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Subject Based Teacher Training Program at Higher Secondary Level in Bangladesh

Sarwar, Md. Halim

University of Rajshahi

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**SUBJECT BASED TEACHER TRAINING PROGRAM AT
HIGHER SECONDARY LEVEL IN BANGLADESH**

Submitted By:

Md. Halim Sarwar

Ph.D. Fellow

Roll: 08, Session: 2011-2012

Institute of Education and Research

University of Rajshahi, Bangladesh

Supervised By:

Professor Dr. Md. Mustafa Kamal Akand

Department of Anthropology

University of Rajshahi, Bangladesh

This dissertation submitted to

The Institute of Education and Research (IER) of the University of Rajshahi
in partial fulfillment of the requirement for the degree of Doctor of Philosophy

2019

AUTHOR'S DECLARATION

I would like to declare that the “Subject Based Teacher Training Program at Higher Secondary level in Bangladesh” is my work and has not been submitted for any other degree at the University of Rajshahi, Bangladesh or any other institutions at home and abroad.

Sincerely



Md. Halim Sarwar

Ph.D. Fellow

Roll- 08, Session -2011-2012

Institute of Education and Research

University of Rajshahi, Bangladesh

Dr. Mustafa Kamal Akand

Professor
Department of Anthropology
University of Rajshahi
Rajshahi-6205, Bangladesh
Office : +88-0721-711139
Res. : +88-0721-751415
Fax : +88-0721-750064
Cell : +88-01718-103594
e-mail : drkamal_anth@ru.ac.bd
Web : http://www.ru.ac.bd/anthropology



ড. মোস্তফা কামাল আকন্দ

প্রফেসর
নৃবিজ্ঞান বিভাগ
রাজশাহী বিশ্ববিদ্যালয়
রাজশাহী-৬২০৫, বাংলাদেশ
অফিস : ০৮৮-০৭২১-৭১১১৩৯
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ফ্যাক্স : ০৮৮-০৭২১-৭৫০০৬৪

CERTIFICATE

This is to certify that the thesis entitled “**Subject Based Teacher Training Program at Higher Secondary Level in Bangladesh**” has been submitted for the Ph.D. degree carried out by Md. Halim Sarwar, under my supervision. This thesis has been gone through and accomplished necessary correction and improvement by me. The final draft of this thesis has done according to the prescribed format of the thesis writing manual of the University of Rajshahi.

Supervisor: _____

(Professor Dr. Md. Mustafa Kamal Akand)

Department of Anthropology,

University of Rajshahi

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Md. Halim Sarwar

ABSTRACT

Higher Secondary Teachers Training Institutes (HSTTIs) have been offering Subject Based Teachers Training Program (SBTTP) for the non-government college teachers' in Bangladesh since its establishment in 1995. To identify the strength and weaknesses of the program no in-depth study yet been conducted. The training is the combination of subject knowledge and pedagogy. The research is an attempt to find out the strength and weaknesses as well as to enrich the SBTTP of HSTTIs to ensure the quality of education at the higher secondary level. The study mainly based on the primary source of data and some secondary sources of data. Primary data for the study was collected through different research tools like open-ended questionnaire, policymakers' responses, face to face interviews, and focus group discussions (FGD). After the training program, classroom performance observed using observation checklist, and policy guideline, implementation challenges, other governance-related information have collected from 10 selected principals of respective colleges. This research was carried out using Stufflebeam's CIPP (Context, Input, Process, and Product) evaluation model. The descriptive statistical analysis such as mean, SD, percentile was used to find out the status of the existing program and find out its strengths, weaknesses as well as ways to improve SBTTP. The Chi-Square test was also used to compare the program between HSTTI Mymensingh and HSTTI Rajshahi. Analytical results and discussion has been presented based on the objectives of the research, and a summary of findings was

presented based on the CIPP model. The results indicate that there are some strengths and weaknesses of SBTTP based on the analytical results of data provided by participant teachers, opinion from FGD and interview with the high officials identified. Strength of the training program includes training content, training materials, training methodology, assessment procedure, competency level of trainers, training facilities, duration of training, training environment, etc. It has found that the training program is effective for professional development among non-government college teachers in Bangladesh. Weaknesses of the program include, among other inadequate funds, insufficient resources, lack of proper cooperation among central authorities and HSTTIs. Some of the respondents have shown dissatisfied regarding the content area, application of pedagogical knowledge of the external trainers, inadequate use of ICTs by trainers in training sessions. Some areas of training programs, its facilities, and coordination need to be developed to achieve the ultimate goal of HSTTIs. After classroom observation, it has noticed that due to the inadequate cooperation of colleagues and principals in the college, the trained teacher cannot apply their training knowledge and skills properly in the classroom situation. Demographic results show that professional degrees of trainee participant (college teachers) under the area of HSTTI Mymensingh was higher than the area of HSTTI Rajshahi. There have been significant differences between HSTTI Mymensingh and HSTTI Rajshahi regarding time management of the trainers, application of trainers' knowledge and skills, training content and materials, and use of audio-visual materials. The result of the

research incorporated in the CIPP evaluation model. Context evaluation indicates that SBTTP offered by HSTTI is obligatory for the non-government college teachers in Bangladesh. Input includes a budget for training, facilities of the training program, trainers, and trainees' characteristics. The process includes training curriculum and content, training method, assessment procedure, training management, and environment, integration of ICTs. The product includes training achievement, after training classroom performance, and a comparative scenario between HSTTI Mymensingh and HSTTI Rajshahi. To develop the training program some areas should be upgraded and modified such as evaluate the trainees performance according to cognitive domains (The cognitive domain involves knowledge and the development of intellectual skills), include panel discussion, seminar, increase assignment and simulation activities, introduce follow up training, use of updated training modules, and ensure sufficient ICT facilities.

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ABBREVIATIONS

ADB	Asian Development Bank
ADPEO	Assistant District Primary Education Officer
BOU	Bangladesh Open University
BMTTI	Bangladesh Madrasah Teacher Training Institute
CIPP	Context Input Process Product
DEO	District Education Officer
DPEO	District Primary Education Officer
DSHE	Directorate of Secondary and Higher Education
FGD	Focus Group Discussion
HSEP	Higher Secondary Education Project
HSTTI	Higher Secondary Teacher Training Institute
ICT	Information and Communication Technology
IER	Institute of Education and Research
KSA	Knowledge, Skill, and Attitude
MOE	Ministry of Education
MPO	Monthly Payment Order
NAEM	National Academy for Educational Management
NAPE	National Academy for Primary Education
PTI	Primary Training Institute

SBTTP	Subject Based Teacher Training Program
SETI	Special Education Training Institutions
SD	Standard Deviation
SPSS	Statistical Packages for Social Science
TTC	Teacher Training College
TTTC	Technical Teacher Training College
UEO	Upazila Education Officer
UNDP	United Nations Development Programme
VTTI	Vocational Teacher Training Institute

CHAPTER ONE

INTRODUCTION

1.1. Prelude

Education plays an important role in the development of a country and a country without proper education, and it may be left behind by other countries which support education (Johan, & Harlan, 2014). Education, actually a social institution serving the needs of society to survive and flourish. It should be continuously changed to meet the challenges of the fast-changing global world. This development must be systemic, consistent, and accessible (Serdyukov, 2017). Education accepted as a fundamental right of all members of society. The purpose of education is not merely to conducting create new knowledge and skills in the individuals but also to prepare individuals for social responsibility and to meet the challenges of the time (Shah, 2003). Teachers must be alert to the necessity of developing a sense of responsibility for educating the child according to his abilities and needs and for guiding him wisely to the solution of his problem (Shahmohammadi, 2012). Education has become more important in the modern world and acts as a base for overall development especially for developing countries like Bangladesh. In every country, every period, and every society, teachers play an important role in developing the nation. The teachers need to be conceived as a change agent and not as mere a transmitter of knowledge and culture. In this context, attention should be paid to the professional development of teachers to bring necessary changes. The professional development of teachers

regarded as an individual and collective process that should accomplish in their workplace. The society is changing rapidly. It is vital to include the necessary tools and techniques in the education systems for the changing needs of society. Teachers' education program is important for building national development because the role of teachers is very important in the entire process of education. Teachers' training is a part of teachers' education because the purpose of training is not only to develop one's skills and abilities but also to develop one's interest and attitude in teaching. The success of an education system largely depends on the quality of the teachers who plan and practice the teaching and learning process. Although teacher training is a useful and complicated problem (Duman & Karagoz, 2016). If the teachers are interested and committed to enriching their subject skills, then they will get the strong internal motivation to learn more and develop even more effective strategies of teaching (Rao & Rao, 2005). A revolution has happened in the definition of good teaching in the last two decades. As the planner of a classroom learning community, the teacher is called a guide or facilitator, who develop skills in conducting discussions, group work, debates, and dialogues. In this process, the teachers empower students to discuss with one another to prepare terminology and concepts involved in each discipline. The ability to educate all students to the highest standards requires new skills, but a large number of secondary level teachers not currently can develop due to the lack of pre-service preparation or in-service professional development. Also, today's

classrooms include students with more varied racial, linguistic, and cultural backgrounds than in the past. Given today's rigorous academic demands, teachers must be able to differentiate instruction to meet the needs of their students (Miller, 2010). Training can ensure that the trainees have mastered specialist knowledge (subject matter and pedagogy) and can apply it effectively in the classroom. We know that training becomes part and parcel of education. To enhance the teachers' competency and in keeping touch with the techniques of effective teaching, it necessitates providing professional training for teachers along with the latest teaching methods. It is well known that for many reasons in our country teaching has become the most unattractive profession and teacher is not occupying an honorable position in contemporary society. Make the teaching profession attractive, education system, teacher facilities, sufficient teaching materials, and adequate teachers' training programs need to improve in Bangladesh. It is noticeable in the education systems of Bangladesh that there was no scope of subject-based pedagogy integrated training for higher secondary college teachers before 1995. To realize the necessity and the importance of training, the government of the People's Republic of Bangladesh established five Higher Secondary Teachers' Training Institutes (HSTTIs) at five major cities in Bangladesh to train up the higher secondary level college teachers, and it covers the eight divisions of the country. The main objectives of HSTTIs are to increase the competencies of higher secondary level subject teachers in the teaching-

learning process and reflective practice as well as their higher-order thinking capability. HSTTI Mymensingh and HSTTI Rajshahi among five HSTTIs are making obstinate attempts to successfully implement various training programs of the government aiming to improve the quality of education at the secondary and higher secondary level and also, contributing to the pace of development of the country. How far this training program contributing to the national target and objectives, no in-depth study yet been conducted to unearth the strengths and weaknesses of the training program as well as way out to enrich the training activities. The current study would like to evaluate the overall strength and shortcomings, the challenges and prospects of SBTTP in two HSTTIs, namely HSTTI Mymensingh and HSTTI Rajshahi, to meet the needs for further extension and development of training programs in Bangladesh.

1.2. Statement of the Problem

The need for and demand for quality education is increasing vastly in Bangladesh to keep pace with the changing world. To meet the demand for education, the number of colleges and teachers are increasing day by day in Bangladesh. Most of the educationists agreed that competence and characteristic of teachers are the most significant influencing factor of quality education (Ali, Khan & Aha, 2009). In-service teachers' training program aims at changing the behavioral skills and the capabilities of the teachers after they start work at the respective institution

(Al-Zoubi & Rahman, 2011). A working teacher needs to be updated and refreshes regarding his/her knowledge and professional skills, which imparted through the training. Most organizations introduce in-service training programs for the development of knowledge and skill of their employees. It is crucially true that the development of the nation greatly depends on the development of education (Shah, 2003). No country can step forward without considering the changing demands of education. Every nation develops its education systems keeping because of the developmental needs of its people, considering global development. Training increases the quality of teachers in terms of knowledge, skills, attitude, and values, which helps to accelerate the quality of education. It is very important to arrange the fundamental and subject-based teacher training program immediately for quality education (Malek et al., 2017). In addition to that, in-service and follow up a training program is a continuous process for the professional development of teachers to achieve quality education. The government of the People's Republic of Bangladesh has been allocated an insufficient amount of budget every year for the in-service training program of the teachers of higher secondary level. There are different types of teachers training institutes (such as PTI for the primary school teacher, TTC for secondary level teachers) for the different levels of teachers in Bangladesh. But there was no scope of getting pedagogy integrated subject training of college teachers before 1995. After that five Higher Secondary Teachers' Training Institutes (HSTTIs) have been established and providing in-

service Subject Based Teachers Training Program (SBTTP) for college teachers since 1995. But it is not still to scientifically prove that the present pattern of in-service training of HSTTI is effective and meeting the professional needs and subject demand of the college teachers. This study, therefore, is an attempt to explore the strengths and weaknesses of the SBTTP of HSTTI in Bangladesh. After training classroom performances of the trained teachers could be a benchmark to compare training purpose and prospects for the improvement of education at higher secondary level in Bangladesh.

1.3. Objectives of the Study

The general objective of the research is to explore the Subject Based Teacher Training Program (SBTTP) of two HSTTI in Bangladesh. The following specific objectives have been determined to achieve the general objective. The specific objectives of this study are:

- i. To find out the present scenario of SBTTP of HSTTI in Bangladesh;
- ii. To identify the strengths of SBTTP of HSTTI in Bangladesh;
- iii. To identify the weaknesses of SBTTP of HSTTI in Bangladesh;
- iv. To assess the after training classroom performances of the trained teachers in their respective institutions;
- v. To make a comparative analysis of SBTTP between HSTTI Mymensingh and HSTTI Rajshahi;

vi. To find out the ways of enrichment of the SBTTP in Bangladesh.

1.4. Research Questions

This study aims to a comprehensive review of the subject based teachers training program (SBTTP) of HSTTIs in Bangladesh. The study concentrated on exploring the present scenario of the training program and analyzed the impact of the SBTTP in two HSTTIs. Specifically, the study attempt to find out the answer to the following questions:

1. What is the present scenario of SBTTP of HSTTIs in Bangladesh?
2. What are the strengths of SBTTP?
3. What are the weaknesses of SBTTP?
4. What is the impact on after training classroom performance of participant teachers in their institutions?
5. What is the comparative scenario of SBTTP between HSTTI Mymensingh and HSTTI Rajshahi?
6. What are the ways of enrichment of SBTTP in Bangladesh?

1.5. Definition of the Key Terms

1.5.1. Learner

A learner is, therefore, one who engages in any learning activity implies that any person, regardless of age, can be a learner. So, in this study, this word is sometimes used to refer to the teacher trainee and in other cases, to refer to a

college student. The specific meaning attached to it will, therefore, depend on the context in which it used. Also, the word learner used as synonymous with the word student.

1.5.2. Teaching

Teaching is a set of events outside the learners which are designed to support the internal process of learning (Sequeira, 2012). Teaching is, therefore, the process of facilitating learners and nurturing learners. In this study, teaching taken as a facilitating role, and this goes beyond giving learners information but involves offering all necessary support in the learning process.

1.5.3. Pedagogy

Pedagogy is the science of teaching, and incorporating a collection of teaching strategies that support intellectual engagement, linked to the wider world, supportive classroom environments, and recognition of difference, should be implemented across all key learning, and subject areas (Bhowmik, Banerjee, & Banerjee, 2013).

1.5.4. Trainee Participants

A trainee participant is commonly known as an individual taking part in a training program. During the duration of the in-service training program, the trainee participant is expected to receive a stipend and to stay fulltime under the authority of training institutions outside his or her classroom activities. In SBTTP, the trainee participants are higher secondary level college teachers who are serving as

a lecturer or assistant professor or associate professor in different government approved colleges in Bangladesh.

1.5.5. Simulation

Simulation in a training program is an effective medium through which various types of skills can be acquired. The word simulation implies an imitation of a real-life process has been established to be a very reliable and successful method of teacher training all over the world. There is a long history of simulation use in education and training for creating realistic learning environments that closely replicate the world and the workplace (Ferry et al., 2004). Classroom simulation can refer to the process of the internal form of a traditional classroom to make the virtual learning environment closer to reality (Mazaed & Dimitov, 2012)

1.5.6. Evaluation:

Evaluation determines the merit, worth, or value of things. The evaluation goals may also address the needs for internal and external accountability and to develop guidelines for future curriculum and in-service activities as well as training programs (Hsieh & Hsiao, 2001). The evaluation of training forms the remaining part of the training cycle, which starts with the identification of training needs, establishing objectives, and continues through to the design and delivery of the training course itself. Evaluation commonly observed as a necessary phase of any training course (Darby, 2006).

1.5.7. In-service Training

In-service training means by taking training to carry on the existing profession with required competency. In-service teacher education can define as the relevant courses and activities in which a serving teacher may participate to upgrade his professional knowledge, skills, and competence in the teaching profession (Osamwonyi, 2016). In-service teacher education has become synonymous with professional development or professional learning (Koellner, 2018). In-service Teacher Training Program is designed to promote and support the professional learning of teachers who are already employed and working in the classroom (Muzaffar & Rahim, 2011 cited in Manduku, 2017). This study will involve considering strengths and weaknesses from an effective in-service training program.

1.5.8. HSTTIs (Higher Secondary Teachers' Training Institutes)

HSTTI means Higher Secondary Teachers' Training Institutes, which provides in-service training for the higher secondary level college teachers, college principals, and college computer teacher. HSTTIs are making insistent attempts to successfully implement government aiming various training programs for improving the quality of education at the secondary and higher secondary level in Bangladesh.

1.5.9. SBTTP (Subject Based Teacher Training Program)

The title of the training program is Subject Based Teacher Training Program, which introduced for the higher secondary level college teachers who are teaching different subjects, i.e. English, Bengali, Physics, Chemistry, Accounting, and so on. The curriculum of the subject based training program made by relevant subject content and pedagogical content like the psychology of education, teaching method, educational assessment, principles of education and action research. Duration of the Subject Based Teacher Training Program is 40 days. The main objectives of this training program are that a teacher will be able to take classes effectively, simplify the content methodically develop creative questioning skills, presentation skills as well as practical skills.

1.6. The Rationale of the Study

To explore and develop more effective ways of preparing an effective in-service teacher training program for making a competent teacher meet the challenges of a changing society (Shahmohammadi, 2012). According to the National Education Policy- 2010, HSTTIs are responsible for providing basic in-service training for the teachers of non-government schools and colleges of Bangladesh. After introducing in-service SBTTP of HSTTIs include some achievement of HSTTIs by providing data and working plan. So it is very much important to evaluate the whole program of SBTTP to find out the existing status of the program, which

would utilize for the necessary improvement of the in-service training program. In this context, the present study wedded to several core issues related to SBTTP in two HSTTIs. Firstly, this study will contribute to the existing stock of knowledge in the field of training especially the teachers' training program in Bangladesh. Secondly, this study will provide insight into innovative techniques to improve the teaching-learning environment, teaching skills and to enhance the professional competence of teachers and to restructure the traditional set up of the system. Thirdly, the findings of the study would help the policy planners in formulating policies for educational development through teacher's training considering the social and economic context of Bangladesh.

1.7. Conceptual Framework

‘Evaluation is a systematic process to determine the worth, value, or meaning of an activity or process’. Commonly used approaches to educational evaluation have their roots in systematic approaches to the design of the training. Goal-based and system-based evaluation models predominantly used in the evaluation of training (Philip, 1997, cited in Monphongchai, 2004). Monphongchai (2004) summarized several types of program evaluation model. Out of these, the most important modes are Stufflebeam's system based model and Kirkpatrick goal-based model.

Table 1.01: Summary of the Four Levels Training Evaluation Model

Kirkpatrick four levels of evaluation	Philips five levels of evaluation	Stufflebeam's four levels of evaluation
Reaction	Reaction and Plan action	Context
Learning	Learning	Input
Behavior	Job application	Process
Result	Business	Product
---	Return on investment	

The Kirkpatrick Four-level Model (Kirkpatrick, 1994)

Kirkpatrick Model defined four levels for measurement training outcomes as a reaction, learning, behavior, and results.

1. Reaction. Measuring reaction can be accomplished by evaluating how trainees react to the program, such as their interests in the program, or accomplishment for the goal and objective. A simple way to access their level is by using a questionnaire at the end of the session to ask for trainees’ feedback.

2. Learning. Successful learning from training programs measures knowledge or skills that trainees gain from the training. Furthermore, the knowledge can be measured by an attitude change on the topic. Tools used to measure knowledge are written examinations or practical examinations. The trainers may ask trainees to take a pre-test and post-test. Two test scores compare their knowledge.

3. Behavior. Behavior is the third of measuring the effectiveness of the training program. This level of measurement can do through behavior observation methods

such as peer evaluation. Changing behavior is a time consuming and ongoing process.

4. Results. Lastly, the effectiveness of the training program measures an outcome after trainees attended the program. The outcome can be in the form of improved culture of the institute and increased trained people and the quality of teachers.

The Philips five level of Evaluation Model (Philip, 1996)

Five levels of Philip mode are the reaction, learning, job application, results, and return on investment

1. Reaction. The first level focuses on participants' satisfaction in the program.

2. Learning. The second level, learning concentrates on the degree of skill, knowledge, and attitude that participants have changed.

3. Job application. The third level, job application, involves behavior changes.

4. Results. The fourth level, business result, presents the actual contribution of the program to the organization.

5. Return on investment. The fifth level Return on investment is needed because it allows the converting business result to the financial unit, its added value, and its costs.

