7	1	1	-	7	6	3	7	1	
39	4	8	2	8	2	7	4	1	7	5	6	5	2	4	7	
40	3	6	3	6	6	6	8	3	5	2	9	8	2	5	-	
41	4	10	2	6	2	7	8	5	4	-	7	9	1	7	-	
42	6	10	2	4	2	6	12	3	2	1	3	5	1	11	4	
43	5	8	2	5	4	2	7	3	3	9	3	7	1	6	7	
44	9	11	4	-	-	8	13	2	1	-	11	8	2	3	-	
Opinion about Academic Environment of the Institutions																
45	8	12	-	4	-	17	4	-	3	-	12	10	2	-	-	
46	11	10	3	-	-	16	8	-	-	-	14	9	-	-	1	
47	13	8	3	-	-	15	8	-	1	-	16	7	1	-	-	
48	9	8	2	4	1	14	10	-	-	1	8	8	2	4	2	
49	2	4	3	8	7	4	1	5	7	7	3	4	3	2	12	
50	8	8	6	2	-	13	11	-	-	-	10	9	2	2	1	
51	-	3	5	8	8	2	4	6	3	9	5	5	6	5	3	
52	3	15	3	2	1	15	7	1	-	1	10	9	2	2	1	
53	1	6	3	6	8	3	4	8	4	5	10	5	2	5	2	
54	2	13	4	4	1	11	9	3	1	-	5	10	3	5	1	
55	3	9	9	2	1	9	11	1	1	2	4	10	2	7	1	
56	3	6	3	8	4	3	11	3	4	3	11	8	5	-	-	
57	1	3	4	12	4	-	5	3	7	9	-	2	5	7	10	
58	1	7	8	5	3	9	5	3	6	1	4	4	8	3	5	
59	2	10	5	2	5	7	4	8	5	0	4	2	8	5	5	
60	2	3	5	4	10	4	7	4	2	7	-	-	7	10	7	
Opinion about Teachers' Professionalism and Scope of Prof. Development																
61	8	13	1	2	-	17	6	1	-	-	11	13	-	-	-	
62	2	4	4	9	5	2	1	6	10	5	-	5	3	11	5	
63	1	4	8	10	1	5	5	2	6	6	-	7	3	6	8	
64	-	2	5	6	11	5	1	6	2	10	4	2	1	3	13	
65	-	6	5	10	3	-	3	2	6	13	-	3	2	7	13	
67	9	6	5	3	1	11	6	2	3	2	8	5	5	1	5	
Opinion about Teaching Practice																
68	2	9	4	5	4	4	4	2	12	2	1	2	3	10	8	
69	4	13	5	1	1	11	9	-	4	-	4	13	2	3	2	
70	3	10	5	4	2	10	9	2	3	-	3	5	5	9	3	
71	-	16	4	4	-	8	12	3	1	-	3	7	6	6	2	
72	3	12	3	4	2	6	7	3	8	-	3	4	4	8	5	
73	4	16	2	2	-	7	11	5	1	-	6	6	5	5	2	

Item No.	Govt. TTCs					Private TTCs					TCs of BOU				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
74	-	12	5	7	-	5	14	4	1	-	2	5	8	8	1
75	-	12	6	5	1	4	11	5	4	-	2	5	5	11	1
76	3	14	4	3	-	5	16	3	0	-	3	2	12	3	4
77	1	13	4	4	2	4	7	9	4	-	2	1	8	3	10
78	3	12	6	2	1	6	8	4	6	-	2	-	11	6	5
79	5	14	4	1	-	11	10	2	1	-	6	4	7	7	-
80	5	14	3	2	-	8	14	2	1	-	3	2	9	6	6
81	5	13	4	2		6	11	2	3	2	4	8	5	7	-
82	2	7	7	6	2	2	6	8	7	1	1	7	6	8	2
Opinion about Methods and Techniques															
83	-	12	4	7	1	3	5	9	6	1	3	5	9	6	1
84	-	-	4	11	9	-	-	2	3	19	-	-	2	3	19
85	1	4	9	9	1	1	4	6	11	2	1	4	6	11	24
86	1	9	8	6	-	4	7	6	7	-	4	7	6	7	-
87	1	12	5	6	-	4	7	8	4	1	4	7	8	4	1
88	1	13	3	5	2	4	10	5	5	-	4	10	5	5	-
89	2	10	6	5	1	5	8	5	5	1	5	8	5	5	1
90	2	8	4	7	3	2	1	7	10	4	2	1	7	10	4
91	4	9	3	8	-	2	-	7	5	10	2	-	7	5	10
Opinion about Co-curricular Activities															
92	6	13	1	4	-	8	9	-	7	-	-	6	3	9	4
93	6	14	2	1	1	1	4	5	12	2	-	1	4	5	14
94	5	8	3	8	-	3	9	5	7	-	1	1	5	7	10
95	1	5	8	7	3	-	5	4	9	6	4	2	12	4	2
96	3	5	4	8	4	3	3	4	8	6	-	3	10	7	4
97	-	7	3	5	9	2	1	4	8	9	4	5	11	2	1
Opinion about Evaluation System															
98	2	4	4	10	4	3	13	1	6	1	0	6	5	9	4
99	1	9	4	6	4	1	8	5	9	1	Not Applicable				
100	-	7	5	10	2	2	9	4	4	5	2	6	4	9	3
101	-	7	7	9	1	1	11	4	4	4	2	5	19	6	1
102	-	8	8	7	1	2	7	3	9	3	1	1	8	9	5
103	-	4	8	7	5	1	4	4	10	5	-	1	6	6	11
104	10	10	3	1	-	13	10	1	-	-	13	5	3	3	1
105	1	6	4	3	10	2	6	6	4	6	-	-	4	7	13
106	1	7	7	5	4	4	6	7	7	-	2	8	9	4	1
107	1	10	5	7	1	7	7	4	6	-	1	6	6	11	-
108	2	10	6	5	1	5	9	3	6	1	2	17	3	2	-
Opinion about Admission Procedure															
109	1	1	7	11	4	9	7	4	2	2	3	1	6	5	9
Opinion about Class Duration															
110	3	3	10	4	4	6	6	6	3	3	5	6	11	-	2
Opinion about Class Duration															
111	-	-	6	11	7	4	6	6	6	2	8	4	5	3	4
Opinion about Teacher-students Ratio															
112	-	5	7	4	8	6	5	3	7	3	7	4	4	3	6

ANNEX 16

Response Pattern to the Opinion Scales of the Principals/Course Coordinators of the TTCs and TCs/BOU

Item No.	Frequencies																	
	Government TTCs					Private TTCs					TCs of BOU							
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C
Opinion about Curriculum																		
1	-	3	1	2	-	-	4	1	-	1	1	4	-	1	-			
2	-	3	1	2	-	-	3	1	2	-	1	3	-	2				
3	-	-	1	5	-	1	-	-	4	1	-	3	1	-	2			
4	1	4	1	1	-	2	2	1	1	-	2	2	-	2	-			
Opinion about Instructional Aids and Materials																		
5	-	1	1	3	1	1	3	-	2	-	-	1	-	3	1			
6	-	-	-	5	1	1	2	-	1	2	-	1	-	4	2			
7	-	-	1	5	-	-	2	-	3	1	-	1	4	-	1			
8	-	1	-	3	2	-	2	1	1	2	-	1	-	3	2			
9	1	3	-	2	-	-	4	-	2	-	1	1	-	2	2			
10	1	-	1	-	4	-	1	1	3	1	1	3	-	2	-			
Opinion about Student Support Services																		
11	-	2	1	3	-	1	5	-	-	-	1	1	-	2	2			
12	-	1	1	4	-	-	5	1			-	3	-	1	1			
13	-	2	1	2	1	1	2	2	-	1	-	2	-	2	2			
14	3	2	1	-	-	2	3	-	-	1	3	1	-	-	1			
15	-	-	-	2	5	-	-	-	3	3	-	1	-	1	4			
16	-	-	-	2	2	2	1	-	3	-	-	-	-	3	3			
Opinion about Infrastructural Facilities																		
17	1	3	-	2	-	4	2	-	-	-	1	3	1	1	-			
18	3	2	-	1	-	5	-	1	-	-	2	3	1	-	-			
19	2	2	-	2	-	2	1	3	-	-	3	2	-	-	1			
20	2	1	-	3	-	2	2	1	2	-	3	-	1	2	-			
21	1	3	-	2	-	5	1	-	-	-	-	-	-	2	4			
22	2	2	-	2	-	5	1	-	-	-	1	3	-	2	-			
23	3	1	-	2	-	-	3	-	2	1	-	2	1	1	2			
24	1	2	-	1	2	3	3	-	-	-	2	2	1	1	-			
25	1	3	-	2	-	3	3	-	-	-	-	3	-	3	-			
26	-	4	-	2	-	4	1	-	1	-	3	2	-	-	1			

Opinion about Academic Environment of the Institutions																
Item No.	Government TTCs					Private TTCs					TCs of BOU					
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	
27	2	2	2	-	-	4	2	-	-	-	-	4	1	-	-	1
28	-	-	-	5	1	5	2	1	1	1	-	2	-	1	3	
29	1	4	1	-	-	4	2	-	-	-	4	1	1	-	-	
30	3	2	1	-	-	4	2	-	-	-	5	-	1	-	-	
31	1	5	-	-	-	4	2	-	-	-	4	-	2	-	-	
32	2	4	-	-	-	3	3	-	-	-	3	2	-	1	-	
33	1	4	1	-	-	2	2	-	-	2	2	3	-	2	1	
34	4	2	-	-	-	5	1	-	-	-	2	3	-	1	-	
35	1	2	-	3	-	2	1	1	2	-	2	1	2	1	-	
36	-	3	-	1	2	1	-	2	1	2	-	-	1	1	4	
37	-	-	-	3	3	3	-	1	2	-	-	3	2	1	-	
38	-	-	-	5	1	-	-	1	3	2	-	-	-	3	3	
39	-	-	1	3	2	1	-	3	2	-	-	-	-	1	5	
40	-	-	-	6	-	4	2	-	-	-	3	1	1	1	-	
41	-	1	-	5	-	4	2	-	-	-	2	2	1	1	-	
42	-	-	2	-	4	1	-	-	-	5	-	-	-	-	5	
Opinion about Professionalism and Scope of Prof. Development																
43	3	3	-	-	-	3	3	-	-	-	4	2	-	-	-	
44	4	2	-	-	-	5	1	-	-	-	5	1	-	-	-	
45	3	3	-	-	-	5	1	-	-	-	4	2	-	-	-	
46	4	2	-	-	-	3	3	-	-	-	3	2	1	-	-	
47	1	5	-	-	-	5	1	-	-	-	3	2	1	-	-	
48	-	6	-	-	-	4	2	-	-	-	2	3	-	1	-	
49	2	2	2	-	-	3	2	-	-	1	3	3	-	-	-	
50	-	-	3	4	-	1	2	1	-	2	-	2	-	-	4	
51	2	4	-	-	-	5	1	-	-	-	3	3	-	-	-	
52	-	2	-	4	-	1	4	-	-	1	-	2	-	2	2	
53	-	1	-	4	1	1	1	2	-	2	-	-	3	1	2	
54	1	1	-	2	2	-	-	3	1	2	-	-	-	3	3	
55	-	-	-	1	5	-	-	2	1	3	-	-	-	2	4	
56	-	2	1	3	-	1	1	2	1	-	2	4	-	-	-	
Opinion about Teaching Practice																
57	5	-	-	-	-	4	2	-	-	-	1	3	-	1	1	
58	3	1	-	2	-	4	2	-	-	-	-	1	-	2	3	
59	3	1	-	2	-	4	2	-	-	-	2	2	-	2	-	
60	1	3	-	2	-	1	3	-	1	1	-	1	-	3	2	
61	3	3	-	-	-	3	3	-	-	-	1	1	-	3	1	
Opinion about Methods and Techniques																
62	1	1	2	2	-	3	3	-	-	-	1	2	-	3	-	
63	-	4	1	1	-	-	-	-	4	2	-	4	-	1	1	