The CIPP Model of Evaluation (Stufflebeam, 1997)

The CIPP Model of the evaluation was developed based on four basic decision stages from the education field. Four components of CIPP are 1.Context evaluation, 2. Input evaluation, 3. Process evaluation, and 4. Product evaluation.

1. **Context evaluation**, such as a need assessment, is used to determine objectives, identify accomplishments, needs, opportunities, and to detect particular problems.
2. **Input evaluation** gives information to determine how to use resources to accomplish the program goals best. Examples of input evaluation results are procedures, policies, and proposals. Input evaluation supports planning the program.
3. **Process evaluation** provides feedback to persons who are responsible for implementing the program. The data collection can obtain from formal and informal approaches such as reaction sheets, rating scales, diaries and analysis of existing records.
4. **Product evaluation** measures and interprets the achievements of objectives, including intended and unintended outcomes. This level of evaluation can take place during and after the program

This study evaluates a program and contribute to the decision-making process in program management. As a result, this study follows Daniel Stufflebeam's Context, Input, Process, and Product (CIPP) evaluation model for assessing the current status of the program and guided decision making for future actions. CIPP model is intended to help in-service training programs and systematically collect information about the program and to use that information as the program was implemented and carry out (Stufflebeam, 1997). The CIPP Evaluation Model is a comprehensive framework for guiding evaluations of programs, projects, personnel, products, institutions, and systems (Stufflebeam, 2007). CIPP refers to the four phases of evaluation and to be

used to evaluate a complex program focused on improving SBTTP. The CIPP evaluation model answers the following questions: (a) what needs to do? (b) How should it be done? (c) Are things being done? and (d) What are the results? Context evaluations are useful for judging already established goals and for meeting the needs of stakeholders (Joseph, 2009). The context evaluation was designed to answer the questions: Why the SBTTP developed, objectives of SBTTP, and what were the goals of the HSTTIs? Input evaluation assesses one's existing practice and what proposed in the educational research literature (Joseph, 2009). The input evaluation intended to answer questions such as How is the SBTTP funded? What are the participant's and trainer's characteristics? Process evaluation is an ongoing check on a plan's implementation plus documentation of the process, including changes in the plan as well as key lapses and poor execution of certain procedures, and process evaluation should report how observers and participants judge the quality of the process (Joseph, 2009). In this study, the process evaluation identifies the worth and demerit as well as of implementation procedure of training curriculum, training methods, assessment of trainee's needs and expectations, assessment process, training management, training environment, etc. Product evaluation should measure, interpret, and judge an institute's achievement, including intended and unintended outcomes, positive and negative outcomes, as well as long-term outcomes (Joseph, 2009). In this study, the product evaluation answered the following questions: what is the training achievement (KSA level) after the training course? and what is better classroom

performance? (After training). The CIPP model of evaluation has been used in numerous doctoral studies as a framework around the world. So, I used Stufflebeam's CIPP system based evaluation model as a framework for this study. Teachers' training facilitates the windows of opportunity of teachers' how they utilize their earning knowledge and put them into practice for the development of their students and institutions.

FRAMEWORK OF THE SBTTP

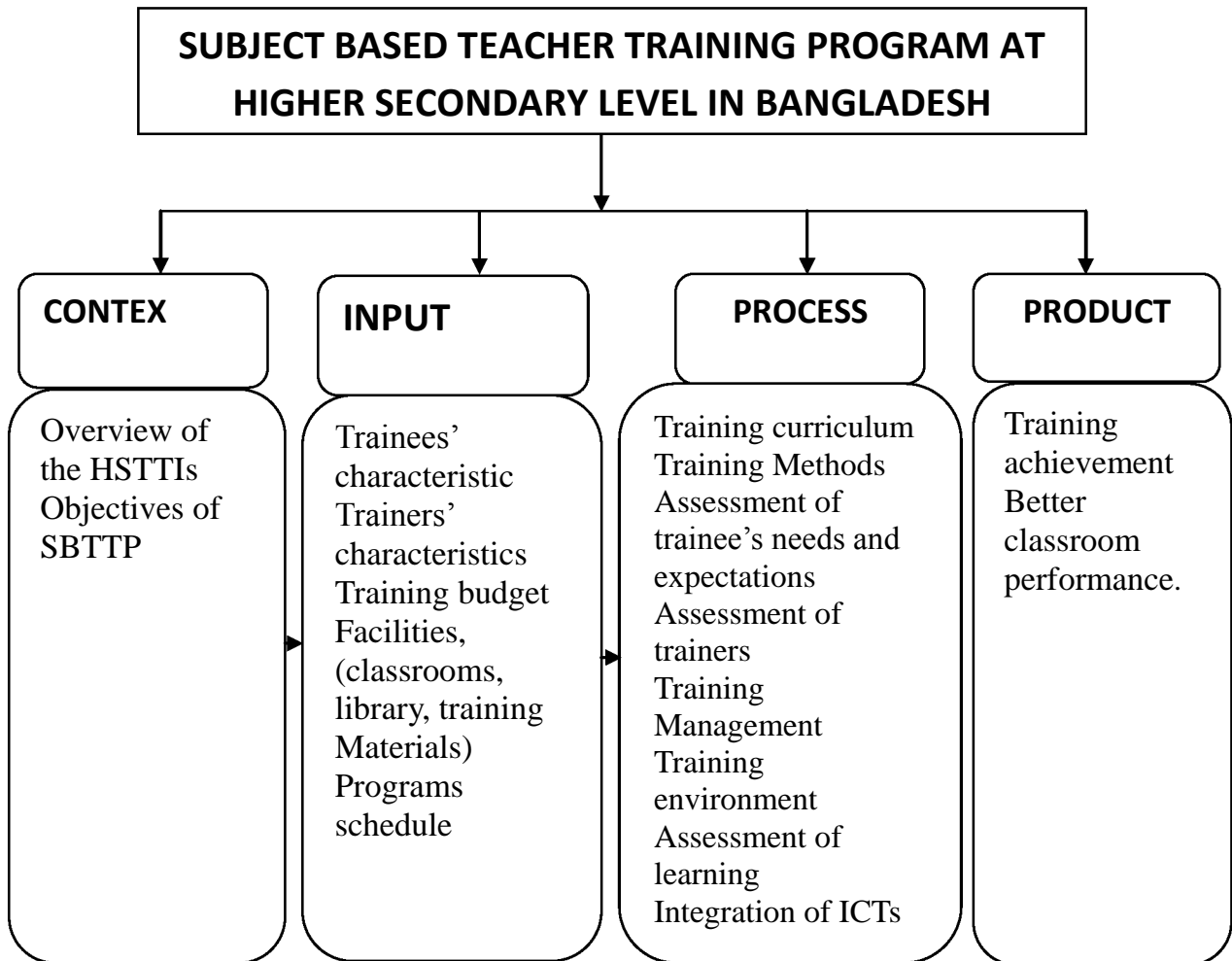


Figure 1.01: Related components of the SBTTP

In this study, the researcher identified the training strengths, weaknesses, and the application of knowledge and skills in the classroom, which exists in their training arena and institutional achievement. It has shown different items in the conceptual framework which are relevant to the training program.

1.8. Limitation of the Study

This study focused on in-service teachers' training programs, especially for the college teachers' of higher secondary levels. The researcher faced with many challenges during this study.

- This study considered only two HSTTIs (out of five HSTTIs) at Mymensingh and Rajshahi in Bangladesh.
- There were challenges to visit many districts within a short time.
- Only non-government college teachers have been included.

1.9. Conclusion

In this chapter, it addressed the present scenario of an effective in-service teacher training program in Bangladesh by focusing HSTTIs located in different regions those have been offering SBTP for higher secondary level college teachers. The background of the study, research problem, objectives, definition of key terms, conceptual framework, and the major models of evaluation have been discussed in this chapter.

CHAPTER TWO
REVIEW OF LITERATURE

2.1. Prelude

To build up a concrete, comprehensive, and analytical basis of the current study on SBTTP of two HSTTIs in Bangladesh, the researcher has employed a good deal of work on searching and reviewing the relevant literature. Several books, journal writings, modules, models, guidelines have been consulted to make a better understanding of teacher education research in global prospects.

2.2. Statement

Government based teachers' training concept tends to focus on what teachers need to know, rather than on what they know and how that knowledge might be expanded (Bayrakc, 2009). The quality of teachers, more than any other factor, depends upon the quality of instructions, and the excellence of teachers largely determines the quality of instructions. It requires that teachers' education institutions should well-equipped with human as well as physical facilities (Tahir & Taylor, 2013). The role of the teacher should be a reflection of the community's expectations as well as the skills and abilities of individuals needed for the profession (Shah, 2003). During the last couple of decades, it appears a great change in education and paying more focus, particularly in teacher training, for obtaining the teachers' quality and their accomplishment on job performance (Yigit, 2008). Effective in-service training is focused on increasing teachers' professional knowledge and builds awareness for upgrading their skills, which improves teacher performance (Tseng, 2008). In-service teacher education

includes all those courses and activities in which a serving teacher may participate to extend his/her professional knowledge, interest, or skill on curriculum, pedagogy, and teacher's attitude towards teaching (Shah, 2011). Research has explored the importance of training for in-service teachers and their practices (Brito, 2005). Teacher training is important for changing the teacher's attitude (Ali & Karmokar, 2019). A successful training program is driven from clear objectives and must deliver to the right people with the appropriate technique (Mrnphrngchai, 2004). The teachers centered training techniques avoided and practical aspects and students' human nature given more importance (Malik & Khan, 1998). A successful teacher required to equipped with characteristics like mastery of subject matter, professional training, sound physical and mental health, devotion, and dedication to his or her profession (Malik & Khan, 1998). Training is to comprehended as a series of courses that make the teachers' attention and indifference acutely to bring the changes for accelerating their competences and practices for the development of their students and their achievement (Brito, 2005). A teacher must be identified to have proficiency in the subject knowledge as well as professional training (Malik & Khan, 1998). In-service training meet the expectations of the teachers and equip them for the changing world and the new education understanding. The training must focus on practice rather than theory (Yilmaz & Essen, 2015). Teacher training needs supporting policy, moral, infrastructure, and financial that can lead teachers to be professional (Tanang, &

Abu, 2014). In-service training acts as a promoter for the teacher's effectiveness. It is also a way of updating teachers' skills and knowledge for improving teaching and learning which helps to better job performance (Omar, 2014). The direct training and indirect training both are the complements of each other. Direct training appreciates the introduction of role-playing, modeling, rehearsal, and feedback; on the contrary, indirect training perceives the assessment procedures, often through the use of written materials (LeBel, 2010). Teacher training is one kind of investment, and it becomes an expectation to leave the old habits, and for this reason, training activities have an effect on their positive motivation (Navarro, 2000). Teacher-education refers to all these programs, strategies, tactics as a result of which a prospective teacher can help his pupil to acquire learning – cognitive, psychomotor, and affective (Rao & Rao, 2005). Teacher education has changed to the democratic active method of teaching. Therefore now a growing need to help teachers acquire attitudes, knowledge, and skills that will prepare them for these democratic active teaching/learning strategies (Aguti, 2003). There is a great similarity between America and the other countries of the world to enrich the training approach, content knowledge, attitudes and learning material for improving the teaching styles (Roux, 2002). The training course environment should be supported and approved in terms of the presence of information communication technology (ICT) and other materials (Yigit, 2008). In the developing countries, all the in-service training patronized by the governments and

teachers are to be tried their best to have the best knowledge from the training to disseminate those wits and knowledge among their students (Yigit, 2008). Many teachers' training has been financed and organized by educational institutions, and the teachers have to learn more pedagogical methods as well as research-oriented (Shihong et al., 2008). Benefits of in-service training include the introduction and description of methods and strategies teachers might use to improve their careers in progress (Shihong et al., 2008). The purpose of teacher education, the sophisticated knowledge, skills and ability necessary to do that work well, are either overlooked or, sadly, ignored (Lunenberg, Dengerink & Korthagen, 2014). The resource persons should be competent and knowledgeable concerning the use of different professional training techniques (Malik & Khan, 1998). The teacher training will help someone who has the knowledge and practical experience in a specific topic that he/she transfers via sessions, exercises, case studies, examples along with presentations (Tabsh, 2014). Evaluation regularly observed as an essential chapter of any training course and the training program, which enhances the value of individual courses and increasing the future effectiveness of training (Darby, 2006). An inability to identify limitations may affect the credibility of the intervention and the desired performance of the training programs (Larbi-Apau & Moseley, 2008). It found that trained teachers were not using their training skills in classroom instruction. The classes were on teacher-oriented. Most of the teachers used lecture-method. Making plans was not usual, and the use of teaching

materials was minimal (Pokharel, 2018). Program evaluation is an educational setting that has several implications (Monroe, 2009). Stufflebeam's CIPP model is consistent with system theory and, it is flexible enough to incorporate the studies that support ongoing program improvement as well as summative studies of a completed program's outcomes (Frye & Hemmer, 2012).

It has to be designed to meet the goal and objectives of the program to get the best benefit from the evaluation instrument (Al-Athari, & Zairi, 2002). Evaluating program efficiency, effectiveness, and success will be the key ingredient in making adjustments that are both timely and cost-effective (Wang, 2009). Evaluation in education is greatly paid attention to the quality of education and improvement needs to the educational programs which are the main concern of the whole educational system. CIPP widely used for educational programs in many fields for accountability as well as improvements (Anh, 2018). Evaluating teacher training programs based on output is accepted as an important topic that may lead to improvements in teacher training. (Aypay, 2009). The in-service teacher training program is vital to the development of curriculum change and teacher professional knowledge (Aydin & Baskan, 2005). Teacher-education programs should incorporate a built-in procedure for overall internal evaluation and use it regularly (Peacock, 2009).

I hope that the new procedure will facilitate and encourage this. A critical review of programs is a beneficial and essential exercise.

2.3. Synthesis

According to Mrnphrngchai (2004), Malik and Khan (1998), Bayrakc, (2009) and Tseng, (2008) that they explored from their research works and opined the strength of training programs management were helpful, supportive and comprehensive. As well as reliable in assessment and some resource persons were effective in professionally, because of professional expertise and it instigates to grow the awareness for upgrading their correctness and swiftness. On the contrary, they found in their researches that it needs to reshuffle the training objectives, training discharging procedure, and trainers must drive to be decorating themselves with knowledge of audiovisual aids along with beliefs and attitudes regarding their teaching performances. They also emphasized keeping the provision of training and post-training feedback. Duarte (2005), LeBel, Kilgus, and Navarro and verdisco (2000) illustrated their research papers that the training should be focused on according to the application of time be relevant approach including training modes, contents, methodologies, supervision and the proper utilization of ICT in educational aspects in conjunction with indirect training system. The distinguished researchers Aydin and Baskan (2005), Roux (2002), Shihong, Yongdong, and Reisheng, (2008) and Yigit, (2008) said that the training of teachers should bring under modification for the better feat and achievement and accelerate the reciprocal communication for out and out success. Moreover, all the efforts turn into foil due to the indifference of proper coordination and

cooperation. They also stressed on the pedagogical methods and norms of culture sensibility relating to its comprehension and infrastructure and course environment. The renowned researchers Darby (2006) and Hsieh and Hsiao (2001) stated that by evaluation, it could know the effectiveness of training objectivity and the benefits of the organization has received for its investments.

2.4. Connection to the Present Research

From the above-mentioned literature, it is found that some researches have conducted in the field of the training program, but till now, there is a gap in the in-service training program of SBTTP, especially its evaluation using primary data. It is an attempt to do experimental research regarding the gaps in the literature; strengths, and weaknesses of the SBTTP, measures the after training classroom performances of the trained teacher, and comparison between two HSTTIs regarding strength and weakness of SBTTP. This chapter has provided with a review of the literature, so as to make a connection to the current reasearch.

CHAPTER THREE

METHODOLOGY

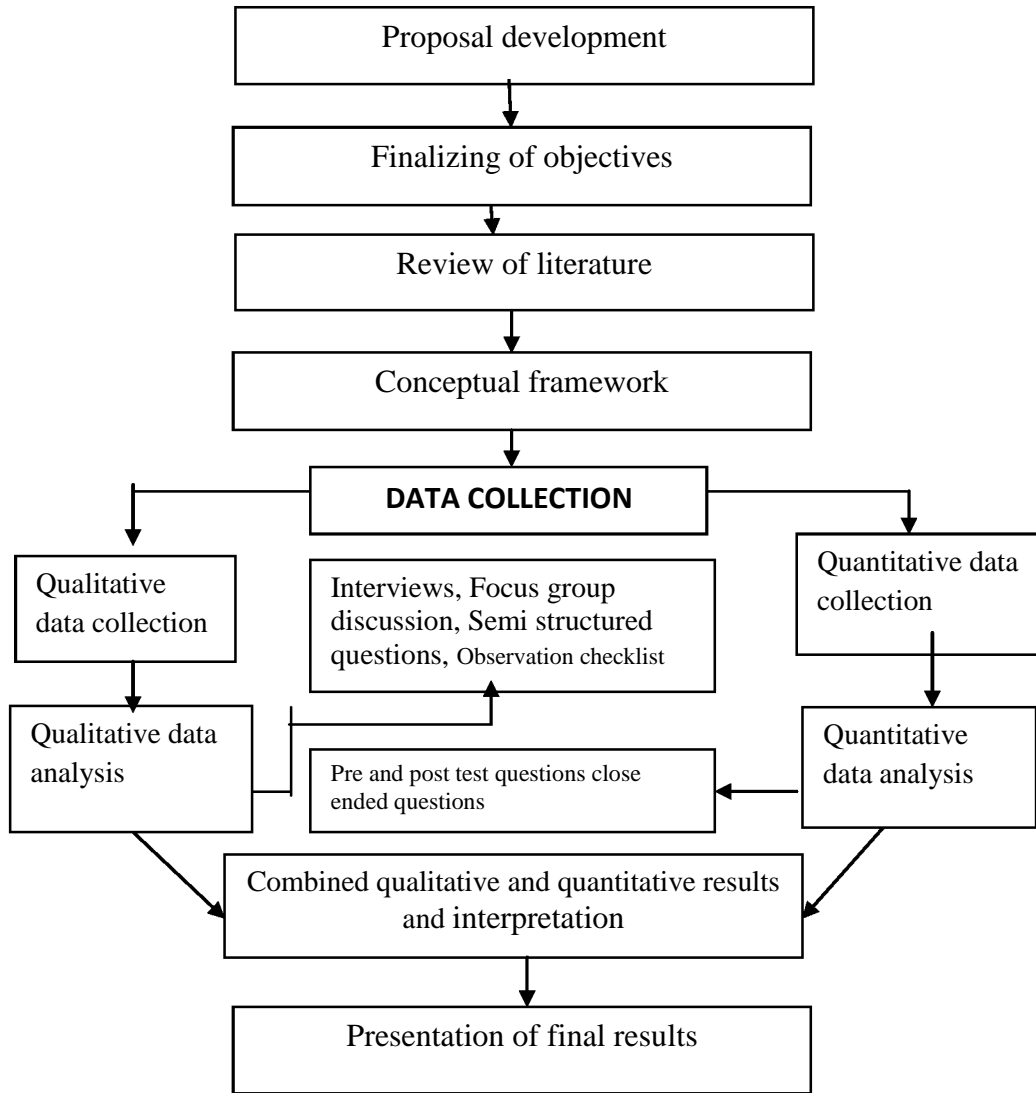
3.1. Prelude

This chapter presents the research methodology and study design to give answers to the research questions. The research design for this study is an educational evaluation using a mixed-methods study. The study used by Stufflebeam's CIPP model as a framework. This chapter includes research design, study area, population, sample, instrumentation, data collection, and data analysis method as well as ethical consideration.

3.2. Research Design

In this research, the researcher employed a mixed-methods [\[1\]](#) study design, using both quantitative and qualitative data. The use of a combination of data collection methods increases validity, and the strength of one method can complement the weakness of another method (Bakahwemama, 2009 in Milay, 2010). This research is designed (figure-3.01) to evaluate the Subject Based Teacher Training Program implemented by the government of Bangladesh for non-government college teachers. CIPP model has been used to explore the strengths, weaknesses, and usefulness of SBTTP in two HSTTIs in Bangladesh.

Figure 3.01: Flow Chart of the Research Design



Source: Self-designed based on the Research Methodology of the Study

¹Mixed-methods research means that a research strategy employs more than one type of research method. This study uses quantitative and qualitative approaches in combination; Mixed-methods research provides more comprehensive evidence for studying the research questions than either quantitative or qualitative research alone

3.3. Selection of the Study Area

The study conducted on SBTTP of HSTTI of Bangladesh which is providing subject-based training with the combination of subject and pedagogy. HSTTI Mymensingh and HSTTI Rajshahi purposively selected from five HSTTIs in Bangladesh others are respectively HSTTI Barishal, HSTTI Cumilla, and HSTTI Khulna. In this research, there were multiple connections with the participant. In this regard, there is a need to have a good mutually respectful environment for research to be successful. For this reason, and for easier access, the researcher chose his workplace and comfortable communication area as the field for the research.

3.4.1. Population

The nature of the current study made it possible to focus on the participants' college teachers of SBTTP, trainers of the teacher, college principals, high officials of Directorate of Secondary and Higher Education, Bangladesh.

Table 3.01: Target population (Population- one calendar year).

Category	HSTTI Mymensingh	HSTTI Rajshahi	HSTTI Khulna	HSTTI Barishal	HSTTI Cumilla	Total
Participants teacher	320	320	320	320	320	1600
Faculty members (Internal Trainer)	9	9	9	9	9	45
External trainer	8	8	8	8	8	40
Total	337	337	337	337	337	1685

Subject Based Teacher Training Program is a government initiative program to train up the college teachers of the country. Therefore, it involves different personnel with different roles and statuses. So, the population as mentioned above, has considered for this research study.

3.4.2. Sample

A sample as a group of subjects or situations selected from a larger population and also define a sample as the sub-set of the whole population which is investigated by a researcher and whose characteristics will be generalized to the entire population (White, 2005, and Bless & Achola, 1988, cited in Chiyongo, 2010).

Table 3.01: Sample Size and Study Area:

Types of sample	Sampling	Nature of Respondents (Population- one calendar year)		Total Number of respondent	Area of respondents	
		HSTTI Mymensingh	HSTTI Rajshahi		HSTTI Mymensingh	HSTTI Rajshahi
Participants teacher	Purposive	275	122	397	Dhaka Division and Mymensingh Division.	Rajshahi Division and Rangpur Division
Faculty members (Internal Trainer)	Purposive	09	09	18		
External trainer	Purposive	05	05	10		
High official under MoE	Purposive	Director of DSHE, Director of HSTTI Mymensingh and Director HSTTI Rajshahi.		03		
College Principals	Purposive	Selected 10 college principals		10		
Total				438		

In this sampling method, the researcher purposely targets a group of people believed to be reliable for the study. The purposive sampling technique was appropriate for this study because the selected participants were in the position to discuss issues concerning the SBTTP in their respective areas. The sample size includes 397 respondents' trainee teachers, 10 trained college teachers' to observe classroom situations, and taken interview of the said college principals. Besides, 03 high officials of which director of DHSE and two directors of selected HSTTIs to collect opinion. Arrangement of four focus group discussions (FGD) with 28 teacher trainers from two selected HSTTIs. So the total number of participants in this study was 438.

3.5. Sources of Data

Both primary and secondary sources of data used in this study. To collect primary data, this study considered: (1) face to face survey; (2) in-depth interviews; and (3) focus group interviews; (4) classroom observation; and (5) interview of policymakers and college principals. Governmental policy documents and other papers documents used as the secondary source of data.

3.5.1. Primary Source

The study was adopted face to face surveys using questionnaires, in-depth interviews, focus group interviews, policymakers' interview, and classroom observation using an observation checklist to gather the primary source of data.

3.5.2. Secondary Source

The secondary source of data was collected through reviewing the policy documents, reports, statistics, etc. relating to teacher training.

3.6. Research Instruments

The survey questionnaire consists of two parts, 30 items are close-ended on a Likert type scale, and six items with 6 to 8 sub-items are open-ended. Four focus group discussions arranged with 28 participants of full time and part-time trainer in HSTTI Mymensingh and HSTTI Rajshahi. Five points Likert scale observation checklist was used to observe classroom performance and taking different notes about the teaching-learning process. Interview regarding classroom activities of the observed teachers has also taken to know the implementation level of training knowledge and skill. Interview of the principals of the respective colleges was taken regarding classroom activities of the observed teachers to know the performances and limitations of the teacher. Policymakers' interview was conducted to develop a deep understanding of the policies on SBTTP, in particular, the policies concerning the professional development of higher secondary level subject teachers.

3.6.1. Pre-Test and Post-Test Questions

This technique involves groups of participants who receive SBTTP training. The knowledge, skills, and activities measured before the training conducted. After completing the program, the same knowledge, skills, and activities are tested to

compare the result of any improvement from the pre-test. The advancement of this technique is those participants who have the opportunity to explore topics and questions before receiving training. For this reason, change in their knowledge, skills, and abilities may be affected by the pre-test but not from the training.

3.6.2. Semi-Structured and Open Survey Questionnaire for Respondent Teachers of SBTTP

The aim of conducting face to face surveys was to engage as a large number of samples of higher secondary level trainee teachers in this study. In social research, the survey was a commonly used instrument.

It provides an opportunity for the researcher to collect data from a population to determine the current status of that population concerning one or more variables. It has used in many fields such as in political science, education, and economics. The survey method is a constructive research methodology and can consider as a systematic data collection tool used in large scale investigations (Abdullah & Rahman, 2000/2001). The questionnaire widely used for collecting survey information because it provides structured, often numerical data, can be administered without the presence of the researcher and produces results that are often comparatively simple to analyze. The purpose of this research survey was to explore higher secondary level teacher perception regarding SBTTP in Bangladesh. All survey questions were framed, after careful consideration, to closely connected with the research objectives and the research questions. I

adopted many techniques to collect as accurate data as possible. I conducted a pilot study before conducting a large scale face to face survey by asking some early participants who did not participate in the main survey to give comments and suggestions. Some feedback obtained, and some survey questions were modified. This questionnaire consists of two parts, 30 items are close-ended on a Likert type scale, and 06 items with 6 to 8 sub-items are open-ended.

3.6.3. Focus Group Discussion

A focus group consists of individuals who interact with group members rather than the researcher, and this kind of group interviewing is a useful method of conducting interviews because it involves less tension than a face-to-face interview so that the group may provide more information. Focus groups generate a rich understanding of the participants' experiences and beliefs that can hear through the group discussions, and the researcher can obtain the information that participants provide. Focus groups are more than the collection of individual interviews. The element of interaction between the group members plays a significant role in generating the data. Focus group discussions are valuable tools for collecting the qualitative data, and these are much useful for the researches relating to planning, improvement, and evaluation of certain programs (Dilshad & Latif, 2013). Focus group interviews gave me a particular understanding of what the participants discussed and even argued about in the groups on the specific issues. As some of the research questions were concerned with the participants'

perspectives, such as professional activities and more effective approaches to professional development, listening to a group discussion and even a group debate was a more effective way to obtain detailed information related to the research questions has an advantage that one-to-one interviews would not be able to achieve. The focus group interviews also built a sound foundation to base the in-depth interviews on, because I had opportunities to verify the results by comparing data between the focus group interviews and the in-depth interviews. Overall, four focus groups discussion were conducted in this study, containing 07 participants from each group who worked as a trainer in HSTTI, Mymensingh and HSTTI, Rajshahi. Smaller groups are preferable when participants are likely to have a lot to say on the research topic (Morgan, 1998). The recruitment of the participants in this study based on their work experience and the institution where they worked as a teacher trainer. I communicated with the participant before I started FGD. Four sessions of FGD conducted through a purposive selection of 07 members from two institutions, which continued for about one hour, followed by the researcher.

3.6.4. Classroom Observation

Feedback from classroom observations is an effective way of providing teachers with the information they need about their classroom behavior, and it can help them in their continuous professional development (Halim, Whahid, & Halim, 2018). In this study, the researcher applied participant class observation as a data gathering-instrument because to observe the participants after training class

teaching-learning practices. For class, observation researcher used a class observation checklist and after observation takes open interview has taken regarding teaching-learning practice. Also, an open interview has taken from the respective college principal. A very important reason for combining interviewing and observation techniques was for them to complement each other. The observer effect is very real in some cases, particularly when researchers are in a classroom for only short periods. The period of class observation was 05 lessons in urban colleges and 05 lessons in rural colleges. Each lesson has taken approximately 45 minutes. This observation is the case my brief presence in the classroom may have influenced both the teachers and students to change their behavior to a certain extent. The class observations conducted the respective subject classes. Observation notes have taken during the lessons as I was sitting in the back of the classroom. I followed 5 points Likert scale observation checklist and taking different notes about teaching-learning. Then I have also taken interview regarding the classroom performance of the teacher and discussed the issues of classroom performance of the teachers with the principal of the college. Observations helped me confirm some of the responses I got from the interviewees, but also, there was more that I observed the respondents did not mention that. Classrooms observation checklist previously piloted which consists of 20 items of close-ended on a 5 points Likert type scale.

3.6.5. Interview

Interviews are often used to provide context to other data (such as outcome data), offering a complete picture of what happened in the program and why (Boyce, 2006). In this study, the in-depth interviews allowed me to develop a deep understanding of knowledge and insights concerning the SBTTP, which investigated in this study. They were two types of in-depth interviews conducted in this study, i.e., policymaker interviews and college principals' interviews. The researcher himself conducted policymakers' interviews to develop a deep understanding of the policies on SBTTP, in particular, the policies concerning the professional development of higher secondary level subject teachers. These three interviewees listed in the table below.

Table 3.02 Policymakers who were involved in the in-depth interviews

Policy Maker	Worked Institution
Director (Training)	DSHE, MoE, Bangladesh
Director	HSTTI, Mymensingh, Bangladesh
Director	HSTTI, Rajshahi, Bangladesh

These three policymakers interviewed before interviewing the teacher educators to obtain an understanding of the policy context, which in turn informed in the focus group interviews of teacher educators and in-depth interviews. The interview questions varied among the interviewees. I interviewed Director training, DSHE using a similar interview schedule that mainly focused on national

policymaking. The relevant points were about the policies on teacher training in Bangladesh, their perspectives on the teacher training in Bangladesh, and the policies on the professional development of subject teachers in Bangladesh. My interview with Director DSHE focused on training policy-making and implementation concerning teacher training. Before I interviewed him, I have taken permission through the mail and reconfirm by cell phone, and permission obtained. The second type of in-depth interview was with the director (teacher educator) who works in the chosen two HSTTIs. Two directors, who interviewed earlier, were also involved in the focus group discussion (FGD). In the FGD, I had an opportunity to confirm their answer on same issues. It found that some points contradicted between interviews and FGD opinions by them. The results from both the FGD and the interviews enabled me to draw on the advantages of each instrument and avoid the weaknesses. The interview questions for the directors (teacher educator) interviews mainly focused on the SBTTP in Bangladesh. The specific aspects aimed to obtain a deep understanding of the interviewees' perspectives. All the interview questions were in line with the interview questions used in the focus groups, which enabled me to obtain multiple viewpoints on the reality of the strengths and weaknesses of SBTTP in Bangladesh. Before I interviewed them, I have taken the permission of them. I consider myself as an interpreter who observes, records, and tries to refine the issues. Through the interactions of the interviews, information collected. The interview schedule had

three sections, with five questions in each (See Appendix-D). The interviews were audio-recorded by the researcher with the full permission of the participants. With the process of audio records, I focused on the topics and the particular usage of words of the interviewees. The in-depth interviews were conducted in respectively Dhaka, Mymensingh and Rajshahi on a one-to-one basis in each interviewee's office or workplace. Data collected from the college principals and college teachers through the questionnaire. Three questionnaires were developed to get the opinions respectively of the principals, observing teachers regarding the overall performance of subject-based trained teachers and policymaker.

3.6.6. Document Analysis

Document reviews were used to support the interview method, which was the main data collection strategy and observation. Among the documents that were analyzed were circulars and modules. It was important to analyze the contents of these documents to verify the information obtained using other methods of data collection. Triangulation is used to verify the responses given during the study (Chiyongo, 2010).

3.7. Pretesting of the Instrument

Research instruments used in the study administered to 100 participant teachers, 09 faculty members including director and 05 external trainers of HSTTI Mymensingh for pretesting. According to the respondents' suggestion, a few items modified before carrying out the study.

3.8. Data collection

After the pre-testing and improvement of the research instrument, the primary source of data for the study was collected from trainee participants consists of eight batches of SBTTP by using questionnaires. Data also collected from four focus group discussions, trained teachers' classroom observation using observation checklist, and in-depth interviews of high officials. Opinions of college principals have taken of the observed trained teacher's colleges.

3.9. Data Processing and Analysis

The collected data was processed to make it more meaningful and analyzed the same by applying appropriate statistical tools and techniques. All possible efforts were made to produce valid descriptions of analytical explanations of collected data from published, unpublished, and primary sources.

3.9.1. Data Processing

The data processing activities consisted of editing, coding, data entry, checking consistency, summarizing, classifying, etc.

3.9.2. Data Analysis

After the completion of data processing, the researcher turned his attention to analyze both quantitative and qualitative data. The data analyzed by using Statistical Packages for Social Science (SPSS) version 16 and Microsoft Excel. In the course of descriptive analysis, frequency, mean, standard deviation (SD) has adopted. On the other hand, inferential statistics like the Chi-square test adopted.

3.10. Ethical Considerations

Research requires cooperation and coordination among different people, and researchers should maintain trust, accountability, mutual respect, and fairness. Researchers should follow guidelines that are associated with writing, copyright, and clear policies, data sharing policies and confidentiality rules in peer review (Akaranga & Makua, 2016). In carrying out this research, it was necessary to develop a trusting relationship between the researcher and survey respondents and the researcher and interview participants, to generate as precise and rich information as possible without hurting the participants. My study explores the SBTTP at higher secondary level in Bangladesh. I worked as a teacher trainer in an HSTTI in Bangladesh. My experience helped me to understand the real scenario of teacher training programs in Bangladesh.

3.11. Conclusion

This chapter presents the mixed-methods research design that involved both the quantitative and qualitative data, which were concurrently collected and analyzed. The two strands integrated at the final data synthesis phase through two methods: side-by-side comparison in the discussion, and data transformation in the results. This study selected HSTTI, Mymensingh, and HSTTI, Rajshahi in Bangladesh.

CHAPTER FOUR
SCENARIO OF TEACHER TRAINING IN
BANGLADESH

4.1. Prelude

Education usually understood as a course of study to acquire knowledge, skills and enable them to do a particular job. Education means learning knowledge, skills, and attitudes which is the key to a person's future. Teachers' training programs are necessary to upgrade teachers' skills, knowledge and performance, also to enable them to be more effective (Al-Zoubi & Rahman, 2011). The proper education system is needed to develop these skills. In terms of quantity, the education in Bangladesh has developed, but there are some debates regarding the quality of education. It generally said that the education systems of Bangladesh are not therefore related to practical life. We can truly say that the present education systems could not achieve the educational level-wise objectives. Education should be student-oriented which promotes creativity, practicability, and productivity to achieve advancement in the economic and social fields of the country. From the above discussion, it is apparent that at present education system of Bangladesh has a lot of discussion on how to meet this new challenge of evolution. It hoped that if the new education policy properly implemented, the education scenario of Bangladesh might be improved and reality-oriented.

4.2.1. Education System in Bangladesh

The proper education system can mold society and creates positive changes in teacher's quality through proper training. The present education system of

Bangladesh may be divided broadly into three major stages as primary, secondary and higher education.

Figure 4.01: Educational Structure of Bangladesh

THE PRESENT EDUCATIONAL STRUCTURE OF BANGLADESH										
Age	Grade									
26+										
25+	XX									
24+	XIX		Ph. D	PostMBBS Dipl	Ph. D(Engr)	Ph.D. (Medical)		Ph. D (Education)		
23+	XVIII		M.Phil	M.Phil(Medical)						
22+	XVII	MA/MSc/MCom/MSS/MBA	LLM	M B B S BDS	MSc(Engr)	MSc.(Agr)		M.Ed & M MFA MBA A(Edn)	MA(LSc)	
21+	XVI	Bachelor (Hons)	Masters (Prel)		BSc.Eng	BSc.Eng	BSc (Tech.Edn)	B.Ed Dip.Ed & BP ED	Dip.(LSc)	Kamil
20+	XV		Bachelor (Pass)	LLB(Hons)	BSc.Agr			BBA		
19+	XIV				BSc.Text			BFA		Diploma
18+	XIII								in	
17+	XII	Secondary	Examination		HSC	Diploma (Engineering)	HSC	C in Pre- Diploma	Nursing	Alim
16+	XI		HIGHER SECONDARY EDUCATION				Voc, C in Ag	Edu. Degree in BFA Comm		
e15+	X		SECONDARY EDUCATION	SSC	TRADE Certificate/ SSC Vocational	ARTISAN COURSE e.g. CERAMICS				
14+	IX									Dakhil
13+	VIII	JUNIOR SECONDARY EDUCATION								
12+	VII									
11+	VI									
10+	V									
9+	IV									
8+	III	PRIMARY EDUCATION								Ebtedayee
7+	II									
6+	I									
5+										
4+										
3+		PRE-PRIMARY EDUCATION								

Source: http://www.banbeis.gov.bd/es_bd.htm

Primary education is imparted basically by primary level institutions. Secondary education imparted by junior secondary and higher secondary level institutions. Higher education imparted by degree pass (3 years), degree honors (4 years), masters (1 & 2 years) and other higher-level institutions of equivalent section of other related institutions. The higher secondary level of a college education is covering up two years of formal education, and also, the variation of courses after five years of schooling in the secondary level of education starts higher secondary level education.

There is a stream of courses such as humanities, science, and business education, where students are free to choose their courses of study. After that tertiary level starts. According to DSHE, the Government of Bangladesh places great importance on education, and in this regard, the government has been trying to transform its huge population into human resources. The government is providing free education up-to HSC (Class- 12) for the female along with a stipend.

4.2.2. Education Management in Bangladesh

Ministry of education of Bangladesh formulates policy, supervision, evaluation, and inspection of the institutional reforms, and in favor of MOE, DSHE implemented the strategy mentioned above for the overall educational development. The financial investment of education has been given priority in Bangladesh to the development of teacher training because it creates effective professional development of the subject teacher. In Bangladesh, eight divisions

cover-up sixty-four districts, and each district has DEO (District Education Officer) who is responsible for the district level educational activities. Also, nine secondary and higher secondary education board are conducted the public examination in secondary and higher secondary level in Bangladesh.

Table 4.01: Number of college Teacher and Student by type, 2017

Type of college	No. of college		Number of Teachers			Number of Students		
	Total	Girls	Total	Female	% Female	Total	Girls	% Girls
School & College (College Section)	1268	186	18347	4671	25	353173	185969	53
Higher Secondary College	1335	203	24056	5307	22	388122	195196	50
Degree (Pass) College	1121	220	39716	8424	21	968064	511649	53
Degree (Honors) College	596	103	28158	7214	26	1169628	538933	48
Masters' College	175	32	13241	4304	33	1399454	594732	42
Total (College Education)	4495	744	123518	29924	24	4278441	2046479	48

<http://www.banbeis.gov.bd>

4.3. Teachers' Training in Bangladesh

The role of the teacher and teacher training program is important for building national development. Every country has a difficult task to make a skilled teacher educator keep in teaching and educating a nation for the development of society.

4.3.1. History of Teacher Training in Bangladesh

Teacher training in Bangladesh is almost as old as the school in the country, although initially, the emphasis was on teacher training. Woods dispatch in 1854 first giving emphasis on teacher training in the Indian sub-continent. Also, the 1882 hunter commission requested for one-year teacher training of secondary teachers (Malik et al., 2017). In Bangladesh, it first introduced in Dhaka Teacher Training College in 1909 with one year B. Ed training program.

4.3.2. Objectives of Teacher Training in Bangladesh

According to national education policy Bangladesh (2010) the aims and objectives of teachers' training are:

- To help teachers acquire knowledge and skills in the strategies of teaching-learning through teachers' education and training.
- To help teachers develop and update their professional knowledge.
- To develop the personality, innovative knowledge, and qualities of leadership of the teachers.
- To introduce the teachers with the socio-economic conditions and immediate problems of the country and to help them to get involved in the issues concerned.
- To identify the behavioral strengths and weaknesses of the teachers and to find remedies.

- To encourage them to acquire efficiency to use modern materials for teaching;
- To increase their efficiency in the strategies for new educational methods;
- To help grow professionalism in them to prepare research papers and report writing;
- To encourage them to teach students by creating equal opportunities for all, irrespective of religion, race and socio-economic conditions;

At close look at these objectives reveals that teacher training in Bangladesh is expected to train teachers with the needs of the students at the center of all its activities. It also indicates that to make the teacher all-rounder as all areas of competency, for example (a) Professional Knowledge (b) Professional practice (c) ICT in education (d) professional values or ethics.

4.3.3. Teacher Training Institutes of Bangladesh

The existing teachers' training system in Bangladesh is very traditional, insufficient, certificate-based, loaded with theoretical knowledge, incomplete in practical learning.

At present, there are 59 Primary Training Institute (PTI) which provides in-service training for primary teachers', there are 14 government teacher training colleges and 104 private teacher training colleges which are providing one year pre and in-service training for secondary level teachers, one Technical Teacher Training College (TTTC) is providing training for the teacher of polytechnic teacher, one

Vocational Teacher Training Institute (VTTI) is providing training for vocational training centers teacher.

Table 4.02: Number of Teacher Education Institution by Type, Gender and Management 2018

Sl No.	Type of Institute	Public			Private			Total		
		Total	Female	% of Female	Total	Female	% of Female	Total	Female	% of Female
1	Primary Training Institute (PTI)	56		0	03		0	59		0
2	Teachers Training College (TTC)	14	1	6.67	104		0	118	1	0.84
3	Technical Teacher Training College (TTTC)	1		0	0		0	1		0
4	Vocational Teacher Training Institute (VTTI)	1		0	0		0	1		0
5	Physical Education College	5		0	25		0	30		0
6	Higher Secondary Teacher Training Institute (HSTTI)	5		0	0		0	5		0
7	Bangladesh Madrasah Teacher Training Institute (BMTTI)	1		0	0		0	1		0

<http://www.banbeis.gov.bd>

There are 05 government Physical Education College and 25 private Physical Education College which are providing one year pre and in-service training for secondary level teachers, five Higher Secondary Teacher Training Institutes (HSTTI) are providing in-service subject-based training for college teachers, one

Bangladesh Madrasa Teacher Training Institute (BMTTI) providing training for the Madrasah teachers’.