	Government TTCs						Private TTCs						TCs/BOU				
	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
64	-	1	1	4	-		1	1	1	2	1		-	1	-	2	3
65	2	3	-	1	-		1	4	-	1	1		-	3	-	3	-
Opinion about Co-curricular Activities																	
66	1	5	-	-	-		2	2	1	1	-		1	1	-	1	3
67	1	4	-	1	-		1	2	2	1	-		-	1	-	1	4
68	1	3	-	1	1		-	3	3	-	-		-	1	-	2	3
69	2	4	-	-	-		2	2	-	2	-		-	1	-	2	3
Opinion about Evaluation System																	
70	-	-	3	3	-		-	3	1	2	-		-	1	-	3	2
71	3	2	1	-	-		5	1	-	-	-		1	4	-	1	-
72	-	-	3	2	1		3	1	-	1	1		-	-	-	4	2
73	2	1	3	-	-		-	4	-	2	-		-	-	-	4	2
74	-	2	2	2	-		1	2	-	1	1		Not Applicable				
Opinion about Program Duration																	
75	-	2	2	2	-		2	1	1	1	1		-	-	2	3	1
Opinion about Teacher-student Ratio																	
76	-	1	5	-	-		-	1	1	3	-		1	3	1	1	-
Opinion about Admission Procedure																	
77	2	3	1	-	-		3	3	-	-	-		-	4	1	1	-
Opinion about Class Duration																	
78	-	2	3	1	-		-	-	2	3	1		1	2	1	-	2

ANNEX 17

Item and Variable wise Mean Opinion Scores of the B.Ed. Graduates of the TTCs and BOU

Item No	Government TTC			Private TTCs			TCs/BOU		
	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank
Opinion about Curriculum									
1	3.46	1.06	3	3.58	0.88	3	3.08	1.02	4
2	3.54	0.93	2	4.00	0.93	2	3.25	1.03	3
3	4.17	0.87	1	4.08	0.93	1	3.29	1.16	2
4	2.79*	1.02	8	2.54*	1.02	7	2.38*	0.97	7
5	2.88*	1.30	7	2.50*	1.14	8	2.63*	0.82	5.5
6	3.13	0.99	4	2.83*	1.40	5	2.63*	1.10	5.5
7(N)	2.50*	1.06	9	2.17*	1.04	9	2.25*	0.99	9
8(N)	2.08*	0.93	10	2.08*	1.02	10	2.00*	0.97	10
9(N)	2.96*	1.31	6	2.75*	1.42	6	3.67	1.31	1
10	3.04	1.16	5	3.13	1.23	4	2.33*	0.82	8
Total	3.06	0.58		2.97	0.71		2.75	0.54	
Opinion about Instructional Aids and Materials									
11	3.46	1.10	2	2.88*	1.29	2	3.21	1.32	2
12	3.58	1.02	1	2.92*	1.18	1	3.54	0.83	1
13	2.83*	1.37	4	2.29*	1.08	4	2.08*	1.06	5
14	3.08	1.21	3	2.50*	1.29	3	2.42*	1.28	3
15	1.92*	0.65	6	2.08*	0.72	5	1.75*	0.74	6
16(N)	2.08*	0.93	5	1.83*	0.96	6	2.13*	0.80	4
17	1.42*	0.50	7	1.54*	0.66	7	1.67*	0.82	7
18	1.38*	0.49	8	1.38*	0.78	8	1.42*	0.78	8
Total	2.47	0.61		2.18	0.52		2.28	0.75	
Opinion about Infrastructural Facilities									
19	4.17	0.98	5.5	3.58	1.35	4	3.83	0.96	3
20	4.29	0.99	3.5	3.71	1.30	3	3.92	0.78	1
21	4.33	0.87	2	3.96	1.08	2	3.83	0.96	3
22	4.46	0.72	1	4.13	0.95	1	3.83	0.87	3
23	2.83*	0.83	10	2.29*	1.33	9	1.92*	1.14	10
24	4.29	1.12	3.5	2.13*	1.48	10	3.50	1.32	5
25	4.04	1.08	7	2.46*	1.38	7	2.96*	1.46	8
26	4.17	1.00	5.5	3.29	1.23	5	3.42	1.38	6
27	3.96	1.33	8	3.17	1.37	6	3.08	1.32	7
28	3.04	1.63	9	2.38*	1.40	8	2.38*	1.38	9
Total	3.96	0.56		3.11	0.74		3.29	0.78	
Opinion about Academic Environment									
29	4.17	0.76	3.5	3.45	1.35	4	3.46	1.32	6
30	4.17	0.82	3.5	4.13	1.03	1	3.50	1.18	5
31	3.00	1.35	6	4.04	1.04	2	2.67*	1.27	3.5

	Government TTC			Private TTCs			TCs/BOU		
	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank
32	4.33	0.87	2	3.38	1.06	5	3.67	1.24	3.5
33	4.42	0.97	1	3.96	0.81	3	3.88	0.95	1.5
34	3.58	1.34	5	2.88*	1.51	6	3.88	1.03	1.5
Total	3.90	0.55		3.64	0.49		3.51	0.45	
Opinion about Methods and Techniques									
35	3.71	0.99	4.5	3.83	0.92	1	3.33	1.30	7
36	3.92	0.75	1	3.50	0.93	4	3.13	1.19	9
37	1.67*	0.92	13	1.50*	0.72	14	1.42*	0.88	14
38(N)	3.38	0.98	9	2.29*	1.08	10	2.58*	1.28	10
39	1.44*	1.00	14	3.25	0.94	6	3.29	1.27	8
40	2.11*	1.02	10	2.13*	1.19	12	1.96*	1.00	12
41	3.60	1.21	8	3.21	1.10	7	3.38	1.13	6
42	3.75	0.99	4.5	3.45	1.00	5	3.50	1.18	2.5
43(N)	3.67	1.20	6	3.08	1.32	9	3.79	1.38	1
44	3.88	0.99	3	3.54	0.98	3	3.50	1.14	2.5
45	1.71*	0.55	11.5	2.17*	0.76	11	1.71*	0.69	13
46(N)	1.71*	0.55	11.5	1.96*	0.86	13	2.25*	0.85	11
47	3.80	0.88	2	3.58	1.02	2	3.42	1.21	4.5
48	3.59	1.06	7	3.20	1.18	8	3.42	1.21	4.5
Total	2.99	0.99		2.92	0.74		2.90	0.77	
Opinion about Teaching Practice									
49	3.92	1.14	3	3.33	1.24	3	3.13	1.08	3.5
50	3.96	1.04	1	3.17	1.24	6	3.20	1.10	1
51	3.67	1.20	5.5	3.21	1.10	4.5	2.92*	0.88	6
52	3.33	1.40	8	3.38	0.97	2	2.71*	1.08	7
53	3.92	0.93	3	3.21	0.98	4.5	3.13	0.80	3.5
54	3.92	1.10	3	3.08	1.10	7	2.38*	0.92	8
55	3.67	1.17	5.5	3.50	1.06	1	3.00	0.85	5
56	3.46	1.10	7	3.00	1.02	8	2.25*	0.85	9
57	2.54*	1.25	9	2.21*	0.98	9	2.38*	0.92	2
Total	3.60	0.46		3.12	0.37		2.79	0.37	
Opinion about Co-curricular Activities									
58	3.42	1.21	3.5	2.29*	1.16	6	2.21*	1.06	4
59	2.75*	1.22	6	2.08*	0.93	7	1.96*	0.86	6
60(N)	2.67*	1.05	7	2.75*	1.22	3	2.58*	1.06	3
61	3.13	1.03	5	2.38*	1.01	5	1.88*	0.80	7
62	3.46	1.10	1.5	2.54*	0.98	4	2.04*	0.86	5
63	3.46	1.47	1.5	3.08	1.18	1	4.00	0.97	1
64	3.42	1.02	3.5	2.92*	1.10	2	2.83*	0.96	2
Total	3.19	0.35		2.58	0.65		2.50	0.75	
Opinion about Evaluation System									
65	2.71*	1.16	8	3.33	1.05	3.5	2.71*	1.04	4.5
66	2.67*	1.09	9	3.00	1.10	7	2.71*	0.86	4.5
67	2.79*	1.28	7	3.21	1.38	5	2.54*	1.22	6

Item No	Government TTCs			Private TTCs			TCs/BOU		
	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank
68	3.13	1.03	5	2.75*	1.19	10	2.21*	0.88	8.5
69	3.04	1.12	6	2.92*	1.02	9	2.21*	0.88	8.5
70	3.67	1.34	4	2.96*	1.04	8	2.88*	1.10	3
71	3.83	1.05	3	3.58	1.18	2	3.58	1.10	1
72	4.21	1.00	1	4.04	0.95	1	3.38	1.38	2
73	2.54*	1.38	10	3.04	1.33	6	1.83*	0.70	10
74	4.08	3.91	2	3.33	1.49	3.5	2.50*	1.38	7
Total	3.18	0.66		3.22	0.38		2.66	0.53	
Opinion about Student Support Services									
75	2.38*	1.56	3	2.33*	1.43	2.5	2.17*	1.55	1
76	3.00	1.38	1	2.33*	1.43	2.5	1.92*	0.88	4
77(N)	2.46*	1.10	5	1.63*	0.65	4	2.00*	0.83	2
78	1.46*	0.66	2	1.588	0.93	5	1.25*	0.53	6.5
79	1.42*	0.78	6	1.33*	0.64	6	1.25*	0.68	6.5
80	2.33*	1.46	4	2.96*	1.68	1	1.71*	0.86	5
81	Not Applicable			Not Applicable			1.96*	1.08	3
Total	2.18	0.62		2.03	0.62		1.75	0.37	
Opinion about Professionalism and Scope of Professional Development									
82	4.00	0.88	3	3.71	1.08	3	3.38	1.44	3
83	3.96	0.99	4	3.75	1.03	2	3.21	1.41	5
84	4.33	1.05	1	4.13	0.85	1	3.58	1.14	1
85	4.04	0.86	2	3.54	1.10	4	3.33	1.00	4
86	3.83	0.92	5	3.38	1.17	5	3.54	1.32	2
Total	4.03	0.18		3.79	0.79		3.40	0.15	
Opinion about Admission Procedure									
87(N)	3.75	1.11		3.00	1.41		3.38	0.97	
Opinion about Program Duration									
88(N)	2.92*	1.50		3.04	1.57		3.63	1.41	
Opinion about Teacher-student Ratio									
89(N)	1.92*	1.065		2.58*	1.38		3.21	1.25	
Opinion about Class Duration									
90(N)	2.71*	1.33		2.58*	1.38		2.96*	1.27	

- ‘*’ indicates Negative Opinion
- Criterion Mean = 3
- Scores above ‘3’ indicates Positive Opinion
- Scores below ‘3’ indicates Negative Opinion

ANNEX 18

Item and Major Variable wise Mean Opinion Scores of the Teacher Educators/Tutors of the TTCs and BOU