Table 4.03: Other Teacher Education Institute in Bangladesh

Sl No.	Type of Institute	Public	Private	Total
1	Institute of Education and Research (IER)	02	00	02
2	Bangladesh Open University (BOU)	01	00	01
3	National Academy for Primary Education (NAPE)	01	00	01
4	National Academy for Educational Management (NAEM)	01	00	01
5	Special Education Training Institutions	01	01	02

Source: (Malik et al., 2017)

Also, there are 2 Institutes of Education and Research (IER) in public University which providing B Ed (Hons), M.Ed program as well as conducted research in education. Bangladesh Open University (BOU) also awarded B.Ed and M. Ed degree through distance learning. One National Academy for Primary Education (NAPE) is providing training for the primary teacher, UEO, ADPEO, DPEO, and doing educational research. National Academy for Educational Management (NAEM) is mainly providing foundation training for government college teachers and doing research. There are two Special Education Training Institutions which providing training for the teacher those are working in special needs school and institution. The existing teachers’ training system is inadequate and traditional. So, training programs should be modified and ensure quality in-service training.

4.4. Higher Secondary Teachers' Training Institutes (HSTTI) in Bangladesh

HSTTI has established by the Higher Secondary Education Project (HSEP) under the Ministry of Education of Bangladesh. Higher Secondary education Project started working from July 1992 by the financing partner of ADB, UNDP, and government of Bangladesh for in-service training of higher secondary level college teachers. Higher Secondary education project constructed five HSTTIs in five major cities, respectively Mymensingh, Cumilla, Rajshahi, Khulna, and Barishal which covering the training program of all higher secondary levels colleges teachers in Bangladesh. Presently HSTTIs accommodate multidisciplinary teacher training programs by the financial support of revenue & development budget throughout the year under the direct supervision of Ministry of Education (MOE) & Directorate of Secondary and Higher Education (DSHE) accordingly.

4.4.1. Objectives of HSTTI

HSTTIs want to provide available facilities of information and resources for learning, teaching, and research. The training programs are intended to create knowledge, develop skills, and impart the right attitudes and values.

a) A positive change in the Attitude, Skills, and Knowledge (ASK) of the teachers.

- b) To increase cooperation and collaboration among the national level training institutes and educational institutions of Bangladesh.
- d) To provide necessary supports towards designing, improving, and managing the educational policies of the country.
- e) To arrange and conduct training programs, workshops, seminars on educational needs.
- f) To develop the teaching-learning quality of the teachers.

4.4.2. Function of HSTTIs

HSTTIs started functioning in 1995. The mission of HSTTI is to increase competences in the teaching-learning process, reflective practice & to accelerate competences in educational management in secondary & higher secondary level teachers. It also develops a solid foundation on computer literacy & ICT for the secondary level and higher secondary teachers.

Table 4.04: Trained Teachers Statistics of HSTTIs

SI No	Name of the HSTTIs	Subject Based training program		Educational Administration and management training		Computer training course for college teachers	
		No of course	Total participants	No of course	Total participants	No of course	Total participants
01	HSTTI Mymensingh	84	4765	24	385	63	1233
02	HSTTI Rajshahi	84	6020	24	552	63	1237
03	HSTTI Khulna	85	5691	24	471	63	1206
04	HSTTI Comilla	85	5154	24	445	63	1215
05	HSTTI Barisal	54	5167	24	377	63	1137
Total			26797		2230		6028

Source: office record of HSTTIs

HSTTIs are trying to implement various types of training programs successfully for improving the quality of education at the secondary & higher secondary level, which is contributing to the pace of development of the country. By June 2018, five HSTTIs has conducted various types of the training program under revenue budget which showed in table 4.04.

4.4.3. Facilities of HSTTIs

Each of the 5 HSTTIs headed by one Director. The main faculty are involved with one Additional Director, two Deputy Director, four Assistant Director, one Assistant Programmer and one Administrative Officer. Besides, there are functional sections like; Library & documentation, Laboratories, Audio-visual system, Computer system, Office and Hostel. All HSTTIs, containing the same facilities.

4.4.3.1. Physical facilities

There are three-storied academic buildings with 07 training classrooms, 03 computer classrooms, one audiovisual room, two science laboratories, one modern conference room, and 08 office rooms. Additionally, there are four-storied one hostel building with accommodation capacity of 180 trainees, as well two-storied one rest house with accommodation capacity of 07 guests, also two-storied director's quarter for the director of the respective institution and 01 storied hostel super's quarter for the appointed hostel super for the respective institute.

4.4.3.2. Training facilities

The faculty members of HSTTI are usually managing the multidisciplinary training courses. Furthermore, HSTTI prefers resource personals from local universities and government colleges, with high professional background and experience in the respective field. In HSTTIs, there are well-equipped training classrooms, including multimedia facilities, decorated conference rooms, IT-based computer laboratory, audiovisual laboratory, science laboratory, rich library. Every institute has an equal number of faculty members (9) and ministerial staff (30) who are conducting and supporting all types of training programs.

4.5. Conclusion

This chapter discussed different approaches, functions of training and training institutes. Mainly it was discussed in the background, objectives, functions and different types of facilities of HSTTIs. Additionally, it deliberated about the educational management and structure of Bangladesh.

CHAPTER FIVE
SOCIOECONOMIC STATUS OF THE
RESPONDENTS

5.1 Prelude

This chapter focuses on the socio-economic condition of the respondents of the study. It includes the profiles of respondents, i.e., the distribution of respondent's workplace, education, subject or disciplinary category, designation, salary information, etc.

5.2. Respondents Working Area

The government of Bangladesh has established 5 HSTTIs in five major cities with the aims of providing training to the college teachers, which covers the eight divisions of the country. Among these, HSTTI Mymensingh is providing training to the teachers who are working in different colleges situated at Dhaka and Mymensingh divisions, which covers in total 1249 colleges (Banbeis, 2018). HSTTI Rajshahi had been providing training to the teachers who are working in different colleges situated at Rajshahi and Rangpur divisions, which covers in total 1421 colleges (Banbeis, 2018).

Figure-5.01



Source: <https://www.google.com.bd/search?q=map+of+bd>

5.3. Basic Information of the Trainee Respondents

5.3.1. Sex Division of the Respondents

Table-5.01 indicates that the highest respondents (77%) were male, where 66% from Mymensingh and 34% from the Rajshahi area. On the other hand, fewer respondents (23%) were female where 80% from Mymensingh, and 20% from the Rajshahi area. It mentioned here that maximum numbers (69.3 %) respondents

selected from the Mymensingh area and minimum numbers (30.7%) were from the Rajshahi area.

Table-5.01 Sex division of the Respondents

Working Area	Male	Female	Total
Mymensingh	202 (66%)	73 (80%)	275 (69.3%)
Rajshahi	104 (34%)	18 (20%)	122 (30.7%)
Total	306 (100%)	91 (100%)	397 (100%)

Source: Analysis of Primary Data through SPSS.

5.3.2. Location of the Colleges

Table-5.02 indicates that the highest number of respondents (55%) was from the rural area, where 62% from Mymensingh and 38% from the Rajshahi area. On the other hand, less respondent (45%) was from an urban area where 74% from Mymensingh and 26% from Rajshahi area. It mentioned here that the maximum (69.3 %) respondents selected from the Mymensingh area and minimum (30.7%) from the Rajshahi area.

Table-5.02 Location of the college

Working Area	Urban	Rural	Total
	District and Upazila headquarters	Out of district and Upazila headquarters	
Mymensingh	179 (74%)	96 (62%)	275 (69.3%)
Rajshahi	63 (26%)	59 (38%)	122 (30.7%)
Total	242 (100%)	155 (100%)	397 (100%)

Source: Analysis of primary data collected from trainee respondents.

5.3.3. Educational Qualification of the Respondent

Table-5.03 indicates that in Mymensingh, there were twenty-five teachers who had a professional qualification of BEd, MEd, MPhil, and Ph.D. degree respectively whereas in the Rajshahi area there was only one teacher had a Ph.D. degree. The teacher from the Mymensingh area had taken a more professional degree than the Rajshahi area, but overall a minimum number of the teacher were professional degrees.

Table-5.03 Level of educational and professional qualification of the respondent teacher

Working Area	Master Degree	BEd	MEd	MPhil	PhD	others	Total
Mymensingh	250	14	01	08	02	00	275
Rajshahi	121	00	00	00	01	00	122
Total	371	14	01	08	03	00	397

Source: Analysis of primary data collected from trainee respondents.

5.3.4. Respondent Based on Study Discipline and Zone

Table-5.04 indicates that the highest number of respondents (63.7%) was from the humanities discipline, where 61.3% from Mymensingh and 38.7% from the Rajshahi area. The second highest respondents come from business studies (23.7%) discipline, where 72.9% from Mymensingh and 27.1% from the Rajshahi area, and remaining respondents from science (12.6%) discipline, which comes from Mymensingh areas. It should mention here that the maximum (69.3%)

respondents selected from the Mymensingh area and minimum (30.7%) from the Rajshahi area.

Table-5.04 Subject based on Discipline

Working Area	Humanities	Business Studies	Science	Total
Mymensingh	155 (61.3%)	70 (72.9%)	50 (100%)	275 (69.3%)
Rajshahi	98 (38.7%)	24 (27.1%)	00 (00%)	122 (30.7%)
Total	253 (100%)	94 (100%)	50 (100%)	397 (100%)

Source: Analysis of primary data collected from trainee respondents.

5.3.5. Designation of the Trainee Respondent Teacher

Table 5.05 indicates that the highest respondent (77%) was Lecturer, where 71% from Mymensingh and 29 % from the Rajshahi area. The second highest respondents (22.4%) were Assistant Professor, where 63% from Mymensingh and 37% from Rajshahi and remaining respondents (0.6%) were Associate Professor where 100% from the Mymensingh area. It should mention here that the maximum (69.3%) respondents selected from the Mymensingh area and minimum (30.7%) from the Rajshahi area.

Table 5.05 Designation of the trainee teacher

Working Area	Lecturer	Assistant Professor	Associate Professor	Total
Mymensingh	217 (71%)	56 (63%)	02 (100%)	275 (69.3%)
Rajshahi	89 (29%)	33 (37%)	00 (00%)	122 (30.7%)
Total	306 (100%)	89 (100%)	02 (100%)	397 (100%)

Source: Analysis of Primary Data through SPSS

5.3.6. Designation of the Teacher Trainer

Table-5.06 indicates that each institution has permanent faculties (teacher trainer in total-9) those who are working as a teacher trainer. Additionally, an average five external teacher trainer was involved in SBTTP in the respective institute. They are also working in different institutions, and a total of 28 teacher trainer is working as a teacher trainer.

Table-5.06: Designation of the teacher trainer

Working Area	Respondents	Internal Faculties (teacher trainer)				Internal Trainer	External Trainer (average)	Total
		Lecturer/ Assistant Programmer	Assistant Director/ Assistant Professor	Deputy Director/ Associate Professor	Director/ Additional Director/ Professor			
Mymensingh	Frequency	1	4	2	2	09	05	14
Rajshahi	Frequency	1	4	2	2	09	05	14
Total						18	10	28

Source: Analysis of data collected from official records.

5.3.7. Designation of the Officials

Table-5.07 indicates that those high officials were related to SBTTP. They are planning, preparing, implementation, and monitoring SBTTP.

Table-5.07: Designation of the high official

Working Area	Designation	Respondents
DSHE, Dhaka	Director	02
HSTTI, Mymensingh	Director	01
HSTTI, Rajshahi	Director	01
Total		03

Source: Analysis of data collected from official records.

5.3.8. Salary Information of the Respondents’ Teacher (from Government)

Table-5.08 indicates that the highest number of respondents (41.5%) have got a salary =15000/-per month, where 53% from Mymensingh and 47% from the Rajshahi area. The second highest respondents (22.9%) have got salary =18500/- per month were 64% from Mymensingh, and 36% from the Rajshahi area, third-highest respondents (21.15%) have got salary =11000/-per month (MPO) where 93% from Mymensingh area and 07% from Rajshahi area. Also, a total of 14.35% of respondents have not received any salary from the government (MPO). It should be mentioned here that the maximum (69.3%) respondents selected from the Mymensingh area and minimum (30.7%) from the Rajshahi area.

Table-5.08 Salary from the Government

Working Area	No salary	Taka =11000/	Taka =15000/	Taka =18500/	Total
Mymensingh	53 (93%)	77 (92%)	87 (53%)	58(64%)	275(69.3%)
Rajshahi	04 (07%)	07 (08%)	78 (47%)	33(36%)	122(30.7%)
Total	57 (100%)	84 (100%)	165(100%)	91100	397(100%)

Source: Analysis of primary data collected from trainee respondents.

5.3.9. Length of Service (Range)

Table-5.09 indicates that the highest respondents (29.3%) have 11-15 years’ experience, where 49% from Mymensingh and 51% from the Rajshahi area. The second highest respondents (25.6%) have up to 05 years’ experience where 93% from Mymensingh and 07% from the Rajshahi area, third-highest respondents

(20.9%) have 16-20 years' experience where 60% from Mymensingh area and 40% from Rajshahi area. Lastly, the lowest respondent (1.5%) have 26 and above years' experience. It should mention here that the maximum (69.3%) respondents selected from the Mymensingh area and minimum (30.7%) from Rajshahi area.

Table-5.09 Length of Service (Range)

Working Area	Up to 5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26 and above years	Total
Mymensingh	95 (93%)	41(68%)	57(49%)	50(60%)	28(93%)	04(67%)	275(69.3%)
Rajshahi	7 (07%)	19(32%)	59(51%)	33(40%)	02(07%)	02(33%)	122(30.7%)
Total	102 (100%)	60(100%)	116(100%)	83(100%)	30(100%)	06(100%)	397(100%)

Source: Analysis of primary data collected from trainee respondents.

5.4. Conclusion

This chapter discussed the sociological, geographical and economic status of the respondent. Specially respondents' sexual category, educational and professional qualification, subject category, designation, salary information, division length of the service, were categorized and discussed.

CHAPTER SIX
DATA PRESENTATION AND ANALYSIS

6.1. Prelude

The major purpose of this study is a comprehensive evaluation of in-service SBTTP of Bangladesh. Various data have collected by employing various tools and techniques based on the nature and magnitude of the data and information to accomplish the research. This chapter presents the basic data and information as well as descriptively arranges these data.

6.2. Respondents views from the Survey Questionnaire

6.2.1. Questionnaire: Close-ended questions

Survey questionnaires distributed to the 397 respondent teachers who have already finished the course of SBTTP. Simple statistical tools have applied to the gathered data through a questionnaire that contains four sections. *Section-A* consisted of items deal with assessment by the participants regarding training content, training methodology and assessment process of SBTTP. *Section-B* consisted of items that deal with responses of the participants regarding the trainer's competency, skills, and approaches. *Section-C* consisted of items deal with views and assessment of the participants regarding training coordination, management, and facilities, also finally *Section-D* consisted of items deal with the suggestions and recommendations of the respondents, which could adopt for the future effectiveness of SBTTP in both study area.

Data collected through the survey questionnaire by Likert scale analyzed according to the following range described in Table 6.01.

Table 6.01: Descriptive Interpretation of Responses based on Mean

Scale value	Scale range		Descriptive interpretation	Assessment
5	4.50-5.00	3.5-5.00	Strongly agree	Strength
4	3.50-4.49		Agree	
3	2.50-3.49	2.50-3.49	Undecided	Neutral(neither strength nor weakness)
2	1.50-2.49	1.00-2.49	Disagree	Weaknesses
1	1.00-1.49		Strongly disagree	

Source: Analysis of Data Collected from Trainees.

6.2.1.1. Section-A: Feedback of the participants regarding training content, training methodology, and assessment process

Table 6.02 shows that the worth of the course content, methodology, and assessment process in terms of participant’s opinion was strong as the average mean 4.19 and average standard deviation score is 0.865 with the descriptive interpretation.

Table 6.02 further illustrates that the majority of teachers recognized that the application of training knowledge is assured and was effective (mean=4.16, 89.6%) and also provided training materials and activities that were very helpful in the actual teaching of the subject (mean=3.36, 93.5%). The almost all of them also responded strongly agreed and agreed that the training content covers the development of knowledge, skills, values, and attitudes that teacher can transmit to their students (Mean=4.65, 97%) and the training content was relevant to the subject they teach (Mean=4.05, 79.6%). Additionally, most of the respondents stated that the training program activities stimulated their learning (mean=4.59,

97.5%), training methodology was appropriate and comprehensive (mean=4.01, 83.2), and the learning activities were participatory (mean=4.38, 91.5).

Table 6.02 again demonstrated that two items obtained a description of “strongly agree,” which arithmetic mean is above 4.5.

The rest of the items, respondents gave their opinion on ‘agree’ as the average mean of each statement is more than 3.5. These were regarding training content, training methodology, training assessment process covers the development of knowledge, skills, values, and attitudes as well as the assessment procedure of the training course. These reflected that the factors mentioned above are strong, and most of the participants were satisfied with the same area.

Furthermore, respondents mentioned about the training assessment procedures in this course were accurate and fair (mean=3.98, 79.9%), as regard curriculum content organized and easy to follow (mean=3.5, 75.4) and the training objectives for each topic were identified and followed (mean=3.88, 70.4%). A few participants strongly disagreed and disagreed regarding the above items, which are minimum. Besides this, a decent number of participants considered undecided regarding their subject relevancy, which means they opined neutral with the above items. Data confirmed that they did not realize the related mentioned areas, whether it was effective or not during that period. Most of the participants agreed which represent that they were satisfied concerning the training content, methodology, and assessment process of the program.

SUBJECT BASED TEACHER TRAINING PROGRAM AT HIGHER SECONDARY LEVEL IN BANGLADESH

Table-6.02 Feedback of the participants regarding training content, training methodology, and assessment process

Sl No	Item	N		SD		D		Net		A		SA		M	Stand
		F	%	F	%	F	%	F	%	F	%	F	%		
01	Application of training knowledge is assured and will be effective	397	100	18	4.5	9	2.3	14	3.5	205	51.6	151	38	4.16	0.943
02	The training content provides materials and activities that are helpful in the actual teaching of the subject	397	100	5	1.3	7	1.8	14	3.5	186	46.9	185	46.6	4.36	.747
03	The training content covers the development of knowledge, skills, values and attitudes that I can transmit to my students	397	100	2	0.5	0	0	9	2.3	114	28.7	272	68.5	4.65	.579
04	The training content was relevant to the subject I teach	397	100	16	4	23	5.8	42	10.6	161	40.6	155	39	4.05	1.045
05	The training assessment procedures in this course were accurate and fair	397	100	16	4	20	5	44	11.1	194	48.9	123	31	3.98	.993
06	The training program activities stimulated my learning	397	100	2	.5	0	0	8	2	140	35.3	247	62.2	4.59	.559
07	Training methodology was appropriate and comprehensive	397	100	14	3.5	17	4.3	36	9.1	215	54.2	115	29	4.01	.933
08	Learning activities were participatory	397	100	5	1.3	9	2.3	18	4.5	157	39.5	207	52.1	4.38	.816
09	The training objectives for each topic were identified and followed	397	100	21	5.3	18	4.5	38	9.6	227	57.2	92	23.2	3.88	1.006
10	The curriculum content was organized and easy to follow	397	100	19	4.8	27	6.8	51	12.8	196	49.4	104	26.2	3.85	1.037
Respectively average mean and standard deviation													4.19	.865	

Source: Analysis of Data Collected from Trainees.

Key: N= Number of responses, SD = strongly disagree D = Disagree Net = Neutral A = Agree SA = strongly agree M= Mean Stand= Standard Deviation.

On the contrary, a few participants have disagreed with others, which means that they were dissatisfied with the same area of the program. This data explains that the majority of the participants were happy with the training content, and few of them given away neutral opinion regarding the same area.

The above scores showed that the training content, training methodology, and assessment process assured and were effective for the participants. Observing the frequency counts the table above, it can again see that teachers mainly strongly agreed/agreed that the training content, training methodology, and assessment process of SBTTP was also highly effective. Also, a few of them suggested improving the training content, methodology and assessment process for the betterment of the training course.

6.2.1.2. Section-B Feedback of the Respondent Regarding the Trainer's Competency

Table 6.03 explains that the competency of the trainers in terms of participant's opinion was strong as the average weighted mean 4.11 and average standard deviation score is 0.935 with the descriptive interpretation.

Table 6.03 further illustrates that the majority of teachers recognized that the trainer's subject knowledge was excellent (mean=4.26, 88.9%), and also presentations were well-organized and lively (mean=4.14, 87.1%). The greater part of the also responded strongly agreed and agreed that the appropriate training aids were used (Mean=4.05, 82.9%), and the trainer's approaches were

participatory and interactive (Mean=4.35, 93%). Additionally, most of the respondents stated that the trainer used appropriate examples and illustrations (mean=4.16, 85.1), and they used technologies such as the use of powerpoint presentations, video clips, film clips and/or multi-media materials was integrated into the training program (mean=4.49, 92.9%).