Item No	Government TTCs			Private TTCs			TC/BOU		
	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank
Opinion about Curriculum									
1	3.29	1.00	2	3.75	1.11	2	3.38	1.28	2
2	3.33	1.09	1	3.46	1.38	6	3.83	1.13	1
3	3.08	0.93	4.4	3.58	1.10	4	3.25	0.94	3
4(N)	1.96*	1.33	12	2.45*	1.50	11	2.42*	1.41	8
5	2.71*	1.23	10	3.00	1.32	8.5	2.71*	0.95	6.5
6	3.25	1.26	3	4.25	0.79	1	2.29*	1.23	10
7	2.75*	1.03	9	2.92*	1.06	10	2.92*	0.93	4
8 (N)	2.37*	1.31	11	2.04*	1.26	12	2.33*	1.13	9
9	2.92*	1.14	7	3.00	1.18	8.5	2.79*	1.10	5
10	2.92*	1.14	7	3.25	1.53	7	1.87*	0.90	11
11	3.08	1.06	4.5	3.67	1.34	3	1.75*	0.74	12
12	2.92*	0.97	7	3.50	1.02	5	2.71*	1.16	6.5
Total	2.88	0.73		3.24	0.60		2.68	0.57	
Opinion about Instructional Aids and Materials									
13	2.38*	0.82	3	3.13	1.19	3	2.25*	0.89	3
14	1.83*	0.87	7	2.00*	1.10	5	1.42*	0.72	7
15	2.29*	0.86	4	1.88*	0.80	6	2.13*	1.15	4
16	1.54*	0.59	9	1.54*	0.83	7.5	1.25*	0.68	8.5
17	3.13	1.19	2	3.46	1.25	1	3.25	1.07	1
18	1.70*	0.85	8	1.50*	0.78	9	1.25*	0.53	8.5
19	2.17*	0.75	5	2.08*	0.93	4	1.95*	1.12	5
20	2.00*	0.88	6	1.54*	0.78	7.5	1.67*	0.96	6
21	3.42	1.10	1	3.17	0.96	2	2.63*	0.88	2
Total	2.26	0.47		2.26	0.55		1.96	0.49	
Opinion about Student Support Services									
22	3.04	1.08	3	3.75	0.99	1	1.92*	1.21	5.5
23	2.33*	1.86	6	2.71*	0.95	5	1.92*	1.21	5.5
24	2.67*	1.17	5	3.29	1.04	3	2.00*	1.02	4
25	2.17*	0.76	7	2.04*	0.95	8	1.83*	1.04	8
26 (N)	1.92*	1.05	9	1.92*	0.88	9	2.54*	1.50	1
27	2.75*	1.33	4	2.54*	1.38	6	2.08*	1.32	3
28	3.42	1.41	1	2.79*	1.53	4	1.88*	1.19	7
29	1.42*	0.65	10	1.50*	0.66	10	1.54*	0.78	9

Item No.	Government TTCs			Private TTCs			TC/BOU		
	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank
30	3.08	1.10	2	3.38	1.13	2	2.42*	0.97	2
31	2.13*	1.15	8	2.21*	1.14	7	1.33*	0.92	10
Total	2.48	0.58		2.62	0.52		1.96	0.63	
Opinion about Infra-structural Facilities									
32	3.38	1.28	8	4.21	0.98	2	3.96	1.20	5
33	3.96	1.12	2	4.08	1.10	4.5	4.04	1.04	4
34	3.92	1.18	3	3.00	1.41	10	4.63	0.71	1
35	3.58	1.28	5	2.67*	1.52	11	3.83	1.27	7
36	3.58	1.38	5	4.08	1.25	4.5	4.08	1.14	3
37	2.71*	1.28	13	2.21*	1.18	13	2.42*	1.35	13
38	3.45	1.44	7	4.50	0.78	1	3.45	1.32	9
39	3.17	1.31	11	3.04	1.60	9	2.96*	1.63	10
40	2.75*	1.42	12	3.46	1.32	8	3.87	1.15	6
41	3.33	1.27	9	3.75	1.07	7	3.67	1.20	8
42	3.58	1.28	5	3.83	1.05	6	2.67*	1.34	12
43	3.21	1.44	10	2.58*	1.47	12	2.71*	1.49	11
44	4.20	0.72	1	4.17	0.76	3	4.17	1.06	2
Total	3.41	0.81		3.51	0.63		3.45	0.89	
Opinion about Academic Environment									
45	3.92	1.00	4	4.46	1.02	6.5	4.42	0.65	3
46	4.33	0.70	2	4.66	0.48	1	4.46	0.88	1
47	4.42	0.72	1	4.54	0.72	3.5	4.45	0.59	2
48	3.83	1.24	6	4.58	0.50	2	3.67	1.34	8
49(N)	3.58	1.32	8.5	3.50	1.41	5	3.67	1.55	8
50	4.00	0.98	3	4.54	0.51	3.5	3.96	1.27	6
51(N)	3.89	1.03	5	3.54	1.38	10	3.17	1.34	12
52	3.79	0.98	7	4.46	0.93	6.5	4.00	1.22	5
53(N)	3.58	1.31	8.5	3.17	1.30	12	3.67	1.43	8
54	3.46	1.02	10	4.25	0.85	8	3.54	1.18	10
55	3.45	0.98	11	4.00	0.98	9	3.38	1.20	11
56	2.83*	1.10	14	3.29	1.26	11	4.25	0.79	4
57	2.38*	1.06	15	2.17*	1.17	15	1.96*	0.99	16
58(N)	3.13	1.13	12	2.38*	1.35	15	2.96*	1.37	13
59(N)	2.92*	1.32	13	2.45*	1.14	14	2.79*	1.35	14
60	2.29*	1.36	16	2.96*	1.52	13	2.00*	0.78	15
Total	3.60	0.55		3.73	0.34		3.61	0.68	
Opinion about Professionalism and Scope of Professional Development									
61	4.13	0.85	1	4.67	0.56	1	4.46	0.51	1
62	2.54*	1.25	5	2.37*	1.13	5	2.33*	1.05	6
63	2.63*	0.97	4	2.87*	1.54	4	2.38*	1.24	5
64(N)	3.72	1.25	3	3.46	1.58	3	3.79	1.59	2

Item No.	Government TTCs			Private TTCs			TC/BOU		
	Mean	SD	Rank		Mean	SD	Rank		Mean
65	1.92*	1.02	7	1.79*	1.06	7	1.75*	1.03	7
66	2.50*	0.92	6	2.04*	1.26	6	2.67*	1.13	4
67(N)	3.79	1.21	2	3.88	1.36	2	3.42	1.13	3
Total	3.04	0.40		2.97	0.55		2.99	0.63	
Opinion about Teaching Practice									
68	3.00	1.29	15	2.83*	1.31	15	2.08*	1.10	15
69	3.75	0.94	5	4.13	1.08	3.5	3.58	1.26	1
70	3.33	1.17	10	4.08	1.02	5.5	2.89*	1.19	8
71	3.50	0.78	8	4.13	0.80	3.5	3.13	1.19	6.5
72	3.42	1.18	9	3.46	1.21	12.5	2.71*	1.31	12
73	3.92	0.78	1.5	4.00	0.83	7	3.37	1.31	5
74	3.21	0.89	12.5	3.96	0.75	8	2.96*	1.04	10
75	3.21	0.93	12.5	3.63	0.97	9	2.83*	1.09	11
76	3.71	0.86	6	4.08	0.58	5.5	2.88*	1.19	9
77	3.29	1.08	11	3.46	0.98	12.5	2.25*	1.29	14
78	3.58	0.97	7	3.58	1.14	11	2.50*	1.10	13
79	3.91	0.72	3	4.29	0.81	1	3.38	1.17	3.5
80	3.92	0.83	1.5	4.25	0.61	2	3.38	1.01	3.5
81	3.83	0.96	4	3.62	1.31	10	3.46	1.01	2
82(N)	3.04	1.14	14	2.96*	1.04	14	3.13	1.08	6.5
Total	3.51	0.50		3.76	0.43		2.96	0.77	
Opinion about Methods and Techniques									
83	3.13	0.99	5	3.46	1.22	3.6	3.13	1.08	4
84	1.79*	0.79	9	1.63*	0.82	9	1.29*	0.62	9
85	2.79*	0.93	7.5	2.71*	0.86	6.5	2.63*	1.01	6
86(N)	2.79*	0.88	7.5	1.96*	0.86	8	2.67*	1.09	5
87	3.33	0.92	2	3.75	1.03	1	3.38	1.10	3
88	3.25	1.11	4	3.63	1.17	2	3.54	1.02	1
89	3.29	1.04	3	3.46	1.18	3.5	3.45	1.18	2
90	2.96*	1.23	6	2.71*	0.95	6.5	2.46*	1.10	7
91	3.38	1.13	1	3.13	1.12	5	2.13*	1.23	8
Total	2.97	0.71		2.93	0.52		2.74	0.68	
Opinion about Co-curricular Activities									
92	3.88	0.99	2	3.75	1.22	2	2.17*	1.27	4
93	3.96	0.95	1	2.58*	1.02	6	1.67*	0.92	6
94	3.42	1.11	4	3.33	1.05	5	2.00*	1.10	5
95(N)	3.17	1.03	6	3.67	1.09	3	2.92*	1.14	2
96(N)	3.20	1.32	5	3.46	1.35	4	3.50	0.93	1
97(N)	3.58	1.27	3	3.88	1.23	1	2.54*	1.06	3
Total	3.56	0.57		3.44	0.51		2.38	0.62	

Item No.	Government TTCs			Private TTCs			TC/BOU		
	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank
Opinion about Evaluation System									
98	2.58*	1.21	9	3.46	1.14	3.5	2.54*	1.06	7
99	2.88*	1.23	5	2.96*	1.04	7	Not Applicable		
100	2.73*	0.99	8	2.95*	1.33	8	2.79*	1.22	6
101	2.85*	0.92	6	3.04	1.23	6	3.04	0.99	4
102	2.97*	0.97	4	2.83*	1.24	9	2.33*	1.00	8
103	2.48*	1.02	10	2.41*	1.14	11	1.88*	0.95	9
104	4.22	0.83	1	4.50	0.58	1	4.17	1.10	1
105	2.38*	1.38	11	2.75*	1.32	10	1.63*	0.77	10
106	2.83*	1.67	7	3.17	1.04	5	3.25	0.99	3
107	3.15	1.03	3	3.63	1.17	2	2.91*	0.93	5
108	3.29	1.04	2	3.46	1.21	3.5	3.79	0.72	2
Total	3.00	0.71		3.24	0.75		2.84	0.48	
Opinion about Program Duration									
109(N)	2.37	0.97		2.21	1.28		3.67	1.38	
Opinion about Admission Procedure									
110(N)	2.88	1.23		2.58	1.21		2.50	1.10	
Opinion about Class Duration									
111(N)	1.96	0.75		2.83	1.24		2.67	1.58	
Opinion about Teacher-student Ratio									
112(N)	2.38	1.17		2.67	1.40		2.88	1.60	

- ‘*’ indicates Negative Opinion
- Criterion Mean = 3
- Scores above ‘3’ indicates Positive Opinion
- Scores below ‘3’ indicates Negative Opinion

ANNEX 19

Item and Variable wise Mean Opinion Scores of the Principals/Course Coordinators of the TTCs and TCs/BOU

Item No.	Private TTCs			Government TTCs			TCs/BOU		
	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank
	Opinion about Curriculum								
1	3.10	0.98	2.5	3.33	1.21	2	3.83	0.98	1
2	3.17	0.98	2.5	3.17	0.98	3	3.50	1.22	2
3(N)	3.63	0.41	1	3.67	1.37	1	3.17	1.47	4
4(N)	2.20*	0.84	4	2.17*	1.17	4	2.33*	1.37	3
Total	3.08	0.66		3.25	0.67		3.21	0.98	
	Opinion about Instructional Aids and Materials								
5	2.33*	1.03	3	3.50	1.22	1	2.00*	1.09	4.5
6	1.83*	0.41	6	2.83*	1.72	3	2.00*	1.09	4.5
7	2.17*	0.41	4	2.00*	1.10	6	2.00*	1.09	4.5
8	2.50*	1.10	2	2.50*	1.38	4	2.00*	1.09	4.5
9	3.50	1.22	1	3.33*	1.03	2	2.50*	1.64	2
10	2.00*	1.67	5	2.33*	1.03	5	3.50	1.22	1
Total	3.03	1.14		2.45	0.33		2.22	1.00	
	Opinion about Student Support Services								
11	2.83*	0.98	2	4.16	0.41	1	2.50*	1.64	3
12	2.50*	0.84	4	3.50	1.22	3	2.67*	1.51	2
13	2.67*	1.21	3	3.33	1.37	4.5	2.33*	1.37	4
14	4.33	0.82	1	3.83	1.47	2	3.50	1.97	1
15	1.17*	0.41	6	1.50*	0.55	6	1.67*	1.21	5
16	1.67*	0.52	5	3.33	1.51	4.5	1.50*	0.55	6
Total	3.13	0.74		2.53	0.48		2.31	1.11	
	Opinion about Infrastructural Facilities								
17	3.50	1.22	3.5	4.67	0.52	4.5	3.67	1.55	4.5
18	4.17	1.17	1	4.67	0.82	4.5	4.17	0.75	1
19	3.67	1.37	5.5	3.83	0.98	7.5	4.00	1.55	2
20	3.33	1.50	8	3.83	1.17	7.5	3.67	1.51	4.5
21	3.50	1.22	7	4.83	0.41	2	1.33*	0.52	9
22	3.67	1.37	5.5	4.83	0.41	2	3.50	1.22	6
23	3.83	1.47	2	2.83*	1.33	9	2.50*	1.38	8
24	2.83*	1.72	9	4.83	0.41	2	3.83	1.17	3
25	3.50	1.22	3.5	4.50	0.55	6	3.00	1.09	7
Total	4.08	0.29		3.40	0.69		3.32	0.83	

Item No	Government TTCs			Private TTCs			TCs/BOU		
	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank
Item No.	Opinion about Academic Environment								
26	3.33	1.03	9.5	4.33	1.21	9.5	4.00	1.55	7.5
27	4.00	0.89	7	4.67	0.52	4.5	3.33	1.21	13.5
28	1.83*	0.41	17	3.17	1.47	15	2.17*	1.47	15
29	4.00	0.63	7	4.67	0.52	4.5	4.50	0.84	3.5
30	4.33	0.82	3	4.67	0.49	4.5	4.67	0.82	2
31	4.17	0.41	5	4.67	0.52	4.5	4.00	1.55	7.5
32	4.33	0.52	3	4.50	0.55	8	4.17	1.17	5
33	4.00	0.63	7	3.33	1.86	14	3.50	1.64	12
34	4.67	0.53	1	4.83	0.41	1	4.00	1.10	7.5
35	3.17	1.33	11	3.50	1.38	12.5	3.67	1.21	11
36(N)	3.33	1.51	9.5	3.50	1.52	12.5	4.50	0.84	3.5
37	1.67*	0.52	16	3.67	1.51	11	3.33	0.82	13.5
38	1.83*	0.41	14.5	1.83*	0.75	17	1.50*	0.55	16
39	1.83*	0.75	14.5	3.00	1.10	16	1.17*	0.41	17
40	2.00*	00	13	4.67	0.52	4.5	4.00	1.26	7.5
41	2.33*	0.82	12	4.67	0.52	4.5	3.83	1.17	10
42(N)	4.33	1.03	3	4.33	1.63	9.5	5.00	00	1
Total	4.00	0.27		3.24	0.27		3.61	0.56	
	Opinion about Professionalism and Scope of Professional Development								
43	4.50	0.55	3.5	4.50	0.55	6.5	4.67	0.52	2.5
44	4.67	0.51	1.5	4.83	0.41	2.5	4.83	0.41	1
45	4.50	0.55	3.5	4.83	0.41	2.5	4.67	0.52	2.5
46	4.67	0.52	1.5	4.50	0.55	6.5	4.33	0.82	6.5
47	4.17	0.41	6	4.83	0.41	2.5	4.33	0.82	6.5
48	4.00	00	7.5	4.67	0.52	5	4.00	1.09	8
49	4.00	0.89	7.5	4.00	1.55	8	4.50	0.55	4.5
50	2.33*	0.52	13	3.00	1.67	11	2.00*	1.55	11
51	4.33	0.52	5	4.83	0.41	2.5	4.50	0.55	4.5
52	2.67*	1.03	11	3.67	1.37	9	2.33*	1.37	10
53(N)	3.83	0.98	9	3.17	1.60	10	3.83	0.98	9
54	2.50*	1.64	12	2.17*	0.98	13	1.50*	0.55	13
55	1.17*	0.41	14	1.83*	0.98	14	1.33*	0.52	14
56(N)	3.17	0.41	10	2.33*	1.21	12	1.67*	0.52	12
Total	3.65	0.21		3.48	0.33		3.42	0.59	
	Opinion about Teaching Practice								
57	5.00	00	1	4.67	0.52	2	3.33	1.51	2
58	3.83	1.47	3.5	4.67	0.52	2	1.83*	1.17	5
59	3.83	1.47	3.5	4.67	0.52	2	3.67	1.37	1
60	3.50	1.22	5	3.33	1.51	5	2.00*	1.10	4
61	4.50	0.54	2	4.50	0.55	4	2.67*	1.51	3
Total	4.28	0.31		4.11	0.68		2.75	0.94	

Item No	Government TTCs			Private TTCs			TCs/BOU		
	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank
Item No.	Opinion about Methods and Techniques								
62	3.17	1.17	2	4.50	0.55	1	3.17	1.33	1
63(N)	2.50*	0.84	3.5	4.33	0.52	2	2.83*	1.33	3
64	2.50*	0.84	3.5	2.83*	1.47	4	1.83*	1.17	4
65	4.00	1.10	1	3.83	0.98	3	3.00	1.10	2
Total	1.67	1.75		2.72	0.58		2.61	0.98	
	Opinion about Co-curricular Activities								
66	4.17	0.41	2	3.83	1.17	1	2.33*	1.76	1
67	3.83	0.98	3	3.50	1.05	3.5	1.67*	1.21	4
68	3.33	1.51	4	3.50	0.55	3.5	1.83*	1.17	2.5
69	4.33	0.52	1	3.67	1.37	2	1.83*	1.17	2.5
Total	3.89	0.78		2.72	0.57		1.91	1.21	
	Opinion about Evaluation System								
70	2.50*	0.55	4	3.17	0.98	4	2.00*	1.10	2
71	4.33	0.82	1	4.83	0.41	1	3.83	0.98	1
72	2.33*	0.82	5	3.67	1.75	2	1.67*	0.52	3.5
73	2.83*	0.98	3	3.33	1.03	3	1.70*	0.52	3.5
74	3.00	0.89	2	3.00	1.55	5	NA		
Total	3.60	1.00		3.00	0.46		2.35	0.26	
	Opinion about Program Duration								
75(N)	3.00	0.89		2.67*	1.63		3.83	0.75	
	Opinion about Teacher-student Ratio								
76(N)	2.83*	0.41		3.67	1.03		2.33*	1.03	
	Opinion about Admission Procedure								
77	4.17	0.75		4.50	0.55		3.50	0.84	
	Opinion about Class Duration								
78(N)	2.83*	0.75		3.83	0.75		3.00	1.67	

- '*' indicates Negative Opinion
- Average Mean = 3
- Scores above '3' indicates Positive Opinion
- Scores below '3' indicates Negative Opinion

ANNEX 20

Performance Pattern of the B.Ed. Graduates of the Government TTCs in Real School Situation

A= Completely Agree B= Agree C= Not Applicable/Neutral D= Disagree
E= Completely Disagree

Item No.	Frequencies										Summary of Performances (%)		
	A		B		C		D		E		Practiced/ Satisfactory	Unde/ N. A.	Not Practiced/ Unsatisfac- tory
	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day			
	Classroom Environment												
1	11	11	10	9	-	-	2	3	1	1	85.42		14.58
2	13	11	10	11	-	-	-	1	1	1	93.75		06.25
3	13	13	11	11	-	-	-	-	-	-	100		-
4	2	2	18	19	-	-	2	3	2	-	85.42		14.58
5	12	11	11	10	-	-	1	2	-	1	91.67		08.33
6	8	8	11	12	-	-	3	3	2	1	81.25		18.75
7	4	4	13	15	-	-	4	5	3	-	75.00		25.00
8	6	7	10	9	-	-	5	6	3	2	66.66		33.33
	Management												
9	18	18	6	6	-	-	-	-	-	-	100		-
10	1	4	8	6	-	-	13	9	2	5	39.58		60.42
11	4	4	10	10	-	-	6	9	4	1	58.33		41.67
12	4	5	10	13	-	-	7	5	3	1	66.67		33.33
13	4	10	13	13	-	-	4	-	3	1	83.33		16.67
	Planning Lessons												
14	1	3	1	4	-	-	9	6	13	11	18.75		81.25
15	1	2	1	4	22	17	-	1	-	-	87.50		12.05
16	1	1	1	2	22	17	1	1	-	2	55.56		44.44
17	-	1	2	4	22	17	-	-	-	2	77.78		22.22
18		2	1	6	22	17	-	-	-	-	100		-
19	-	1	1	5	22	17	1	-	-	1	77.78		22.22
	Presentation of Lesson												
20	9	13	15	11	-	-	-	-	-	-	100		-
21	13	15	8	7	-	-	1	2	2	-	89.58		10.42
22	11	11	10	10	-	-	2	3	1	-	87.50		12.5
23	3	4	13	17	-	-	5	3	3	-	77.08		22.92
24	-	1	11	12	-	-	9	8	4	3	50.00		50.00
25	3	1	11	13	-	-	6	6	4	4	58.33		41.67

Item No.	Frequencies										Summary of Performances (%)		
	A		B		C		D		E				
	Ist day	2 nd day	Ist day	2 nd day	Ist day	2 nd day	Ist day	2 nd day	Ist day	2 nd day	Practiced/ Satisfactory	Unde/ N. A.	Not Pract/ Unsatisfac- tory
26	4	7	16	14	-	-	2	2	2	1	85.42	-	14.58
27	1	3	12	13	-	-	8	7	3	1	60.42	-	39.58
28	3	6	12	12	-	-	4	3	5	3	68.75	-	31.25
29	-	1	6	9	-	-	9	8	9	6	33.33	-	66.67
30	9	9	12	15	-	-	3	-	-	-	93.75	-	06.25
31	1	4	12	12	-	-	6	5	5	3	60.41	-	39.58
32	-	1	6	5	3	3	13	10	2	5	28.57	12.50	71.43
33	2	2	14	17	-	-	4	4	4	1	72.92	-	27.08
34(N)	5	2	3	7	-	-	12	14	4	1	64.58	-	35.42
35	1	-	11	-	-	-	8	7	16	5	25.00	-	75.00
36	-	3	14	18	-	-	5	1	5	2	72.92	-	27.08
37(N)	1	1	6	7	-	-	10	12	7	4	68.75	-	31.25
38(N)	2	3	8	8	-	-	8	9	6	4	56.25	-	43.75
39	3	8	15	13	-	-	2	3	4	-	81.25	-	18.75
40	1	-	4	5	-	-	10	9	9	10	20.83	-	79.17
41	-	-	4	4	-	-	11	9	9	11	16.67	-	83.33
42	-	-	4	-	-	-	12	12	8	12	15.00	-	85.00
43(N)	2	5	6	14	-	-	14	5	2	-	43.75	-	56.25
44	-	-	8	10	-	1	7	8	9	6	37.50	-	62.50
45	-	-	12	19	-	-	9	5	4	-	64.58	-	37.50
46(N)	3	5	7	7	-	-	8	10	5	2	52.08	-	47.92
47(N)	4	1	5	10	-	-	11	8	4	5	58.33	-	41.67
48(N)	2	3	7	9	-	-	14	11	1	1	56.25	-	43.75
49(N)	2	3	14	17	-	-	6	3	2	1	25.00	-	75.00
50(N)	3	4	12	13	-	-	6	5	1	4	33.33	-	66.67
51	4	1	15	18	-	-	4	4	1	1	79.17	-	20.83
52	3	2	11	20	-	-	6	2	4	-	75.00	-	25.00
53	7	6	17	16	-	-	-	2	-	-	95.83	-	04.17
54	-	-	8	10	-	-	12	8	4	6	37.50	-	62.50
55	2	1	16	18	-	-	3	4	3	1	77.08	-	22.22
56	4	5	14	12	-	-	2	4	4	3	72.91	-	27.08
57	-	1	7	8	-	-	7	7	10	8	33.33	-	66.67
58	1	2	14	15	-	-	3	3	6	4	66.67	-	33.33
59	2	1	7	17	-	-	7	3	8	3	56.25	-	43.75
60	-	1	2	1	9	9	8	6	5	7	13.33	37.50	86.67
61	2	3	10	12	-	-	8	6	4	3	56.25	-	43.75
62	-	1	12	15	-	-	7	3	5	5	58.33	-	41.67
63	1	1	3	2	18	20	2	-	-	1	70.00	-	30.00
64	2	5	13	10	-	-	5	9	4	-	62.50	-	37.50
65	1	-	12	11	-	-	8	10	3	3	50.00	-	50.00
66	6	4	7	9	-	-	9	10	2	1	45.73	-	54.17