Table 6.03 again demonstrated that no item obtained a description of the average mean is not above 4.5. Table 6.03 furthermore explains that one item obtained a description of mean 4.49, which is the best rating regarding technology, such as the use of powerpoint presentations. The rest of the items intercepted as 'agree' as the obtained weighted mean is more than 3.5. Out of these, six items obtained weighted mean above 4.00. These are trainers used appropriate examples and illustrations, and presentations were well-organized and lively, appropriate training aids used, trainer's approaches were participatory and interactive, presenter's subject knowledge was excellent. These reflect that the factors mentioned above are strong, so most of the participants were satisfied with the trainers' performance.

Furthermore respondent motioned about the trainers ability to meet the trainees' needs and interests (mean=3.97, 84.1%), as regards the trainer covered the course objectives (mean=3.72, 73.6%), trainers applied appropriate assessment techniques (mean=3.95, 79.1%) and the trainer maintained time management (mean=3.98, 78.6%). A few participants strongly disagreed and disagreed regarding the above items, which are minimum.

SUBJECT BASED TEACHER TRAINING PROGRAM AT HIGHER SECONDARY LEVEL IN BANGLADESH

Table-6.03 Feedback of the participants regarding trainers' competency

Sl No	Item	N		SD		D		Net		A		SA		M	SD
		F	%	F	%	F	%	F	%	F	%	F	%		
01	Trainers subject knowledge was excellent	397	100	9	2.3	11	2.8	24	6.0	177	44.6	176	44.3	4.26	0.868
02	Presenter was able to meet the trainees' needs and interests	397	100	17	4.3	18	4.5	27	6.8	229	57.7	105	26.4	3.97	0.970
03	Presentations were well-organized and lively	397	100	13	3.3	10	2.5	27	6.8	201	50.6	145	36.5	4.14	0.923
04	Appropriate training aids were used	397	100	13	3.3	21	5.3	33	8.3	191	48.1	138	34.8	4.05	0.989
05	Trainer's approaches were participatory and interactive	397	100	6	1.5	6	1.5	16	4.0	183	46.1	186	46.9	4.35	0.763
06	Trainer used appropriate examples and illustrations	397	100	10	2.5	10	2.5	38	9.6	182	45.8	156	39.3	4.16	0.912
07	The course objectives were covered by the trainer	397	100	27	6.8	33	8.3	45	11.3	213	53.7	79	19.9	3.72	1.086
08	Trainer's assessment techniques were appropriate	397	100	16	4.0	20	5.0	46	11.6	195	49.1	119	30.0	3.95	1.010
09	The trainer maintained time management	397	100	17	4.3	28	7.1	40	10.1	173	43.6	139	35.0	3.98	1.059
10	Technology such as the use of PowerPoint presentations, video clips, film clips and/or multi-media materials was integrated in the training program	397	100	4	1.0	6	1.5	17	4.3	130	32.7	239	60.2	4.49	0.774
Respectively average Mean and Standard Deviation														4.11	0.935

Source: Analysis of Data Collected from Trainees.

Key: N= Number of responses, SD = Strongly disagree D = Disagree Net = Neutral A = Agree SA = Strongly agree M= Mean StandD= Standard Deviation.

Besides this, a good number of participants considered undecided regarding the trainer's assessment techniques, which means they opined neutral with the above items.

Data confirmed that they did not realize the related mentioned areas, whether it was effective or not during that period. Most of the participants agreed which represents that they were satisfied concerning the trainer's performance of the program. On the contrary, a few participants have disagreed with others, which means that they were dissatisfied with the same area of the program. This data explains that the majority of the participants were happy with the trainer's performance, and few of them given away neutral opinions regarding the same area.

On the other hand, nobody strongly disagreed or disagreed with the items of the trainer's presentation approach and met the trainees' needs. A small number of participants mostly disagreed regarding the above items, which are minimum. Besides this, a few participants considered undecided regarding technology integrated into the training program which means they were neutral with the above items.

Almost all of the participants were satisfied concerning the trainer's performance of the program. This data explains that the majority of the participants are happy with the trainer's performance, and a little portion of them exposed neutral opinion regarding the trainer's performance.

Observing the frequency counts the table above, it can again see that teachers mainly agreed/strongly agreed that the trainers' performance of SBTTP was also highly

effective. However, they also suggested improving the participant's satisfaction relating to the trainer's performance for the betterment of the training course.

6.2.1.3. Section-C Feedback of the Participants Regarding Training Coordination, Management, and Facilities

Table 6.04 shows that the worth of the training coordination, management, and facilities in terms of participant's opinion was strong as the average mean 3.77 and average standard deviation score is 1.07 with the descriptive interpretation.

Table 6.04 further illustrates that the majority of teachers recognized that the duration of the training program was suitable and effective (mean=3.73, 69%) and also training co-ordination and co-operation was very evident and helpful (mean=4.07, 84.1%). The majority of the responded also agreed and strongly agreed that the acquired training skill was relevant to their profession (Mean=4.42, 93%) and provided audiovisual instructional materials were sufficient (Mean=3.79, 82.6%). Additionally, most of the respondents stated that their colleagues would benefit from their gained knowledge (mean=4.28, 90.6); training activities gave the participants sufficient practice and feedback (mean=4.43, 93.2).

Table 6.04 again demonstrated that no item obtained a description of "strongly agree," and the average mean above 4.5.

The rest of the items, respondents gave their opinion on 'agree' as the average weighted mean of each statement is more than 3.5. These were regarding duration of the training program was suitable, training co-ordination and co-operation was

evident, the acquired skills are relevant to my profession, provided audiovisual instructional materials were sufficient, my colleagues will benefit from the knowledge I gained, activities in this training course gave me sufficient practice and feedback, the training facilities at this venue were comfortable, the training handouts were useful. These reflected that the factors mentioned above are strong, and most of the participants were satisfied with the same area.

Furthermore, respondents motioned about the training facilities were comfortable (mean=3.46, 61%), and the training handouts were useful (mean=3.50, 59.2%), as regard library facilities were enough (mean=3.11, 49.8%) and the internet facilities were sufficient (mean=3.00, 43.1%). A few participants strongly disagreed and disagreed regarding the above items, which are minimum. Besides this, a good number of participants considered as undecided regarding training handouts, and internet facilities were sufficient, which means they opined neutral with the above items. Data confirmed that they did not realize the related mentioned areas, whether it was effective or not during that period.

Most of the participants agreed which represents that they were satisfied concerning the training coordination, management, and facilities of the program. On the contrary, a few participants have disagreed with others, which means that they were dissatisfied with the same area of the program. This data explains that the majority of the participants were happy with the training coordination, management, and facilities, and few of them given away neutral opinion regarding the same area.

SUBJECT BASED TEACHER TRAINING PROGRAM AT HIGHER SECONDARY LEVEL IN BANGLADESH

Table 6.04 The Feedback of the participants regarding training coordination, management, and facilities

Sl No	Item	N		SD		D		Net		A		SA		M	SD
		F	%	F	%	F	%	F	%	F	%	F	%		
01	Duration of the training program was suitable	397	100	28	7.1	53	13.4	41	10.3	145	36.5	129	32.5	3.73	1.253
02	Training co-ordination and co-operation was evident	397	100	11	2.8	14	3.5	37	9.3	206	51.9	128	32.2	4.07	.919
03	The acquired skills are relevant to my profession	397	100	7	1.8	8	2.0	13	3.3	152	38.3	217	54.7	4.42	.802
04	Provided audio visual instructional materials were sufficient	397	100	27	6.8	32	8.1	50	12.6	175	44.1	113	28.5	3.79	1.143
05	My colleagues will be benefited from the knowledge I gained	397	100	7	1.8	5	1.3	23	5.8	191	48.1	169	42.6	4.28	.815
06	Activities in this training course gave me sufficient practice and feedback	397	100	4	1.0	8	2.0	15	3.8	158	39.8	212	53.4	4.43	.751
07	The training facilities at this venue were comfortable	397	100	42	10.6	55	13.9	57	14.4	158	39.8	84	21.2	3.46	1.272
08	The training handouts were useful	397	100	28	7.1	34	8.6	98	24.7	175	44.1	60	15.1	3.50	1.100
09	Library facilities was enough	397	100	65	16.4	69	17.4	65	16.4	153	38.5	45	11.3	3.11	1.288
10	Internet facilities were sufficient	397	100	75	18.9	80	20.2	71	17.9	111	28.0	60	15.1	3.00	1.359
Respectively average Mean and Standard Deviation														3.77	1.07

Source: Analysis of Data Collected from Trainees.

Key: N= Number of responses, SD = Strongly disagree D = Disagree Net = Neutral A = Agree SA = Strongly agree M= Mean StanD= Standard Deviation.

The average mean score and average standard deviation score showed that the training coordination, management, and facilities became assured and were effective for the participants. Observing the frequency counts the table above, it can again see that teachers mainly agreed/strongly agreed that the training content, training methodology, and assessment process of SBTTP was also highly effective. However, a few suggested improving the training coordination, management, and facilities for the betterment of the training course.

6.2.2. Questionnaire: Open-ended Questions

Section-D consisted of items that deal with the things that can be added to make SBTTP more effective.

6.2.2.1. Question -1 (Participant teachers’ perception of training content)

This question is intended to find out the participant teachers’ perception of training content. The informants contributed a lot of ideas, which are set out in the following table, with the number of respondent teachers as well as a percentage shown about the same idea ranking from the highest number downwards.

Table-6.05 Participant Teachers’ Perception on Training Content

Training content	Total	Frequency	Percentage
Add more class on computer literacy	397	298	75.06
Should be added the need-based new pedagogical concept	397	261	65.74
Simulation activities should increase	397	255	64.23
Add more subject class	397	236	59.44
Action research content should be more practicable	397	201	50.62
Some content needs to be changed	397	180	45.34
Add more communicative English class	397	175	44.08

Source: Analysis of Data Collected from Trainees.

The first noticeable feature that can see from Table-6.05 is that most of the respondent teachers (75.06%) were suggested to add more class on the computer. Add need-based new pedagogical concept got the second-highest position (65.74%) regarding training content. One more comment comes from the third with 64.23% regarding simulation activities, which should increase. Half of the responded (50.62%) also suggested making the action research content more applicable. Below half of the respondents (44.08%) were concerns regarding communicative English class.

6.2.2.2. Question -II (Participant teachers’ perception of training methodology)

This question is intended to find out the participant teachers’ perception of training methodology. The informants contributed a lot of ideas, which are set out in the following table, with the number of trainee teachers writing about the same idea ranking from the highest number downwards:

Table-6.06 Participant Teachers’ Perception of Training Methodology

Training methodology	Total	Frequency	Percentage
Use Multimedia and audio visual aids	397	322	81.10
More practice of participatory approach	397	308	77.58
Learner based teaching-learning process should introduce	397	281	70.78
More use of teaching-learning materials	397	246	61.96
Introduced ICT- pedagogy integration learning environment	397	240	60.45

Source: Analysis of Data Collected from Trainees.

The first evident feature that can see from Table-6.06 is that more than four-fifth of the respondent teachers were suggested to use multimedia and audiovisual aids, which shown in 81.10 %. Participatory approach practiced in training sessions by the trainers comes second, with 77.58%. More than 60% responded mentioned that trainers should use teaching-learning materials more, and ICT-pedagogy integration learning environments also created.

6.2.2.3. Question –III (Participant teachers’ perception of training assessment)

This question is intended to find out the participant teachers’ perception of training assessment. The informants contributed a lot of ideas, which are set out in the following table, with the number of trainee teachers writing about the same idea ranking from the highest number downwards:

Table-6.07 Participant Teachers’ Perception of Training Assessment

Learning Assessment	Total	Frequency	Percentage
Pre-test and post-test is enough for training evaluation	397	292	73.55
Written test for own subject is important for training assessment	397	225	56.67
Written test for each paper is essential for training evaluation	397	216	54.40
Participation in different activities should be compulsory	397	204	51.38
Book review and more assignment should introduce to asses training output	397	193	48.61
The comprehensive written test should introduce at the end of the training program	397	178	44.83

Source: Analysis of Data Collected from Trainees.

The first noticeable feature that can see from the table is that the maximum of the respondent teachers (73.55 %) opined that pre-test and post-test are enough for training evaluation. Another comment that attracted a great deal of consent among the respondent written test for each paper is essential for training evaluation, which comes second (56.67%). Below half of the respondents (44.83%) were opined regarding comprehensive written tests.

6.2.2.4. Question –IV (Participant teachers’ perception of training coordination and management)

This question is intended to find out the participant teachers’ perception of training coordination and management. The informants contributed a lot of ideas, which are set out in the following table, with the number of trainee teachers writing about the same idea ranking from the highest number downwards:

Table-6.08 Participant Teachers’ Perception of Training Coordination and Management

Training Coordination and Management	Total	Frequency	Percentage
Training coordination committee should be more active to help	397	339	85.39
The committee should provide more support and facilitation	397	276	69.52
Training coordination committee should build up their engagement technique	397	234	58.94
Should develop communication skill	397	184	46.34
Strengthen the during training monitoring	397	178	44.83

Source: Analysis of Data Collected from Trainees.

The first noticeable feature that can see from the table is that most of the respondent teachers (85.39 %) suggested that the training coordination committee should be more active. Another comment comes from the respondents to need more support from the training coordination committee (69.52). Below half of the respondents (44.83%) were opined regarding strengthen the training monitoring system.

6.2.2.5. Question –V (Participant teachers’ view about the trainer)

This question is intended to find out the participant teachers’ perception of the trainer. The informants contributed a lot of ideas, which are set out in the following table, with the number of trainee teachers writing about the same idea ranking from the highest number downwards.

Table-6.09 Participant Teachers’ view about the Trainer

Trainer	Total	Frequency	Percentage
Should be technology-oriented	397	251	84.51
Should be more competent on methodology	397	242	81.48
Should be improved in subject knowledge	397	237	79.79
More use of audiovisual aids	397	189	63.63
Should be improved in pedagogical knowledge	397	189	63.63
Should be more comfortable	397	189	63.63
Need more training for trainers	397	187	62.96

Source: Analysis of Data Collected from Trainees.

The first noticeable feature that can see from table 6.09 that the maximum of the respondent teachers (84.51%) were suggested that trainers should be technology-oriented. Also, they recommended that the trainer should maintain the pedagogical aspects in training which comes second (81.48%). About 63% of the respondent also suggested being comfortable and technology-friendly.

6.2.2.6. Question –VI (Participant teachers’ perception of overall training facilities)

This question is intended to find out the participant teachers’ perception of training overall training facilities.

Table-6.10 Participant Teachers’ Perception of Overall Training Facilities

Overall training facilities	Total	Frequency	Percentage
Hostel facilities should increase	397	326	82.11
All-time internet facilities should provide	397	272	68.51
Training classroom facilities should increase	397	269	67.75
The number of computers should increase	397	238	59.94
Library facilities should increase	397	238	59.94
Should be provided up-to-date training module and materials	397	221	55.66
Duration of the training program should be 90 days	397	121	30.47
Duration of the training program should be 56 days	397	101	25.44

Source: Analysis of Data Collected from Trainees

The informants contributed a lot of ideas (table 6.10) with the number of trainee teachers writing about the same idea ranking from the highest number downwards.

The first noticeable feature that can see from Table 6.10 that most of the

respondent teachers (82.11%) suggested increasing hostel facilities. More than 50% of the participants were concern regarding training facilities like the module, internet, classroom condition, etc. Below, 31% of the respondent (30.47% and 25.44%) were concerns regarding the duration of the training program.

6.2.3. Additional Comments Regarding SBTTP:

Table 6.11 shows qualitative data of the SBTTP and also demonstrates participants' comments followed by the number of times for each area. This comment aimed to focus on more ideas from the respondent so that the data from the questionnaire would not miss any necessary information from the collected data.

Table-6.11 Additional Comments Regarding SBTTP (N=397) & n= (70-100)

Area for comments	Frequency
▪ The subjective written examination should omit	81
▪ Provide an up-to-date training module and materials	97
▪ More use of audiovisual and multimedia training materials	92
▪ Post-training monitoring	98
▪ To start to follow up training	88
▪ Hostel facilities should increase	70
▪ Internet facilities should increase	99
▪ Increased financial support for the trainees	100
▪ Participatory Approach	72
▪ Should appoint trainers with pedagogical background	95
▪ Training should be conditional to the job	98
▪ The latest books should include in the library	79

Source: Analysis of Data Collected from Trainees

The items of table 6.11 showed that about 70-100 participants contributed their ideas regarding training content, assessment of training program, training methodology, duration of the training program, training coordination and management, and overall training facilities. Out of 397 participants, an average of about 26% of participants responded regarding those items. From the responses, more than 90 % recommended to increase financial support for the trainees, training should be conditional to the job, internet facilities should increase, and post-training monitoring. Also, they suggested starting to follow up training, up-to-date training modules, and materials, and need-based new pedagogical concept as content.

Moreover, a few respondents recommended for participatory training approach and suggested adding some components as the audiovisual classroom, computer literacy, and communicative English sessions for SBTTP.

6.3. Focused Group Discussion (FGD)

Each of the teacher education programs has suggestions for improvement. Data on this question collected through focused group discussion with the internal teacher trainers, external teacher trainers, and policymakers. In this discussion, I aimed to achieve the following purposes- a) *What are the areas of strength of the SBTTP?* b) *What are the areas of weaknesses of the SBTTP?* c) *What are the areas of improvement of SBTTP?*

A) Strength of the SBTTP

A total of 14 teacher trainers (included two policymakers), 14 external teacher trainers, and respondents were focus group members of the discussion. They discussed and identified the strengths considering the following items.

An analysis of the data exposed the following as kept on as strengths of the program: (a) Objectives of training program; (b) Training content; (c) Training methods; (d) Trainer competency; (e) Training material; (f) Training learning assessment; (g) Training management and environment; (h) Integration of ICTs at learning.

Objectives of the Training Program

One strength of SBTTP, as identified by the respondents that the objective of the training program was specific and clear. One of the faculty members viewed the objective of the program was a strength.

He stated, “I think trainee teachers will get updated and able to proper integration with the content knowledge, pedagogical knowledge, and ICT knowledge.”

Training Content

Knowledge of the content for teachers is vital competencies. A good number of respondents believe that the content of the teacher training program was one of the strengths. In the focus group discussion, the specific areas of the content strength identified which almost coverage of the programs.

One of the faculty members stated, “I think the teacher training program was relevant because this program gave the learners’ knowledge and skill what they need.”

Training Methods

Training methods and techniques played an important role in training program success. The participatory training approach supported more than 50% of the participants.

One of the internal trainers stated that the “applied training method was participatory.”

Trainer Competency

The trainer is a training friend. He /She is arranging and observing the way of teacher learning processes. Confirming the development of learning skills, expert knowledge, social skills, and other competencies. The director of the institute stated that the trainer of this training program was evident and competent.

Training Material

Providing training material is important to the function of the institution. In this training, the program authority provided a training module that followed in this program and was helpful for the trainees as well as trainers. So training materials was the strength of this program.

Training Learning Assessment

Most of the training program has an evaluation system where certificates issued on successful completion of the program. Also, assignment, college study, action

research give trainees' opportunity to reflect on their experiences. One of the faculty members argued that "assignment can be used to encourage learners to reflect on their work."

Training Management and Environment

Training management and the environment is the very important functions of helping the trainees as well as the institution. The respondents identified this as one of the strengths of this training program. One of the external trainers said that "physical and other environments of the training was good and conducive."

Integration of ICTs at Learning

At present, teacher training programs have run by using a variety of technology. From the early decade, the government of Bangladesh is giving more emphasis to use ICTs in different levels of the education system. So, it is essential to incorporate ICTs in teacher training. The use of ICTs in this program was the strength. Deputy Director of this institute stated that "most of the trainer used ICT tools like multimedia projector, laptop, etc."

B) Weaknesses of the SBTTP

It is important to identify strengths for the focus of the training program; on the other hand, identifying weaknesses also helps because considering the weakness plans can be made to improve the scenario. Here respondents were also asked to indicate how in their view improvements. A total of 18 internal (included two directors worked as policymaker) teacher trainer, ten external teacher trainer, was

focus group and discussed and identified the weaknesses considering the same items used in discussing strengths shown below.

An analysis of the data exposed the following as kept on as weakness of the program: (a) Objectives of training program; (b) Training content; (c) Training methods; (d) Trainer competency; (e) Training material; (f) Training learning assessment; (g) Training management and environment; (h) Integration of ICTs at learning.

Objectives of the Training Program

Every training program objectives should be specific and clear. One of the faculty members viewed the objective of the program was not clear. He stated, “I think trainee teachers will be able to proper integration with the content knowledge, pedagogical knowledge, and ICT knowledge.”

Training Content

There is a criticism that the content of the teacher training program was not updated and irrelevant. One of the participants stated that “in pedagogical content should be reorganized because some learning theory is not applicable in the present context.” One faculty member from Rajshahi HSTTI said the curriculum of the SBTTP program lacks the practical application that means teachers, therefore, learn a lot of theoretical knowledge. Some participants suggested selecting content according to the teachers identifying needs.

Training Methods

Training methods and techniques play an important role in training program success. About 50% of the participants have not used a participatory training approach. One of the internal trainers stated that “every one should apply participatory training method.”

Trainer Competency

The trainer is arranging and observing the way of teacher learning processes. Confirming the development of learning skills, expert knowledge, social skills, and other competencies. The director of the institute stated that the “trainer of this training program was evident and competent.” One of the external trainers stated that those who are from general government colleges are not well known about the pedagogical side because they are not well trained.