Item No.	Frequencies										Summary of Performances (%)		
	A		B		C		D		E		Practiced/ Satisfactory	Undc/ N. A.	Not Pract/ Unsatisfac- tory
	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day			
	Use of Chalkboard												
67	12	14	11	10	-	-	1	-	-	-	97.92	-	02.08
68	13	14	11	9	1	-	-	1	-	-	97.87	-	02.13
69	13	16	9	6	1	-	1	2	-	-	93.62	-	06.38
	Use of Teaching Aids												
70	-	1	5	9	-	-	13	6	6	8	31.25	-	68.75
71	-	1	5	9	19	14	-	-	-	-	100	-	-
72	-	-	4	10	19	14	-	1	-	-	93.33	-	06.66
	Summarization of the Lesson												
73	4	3	13	15	-	-	6	6	1	-	72.92	-	27.08
74	4	5	13	14	-	-	3	4	4	1	75.00	-	25.00
75	-	2	13	16	-	-	9	5	2	1	64.58	-	35.42
	Evaluation												
76	2	3	12	14	-	-	8	-	2	7	64.54	-	35.42
77	2	2	13	15	-	-	6	5	3	2	66.67	-	33.33
78	1	-	7	13	-	-	10	7	6	3	45.83	-	54.17
79	6	8	17	15	-	-	1	1	-	-	95.83	-	04.17
80	-	1	1	3	-	-	13	12	1	8	10.42	-	89.58
81	-	1	-	2	-	-	8	10	14	13	06.25	-	93.75

Legend:

- Undc.= Undecided
- N. A.= Not Applicable
- Pract= Practiced

ANNEX 21

Performance Pattern of the B.Ed. Graduates of the Private TTCs in Real School Situation

A= Completely Agree B= Agree C= Not Applicable/Neutral D= Disagree
E= Completely Disagree

Item No.	Frequencies										Summary of Performances (%)		
	A		B		C		D		E		Practiced/ Satisfactory	Undc/ N. A.	Not Practiced/ Unsatisfactory
	1st day	2nd day	1st day	2nd day	1st day	2nd day	1st day	2nd day	1st day	2nd day			
	Classroom Environment												
1	8	7	9	10	-	-	4	4	3	3	70.83		29.17
2	8	8	14	15	-	-	2	1	-	-	93.75		06.25
3	7	7	14	16	-	-	3	1	-	-	91.67		08.33
4	5	5	15	16	-	-	3	2	1	1	85.42		14.33
5	5	5	14	16	-	-	4	3	1	-	83.33		16.67
6	4	4	14	16	-	-	5	4	1	-	79.17		20.83
7	4	4	13	15	-	-	4	5	3	-	75.00		25.00
8	1	-	13	19	-	-	8	4	2	1	68.75		31.25
	Management												
9	17	16	5	8	-	-	2	-	-	-	95.83		04.17
10	2	3	5	5	-	-	8	9	9	7	31.25		68.75
11	4	5	9	11	-	-	7	5	4	3	60.42		39.58
12	3	5	10	11	-	-	7	5	4	3	60.42		39.58
13	6	7	12	15	-	-	5	2	1	-	83.33		16.67
	Planning Lessons												
14	-	1	-	2	-	-	12	10	12	11	06.25		93.75
15	-	-	-	2	23	22	1	-	-	-	66.67		33.33
16	-	-	-	-	23	22	1	-	-	2	-		100
17	-	-	-	2	23	22	1	-	-	-	66.67		33.33
18	-	-	-	1	23	22	1	-	-	1	33.33		66.67
19	-	1	-	2	23	22	-	-	-	-	100		
	Presentation of Lesson												
20	7	10	16	12	-	-	2	1	-	-	93.7		06.25
21	9	11	12	10	-	-	3	3	-	-	87.75		12.50
22	8	7	9	10	-	-	7	7	-	-	70.83		29.17
23	7	8	13	12	-	-	4	2	-	2	83.33		16.67
24	-	1	3	5	-	-	15	11	6	7	18.75		81.25

Item No.	Frequencies										Summary of Performances (%)		
	A		B		C		D		E		Practiced/ Satisfactory	Unde/ N. A.	Not Pract/ Unsatisfac- tory
	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day			
25	6	7	10	8	-	-	6	7	2	2	64.58		35.41
26	2	4	8	9	-	-	10	9	4	2	47.92		52.08
27	2	4	8	9	-	-	10	9	4	2	47.92		52.08
28	-	4	12	13	-	-	9	6	3	1	60.42		39.58
29	-	-	5	8	-	-	10	10	9	4	27.08		72.91
30	5	8	13	12	-	-	6	3	-	-	81.25		18.75
31	-	2	13	11	-	-	9	8	2	3	54.17		45.83
32	-	-	4	4	3	4	8	8	9	8	19.51	14.58	80.49
33	1	4	13	13	-	-	9	6	1	1	64.58		35.42
34(N)	1	1	5	5	-	-	13	13	5	5	75.00		25.00
35	-	5	14	12	-	-	8	5	2	2	64.58		35.42
36	3	4	9	11	-	-	9	6	3	3	56.25		43.75
37(N)	3	3	7	6	-	-	10	12	4	3	60.42		39.58
38(N)	3	4	8	8	-	-	8	6	5	6	52.08		47.92
39	4	7	13	14	-	-	6	1	1	2	79.17		20.83
40	-	-	-	3	-	-	13	13	11	8	06.25		93.74
41	1	-	3	6	-	-	9	9	11	9	20.83		79.17
42	-	-	2	3	-	-	12	11	10	10	20.00		80.00
43(N)	9	8	10	11	-	-	5	5	-	-	20.83		79.17
44	-	-	3	10	-	-	17	9	4	5	27.08		72.92
45	1	2	5	6	-	-	12	10	6	6	29.17		70.83
46(N)	3	1	8	10	-	-	8	9	5	4	52.08		47.92
47(N)	1	1	9	9	-	-	12	12	2	2	54.17		41.67
48(N)	6	5	13	11	-	-	3	6	2	2	27.08		72.92
49(N)	3	4	14	10	-	-	5	8	2	2	35.42		64.58
50(N)	-	1	14	11	-	-	5	10	5	2	45.83		54.17
51	-	2	12	12	-	-	9	6	3	4	54.17		45.83
52	3	2	13	12	-	-	7	9	1	1	62.50		37.50
53	8	10	15	12	-	-	1	1	-	1	93.75		06.25
54	2	1	3	7	-	-	13	10	6	6	27.08		72.92
55	3	4	10	11	-	-	8	7	3	2	58.33		41.67
56	3	3	12	14	-	-	7	6	2	1	66.67		33.33
57	-	-	4	4	-	-	12	11	8	9	16.67		83.33
58	3	2	10	15	-	-	8	5	3	2	62.50		37.50
59	1	2	4	8	-	-	11	4	8	10	31.25		68.75
60	-	-	1	1	10	12	4	2	9	9	07.69	45.83	92.31
61	2	2	4	5	-	-	9	8	9	9	27.08		72.92
62	2	1	5	8	-	-	9	7	8	8	33.33		66.67
63	4	2	6	7	9	9	5	4	-	2	63.33		36.67
64	1	1	9	14	-	-	11	6	3	3	52.08		47.92
65	1	3	10	14	-	-	7	4	6	3	58.33		41.67
66	4	3	6	8	-	-	10	7	4	6	56.75		43.75

Item No.	Frequencies										Summary of Performances (%)		
	A		B		C		D		E		Practiced/ Satisfactory	Undc/ N. A.	Not Pract/ Unsatisfac- tory
	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day			
	Use of Chalkboard												
67	11	14	9	10	-	-	2	-	2	-	91.67		08.33
68	9	10	11	10	2	2	2	1	-	1	90.91		09.09
69	10	11	8	10	2	2	2	-	2	1	88.64		11.36
	Use of Teaching Aids												
70	3	3	5	7	-	-	12	7	4	7	37.50		62.50
71	3	2	4	7	16	14	-	1	1	-	88.89		11.11
72	2	2	2	6	16	14	2	1	2	1	66.67		33.33
	Summarization of the Lesson												
73	-	1	10	14	-	-	11	8	3	1	52.08		47.92
74	4	3	13	12	-	-	4	6	3	3	66.67		33.33
75	3	2	8	8	-	-	10	9	3	5	43.73		56.25
	Evaluation												
76	5	6	9	10	-	-	7	7	3	1	62.50		37.50
77	4	6	9	7	-	-	6	8	5	3	54.17		45.83
78	3	3	4	5	-	-	10	8	7	8	31.25		68.75
79	7	7	14	14	-	-	3	3	-	-	87.50		12.50
80	2	2	2	2	-	-	15	10	5	10	16.67		83.33
81	-	-	1	5	-	-	14	10	9	9	12.50		87.50

Legend:

Undc.= Undecided

N. A.= Not Applicable

Pract= Practiced

ANNEX 22

Performance Pattern of the B.Ed. Graduates of BOU in Real School Situation

A= Completely Agree B= Agree C= Not Applicable/Neutral D= Disagree
E= Completely Disagree

Item No.	Frequencies										Summary of Performances (%)		
	A		B		C		D		E		Practiced/ Satisfactory	Unde/ N. A.	Not Practiced/ Unsatisfac- tory
	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day			
	Classroom Environment												
1	10	11	11	11	-	-	2	1	1	1	89.58	-	10.42
2	13	12	7	8	-	-	3	3	-	1	83.75	-	16.67
3	9	8	14	16	-	-	1	-	-	-	97.22	-	02.08
4	7	8	16	14	-	-	-	1	2	-	93.75	-	06.25
5	6	7	13	13	-	-	3	1	2	3	81.25	-	18.75
6	9	8	12	15	-	-	3	1	-	-	91.67	-	08.33
7	4	7	14	15	-	-	6	2	-	-	83.33	-	16.67
8	9	9	8	13	-	-	7	2	-	-	81.25	-	18.75
	Management												
9	15	16	7	8	-	-	1	1	-	-	95.83	-	04.17
10	6	6	6	8	-	-	10	7	2	3	54.17	-	45.83
11	4	6	14	11	-	-	6	7	-	-	72.92	-	27.08
12	6	6	11	13	-	-	7	5	-	-	75.00	-	25.00
13	8	9	8	11			8	3	-	1	75.00	-	25.00
	Planning Lessons												
14	5	6	-	5	-	-	5	2	14	11	33.33	-	66.67
15	5	7	-	-	19	13	2	2	-	-	75.00	-	25.00
16	-	-	4	6	19	13	1	4	-	1	40.00	-	60.00
17	-	-	1	3	19	13	3	7	1	1	25.00	-	75.00
18	-	-	2	3	19	13	1	6	2	1	33.33	-	66.67
19	-	-	5	5	19	13	-	6	-	-	62.50	-	37.50
	Presentation of Lesson												
20	11	14	11	10	-	-	2	-	-	-	95.83	-	04.17
21	13	16	9	6	-	-	2	2	-	-	75.86	-	24.14
22	11	11	10	11	-	-	3	2	-	-	89.58	-	10.42
23	7	9	14	12	-	-	3	3	-	-	87.50	-	12.50
24	3	-	6	11	-	-	10	8	5	5	41.67	-	58.33
25	7	7	11	10	-	-	5	5	1	2	72.09	-	27.08