Training Material

Providing training material is an important function of the institution. In this training, the program authority provided a training module that followed in this program and was helpful for the trainees as well as trainers. The respondents also identified weaknesses of study materials development and less facility. The training module should provide on time.

Training Learning Assessment

Most of the training program has an evaluation system where certificates are issued on successful completion of the program. Also, assignment, college study, action

research give trainees' opportunity to reflect on their experiences. One of the faculty members argued that the assignment is not doing systematically but coping.

Training Management and Environment

Training management and the environment is the very important functions of helping the trainees as well as the institution. As weakness management of the training program is critical for its success. A participant raised some criticism like- inadequate funding, lack of co-operation between central to a training institution, and among the training institution.

Integration of ICTs at Learning

At present, teacher training programs have run by using a variety of technology. From the early decade, the government of Bangladesh is giving more emphasis on to use ICTs in different levels of the education system. So, it is essential to incorporate ICTs in teacher training. But the internet facility is not sufficient and also teaching tools.

C) Areas of Improvement of SBTTP

The need-based programs should introduce; some pedagogical topics should modify; the existing evaluation system should be modified, panel discussion, seminar, symposium, assignment oriented activities should add in the training schedule. Furthermore, they suggested starting to follow up training, up-to-date training modules, and materials, and need-based new pedagogical concept as

content. Moreover, they also suggested adding some participatory activities for the class session of SBTTP.

6.4. Classroom Observation

In total-10 respondents, teachers observed, who have finished the SBTTP. Simple statistical analysis has applied to the gathered data of the classroom observation checklist.

Data collected through the classroom observation checklist by Likert scale analyzed according to the following range described in table 6.12.

Table 6.12 Descriptive Interpretation of Responses based on Mean

Scale value	Scale range		Descriptive interpretation	Assessment
5	4.50-5.00	3.5-5.00	Strongly agree	Strength
4	3.50-4.49		Agree	
3	2.50-3.49	2.50-3.49	Undecided	Neutral (neither strength nor weakness)
2	1.50-2.49	1.00-2.49	Disagree	Weaknesses
1	1.00-1.49		Strongly disagree	

Source: Analysis of Data Collected from Trainees.

6.4.1. Classroom Teaching Observation of the Trained Respondent Teacher

Table 6.13 shows that the worth of the after training classroom performance of the participants in terms 20 of items was strong as the average mean 3.52.

Table 6.13 further illustrates that the majority of teachers created a learning environment and motivated students (mean=4.0, 90%) recognized that after

training teacher created learning environment well and also motivated student towards learning and also teacher has in-depth and updated knowledge of the subject matter (mean=4.0, 80%). During class, most of the teachers written their title of the lesson as well as learning points on the board (4.1, 90%). The above items were more strength of the classroom observation as well as a subject-based teacher training program.

Table 6.13 again demonstrated that no item obtained a description of “strongly agree,” and the average mean was above 4.5.

Most of the items, I observed, and my opinion on ‘agree’ as the average mean of each statement was more than 3.5. These were teacher relates subject matter with the previous knowledge (mean=3.6, 80%), teachers ‘gesture, posture and eye contact was good (mean=3.9, 80%), teacher ask questions to encourage student thinking and given feedback (mean=3.7, 70%), the teacher used content related teaching aids (mean=3.7). Teacher reinforce the student (mean=3.7, 70%), teacher motivate and engage the learner in teaching-learning process (mean=3.8, 80%), teacher presented lesson in sequence (mean=3.9, 80%), teacher classroom speech, voice and pronunciation was good (3.9, 80%), teacher use board effectively (mean=3.9, 90%), teacher synthesize/ summarize the lesson (mean=3.5, 50%). These reflected that the factors mentioned above are strong, and most of the participants were applied their training knowledge and skill.

Furthermore, I strongly disagreed and disagreed regarding the above items, which are noticeable. These are teacher used content related teaching aids (mean=3.1), teacher followed participatory teaching-learning (mean=3.1), teacher gave feedback after the presentation of the assigned tasks (mean=2.9), teacher given real and live example (mean=3.2), teacher used ICT during class (audiovisual, multimedia projector, OHP, etc.(Mean=2.9), teacher assessed lesson by asking questions/ given work (According to Bloom's taxonomy) (mean=2.8), teacher managed time effectively (mean=3.3), teacher gave homework in creative way (mean=3.1).

SUBJECT BASED TEACHER TRAINING PROGRAM AT HIGHER SECONDARY LEVEL IN BANGLADESH

Table 6.13 Classroom teaching observation of the trained respondent teacher

Sl No	Item	N		SA		A		Neutral		D		SD		M
		F	%	F	%	F	%	F	%	F	%	F	%	
01	Teacher created learning environment and motivated students	18	100	03	30	06	60	01	10	00	00	00	00	4.0
02	Teacher relates subject matter with the previous knowledge	18	100	00	00	08	80	02	20	00	00	00	00	3.6
03	Teacher written the lesson title and learning points on the board	18	100	04	40	05	50	01	10	00	00	00	00	4.1
04	Teachers' gesture, posture and eye contact was good	18	100	01	10	07	70	00	02	00	00	00	00	3.9
05	Teacher ask questions to encourage student thinking and given feed back	18	100	00	00	07	70	03	30	00	00	00	00	3.7
06	Teacher used content related teaching aids	18	100	01	10	04	40	03	30	02	20	00	00	3.1
07	Teacher followed participatory teaching learning (pair work and group work)	18	100	00	00	03	30	05	50	02	20	00	00	3.1
08	Teacher given feedback after the presentation of the assigned tasks. (pair and group work)	18	100	00	00	03	30	03	30	04	40	00	00	2.9
09	Teacher reinforce the student	18	100	00	00	07	70	03	30	00	00	00	00	3.7
10	Teacher motivate and engage the learner in teaching-learning process	18	100	00	00	08	80	02	20	00	00	00	00	3.8
11	Teacher presented lesson in sequence	18	100	01	10	07	70	02	20	00	00	00	00	3.9
12	Teacher has in-depth and updated knowledge of the subject matter	18	100	02	20	06	60	02	20	00	00	00	00	4.0
13	Teacher given real and live example	18	100	00	00	06	60	04	40	00	00	00	00	3.2
14	Teacher classroom speech, voice and pronunciation was good	18	100	01	10	07	70	02	20	00	00	00	00	3.9
15	Teacher used ICT during class (audio visual, multimedia projector, OHP etc.)	18	100	00	00	04	40	02	20	03	30	01	10	2.9
16	Teacher use board effectively (Teacher and Student)	18	100	02	20	07	70	01	10	00	00	00	00	3.9
17	Teacher assessed lesson by ask questions given work (According to Bloom's taxonomy)	18	100	00	00	03	30	02	20	05	50	00	00	2.8
18	Teacher synthesize summarize the lesson	18	100	00	00	05	50	05	50	00	00	00	00	3.5
19	Teacher managed time effectively	18	100	00	00	05	50	03	30	02	20	00	00	3.3
20	Teacher given home work in creative way	18	100	00	00	04	40	03	30	03	30	00	00	3.1
Respectively average mean and standard deviation														3.52

Source: Analysis of Data Collected from Trainees.

Key: N= Number of responses, SA= strongly agree, A= Agree, D=Disagree, SD=Strongly Disagree M= Mean StanD= Standard Deviation.

The above items are the weaknesses of SBTTP. So, these reflected that trained teachers are not applying their training knowledge and skill properly. However, the teacher should be aware of ICT knowledge, creative questioning, more participatory for a better class.

6.4.2. Participant's Views

I Observed ten teachers in classroom performance during this research study. After observation, I talked with them. Most of the participant teachers agreed to the implementation of training knowledge and skills in their classroom. They try to do it but sometimes they do not succeed due to their own lacking as well as inadequate support co-operation from colleagues and the head of the institutions.

One of the participants stated that after training, *'I have tried to take classes according to the knowledge gathered through training. Some of my colleagues were discouraged from taking the class in that way especially the use of teaching aids, implementing group work, or pair work. So. I became confused'*.

Five participants said that their principals are not aware of participatory approaches, and they are not observing the class regularly. In addition to that, only they are aware of completing the syllabus within the scheduled time without assessing the quality of the class activities. So they are in a hurry just to finish the syllabus somehow.

One of the participants opined that *'In my class total number of students are more than two hundred, so to implement group work as a technique in a crowded of students it is impossible to manage student perfectly'*.

Three participants discussed the use of ICTs in the class. Frankly, they stated that they have no facility to use digital content and principals are not interested in using it.

In conclusion, I observed that they are implementing their knowledge and skills but that not enough. They should more be committed and to apply techniques to overcome said barriers.

6.4.3. Principal's Views

After observation of the trainee teacher, I talked to the principal and ask some questions regarding the teacher's limitation of class performance. First of all, talked about the use of teaching aids in the class, one of the principal replied that *'I always suggest them to use teaching aids. But in my college, not enough multimedia classrooms or ICT facilities'*. I talked about the application of creative questions during class. Two principals replied the same that more than 50% of teacher doesn't have any training on creative questioning. I asked about regular classroom monitoring and mentoring. Out of ten principals eight of them replied they don't do that regularly. Only two principals monitoring classroom teaching but don't have use any observation checklist.

6.5. Officials' Interview

This chapter plans to statement on the findings relating to a study of Subject-based teacher training program in Bangladesh. This presentation is collecting information and opinions of the interviewees based on the SBTTP. They were the Director of DSHE, Directors of HSTTIIs. These institutions have involved in teacher training since its start in 1995. The main questions that asked during interviews are as follows:

The main questions that asked during interviews are as follows:

- 1) What is your view is SBTTP?
- 2) What do you think are the strengths of SBTTP?
- 3) What do you think are the weaknesses of SBTTP?
- 4) What is the after training classroom performance of participant teachers in their institutions?
- 5) What are the ways of improvement of SBTTP in Bangladesh?

The following were the questions directed to the interviewees. The researcher has consolidated responses.

Question-1 What in your view is SBTTP?

The subject-based teacher training program designed for the higher secondary level college teacher, both government and non-government all over Bangladesh. This training program offered by the Directorate of Secondary and Higher Education under the Ministry of Education in the revenue budget. Director DSHE

stated that subject teachers are the key factor in implementing the curriculum at a higher secondary level. There were many changes in curriculum 2012 at the higher secondary level. So, the teacher should know the changes and implement the component of the curriculum in their institution effectively. In Bangladesh, 98% of higher secondary level teachers are working in non-government colleges. So, DSHE designed SBTTP for higher secondary level teachers in Bangladesh. Director of HSTTI Mymensingh contends that by getting this training of higher secondary level teachers as well as a college, the teacher will be able to face 21-century challenges. The trained teacher will be capable of processing knowledge, develop skill and grow a positive attitude. So, I think SBTTP is playing a vital role in teacher development.

Question-2 What do you think are the strengths of SBTTP?

This in-service training is compulsory for all non-government college teachers in Bangladesh. About 98% of college teachers are non-government. Higher secondary and above level of college teachers is getting only this subject based training (pedagogy integrated) by 5 HSTTIs. Director DSHE stated that we are providing a training module, training budget, trying to fill up the human resources of the institutions. Three directors agreed in the same point of view that is teachers are happy to get this training, and after completion of the training, they given assured to implement training knowledge and skill in their institution. One of the

directors also suggested that in my institute trainee teachers were happy with institutional training management, training facilities, accommodation, etc.

Question-3 What are the weaknesses of SBTTP?

Every training program has some limitations also. Director DSHE contends that the government is not allocating much more money for SBTTP from the revenue budget. We cannot update the training content regularly because of the shortage of workforce, time and business too.

Question-4 What is the after training classroom performance of participant teachers in their institutions?

Director training stated that we have no enough time as well as the mechanism of after training teacher's activities monitoring. On the other hand, two Directors of HSTTI said that they are not officially engaging in after the training monitoring system.

Question-5 What are the ways of improvement of SBTTP in Bangladesh?

They suggested that the training curriculum and budget should be modified. Additionally, a mechanism should create for the implementation of the gained training knowledge, skills at their college. The college principal can monitor the teachers' classroom activities regularly.

6.6. Findings from the Document Analysis (Intervention of Pre-Test and Post-Test)

Table-6.14 indicates the CV of the pre-test > CV of the post-test. Hence we say that SBTTP was very effective and $p < 0.05$ or $.01$, which indicates that the training program was successful.

Table-6.14: The comparative analysis results of the pre-test and post-test of the training program of HSTTI Mymensingh and HSTTI Rajshahi.

HSTTIs (Mymensingh and Rajshahi)	N	Minimum	Maximum	Mean	Std. Deviation	CV	p-value
Pre-test	397	5	23	12.66	2.683	21.19%	0.000 ($p < 0.01$)
Post-test	397	15	29	23.51	2.680	11.40%	

Source: Analysis of Primary Data through SPSS

6.7. Comparative Analysis Between HSTTI Mymensingh and HSTTI Rajshahi

Chi-square (χ^2) test

Karl Pearson first used the χ^2 test based on χ^2 distribution in the year 1900. The χ^2 test is one of the simplest and most important nonparametric tests in statistical work that is used to compare more than two variables for a randomly selected data. The expected frequencies are calculated based on the conditions of the null hypothesis. The rejection of the null hypothesis based on the differences in actual value and expected value. The formula for computing χ^2 is-with $(r-1) (c-1)$ degrees of freedom. Where, O is the observed frequency, E is the expected

frequency, r is the number of rows, and c is the number of columns. The greater the value of χ^2 , the greater would be the discrepancy between observed and expected frequencies. If the calculated value of χ^2 is greater than the table value, the difference between the theory and observation is considered to be significant. On the other hand, if the calculated value of χ^2 is less than the table value, the difference between the theory and observation is not considered significant. If the calculated value χ^2 is greater than the table value, the null hypothesis rejected; if calculated value χ^2 is smaller than the table value, the null hypothesis accepted. Consider p-value; when the p-value is ≤ 0.05 , the null hypothesis rejected, otherwise accepted.

To find out the comparative scenario of SBTTP between HSTTI Mymensingh and HSTTI Rajshahi Chi-square (χ^2) test used. Karl Pearson first used the χ^2 test based on χ^2 distribution in the year 1900. The χ^2 test is one of the simplest and most important nonparametric tests in statistical work that is used to compare more than two variables for a randomly selected data. The expected frequencies are calculated based on the conditions of the null hypothesis.

6.7.1. The Feedback of the Participants Regarding Training Content, Methodology, and Assessment

The comparative scenario of training content, methodology, and assessment between HSTTI Mymensingh and HSTTI Rajshahi was analyzed considering ten issues under the head. Each issue was tested using χ^2 and commented.

H₀1: There is no significant difference between the opinion of respondents of HSTTI Mymensingh and HSTTI Rajshahi regarding the application of training knowledge is assured and will be effective.

Table-6.15 Application of Training Knowledge.

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	103	135	10	09	18	275	13.21*
	Percentage	37.5	49.1	3.6	3.3	6.5	100	
Rajshahi	Frequency	48	70	04	00	00	122	
	Percentage	39.3	57.4	3.3	00	00	100	

Source: Analysis of primary data collected from trainee respondents.

* Result Significant at 5% Level df= 4 χ^2 at 0.05 level= 9.488

The table-6.15 depicts the χ^2 calculated value is 13.21 where the critical value is 9.488 at a 5% level of significance. So the null hypothesis is rejected. Thus significant differences observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘application of training knowledge is assured and will be effective.’

H₀2: There is no significant difference between the opinion of respondents of HSTTI Mymensingh and HSTTI Rajshahi regarding the ‘training content provides materials and activities that are helpful in the teaching of the subject.’

Table-6.16 Training content provides materials and activities.

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	129	129	09	04	04	275	23.74*
	Percentage	46.9	46.9	3.3	1.5	1.5	100	
Rajshahi	Frequency	38	59	17	06	02	122	
	Percentage	31.1	48.4	13.9	4.9	1.6	100	

Source: Analysis of primary data collected from trainee respondents.

* Result significant at 5% level df= 4 χ^2 at 0.05 level= 9.488

Table-6.16 represents χ^2 calculated value is 23.74 where critical value is 9.488 at a 5% level of significance. So the null hypothesis is rejected. Thus significant difference observes between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘the training content provides materials and activities that are helpful in the teaching of the subject.’

H₀₃: There is no significant difference between the opinion of respondents of HSTTI Mymensingh and HSTTI Rajshahi regarding the ‘training content covers the development of knowledge, skills, values, and attitudes that transmit to students.

Table-6.17 Training content covers the development of knowledge, skills, values, and attitudes

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	189	79	05	00	02	275	1.69
	Percentage	68.7	28.7	1.8	00	0.7	100	
Rajshahi	Frequency	83	35	04	00	00	122	
	Percentage	68	28.7	3.3	00	00	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.17 represents χ^2 calculated value is 1.69, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘the training content covers the development of knowledge, skills, values, and attitudes that transmit to students.’

H₀₄: There is no significant difference between the opinion of respondents of HSTTI Mymensingh and HSTTI Rajshahi regarding the ‘relevance of training content to the subject teach.’

Table-6.18 Relevance of training content to the subject teaches.

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	110	104	30	16	15	275	6.46
	Percentage	40	37.8	10.9	5.8	5.5	100	
Rajshahi	Frequency	45	57	12	07	01	122	
	Percentage	36.9	46.7	9.8	5.7	0.8	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.18 stands for χ^2 calculated value is 6.46, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of the ‘relevance of training content to the subject teaches.’

H₀₅: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding the ‘accuracy and fairness of training assessment procedures.’

Table-6.19 Accuracy and fairness of training assessment procedures

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	85	135	27	14	14	275	3.81
	Percentage	30.9	49.1	9.8	5.1	5.1	100	
Rajshahi	Frequency	38	59	17	06	02	122	
	Percentage	31.1	48.4	13.9	4.9	1.6	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.19 depicts χ^2 calculated value is 3.81, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of the ‘accuracy and fairness of training assessment procedures.’

H₀6: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding the ‘stimulated learning activities of the training program.’

Table-6.20: Stimulated learning activities of training program

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	180	87	06	02	00	275	5.86
	Percentage	65.5	31.6	2.2	0.7	00	100	
Rajshahi	Frequency	67	53	02	00	00	122	
	Percentage	54.9	43.4	1.6	00	00	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.20 depicts χ^2 calculated value is 5.86, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘stimulated learning activities of the training program.’

H₀7: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding ‘appropriateness and comprehensiveness of training methodology.’

Table-6.21 Appropriateness and comprehensiveness of training methodology

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	81	143	28	11	12	275	4.01
	Percentage	29.5	52	10.2	04	4.4	100	
Rajshahi	Frequency	34	72	08	06	02	122	
	Percentage	27.9	59	6.6	4.9	1.6	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.21 depicts χ^2 calculated value is 4.01, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘appropriateness and comprehensiveness of training methodology.’

H₀8: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding ‘participatory learning activities.’

Table-6.22 Participatory learning activities.

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	149	104	10	06	05	275	5.22
	Percentage	54.2	37.8	3.6	2.2	1.8	100	
Rajshahi	Frequency	58	53	08	03	00	122	
	Percentage	47.5	43.4	6.6	2.5	00	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.22 depicts χ^2 calculated value is 5.22, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘participatory learning activities.’

H₀9: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding the ‘identified and followed each topic of training objectives.’

Table-6.23: Identified and followed each topic of training objectives

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	66	154	23	12	19	275	6.33
	Percentage	24	56	8.4	4.4	6.9	100	
Rajshahi	Frequency	26	73	15	06	02	122	
	Percentage	21.3	59.8	12.3	4.9	1.6	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.23 depicts χ^2 calculated value is 6.33 where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘identified and followed each topic of training objectives.’

H₀10: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding the ‘organize and easiness to follow curriculum content.’

Table-6.24 Organize and easiness to follow curriculum content.

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	79	132	35	13	16	275	10.19*
	Percentage	28.7	48	12.7	4.7	5.8	100	
Rajshahi	Frequency	25	64	16	14	03	122	
	Percentage	20.5	52.2	13.1	11.5	2.5	100	

Source: Analysis of primary data collected from trainee respondents.

* Result Significant at 5% Level $df= 4$ χ^2 at 0.05 level= 9.488

Table-6.24 depicts χ^2 calculated value is 10.19, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is rejected. Thus significant differences observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘organize and easiness to follow curriculum content.’

6.7.2. The reaction of the respondent regarding trainers’ competency

The comparative scenario of trainers’ competency between HSTTI Mymensingh and HSTTI Rajshahi was analyzed considering ten issues under the head. Each issue was tested using χ^2 and comment.

H₀₁₁: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding ‘excellence of presenters’ subject knowledge.’

Table-6.25 Excellence of presenters’ subject knowledge

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	127	113	19	09	07	275	5.36
	Percentage	46.2	41.1	6.9	3.3	2.5	100	
Rajshahi	Frequency	49	64	05	02	02	122	
	Percentage	40.2	52.5	4.1	1.6	1.6	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.25 depicts χ^2 calculated value is 5.36 where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘excellence of presenters’ subject knowledge.’

H₀12: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding the ‘ability of the presenters’ to meet the trainees' needs and interests.’