Item No.	Frequencies										Summary of Performances (%)		
	A		B		C		D		E		Practiced/ Satisfactory	Undc/ N. A.	Not Practiced/ Unsatisfactory
	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day			
26	6	6	15	16	-	-	3	2	-	-	89.58	-	10.42
27	7	8	10	9	-	-	6	5	2	1	70.83	-	29.17
28	5	6	10	11	-	-	9	6	-	1	66.67	-	33.33
29	1	1	7	4	-	-	10	13	6	6	27.08	-	72.91
30	5	8	13	12	-	-	6	4	-	-	79.17	-	20.83
31	12	12	7	9	-	-	3	1	2	2	83.33	-	16.67
32	2	2	6	6	-	-	10	11	6	5	33.33	-	66.67
33	6	7	9	12	-	-	9	6	-	-	70.83	-	29.17
34(N)	2	1	10	8	-	-	10	11	2	4	56.25	-	43.75
35	2	-	12	16	-	-	9	4	1	4	62.50	-	37.50
36	-	-	13	17	-	-	5	3	6	4	62.50	-	27.50
37(N)	1	1	7	8	-	-	13	10	3	5	64.58	-	35.17
38(N)	5	1	9	11	-	-	7	8	3	4	45.83	-	54.17
39	5	3	15	18	-	-	4	2	-	1	85.40	-	14.58
40	2	1	-	-	-	-	12	17	10	6	06.25	-	93.75
41	-	2	5	5	-	-	11	12	8	5	25.00	-	75.00
42	-	2	2	2	-	-	13	11	9	9	25.00	-	75.00
43(N)	7	6	11	11	-	-	4	5	2	2	27.08	-	72.92
44	1	2	10	12	-	-	8	8	5	2	52.08	-	47.92
45	2	1	10	13	-	-	8	4	4	6	54.17	-	45.83
46(N)	5	4	6	6	-	-	9	9	4	5	56.25	-	43.75
47(N)	6	5	10	10	-	-	6	7	2	2	35.42	-	64.58
48(N)	-	1	14	10	-	-	9	10	1	3	47.92	-	52.08
49(N)	8	7	14	16	-	-	2	1	-	1	93.75	-	06.25
50(N)	6	-	11	16	-	-	7	1	-	3	22.92	-	77.08
51	1	1	12	16	-	-	6	5	5	2	62.50	-	37.50
52	4	10	13	12	-	-	7	2	-	-	81.25	-	18.75
53	10	6	12	11	-	-	2	5	-	2	81.25	-	18.75
54	-	-	5	8	-	-	14	13	5	3	27.08	-	72.93
55	5	8	15	13	-	-	4	3	-	-	85.42	-	14.58
56	7	7	10	12	-	-	5	5	2	-	75.00	-	25.00
57	1	1	8	10	-	-	14	11	1	2	41.67	-	58.33
58	6	7	9	12	-	-	6	4	3	1	70.83	-	29.17
59	2	-	9	15	-	-	9	6	4	3	54.17	-	45.83
60	-	-	1	-	8	12	8	5	8	7	03.57	41.67	96.43
61	4	4	8	13	-	-	7	2	5	5	60.42	-	39.58
62	1	1	11	15	-	-	9	4	3	4	58.33	-	41.66
63	4	5	5	4	14	14	1	1	-	-	90.00	-	10.00
64	3	3	12	14	-	-	6	7	3	-	66.67	-	33.33
65	3	2	9	14	-	-	7	5	5	3	58.33	-	41.67
66	2	2	8	2	-	-	10	15	4	5	70.83	-	29.17

Item No.	Frequencies										Summary of Performances (%)		
	A		B		C		D		E		Practiced/ Satisfactory	Unde/ N. A.	Not Practiced/ Unsatisfac- tory
	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day	1st day	2 nd day			
	Use of Chalkboard												
67	11	12	10	10	-	-	2	2	1	-	89.58	-	10.42
68	12	15	7	5	3	2	1	2	1	-	90.70	-	09.30
69	15	15	4	4	3	2	1	2	2	-	88.37	-	11.63
	Use of Teaching Aids												
70	2	2	7	10	-	-	13	10	2	2	43.75	-	56.25
71	2	2	4	7	15	12	2	3	1	-	71.43	-	28.57
72	1	2	3	6	15	12	4	4	1	-	57.14	-	42.85
	Summarization of the Lesson												
73	4	1	12	17	-	-	6	5	2	1	70.83	-	29.17
74	4	3	11	17	-	-	7	2	2	2	72.92	-	27.08
75	3	3	12	16	-	-	7	5	2	-	70.83	-	29.17
	Evaluation												
76	3	4	15	15	-	-	6	4	-	1	77.08	-	22.92
77	-	-	11	16	-	-	7	4	6	4	56.25	-	43.75
78	-	-	8	13	-	-	11	6	5	5	43.75	-	56.25
79	9	9	12	14	-	-	3	1	-	-	91.67	-	08.33
80	-	-	2	8	-	-	6	11	6	5	20.83	-	79.17
81	-	-	3	6	-	-	13	11	8	7	18.75	-	81.25

Legend:

Undc.= Undecided

N. A.= Not Applicable

Pract= Practiced

ANNEX 23

Response Pattern of the Attitude Scale of the B.Ed. Graduates

Item No.	Govt. TTCs						Private TTCs						TCs of BOU				
	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1.P	16	8	-	-	-		19	4	-	1	-		7	16	-	1	-
2.p	13	9	1	1	-		13	9	-	2	-		6	15	3	-	-
3.P	9	13	-	-	2		9	12	2	1	-		3	13	4	-	4
4.n	3	2	4	10	5		4	2	6	4	8		2	1	8	11	2
5.P	5	10	2	5	2		3	16	2	2	1		1	14	7	2	-
6.p	9	14	-	1	-		8	11	2	2	1		2	21	-	1	-
7.P	7	8	5	3	1		4	7	7	4	2		1	14	7	2	-
8.n	-	-	3	11	10		1	2	2	13	6		-	-	5	12	7
9.n	-	1	2	14	7		1	3	3	13	4		-	1	4	15	4
10.n	2	7	4	7	4		2	4	3	14	1		2	7	4	9	2
11.p	4	13	3	4	-		3	16	1	3	1		3	13	1	7	-
12.n	-	7	6	7	4		2	3	1	16	3		3	8	6	6	1
13.n	8	6	3	6	1		7	4	5	6	2		3	10	7	2	2
14.p	4	9	3	7	1		5	12	3	3	1		1	8	6	6	3
15.n	1	1	2	15	5		-	4	6	10	4		1	-	5	13	5
16.P	4	14	4	2	1		5	9	3	3	1		7	8	6	1	2
17.p	6	16	-	1	1		6	15	1	1	1		8	12	3	1	-
18.P	5	14	2	2	1		5	9	1	-	-		7	9	3	5	-
19.n	1	1	7	7	8		2	5	4	9	4		-	7	5	4	8
20.P	4	9	4	6	-		4	6	7	7	-		1	2	7	8	6

ANNEX 24

Response Pattern of the Attitude Scale of the Teacher Educators/Tutors

Item No.	Govt. TTCs					Private TTCs						TCs of BOU					
	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1.P	1	11	8	4	-		5	12	2	5	1		3	13	6	1	6
2.N	3	2	13	5	1		2	5	6	3	8		2	8	3	6	5
3.P	2	8	8	6	-		5	12	0	2	5		1	7	7	5	4
4.N	13	8	3	-	-		17	5	1	1	-		10	9	5	-	-
5.P	-	5	5	8	6		5	7	1	9	2		5	6	8	3	2
6.N	2	4	7	3	8		0	2	3	5	14		3	6	6	5	4
7.P	1	5	9	4	6		5	5	3	4	7		2	5	8	7	2
8.N	3	5	7	5	4		6	3	4	4	7		4	6	8	4	2
9.P	3	8	6	6	1		12	7	1	3	1		3	6	7	6	2
10.N	7	9	6	1	1		10	9	1	1	3		6	8	7	2	1
11.N	-	6	3	10	5		0	2	3	2	17		1	9	5	8	1
12.n	2	5	6	9	2		3	4	6	5	6		2	5	9	4	4
13.P	2	9	7	6	-		7	7	1	7	2		1	9	5	8	1
14.N	-	10	7	5	2		5	8	3	5	3		2	4	9	3	6
15.N	-	9	8	6	1		3	5	3	10	3		2	4	12	2	4
16.P	8	12	2	2	-		12	7	0	5	-		6	9	4	2	3
17.N	2	7	10	5	-		5	6	3	6	8		4	9	7	3	1
18.P	5	14	3	2	-		13	5	3	2	1		2	6	3	6	7
19.N	12	8	3	1	-		16	3	2	1	2		13	7	3	1	-
20.P	11	9	4	-	-		17	5	1	-	1		7	11	3	3	-
21.N	2	5	4	8	5		3	-	7	12	2		2	4	7	10	1
22.P	3	11	4	2	4		13	5	1	4	1		1	5	9	5	4

ANNEX 25

Response Pattern of the Attitude Scale of the Principals/ Course Coordinators

Item No.	Govt. TTCs					Private TTCs					TCs of BOU						
	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1.P	1	3	1	1	-		3	2	1	-	-		-	2	1	1	2
2.N	3	2	1	-	-		4	2	-	-	-		4	2	-	-	-
3.P	0	3	0	2	1		3	-	2	-	1		-	2	-	2	2
4.N	0	1	3	2	-		1	-	1	2	2		1	2	-	2	1
5.P	0	5	1	-	-		2	4	-	-	-		3	1	1	1	-
6.N	0	1	1	3	1		3	-	-	3	1		-	-	-	4	2
7.P	0	6	-	-	-		3	2	-	1	-		-	2	1	3	-
8.P	0	4	1	1	-		3	2	-	-	1		-	3	-	2	1
9.N	-	-	1	3	2		-	3	-	1	2		-	1	1	2	2
10.N	-	1	-	3	2		-	1	-	1	4		1	1	1	1	2
11.N	1	1	1	2	1		1	-	1	1	3		1	2	-	3	1
12.P	-	4	-	2	-		3	3	-	-	-		-	2	-	3	1
13.P	3	2	1	-	-		6	-	-	-	-		2	3	1	-	-
14.N	-	-	-	3	3		-	-	-	3	3		-	-	1	4	1
15.N	-	-	2	4	-		1	-	-	2	3		-	1	-	4	1
16.P	0	5	1	-	-		5	1	-	-	-		1	1	-	2	2
17.N	1	0	1	4	-		1	2	-	1	2		1	2	1	3	-
18.P	1	3	2	-	-		2	3	-	1	-		-	4	-	-	1
19.N	-	2	2	1	1		2	-	1	1	2		-	3	-	-	3
20.P	2	2	2	-	-		4	1	1	-	-		-	3	3	-	-