Table-6.26 Ability of the presenters’ to meet the trainees' needs and interests

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	79	155	16	10	14	275	6.25
	Percentage	28.7	56.4	5.8	3.6	5.1	100	
Rajshahi	Frequency	26	74	11	08	03	122	
	Percentage	21.3	60.7	09	6.6	2.5	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.26 depicts χ^2 calculated value is 6.25, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘ability of the presenters’ to meet the trainees' needs and interests.’

H₀13: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding ‘well-organized and lively presentations.’

Table-6.27 Well-organized and lively presentations

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	107	134	19	05	09	275	3.79
	Percentage	38.9	48.7	6.9	1.8	3.3	100	
Rajshahi	Frequency	38	67	08	05	04	122	
	Percentage	31.1	54.9	6.6	4.1	3.3	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.27 depicts χ^2 calculated value is 3.79, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘well-organized and lively presentations.’

H₀14: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding ‘uses of appropriate training aids.’

Table-6.28 Uses of appropriate training aids

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	102	127	21	12	12	275	7.26
	Percentage	37.1	46.2	7.6	4.4	4.4	100	
Rajshahi	Frequency	36	64	12	09	01	122	
	Percentage	29.5	52.2	9.8	7.4	0.8	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.28 depicts χ^2 calculated value is 7.26, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘uses of appropriate training aids.’

H₀15: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding ‘participatory and interactive approaches of trainers.’

Table-6.29 Participatory and interactive approaches of trainers

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	136	118	12	05	04	275	4.09
	Percentage	49.5	42.9	4.4	1.8	1.5	100	
Rajshahi	Frequency	50	65	04	01	02	122	
	Percentage	41	53.3	3.3	0.8	1.6	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.29 depicts χ^2 calculated value is 4.09, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘participatory and interactive approaches of trainers.’

H₀16: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding ‘uses of appropriate examples and illustrations by the trainers’.

Table-6.30 Uses of appropriate examples and illustrations by the trainers.

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	106	125	28	07	08	275	1.07
	Percentage	38.5	45.5	10.2	2.5	2.9	100	
Rajshahi	Frequency	50	57	10	03	02	122	
	Percentage	41	46.7	8.2	2.5	1.6	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.30: depicts χ^2 calculated value is 1.07 where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘uses of appropriate examples and illustrations by the trainers.’

H₀17: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding the ‘course objectives covered by the trainer.’

Table-6.31 Course objectives covered by the trainer

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	53	143	35	21	23	275	5.87
	Percentage	19.3	52	12.7	7.6	8.4	100	
Rajshahi	Frequency	26	70	10	12	04	122	
	Percentage	21.3	57.5	8.2	9.8	3.3	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.31 depicts χ^2 calculated value is 5.87, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of the ‘course objectives covered by the trainer.’

H₀18: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding ‘appropriate assessment techniques of trainers.’

Table-6.32 Appropriate of assessment techniques of trainers.

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	86	131	31	11	15	275	7.39
	Percentage	31.3	47.6	11.3	04	5.5	100	
Rajshahi	Frequency	33	64	15	09	01	122	
	Percentage	27	52.5	12.3	7.4	0.8	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.32 depicts χ^2 calculated value is 7.39, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘appropriate assessment techniques of trainers.’

H₀19: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding the ‘maintenance of time management of trainers.’

Table-6.33 Maintenance of time management of trainers.

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	85	119	34	20	17	275	16.58*
	Percentage	30.9	43.3	12.4	7.3	6.2	100	
Rajshahi	Frequency	54	54	06	08	00	122	
	Percentage	44.3	44.3	4.9	6.6	00	100	

Source: Analysis of primary data collected from trainee respondents.

* Result Significant at 5% Level df= 4 χ^2 at 0.05 level= 9.488

Table-6.33 depicts χ^2 calculated value is 16.58, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is rejected. Thus significant difference observes between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘maintenance of time management of trainers.’

H₀20: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding ‘usages of technology in the training program.’

Table-6.34 Usages of technology in the training program

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	174	82	12	03	03	275	4.86
	Percentage	63.3	29.8	4.4	1.1	1.1	100	
Rajshahi	Frequency	65	48	05	03	01	122	
	Percentage	53.3	39.3	4.1	2.5	0.8	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.34 depicts χ^2 calculated value is 4.86, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘usages of technology in the training program.’

6.7.3. The reaction of the participants regarding training coordination, management, and facilities

The comparative scenario of training coordination, management, and facilities between HSTTI Mymensingh and HSTTI Rajshahi was analyzed considering ten issues under the head. Each issue was tested using χ^2 and a comment.

H₀21: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding the ‘suitability of duration of the training program.’

Table-6.35 Suitability of duration of the training program

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	88	99	29	38	20	275	0.38
	Percentage	32	36	10.5	13.8	7.3	100	
Rajshahi	Frequency	41	46	12	15	08	122	
	Percentage	33.6	37.7	9.8	12.3	6.6	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.35 depicts χ^2 calculated value is 0.38, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘suitability of duration of the training program.’

H₀22: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding ‘evidence of training co-ordination and co-operation.’

Table-6.36 Evidence of training co-ordination and co-operation

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	89	139	25	10	11	275	5.27
	Percentage	32.4	50.5	9.1	3.6	04	100	
Rajshahi	Frequency	39	67	12	04	00	122	
	Percentage	32	54	9.8	3.3	00	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.36 depicts χ^2 calculated value is 5.27, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘evidence of training co-ordination and co-operation.’

H₀23: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding the ‘relevance of acquired professional skills.’

Table-6.37 Relevance of acquired professional skills

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	156	95	12	05	07	275	10.49*
	Percentage	56.7	34.5	4.4	1.8	2.5	100	
Rajshahi	Frequency	61	57	01	03	00	122	
	Percentage	50	46.7	0.8	2.5	00	100	

Source: Analysis of primary data collected from trainee respondents.

* Result Significant at 5% Level $df= 4$ χ^2 at 0.05 level= 9.488

Table-6.37 depicts χ^2 calculated value is 10.49, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference observes between HSTTI Mymensingh and HSTTI Rajshahi in terms of the ‘relevance of acquired professional skills.’

H₀24: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding the ‘supply of sufficient audiovisual instructional materials.’

Table-6.38 Supply of sufficient audiovisual instructional materials

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	30	48	17	19	08	275	14.43*
	Percentage	24.6	39.3	13.9	15.6	6.6	100	
Rajshahi	Frequency	83	127	33	13	19	122	
	Percentage	30.2	46.2	12	4.7	6.9	100	

Source: Analysis of primary data collected from trainee respondents.

* Result Significant at 5% Level $df= 4$ χ^2 at 0.05 level= 9.488

Table-6.38 depicts χ^2 calculated value is 14.43, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is rejected. Thus significant difference observes between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘supply of sufficient audiovisual instructional materials.’

H₀25: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding ‘expected benefits of trainees’ colleagues from the gained knowledge of training.’

Table-6.39 Expected benefits of trainees’ colleagues from the gained knowledge of training.

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	122	125	19	02	05	275	5.92
	Percentage	44.4	45.5	6.9	0.7	1.8	100	
Rajshahi	Frequency	47	66	04	03	02	122	
	Percentage	38.5	54.1	3.3	2.5	1.6	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.39 depicts χ^2 calculated value is 5.92, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘expected benefits of trainees’ colleagues from the gained knowledge of training.’

H₀26: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding ‘training activities includes sufficient practice and feedback.’

Table-6.40 Training activities include sufficient practice and feedback.

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	144	113	09	06	03	275	1.35
	Percentage	52.2	41.1	3.3	2.2	1.1	100	
Rajshahi	Frequency	68	45	06	02	01	122	
	Percentage	55.7	36.9	4.9	1.6	0.8	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.40 depicts χ^2 calculated value is 1.35, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘training activities includes sufficient practice and feedback.’

H₀27: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding the ‘comfortable facilities at the training venue.’

Table-6.41 Comfortable facilities at training venue

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	60	108	40	33	33	275	4.19
	Percentage	21.8	39.3	14.5	12	12	100	
Rajshahi	Frequency	24	50	17	22	09	122	
	Percentage	19.7	41	13.9	18	7.4	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.41 depicts χ^2 calculated value is 4.19, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘comfortable facilities at the training venue.’

H₀28: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding the ‘useful training handouts.’

Table-6.42 Useful training handouts.

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	45	122	62	22	22	275	4.06
	Percentage	16.4	44.4	22.5	08	08	100	
Rajshahi	Frequency	15	53	36	12	06	122	
	Percentage	12.3	43.4	29.5	9.8	4.9	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.42 depicts χ^2 calculated value is 4.06, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘useful training handouts.’

H₀29: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding ‘library facilities.’

Table-6.43 Library facilities.

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	32	108	42	45	48	275	2.03
	Percentage	11.6	39.3	15.3	16.4	17.5	100	
Rajshahi	Frequency	13	45	23	24	17	122	
	Percentage	10.7	36.9	18.9	19.7	13.9	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.43 depicts χ^2 calculated value is 2.03, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of ‘library facilities.’

H₀30: There is no significant difference between HSTTI Mymensingh and HSTTI Rajshahi regarding ‘internet facilities.’

Table-6.44 Internet facilities.

Working Area	Respondents	SA	A	UD	DA	SDA	Total	χ^2
Mymensingh	Frequency	49	80	47	50	49	275	7.32
	Percentage	17.8	29.1	17.1	18.2	17.8	100	
Rajshahi	Frequency	11	31	24	30	26	122	
	Percentage	09	25.4	19.7	24.6	21.3	100	

Source: Analysis of primary data collected from trainee respondents.

df= 4 χ^2 at 0.05 level= 9.488

Table-6.44 depicts χ^2 calculated value is 7.32, where critical value is 9.488 at a 5% level of significance. So the null hypothesis is accepted. Thus significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi in terms of 'internet facilities.'

6.8. Conclusion

This chapter analyzed and presented findings according to the research instrument. This chapter synchronized data of research instrument like Survey, FGD, Classroom observation, High official interview, Document analysis, and Comparative analysis between two institutes related to the SBTTP.

CHAPTER SEVEN
FINDINGS AND DISCUSSION

7.1. Prelude

In accordance with the major purpose of this study, a comprehensive evaluation of in-service SBTTP of HSTTIs in Bangladesh have been accomplished. In this chapter, data have been analyzed, and results were presented based on the research questions sequentially.

7.2. Present Scenario of SBTTP of HSTTIs in Bangladesh

7.2.1. Background of HSTTIs

HSTTIs has established by the Higher Secondary Education Project (HSEP) under the Ministry of Education of Bangladesh. HSEP started working from July 1992 by the financing partner of ADB, UNDP, and government of Bangladesh for in-service training of higher secondary level college teachers. HSEP constructed five HSTTIs in five major cities, respectively Mymengsingh, Cummilla, Rajshahi, Khulna, and Barishal, which covers the training program of all higher secondary level college teachers in Bangladesh.

7.2.2. Function of HSTTIs

HSTTIs started its function in 1995. The mission of HSTTIs is to increase competences in the teaching-learning process, reflective practice, and to accelerate competences in educational management in secondary and higher secondary level teachers. It also develops a solid foundation on computer literacy and ICT for the secondary level and higher secondary teachers.

HSTTIs is trying to implement various types of training programs successfully for improving the quality of education at the secondary and higher secondary level, which is contributing to the pace of development of the country. By June 2018 5 HSTTIs has conducted various types of training program under the revenue budget shown in table 4.04.

7.3. Strengths of SBTTP

Identify the strengths of SBTTP of HSTTIs in Bangladesh, trainees' opinion, opinion from FGD, opinion of high officials, and opinion of trained teachers and principals of the same colleges taken into consideration.

7.3.1. Strength of SBTTP based on Trainees Perspectives

The opinion of trainees was taken considering three broad areas concerned with the training program. The following discussion based on the category.

7.3.1.1. Training content, Training Methodology, and Training Assessment

Table-6.02 in Chapter-6 indicates that the worth of the course content, methodology, and assessment process in terms of participants' opinion was strong. Again the above table further illustrates that the majority of teachers recognized that the application of training knowledge was effective and provided training materials and activities were very helpful in the actual teaching of the subject. Additionally, most of the respondents stated that the training program activities stimulated their learning and training assessment procedures in this course were accurate and fair. The findings of the study have an agreement with the study of

Tseng (2008). He stated that training was relevant to the skills they need to be performed assessments, to collect and consider information relevant to their teaching, and to plan and implement their programs. Malik and Khan (1998) stated that it is very important for a teacher to be identified to have proficiency in the subject knowledge as well as professional training.

7.3.1.2. Trainers Competency

Nearly all of the participants were satisfied concerning the trainers' performance of the program because (table-6.03 in Chapter-6) competency of the trainers in terms of participants' opinions were good. The above table further illustrates that the majority of teachers recognized that the trainers' subject knowledge was excellent, presentations were well-organized and lively, the appropriate training aids used and they used technologies such as the use of powerpoint presentations, video clips, film clips and/or multi-media materials was integrated into the training program.

The findings of the research agreed to the research of Mrnphrngaha (2004), Malik and Khan (1998), Bayrakc (2009) and Tseng, (2008). According to them, trainers must drive to be decorating themselves with knowledge of audiovisual aids along with beliefs and attitudes regarding their teaching performances.

7.3.1.3. Training Coordination, Trining Management, and Trining Facilities

Table-6.04 in Chapter-6 showed that the worth of the training coordination, management, and facilities in terms of participants' opinion was more than the

cut-off, which indicates a positive result. The majority of the responded (93%) also agreed that the acquired training skill was relevant to their profession.

7.3.2. Strengths of SBTTP based on FGD and Assessment

From the analysis of opinions the following strengths of SBTTP were identified:

(a) Objectives of training program is specific and clear;(b) training content is appropriate; (c) training methods and techniques play the important role of training program success;(d) The trainers are training friendly; (e) Training program authority provided training module which followed in this program and was helpful for the trainees, as well as trainers; (f) Training learning assessment, is effective due to evaluation system as well as assignment, college study, action research give trainees' opportunity to reflect on their experiences (g) Physical and other environments of the training was good and conducive; (h) Most of the trainer used ICT tools like multimedia projector, laptop, etc.

7.3.3. Strength of SBTTP based on Classroom Observation

After training classroom performance of the trained teachers was strong (mean 3.52) in terms of 20 observation items because 12 items out of 20 were the strength of the SBTTP in terms of score (3.50 or more) of the classroom observation (Table 6.13 in Chapter-6).

After taking classroom observation, the researcher talked with the observed trained teacher. Based on their opinion, some issues can be the highlight as the strength of SBTTP of HSTTI. Most of the teachers agreed to the implementation

of training knowledge and skills in their classrooms. They are trying to do it. Some of them are trying to take classes according to the training knowledge.

After observation of the trainee teacher, the researcher talked to the principals. One of the principal replied that he always suggests the teachers use teaching aids, twenty percent of the principal monitoring classroom teaching without observation checklist.

7.3.4. Strength of SBTTP based on High Officials Opinion

About 98% of college teachers are non-government in Bangladesh, and SBTTP training is compulsory for all non-government college teachers offered by 5 HSTTIs. All of the directors under the study agreed that teachers are happy to get this training, and after completion of the training, they were given assurance to implement training knowledge and skill in their institution. One of the directors also opined that trainees were happy with the institutional training management, training facilities, accommodation, etc.

7.4. Weakness of SBTTP

Find out the weakness of SBTTP of HSTTIs in Bangladesh, trainees' opinion, opinion of FGD, high officials' opinion, and opinion of trained teachers and principals of the same colleges taken into consideration.

7.4.1. The Weakness of SBTTP based on Trainees Opinion

The opinion of trainees was taken considering three broad areas concerned with the training program. The following discussion based on the category.

7.4.1.1. Training Content, Training Methodology, and Assessment

Table-6.02 in Chapter-6 indicates that no items under the category of training content, training methodology, and assessment are in poor range because the mean score of all items was above 3.50. It should mention here that the scale value of 3.50 out of 5.00 is in the positive result (table-6.12 in chapter-6).

7.4.1.2. Trainers Competency

Table-6.03 in Chapter-6 indicates that no items under the category of trainers' competency are in poor range because the mean score of all items was above 3.50. It should mention here that the scale value of 3.50 out of 5.00 is in the positive result (table-6.03 in chapter-6).

7.4.1.3. Training Coordination, Management, and Facilities

Table-6.04 in Chapter-6 indicates that some areas under training coordination, management, and facilities are poor because their mean score was less than 3.50 (table-6.04 in Chapter-6) such as- the training facilities were comfortable (mean=3.46, 61%), library facilities was enough (mean=3.11, 49.8%), and the internet facilities were sufficient (mean=3.00, 43.1%).

7.4.2. The Weakness of SBTTP based on FGD

From the analysis of FGD opinion, the following weaknesses of SBTTP were identified: (a) objective of the training program is not specific and clear; (b) there is a criticism concerning the content of the teacher training program was not updated and irrelevant. One faculty member said that the curriculum of the SBTTP

program lack practical application; (c) about 50% of the participants were not used participatory training approach; (d) One of the external trainer stated that, some of the general government college teachers are not well known about pedagogical side because they are not well trained; (e) sometimes training program authority are not provided training module in time; (f) sometimes assignment are not doing systematically and submitted the copy of early batch; (g) participant raised some criticism like- inadequate funding, lack of co-operation between central to training institution and among the training institution; (h) internet facility and teaching tools are not sufficient.

7.4.3. The Weakness of SBTTP based on Classroom Observation

After training classroom performance of the trained teachers was not strong in all items because eight items out of 20 were the weakness of the SBTTP in terms of score (less than 3.50) of the classroom observation (table-6.13 in Chapter-6). So, the finding indicates that trained teacher was not applying their training knowledge and skill properly.

After taking classroom observation, the researcher talked with the observed trained teacher. Based on their opinion a large number of issues can be highlighted as weakness of SBTTP of HSTTIIs such as- non-cooperation of colleague, non-cooperation of principal, discouragement of colleagues, non-awareness of principals about participatory approaches, pressure for completing syllabus in

time, huge (about 200) number students to implement group work, and have not sufficient facility to use digital content.

After observation of the trainee teacher, the researcher talked to the principals. One of the principal replied that he always suggests the teachers use teaching aids, but the college has not enough multimedia classroom or ICT facilities, two principals replied that more than 50% of teacher doesn't have any training on creative questioning, eighty percent of principal replied that they don't do practice regularly, twenty percent of the principal monitoring classroom teaching but don't use any observation checklist.

7.4.4. The Weakness of SBTTP based on High Officials Opinion

Director DSHE contends that the government is not allocating sufficient revenue budget for SBTTP so that they cannot update the training content regularly due to insufficient budget. The shortage of human resources and time constraints also highlighted.

7.5. After Training Performance

Two types of analysis was made to evaluate after training performance. Pre-test and post-test evaluations were made using the data collected before and after training from the trainees. Classroom performance was carried out to see the effectiveness of the training when the trained teachers perform in their classes.

7.5.1. Pre-test and Post-Test Evaluation of SBTTP of HSTTI Mymensingh and HSTTI Rajshahi

Table-6.14 indicates the CV of the pre-test > CV of the post-test. Hence we can say that SBTTP was very effective and $p < 0.05$ or $.01$ which indicates that the training program was successful.

7.5.2. The result from Classroom Observation

Table-6.13 indicates that the worth of after training classroom performance of the trained teachers was strong (mean 3.52) in terms of 20 observation items. Majority of teachers (90%) was created learning environment and motivate students (mean=4.0), a major part of teacher (80%) was in-depth and updated knowledge of the subject matter (mean=4.0), most of the trained teacher (90%) was writing their title of the lesson and learning points on the board (4.10). 11 items out of 20 were the strength of the SBTTP in terms of score (3.50 or more) of the classroom observation.

Table-6.14 also suggests that some of the items (9 out of 20) were in the weakness due to the score below 3.50. These items are- teacher used content related teaching aids (mean=3.1), teacher followed participatory teaching-learning (mean=3.1), teacher gave feedback after the presentation of the assigned tasks (mean=2.9), teacher given real and live example (mean=3.2), teacher used ICT during class (audiovisual, multimedia projector, OHP, etc.) (Mean=2.9), teacher assessed lesson by asking questions/ given work According to Bloom's taxonomy

(mean=2.8), teacher managed time effectively (mean=3.3), teacher given homework in creative way (mean=3.1).

7.6. Comparative Scenario between HSTTI Mymensingh and HSTTI Rajshahi

To find out the comparative scenario of SBTTP between HSTTI Mymensingh and HSTTI Rajshahi Chi-square (χ^2) test used.

7.6.1. Feedback of the Participants Regarding Training content, Methodology, and Assessment

There are ten sub-items under the head. Overhead interpretation of the statistical results shows that there are no significant differences observed between HSTTI Mymensingh and HSTTI Rajshahi in seven sub-head under the head. These are training content covers the development of knowledge, skills, values, and attitudes that transmit to students, the relevance of training content to the subject teachers, the accuracy and fairness of training assessment procedures, stimulated learning activities of the training program, appropriateness, and comprehensiveness of training methodology, participatory learning activities. On the other hand, there are significant differences observed in three sub-items between HSTTI Mymensingh and HSTTI Rajshahi. These are- application of training knowledge is assured and will be effective, training content provides materials and activities that are helpful in the teaching of the subject, and organize and easiness to follow curriculum content.