ANNEX 26

Item wise Mean Attitude Scores of the B.Ed. Graduates

Item No.	Govt. TTCs			Private TTCs			TCs of BOU		
	Mean	SD		Mean	SD		Mean	SD	
1	4.66	0.48		4.70	0.69		4.20	0.65	
2	4.42	0.77		4.37	0.88		4.13	0.61	
3	4.13	1.07		4.20	0.78		3.45	1.25	
4	3.75	1.19		2.67*	1.43		3.42	1.02	
5	3.45	1.28		3.75	0.94		3.58	0.72	
6	4.29	0.69		3.95	1.08		4.00	0.51	
7	3.70	1.16		3.29	1.19		3.58	0.72	
8	4.29	0.69		3.87	0.99		4.08	0.72	
9	4.13	0.74		3.67	1.05		3.92	0.72	
10	3.17	1.27		3.33	1.09		3.08	1.18	
11	3.70	0.95		3.71	0.99		3.50	1.06	
12	3.33	1.09		2.83*	1.31		2.75*	1.11	
13	2.41*	1.32		3.75	1.41		2.58*	1.10	
14	3.33	1.20		3.75	1.07		2.92*	1.14	
15	3.33	1.20		3.58	0.97		2.91*	1.14	
16	3.91	0.93		3.33	1.40		3.71	1.20	
17	3.83	0.81		4.08	0.93		4.13	0.80	
18	4.04	0.71		4.17	0.38		3.75	1.11	
19	3.83	1.00		3.33	1.24		3.54	1.25	
20	3.38	1.17		3.29	1.08		2.33*	1.09	
Total	3.75	0.52		3.64	0.44		3.48	0.55	

* = Negative Attitude

ANNEX 27

Item wise Mean Attitude Scores of the Teacher Educators/Tutors

Item No.	Govt. TTCs			Private TTCs			TCs of BOU		
	Mean	SD		Mean	SD		Mean	SD	
1	3.38	0.82		3.71	1.04		3.45	1.14	
2	2.96*	1.00		3.46	1.31		1.66*	1.34	
3	3.25	0.95		3.54	1.28		2.83*	1.17	
4	1.58*	0.72		1.41*	0.77		2.83*	1.17	
5	2.38*	1.10		3.17	1.37		3.38	1.21	
6	3.46	1.35		4.29	0.99		3.04	1.30	
7	2.58*	1.18		2.88*	1.57		2.92*	1.10	
8	3.08	1.28		3.13	1.60		2.75*	1.89	
9	3.25	1.11		4.08	1.21		3.08	1.18	
10	2.17*	1.10		2.08*	1.35		2.33*	1.09	
11	3.58	0.92		4.42	1.02		2.96*	1.04	
12	3.17	1.13		3.29	1.37		3.04	1.20	
13	3.29	0.95		3.42	1.41		3.04	1.04	
14	2.96*	1.00		2.71*	1.10		3.29	1.27	
15	2.96*	0.96		3.21	1.28		3.08	1.14	
16	4.08	0.95		4.08	1.18		3.54	1.32	
17	2.75*	0.90		2.92*	1.44		2.63*	1.06	
18	3.92	0.83		4.13	1.19		2.58*	1.38	
19	1.71*	0.86		1.75*	1.29		1.71*	0.86	
20	4.29	0.75		4.54	0.93		3.88	1.00	
21	3.38	1.27		3.41	1.10		3.17	1.04	
22	3.29	1.30		4.04	1.30		2.40*	3.06	
Total	3.05	0.45		3.35	0.46		2.90	0.49	

* = Negative Attitude

ANNEX 28

Item wise Mean Attitude Scores of the Principals/Course Coordinators

Item No.	Govt. TTCs			Private TTCs			TCs of BOU		
	Mean	SD		Mean	SD		Mean	SD	
1	3.67	1.03		4.33	0.82		2.50*	1.38	
2	1.67*	0.82		1.33*	0.52		1.33*	0.52	
3	2.83*	1.33		3.67	1.63		2.33*	1.32	
4	3.17	0.75		3.67	1.51		3.17	1.72	
5	3.83	0.41		4.33	0.52		4.00	1.26	
6	3.67	1.03		3.17	1.72		4.33	0.52	
7	4.00	0.93		4.17	1.17		2.83*	0.98	
8	3.50	0.64		4.00	1.55		2.66*	1.51	
9	4.17	0.75		3.33	1.51		3.83	1.17	
10	4.00	1.09		4.33	1.21		3.33	1.63	
11	3.17	1.47		3.83	1.60		3.33	1.51	
12	3.33	1.03		4.50	0.55		3.17	1.47	
13	4.33	0.82		5.00	00		4.17	0.75	
14	4.50	0.55		4.50	0.54		4.00	0.63	
15	3.67	0.52		4.00	1.55		3.83	0.98	
16	3.83	0.41		4.83	0.41		2.50*	1.64	
17	3.33	1.21		3.17	1.72		3.00	1.26	
18	3.83	0.41		4.00	1.10		2.50*	1.64	
19	3.17	1.17		3.17	1.72		3.50	1.64	
20	4.00	0.89		4.50	0.84		3.50	0.55	
Total	3.58	0.62		3.89	0.81		3.19	0.75	

* = Negative Attitude

ANNEX 29

Mean Performance Scores of the B.Ed. Graduates of the Government TTCs by Major Areas of Observation

Sl. No.	Class Env.	Management	Lesson plan	Presentation	Chalk board	Aids & Mats.	Summary	Eva	Total
1	3.63	4.6	2.67	3.73	5.00	2.83	4.17	2.92	3.67
2	3.31	4.8	2.67	3.04	5.00	2.33	2.00	2.50	3.11
3	4.25	2.5	2.67	2.90	5.00	2.33	3.33	3.08	3.06
4	3.93	2.4	2.67	2.70	5.00	2.33	3.17	4.17	2.98
5	4.50	4.00	2.67	3.32	4.50	2.33	3.67	4.83	3.38
6	4.25	3.80	2.67	3.19	4.17	3.67	4.00	3.33	3.38
7	3.56	3.50	1.00	3.13	2.67	2.33	3.67	2.33	2.67
8	4.31	3.20	2.67	3.37	4.00	2.67	3.33	2.75	3.36
9	3.88	3.80	2.67	3.03	5.00	2.33	2.83	3.00	3.16
10	3.81	3.20	2.67	3.04	4.67	2.33	4.00	2.83	3.07
11	3.81	3.00	2.83	2.79	5.00	4.00	2.67	2.33	2.98
12	4.31	4.70	2.83	3.25	5.00	2.67	3.83	2.92	3.44
13	4.00	4.30	3.00	4.22	24.00	3.00	3.67	3.50	3.53
14	3.38	2.70	3.00	2.92	3.33	2.33	3.33	2.83	2.76
15	4.50	4.50	3.08	4.50	4.67	3.00	3.33	3.50	3.94
16	4.13	4.50	2.00	3.99	5.00	4.17	4.00	3.42	3.63
17	3.69	3.70	4.00	3.70	4.50	2.17	3.83	3.33	3.42
18	3.75	3.20	2.00	2.96	4.00	3.33	3.33	2.33	3.00
19	4.00	2.70	2.00	3.08	4.83	3.67	3.50	3.25	2.97
20	4.19	3.60	4.00	3.58	4.17	4.00	4.67	3.67	3.74
21	4.44	3.80	2.00	3.50	4.33	2.67	3.67	3.5	3.51
22	4.69	4.40	3.00	3.63	4.67	3.50	3.67	3.58	3.76
23	4.38	4.10	3.35	3.19	4.33	3.00	3.50	3.58	3.43
24	4.69	3.40	2.75	3.27	4.83	3.00	4.00	2.67	3.40
Total	4.06	3.66	2.70	3.23	4.48	2.91	3.55	3.17	3.47

ANNEX 30

**Mean Performance Scores of the B.Ed.
Graduates of the Private TTCs by
Major Areas of Observation**

Sl. No.	Class Env.	Manag ment	Lesson plan	Presn- tation	Chalk board	Aids & Mats.	Summary	Eva	Total
1	3.88	3.25	2.67	3.54	5.00	4.00	4.67	3.83	3.65
2	3.75	2.00	2.67	2.56	4.67	1.67	2.17	1.67	2.52
3	3.75	3.00	2.67	2.99	4.83	5.00	3.50	3.17	3.23
4	3.00	2.17	2.67	2.15	2.00	1.67	2.67	2.00	2.27
5	1.94	2.50	2.67	3.47	4.50	4.17	4.17	3.00	3.30
6	3.50	2.67	3.00	2.58	4.33	3.17	4.00	3.00	2.89
7	3.06	3.42	3.00	3.81	5.00	4.17	3.67	3.17	3.71
8	3.75	2.67	2.67	2.50	4.00	3.50	3.33	3.17	2.82
9	4.00	2.42	2.67	3.11	4.17	3.00	3.00	2.08	3.12
10	3.88	1.83	2.67	2.25	4.17	1.33	3.33	2.17	2.49
11	3.75	2.67	2.67	2.70	5.00	4.67	2.67	2.08	2.93
12	3.75	2.33	2.67	2.31	4.33	5.00	2.33	1.83	2.63
13	3.88	3.50	1.00	3.46	4.67	2.00	4.00	3.00	3.35
14	4.00	3.50	1.00	3.16	4.33	2.00	2.33	3.00	3.11
15	3.31	2.50	2.67	2.34	3.33	2.83	3.33	2.67	2.31
16	3.50	2.08	2.92	2.88	3.67	3.00	2.67	2.33	2.90
17	4.13	2.92	2.75	3.12	4.17	4.00	3.00	3.33	3.28
18	3.94	2.67	2.00	3.78	4.33	3.33	4.00	4.00	3.32
19	3.19	3.75	2.00	3.20	4.67	3.33	3.50	3.25	3.26
20	4.19	2.33	2.00	3.26	5.00	3.33	3.33	3.17	3.18
21	4.63	4.00	2.75	3.30	3.00	1.00	1.50	1.75	3.21
22	4.81	3.92	1.00	3.36	4.83	1.17	3.17	3.33	3.38
23	4.81	3.92	1.17	3.50	3.67	2.50	2.00	2.92	3.41
24	4.88	3.75	1.17	3.62	4.83	2.33	1.50	2.58	3.41
Total	3.79	2.90	2.30	3.00	4.27	2.99	2.73	2.77	3.09

ANNEX 31

Mean Performance Scores of the B.Ed. Graduates of BOU by Major Areas of Observation

S. No.	Class Env.	Management	Lesson plan	Presen- tation	Chalk board	Aids & Mats.	Suma- mary	Eva- luation	Total
1	4.88	5.00	2.92	4.04	5.00	4.00	5.00	4.00	4.15
2	4.63	4.20	2.67	3.85	5.00	4.00	4.00	3.67	3.90
3	4.38	5.00	2.67	3.56	4.67	5.00	4.33	2.33	3.68
4	3.56	3.60	2.67	3.32	5.00	5.00	4.00	2.83	3.42
5	4.63	3.70	2.67	3.82	5.00	4.00	4.33	2.58	3.79
6	4.00	4.10	2.67	3.43	4.17	4.00	4.50	3.17	3.22
7	4.38	3.80	2.67	3.02	3.67	4.00	4.33	2.75	3.24
8	4.25	3.10	2.67	3.61	3.33	2.33	1.67	3.00	2.72
9	4.19	3.80	2.67	3.06	5.00	4.00	3.33	3.42	3.31
10	3.25	2.40	2.67	2.81	4.00	2.67	2.00	2.00	2.77
11	3.94	4.00	2.67	3.42	4.83	2.67	4.17	2.33	3.42
12	3.00	3.80	2.67	2.97	2.67	2.67	2.33	2.17	2.90
13	4.25	4.20	2.00	3.28	5.00	2.00	3.67	2.67	3.09
14	4.31	4.40	2.00	3.34	4.67	2.00	3.33	3.33	3.39
15	2.75	2.50	1.67	2.54	3.33	2.33	3.33	2.83	2.56
16	3.69	3.10	2.67	2.65	2.00	3.00	3.67	3.33	2.84
17	3.81	2.80	2.00	3.26	5.00	3.00	3.67	3.17	3.27
18	4.00	2.90	2.17	2.89	4.00	3.00	3.00	2.50	2.64
19	3.75	3.50	3.50	3.54	2.67	3.83	3.17	3.58	3.52
20	3.63	3.20	3.42	3.44	3.83	3.33	4.00	3.58	3.48
21	4.81	4.90	3.08	3.35	5.00	2.67	1.33	3.08	3.56
22	4.88	4.90	3.92	3.39	2.50	2.67	1.33	4.42	3.57
23	4.94	4.80	3.75	3.63	5.00	2.67	3.33	3.50	3.75
24	4.88	4.60	3.67	2.95	5.00	2.50	3.50	3.42	3.18
Total	4.10	3.82	2.76	3.30	4.18	2.99	3.22	2.99	3.42

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ANNEX 32

Personal and Professional Characteristics of the B.Ed. Graduates of the Government TTCs

	Variables		Frequency	Percentage
1.	Sex:			
	Male		09	37.50
	Female		15	62.50
	Total		24	100
2.	Age:			
	Below 30		06	25.00
	31 - 40		15	62.50
	41 - 50		03	12.50
	51 +		-	-
	Total		24	100
3.	Educational Qualification:			
	Above Master		-	00
	Master		13	54.17
	Bachelor		11	45.83
	Total		24	100
4.	Class/Division obtained in B Ed			
	1st Class		10	41.67
	2nd Class		14	58.33
	Total		24	100
5.	In-service Training Received			
	Yes		14	58.33
	No		10	41.67
	Total		24	100
6.	Type of School where teaching:			
	Government		10	41.67
	Private		14	58.33
	Total		24	100
7.	Teaching Experience:			
	1 - 10		18	75
	11 - 20		6	25
	21 - 30		-	-
	31 - 40		-	-
	Total		24	100
8.	Monthly Family Income:			
	Below Tk.5,000		-	-
	Tk. 5,001 - Tk.10,000		06	25
	Tk.10,001 - Tk.15,000		10	41.67
	Tk.15,001 - Tk.20,000		04	16.67
	Tk.20,001 - Tk.25,000		02	8.33
	Tk.25,000 - Tk.30,000		01	4.17
	Tk.30,001 - above		01	4.17
	Total		24	100

ANNEX 33

Personal and Professional Characteristics of the Teacher Educators of the Government TTCs

	Variables		Frequency	Percentage
1.	Sex:			
	Male		07	29.17
	Female		17	70.83
	Total		24	100
2.	Age:			
	Below 30		01	4.17
	31 - 40		16	66.66
	41 – 50		07	29.17
	51 +		-	-
	Total		24	100
3.	Present position:			
	Lecturer		11	45.83
	Assistant Professor		11	45.48
	Associate Professor		2	08.33
	Professor		0	00
	Total		24	100
4.	Educational Qualification:			
	Master		22	91.67
	M Phil		02	8.33
	Ph, D		0	0
	Total		24	100
5.	Professional Education:			
	M Ed		15	62.50
	B Ed		09	37.50
	Total		24	100
6.	Teaching experience in TTC:			
	01-05 yrs.		07	29.17
	06-10 yrs.		10	41.67
	11-15yrs.		04	16.70
	16-20 yrs.		03	12.50
	Total		24	100
7.	Nature of Teaching Position:			
	Full time		24	100
	Part time		00	00
	Total		24	100
8.	In-service training received:			
	In Country		16	66.66
	Not have		08	33.33
	Total		24	100
	Overseas Training		09	37.50
	Have		15	62.50
	Have Not		Total	Total

ANNEX 34

Personal and Professional Characteristics of the Principals of the Government TTC

	Variables		Frequency	Percentage
1.	Sex:			
	Male		06	100
	Female		-	-
	Total		06	100
2.	Age:			
	Below 30		00	00
	31 – 40		00	00
	41 – 50		02	33.33
	51 +		04	66.66
	Total		06	100
3.	Educational Qualification:			
	Master		05	83.33
	M Phil		00	00
	Ph, D		01	16.67
	Total		06	100
4.	Professional Education:			
	M Ed		03	50.00
	B Ed		02	33.33
	None		01	16.67
	Total		06	100
5.	Years of experience as principal			
	Below 5 years		05	83.33
	Above 5 years		01	16.67
	Total		06	100
6.	Teaching experience in TTC:			
	01-10 yrs.		00	00
	11-20 yrs.		02	33.33
	21-30yrs.		03	50.00
	30+		01	16.67
	Total		06	100
7.	Nature of Position:			
	Full time		04	66.66
	In charge		02	33.33
	Total		06	100
8.	In-service training received:			
	In country	Have	06	100
		Have Not	00	00
	Total		06	100
	Overseas	Have	03	50.00
		Have not	03	50.00
		Total	06	100

ANNEX 35

Personal and Professional Characteristics of the B.Ed. Graduates of the Private TTCs

	Variables		Frequency	Percentage
1.	Sex:			
	Male		14	58.33
	Female		10	41.67
	Total		24	100
2.	Age:			
	Below 30		06	25.00
	31 - 40		13	54.17
	41 - 50		05	20.83
	51 +		-	-
	Total		24	100
3.	Educational Qualification:			
	Above Master		-	00
	Master		14	58.33
	Degree		10	41.67
	Total		24	100
4.	Class/Division obtained in B Ed			
	1st Class		10	41.67
	2nd Class		14	58.33
	Total		24	100
5.	In-service Training Received			
	Yes		06	25.00
	No		18	75.00
	Total		24	100
6.	Type of School where teaching:			
	Government		-	-
	Private		24	100
	Total		24	100
7.	Teaching Experience:			
	1 - 10		16	66.67
	11 -20		06	25.00
	21 - 30		02	8.33
	31 - 40		-	-
	Total		24	100
8.	Monthly Family Income:			
	Below 5,000		-	-
	5,001 - 10,000		09	37.50
	10,001 - 15,000		07	29.17
	15,001 - 20,000		04	16.67
	20,001 - 25,000		03	12.50
	25,000 - 30,000		01	4.17
	30,001 - above		-	-
	Total		24	100

ANNEX 36

Personal and Professional Characteristics of the Teacher Educators of the Private TTC

	Variables		Frequency	Percentage
1.	Sex			
	Male		15	62.50
	Female		09	37.50
	Total		24	100
2.	Age:			
	Below 30		05	20.83
	31 – 40		13	54.17
	41 – 50		04	16.67
	50 – 60		-	-
	60 +		02	8.33
	Total		24	100
3.	Present Position:			
	Lecturer	Total	24	100
4.	Educational Qualification:			
	Master		24	91.67
	M Phil		00	04.33
	Ph. D	Total	24	100
5.	Professional Education:			
	M Ed		11	45.83
	B Ed		13	54.17
	Total		24	100
6.	Teaching experience in TTC:			
	01-05 yrs.		13	54.17
	06-10 yrs.		11	45.83
	Total		24	100
7.	Nature of Teaching Position:			
	Full time		11	45.83
	Part time		13	54.17
	Total		24	100
8.	In-service training received:			
	Domestic Have		08	33.33
	Not have		16	66.66
	Total		24	100
	* None received overseas training			

ANNEX 37

Personal and Professional Characteristics of the Principals of the Private TTC

	Variables		Frequency	Percentage
1.	Sex:			
	Male		05	83.33
	Female		01	16.67
	Total		06	100
2.	Age			
	Below 30		01	17.00
	31 – 40		01	17.00
	41 – 50		02	33.33
	51 +		02	33.33
	Total		24	100
3.	Educational Qualification:			
	Master		06	100
	M Phil		00	00
	Ph, D		00	00
	Total		06	100
4.	Professional Education:			
	M Ed		03	50.00
	B Ed		03	50.00
	Total		06	100
5.	Years of experience as the Principal			
	Below 5 years		04	66.66
	Above 5 years		02	33.33
	Total		06	100
6.	Whether teaches in the TTC			
	Yes		06	100
	No		00	-
	Total		06	100
7.	Teaching Experience in TTC:			
	01-10 yrs.		05	83.33
	11-20 yrs.		00	-
	21-30yrs.		01	16.67
	Total		06	100
7.	Nature of Position:			
	Full time		03	50.00
	Part time	Total	03	50.00
			06	100
8.	In-service training received (in country):			
	Have		03	50.00
	Not have	Total	03	50.00
			06	100
	*No body received any overseas training			

ANNEX 38

Personal and Professional Characteristics of the B.Ed. Graduates of BOU

	Variables		Frequency	Percentage
1.	Sex:			
	Male		11	45.83
	Female		13	54.17
	Total		24	100
2.	Age:			
	Below 30		11	45.83
	31 - 40		06	25.00
	41 - 50		02	8.33
	51 +		-	-
	Total		24	100
3.	Educational Qualification:			
	Above Master		-	00
	Master		12	50.00
	Degree		12	50.00
	Total		24	100
4.	Class/Division obtained in B Ed			
	1st Class		-	-
	2nd Class		24	100
	Total		24	100
5.	In-service Training Received			
	Yes		09	37.50
	No		15	62.50
	Total		24	100
6.	Type of School where teaching:			
	Government		04	16.67
	Private		20	83.33
	Total		24	100
7.	Teaching Experience:			
	1 - 10		08	33.33
	11 - 20		13	54.17
	21 - 30		03	12.50
	31 - 40		-	-
	Total		24	100
8.	Monthly Family Income:			
	Below 5,000		-	-
	5,001 - 10,000		10	41.67
	10,001 - 15,000		09	37.50
	15,001 - 20,000		02	8.33
	20,001 - 25,000		03	12.50
	25,000 - 30,000		01	4.17
	30,001 - above		-	-
	Total		24	100

ANNEX 39

Personal and Professional Characteristics of the Tutors of BOU

	Variables		Frequency	Percentage
1.	Sex:			
	Male		11	45.83
	Female		13	54.17
	Total		24	100
2.	Age:			
	Below 30		-	-
	31 – 40		06	25.00
	41 – 50		17	70.84
	51 +		01	4.17
	Total		24	100
1.	Present Position:			
	lecturer		06	25.00
	Assistant professor		13	54.17
	Associate professor		02	08.33
	Senior teacher (school)		03	12.50
	Total		24	100
2.	Educational Qualification:			
	Master		23	95.83
	M Phil		01	04.17
	Total		24	100
3.	Professional Education:			
	M Ed		11	45.83
	B Ed		13	54.17
	Total		24	100
5.	Experience as tutor:			
	01-05 yrs.		07	29.17
	06-10 yrs.		08	33.33
	11-15yrs.		09	37.50
	Total		24	100
6.	Nature of Teaching Position:			
	Full time	Total	24	100
7.	In-service training received:			
	Have		08	33.33
	Not have		16	66.67
	Total		24	100
8.	Teaching experience in school:			
	Have		08	33.33
	Have not		16	66.67
	Total		24	100

ANNEX 40

Personal and Professional Characteristics of the Course Coordinators of the Tutorial Centers of BOU

	Variables		Frequency	Percentage
1.	Sex:			
	Male		05	83.33
	Female		01	16.67
	Total		06	100
2.	Age:			
	Below 30		00	00
	31 – 40		00	00
	41 – 50		00	00
	51 +		06	100
	Total		06	100
3.	Educational Qualification:			
	Masters		06	100
	M Phil		00	00
	Ph, D		00	00
	Total		06	100
4.	Professional Education:			
	M Ed		00	00
	B Ed		02	33.33
	None		04	66.66
	Total		06	100
5.	Years of experience as tutor			
	Below 50 years		04	66.66
	Above 50 years		02	33.33
	Total		06	100
5.	Whether teaches in the tutorial center			
	Yes		00	00
	No		06	100
	Total		06	100
6.	Teaching experience in TTC:			
	01-10 yrs.		00	00
	11-20 yrs.		02	33.33
	21-30yrs.		03	50.00
	31-40yrs.		01	16.67
	Total		06	100
7.	Nature of Position:			
	Full time		04	66.66
	In charge		02	33.33
	Total		06	100
8.	In-service training received:			
	In country	Have	06	100
		Not have	00	00
	Total		06	100
	Overseas	Have	09	37.50
		Have Not	15	62.50
	Total		24	100
	Overseas	Have	03	50.00
		Have not	03	50.00
			06	100