7.6.2. Trainers' Competency

There are ten sub-items under the head. Statistical results indicate that there is a significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi regarding nine items under the head. These are excellence of presenters, subject knowledge, ability of the presenters to meet the trainees' needs and interests, well-organized and lively presentations, uses of appropriate training aids, participatory and interactive approaches of trainers, uses of appropriate examples and illustrations by the trainers, course objectives covered by the trainer, appropriate assessment techniques of trainers, and maintenance of time management of trainers. Oppositely significant difference observed between HSTTI Mymensingh and HSTTI Rajshahi on the maintenance of time management of trainers.

7.6.3. Training Coordination, Management, and Facilities

There are ten sub-items under the head. Statistical results indicate that there is a significant difference does not observe between HSTTI Mymensingh and HSTTI Rajshahi regarding eight items under the head. These are the suitability of duration of the training program, evidence of training co-ordination and co-operation, expected benefits of trainees' colleagues from the gained knowledge of training, training activities include sufficient practice and feedback, comfortable facilities at the training venue, useful training handouts, library facilities, and internet facilities. On the other hand, there are significant differences observed in two sub-

items between HSTTI Mymensingh and HSTTI Rajshahi. These are the relevance of acquired professional skills, the supply of sufficient audiovisual instructional materials.

7.7. Ways to Enrichment of SBTTP of HSTTIs in Bangladesh

Trainees' opinion, opinion of FGD, high officials' opinion, and opinion of trained teachers and principals of the same colleges were taken into consideration to find out the ways to the enrichment of SBTTP of HSTTIs in Bangladesh.

7.7.1. Trainees Opinion

7.7.1.1. Trainees Opinion on Training Content

Table-6.05 indicates that most of the respondent trainees (75.06%) suggested adding more class on computer literacy, add need-based new pedagogical concept (65.74%), increase simulation activities (64.23), action-based research content should be more practicable (50.62%), addition of more communicative English classes (44.08%) in the training content.

7.7.1.2. Trainees Opinion on Training Methodology

Table-6.06 observed that most of the respondent trainees suggested to use of multimedia and audiovisual aids (81.10%), participatory approach in training session (77.58%), and learner-based teaching-learning process (70.78%), use of teaching-learning materials (61.96%) and ICT- pedagogy integration learning environment (60.45%).

7.7.1.3. Trainees Opinion on Training Assessment

Table-6.07 demonstrates that a large number of respondent trainees feel existing pattern of test and post-test is enough for training evaluation (73.55%), most of them suggested that respondents' written test for each paper is essential for training evaluation (56.67%), and a minor share of the respondent (44.83%) were concerns regarding comprehensive written test.

7.7.1.4. Trainees Opinion on Training Coordination and Management

Table-6.08 indicates that most of the respondent trainees (85.39%) suggested that the training coordination committee should be more active, increase support to the trainees from the training coordination committee (58.94), and below half of the respondent (44.83%) were concerns regarding strengthening the training monitoring system.

7.7.1.5. Trainees Opinion on the Trainer

Table-6.09 observed that most of the respondent trainees (84.51%) suggested that trainers should be technology-oriented, trainer should be more competent on methodology (81.48%), trainer should improve subject knowledge (79.79%), trainer should use more audio-visual aids, should improve in pedagogical knowledge, and be more comfortable (63.63%), and to be comfortable and technology-friendly (63%).

7.7.1.6. Trainees Opinion on Trainer Overall Training Facilities

Table-6.10 indicates that most of the respondent teachers suggested increasing hostel accommodation facilities (82.11%); participants were concern regarding training facilities like the module, internet, classroom condition, etc. (50%), and concerns regarding the duration of the training program (31%).

7.7.2. Suggestions from FGD

Different suggestions come into the light as the way to the enrichment of SBTTP of HSTTIIs from the focus group discussion. They were suggested to introduce a need-based program, to modify some pedagogical topics, to modify existing evaluation systems, to include a panel discussion, seminar, symposium, and assignment oriented activities in the training schedule. They were also suggested to start to follow up training, up-to-date training modules, and materials, to add some participatory activities for a class session of SBTTP.

7.7.3. Suggestions based on Classroom Observation

After taking classroom observation, the researcher talked with the observed trained teacher. Based on their opinion, some suggestions are come into a point to overcome the weakness of SBTTP of HSTTIIs such as- increased commitment to apply the training from different stakeholders of college through ensuring the cooperation of colleagues as well as a principal by providing training to all. Class size should be the standard based on student-teacher ratio and create sufficient facilities to use digital content.

7.8. Conclusion

This chapter explored the results according to the research questions. Mostly this chapter discussed and summarized the findings of the present scenario, strengths, weaknesses, pretest and posttest comparison, trained teachers' classroom activities and comparative scenario between HSTTI Mymensingh and HSTTI Rajshahi related to the SBTTP.

CHAPTER EIGHT
SUMMARY OF FINDINGS,
RECOMMENDATIONS, AND CONCLUSION

8.1. Prelude

This study focused on the strengths and weaknesses as well as present scenarios of the subject-based teacher training program at higher secondary level in Bangladesh. This study has also sought to understand how trainee teacher is implementing their training knowledge and skills in their field. The respondents were also asked to identify the strengths and weaknesses of the SBTTP. It is very important to enrich the training approach, content knowledge, attitudes and learning material for improving the teaching styles (Roux, 2002).

8.2. Summary of Findings

The findings of this study were presented here using Stufflebeam's CIPP model as a framework. The findings of the study are presented here based on four aspects of the model.

8.2.1. Context Evaluation

According to the national education policy-2010 of Bangladesh, HSTTIs is empowered to organize basic training for the teachers of non-government schools and colleges. According to DSHE, SBTTP is compulsory for the college teacher as job-related. Functions of HSTTIs include the competencies in the teaching-learning process, reflective practice, and accelerate competences in educational management in both secondary and higher secondary level teachers. It also supported by Tseng (2008) that effective in-service training is focused on increasing teachers' professional knowledge and builds awareness for upgrading

their skills, which improves the teacher's performance. HSTTIs are offering SBTTP for the college teacher, which integrated with content knowledge, pedagogical knowledge, and some ICT knowledge. The objective of the SBTTP is that a teacher can be able to take classes effectively, simplify the content methodically, and develop creative questioning skills, presentation skill, ICT skill as well as practical skills. In this research, it found that the objective of SBTTP was identified and followed at HSTTIs. Mrnphrngaha (2004), supported the view that a successful training program is driven from clear objectives and must deliver to the right people with the appropriate technique. HSTTIs is trying to implement various types of training programs successfully for improving the quality of education at the secondary and higher secondary level which is contributing to the pace of development of the country. (Research question-1)

8.2.2. Input Evaluation

It found that the majority of teachers agreed that the duration of the training program was suitable and effective. Internal trainers' academic and professional qualification was high. On the other hand, external trainers' professional competence should raise. Most of the respondents under the study were satisfied with the appropriate use of training aids. (Research question-2). Participant teachers raised some scolding like- inadequate funding for training, and also high official contends that the government has not given sufficient budget for SBTTP. On the other hand, it can be said that the government is not the only source for

providing training funds. Shihong (2008) supported that training programs of many teachers have been financed and organized by educational institutions and the teachers have to learn more pedagogical methods as well as research-oriented. It found that some areas such as- the training facilities, library facilities, and the internet facilities were poor. (Research question-3).

8.2.3. Process Evaluation

It found that the training content was relevant to the subject content, training methodology was appropriate, and training assessment procedures in this program were accurate and fair. The result of the study was supported by Monroe (2009), who identified that in in-service training, the teacher can learn pedagogy and apply subject content for enhancing teacher's skills, knowledge, and approaches to be a competent teacher. (Research question-2). In this study, it recognized that the trainers' subject knowledge was excellent and presentation well-organized. It was also supported by Malik and Khan (1998), who viewed that the resource persons should be competent and knowledgeable concerning the use of different professional training techniques. (Research question-2). Additionally, trainers use technology such as powerpoint presentations, video clips, film clips and/or multi-media materials. It was supported by Mrnphrngaha (2004), Malik and Khan (1998), Bayrakc (2009) and Tseng, (2008), who opined trainers must drive to be decorating themselves with knowledge of audiovisual aids along with beliefs and attitudes regarding their teaching performances. (Research question-2). Some

criticism concerning programs such as the content of the teacher training program not updated, irrelevant, and external trainers were not well known about the pedagogical side. From FGD, it observed some weaknesses of SBTTP such as the objective of the training program is not specific and clear, contents not updated and relevant for the program. The curriculum of the SBTTP had a lack of practical application (Research question-3) as per the opinion of the same respondents belonging to the faculty members groups.

8.2.4. Product Evaluation

Findings indicate that trained teachers' classroom performance was effective in terms of creating a learning environment and motivate students properly due to the proper use of the board and the strong subject knowledge of them. The finding also indicates that trained teachers cannot properly apply their training knowledge and skill in the classroom due to the non-cooperation of their colleagues and principal of the college. It was supported by Pokharel (2018), who opined that trained teachers were not using their training skills in classroom instruction. The classes were on teacher-oriented. Most of the teachers used lecture-method. Making lesson plans was not usual, and the use of teaching materials was minimal (Research question-4). It found from pre-test and post-test results that SBTTP was very effective and the training program was successful. A professional degree of the participant of the Mymensingh area is higher than the participants of the Rajshahi area. (Research question-5). Some areas need to improve for the

betterment of the program. These are- add more class on computer literacy, increase simulation activities, trainers should be technology-oriented, follow creative questions, include a panel discussion, seminar, symposium, and assignment oriented activities in the training schedule. Also, trainers are suggested to follow up training, update training modules and materials, maintain class size based on the standard student-teacher ratio, and ensure sufficient facilities to use digital contents. (Research question-6).

The SBTTP is seemed positively due to the overall strength of the college teacher who has trained in the program. The SBTTP appeared to be effective based upon the variety of outcomes of the program. However, inconsistencies found with the implementation of the program in terms of some items of the area, which should be improved.

8.3. Recommendations

The researcher would like to recommend the following based on the findings.

- Some of the training content, existing evaluation systems need to modify and update.
- Need to introduce a post-training monitoring procedure to make sure that the trainees are using their learned knowledge and skills in the real situation.

- College authority should create a mechanism for the continuous in-house training program and close systematic class monitoring for the subject teacher.
- All teachers should be taken under the training program to implement the trained teacher's knowledge and skills in their respective institutions for avoiding peer pressure.
- To integrate more use of ICT in training curriculum and ensure complete ICT facilitates in training venue.
- Allocate more budget for SBTTP of HSTTIs.

8.4. Direction for Further Research

There are some points to be researched further concerning the SBTTP. As described above, the data did not provide sufficient information on trainee teachers and their application level of skills in their classroom. In terms of research depth and width, in the future, a single study could be conducted according to each different topic, such as:

1. Comparison of the classroom performance of the teacher before training, during training, and after training.
2. Professional development of teacher trainer: challenges and opportunities

The researcher believes that this study could assist in addressing the strengths and weaknesses of the in-service teacher training program. The researcher also

believes that the strengths and weaknesses of the SBTTP addressed deeply and straightaway to improve the quality of education in the country.

8.5. Conclusion

In conclusion, I consider that there are general consent and feeling among participants, teacher trainers, college principals, and high officials that the SBTTP is working well. The purpose of the study was to identify the present scenario, strengths, weaknesses, and ways of improvement of SBTTP employing a system based CIPP model of evaluation. This study also explored important and valuable information on the SBTTPs' present scenario, strengths, and weaknesses through methodical ways based on the opinion of the participants. Accordingly to DSHE, this training program is compulsory for the college teacher, but there is no job-related condition such as promotion or incentive. Moreover, there was some significant strength of SBTTP, such as course content, methodology, assessment process, training coordination, management and trainers' competency in terms of participants' opinion. Therefore, the study showed a few different opinions such as in library facilities, internet facilities, and training facilities, which were the weaknesses of the program. According to the view of FGD, there were program strengths regarding training content, training methods and techniques, training module, learning assessment and use of ICT in training programs. On the other hand, some of the participants of FGD opined differently regarding inadequate funding, insufficient internet facilities, and lack of co-operation between DSHE

and training institutions as well as among the training institutions. Trained teachers' classroom performance was good in spite of some obstacles to apply full skills and knowledge in the classroom, such as non-cooperation of colleagues and principal, discouragement of colleagues to implement the participatory teaching-learning approaches in the classroom, etc. It exposes that more than 90% of college teachers' have no professional degrees like BEd, MEd, and MPhil, Ph.D., etc. Trainee teachers of Mymensingh area in terms of professional degree is higher than that of Rajshahi area. According to their suggestions training programs should be modified and improved for bringing fruitful results from the SBTTP. As a final word, this thesis will contribute to the future development of the SBTTP of HSTTIs in Bangladesh.

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APPENDICES

APPENDIX - A

Topic: Subject Based Teacher Training Program at Higher Secondary level in Bangladesh

To the Participant

May I request you to please accomplish the survey questionnaire for Ph.D. research below? Your honesty and cooperation will assist me in building up a clear image of the current in-service teacher training program. The result of this survey will provide the basis for improving the program in areas where it is needed. Please be assured of the confidentiality of your answers.

Thank you for your help.

Halim Sarwar

Ph.D. student

Please put tick (√) mark of anyone option and write down your opinion where necessary.

A. Personal Information

- I. Name:
- II. Sex: (a) Male (b) Female
- III. Mobile Phone:
- IV. Email:

B. Professional Information:

- I. Designation:
- II. Subject:
- III. Name of the college:
- IV. MA/ MCom/ MSc/ MSS
- V. BEd/ MEd/ MPhil/ P
- VI. Total length of service:
- VII. Monthly salary receive:

Government	College	Total

- VIII. Location: (a) District Headquarters (b) Upuzila Sadar (c) Others

C. Participants reaction regarding Subject Based Teacher Training Program

Please use the following scale to indicate your response to the statements by putting tick (√) mark.

Sl No	Items	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
As regards training content, methodology, and assessment						
1	The application of training knowledge is assured and will be effective.					
2	The training content provides materials and activities that are helpful in the actual teaching of the subject.					
3	The training content covers the development of knowledge, skills, values, and attitudes that I can transmit to my students.					
4	The training content was relevant to the subject I teach.					
5	The training assessment procedures in this course were accurate and fair.					
6	The training program activities stimulated my learning.					
7	The training methodology was appropriate and comprehensive.					
8	Learning activities were participatory					
9	The training objectives for each topic identified and followed					
10	The curriculum content was organized and easy to follow.					
As regards trainers/ Facilitator						
11	The presenter's subject knowledge was excellent.					
12	The presenter was able to meet the trainees' needs and interests.					
13	The presentations were well-organized and lively.					
14	Appropriate training aids used					
15	Trainer's approaches were participatory and interactive.					
16	Trainer/Facilitator used appropriate examples and illustrations.					
17	The course objectives covered by the Trainer/Facilitator(s)					

18	Facilitator's assessment techniques were appropriate.					
19	The facilitator/Trainer maintained time management,					
20	Technology such as the use of PowerPoint presentations, video clips, film clips and/or multi-media materials was integrated in the training program.					
As regards Training coordination, management, and facilities						
21	The duration of the training program was suitable					
22	Training co-ordination and co-operation were evident					
23	The acquired skills are relevant to my profession					
24	Provided audio visual instructional materials were sufficient					
25	My colleagues will benefit from the knowledge I gained					
26	Activities in this training course gave me sufficient practice and feedback					
27	The training facilities at this venue were comfortable					
28	The training handouts were useful					
29	Library facilities were enough					
30	Internet facilities were sufficient					

D. What can things be added to make SBTTP more effective? Please put tick (✓) one or more than one option as you like and write your opinion below according to the component (if needed)

I	Training content
1	Should be added the need-based new pedagogical concept
2	Add more subject class
3	Add more communicative English class
4	Add more class on computer literacy
5	Some content needs to be changed
6	Action research content should be more practicable
7	Simulation classes should increase
8	Others.....

II Training methodology

-
- 1 More practice of participatory approach

 - 2 Learner based teaching-learning process should introduce

 - 3 Use Multimedia and audiovisual aids

 - 4 Introduced ICT- pedagogy integration learning environment

 - 5 More use of teaching-learning materials (ex- chart, poster paper, etc)

 - 6 **Others.....**

III Assessment of learning

-
- 1 Pretest and posttest is enough for training evaluation

 - 2 Written test for each paper is essential for training evaluation

 - 3 The comprehensive written test should introduce at the end of the training program

 - 4 Written test for own subject is important for training assessment

 - 5 Book review and more assignment should introduce to asses training output

 - 6 Participation in different activities should be compulsory

 - 7 The creative question should introduce for training performance assessment

 - 8 **Others.....**

IV Training coordination and management

-
- 1 Course committee should provide more support and facilitation

 - 2 The training coordination committee should be more active during the training program

 - 3 Strengthen the monitoring activities during training

 - 4 Training coordination committee should build up their engagement technique

 - 5 Should develop communication skill of the course committee

 - 6 **Others.....**
-

V Trainers

-
- 1** Should be more competent on methodology
-
- 2** Should be improved in pedagogical knowledge
-
- 3** Should be improved in subject knowledge
-
- 4** Should be technology-oriented
-
- 5** More use of audio-visual aids
-
- 6** Need more training for trainers
-
- 7** The trainer should be more empathetic and easy
-
- 8** **Others.....**

VI Overall training facilities

-
- 1** Training classroom facilities should increase
-
- 2** All-time internet facilities should provide
-
- 3** The number of computers should increase
-
- 4** Should be provided up-to-date training module and materials
-
- 5** Duration of the training program should be 56 days
-
- 6** Duration of the training program should be 90 days
-
- 7** Library facilities should increase
-
- 8** Hostel facilities should increase
-
- 9** **Others.....**

VII More comments (if any)

Thank you for your cooperation

APPENDIX - B

Classroom observation Checklist for Subject Teacher

Title: Subject Based Teacher Training Program at Higher Secondary Level in Bangladesh

A. Personal Information

- I. Name:
- II. Sex: (a) Male (b) Female
- III. Mobile Phone:
- IV. Email:

B. Professional Information

- I. Designation:
- II. Subject:
- III. Name of the college:
- IV. MA/MCom/MSc/MSS
- V. BEd/MEd/MPhil/PhD
- VI. The total length of service:
- VII. Monthly salary receive:
- VIII. Location: (a) District Headquarter (b) Upozila Sadar (c) Others

Government	College	Total

The following scale to indicate their response to the statements by putting the (\surd) mark.

SI No	PERFORMANCE INDICATORS	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
		5	4	3	2	1
1	Teacher created a learning environment and motivated students					
2	Teacher relates subject matter with the previous knowledge					
3	The teacher wrote the lesson title and learning points on the board					
4	Teachers 'gesture, posture and eye contact was good					
5	The teacher asks questions to encourage student thinking and give feedback					
6	The teacher used content related teaching aids					
7	The teacher followed participatory teaching-learning (pair work and group work)					
8	Teacher given feedback after the presentation of the assigned tasks. (pair work and group work)					
9	Teacher reinforce the student					
10	Teacher motivate and engage the learner in the teaching-learning process					
11	Teacher presented lesson in sequence					
12	The teacher has in-depth and updated knowledge of the subject matter					
13	The teacher gave a real and live example					

14	Teacher classroom speech, voice, and pronunciation was good					
15	The teacher used ICT during class (audiovisual, multimedia projector, PowerPoint, OHP, etc.)					
16	Teacher use board effectively (Teacher and Student)					
17	Teacher assessed lesson by asking questions/ given work (According to Bloom's taxonomy					
18	Teacher synthesize/ summarize the lesson					
19	Teacher managed time effectively					
20	Teacher given homework in a creative way					

More Comments :

APPENDIX- C

Focus Group Questions for Trainers

1. What are the areas of strengths of the program?

(Objectives of the training program, Training curriculum, Training Methods, Assessment of learning, Training Management, Training environment, Integration of ICTs Facilities, (classrooms, library, Instructional Material, Assessment of trainee's needs, expectations and satisfaction, Faculty Competency, Training Budget, Programs schedule, etc.)

2. What are the areas of weaknesses of the program?

(Objectives of the training program, Training curriculum, Training Methods, Assessment of learning, Training Management, Training environment, Integration of ICTs Facilities, (classrooms, library, Instructional Material, Assessment of trainee's needs, expectations and satisfaction, Faculty Competency, Training Budget, Programs schedule, etc.)

3. What can be modified or added to the program for the betterment?

APPENDIX - D

Topic: Subject Based Teacher Training Program at Higher Secondary level in Bangladesh

Interview Schedule for High Officials

Name:

Name of the office/ Institution and Address

The main questions that asked during interviews are as follows:

1. What is the present scenario of SBTTP of HSTTIs in Bangladesh?
2. What are the strengths of SBTTP?
3. What are the weaknesses of SBTTP?
4. What is the after training classroom performance of participant teachers in their institutions?
6. What are the ways of enrichment of SBTTP in Bangladesh?

Thank you for your cooperation

APPENDIX – E

Dr. Mustafa Kamal Akand

Professor
Department of Anthropology
University of Rajshahi
Rajshahi-6205, Bangladesh
Office : +88-0721-711139
Res. : +88-0721-751415
Fax : +88-0721-750064
Cell : +88-01718-103594
e-mail : drkamal_anth@ru.ac.bd
Web : http://www.ru.ac.bd/anthropology



ড. মোস্তফা কামাল আকন্দ

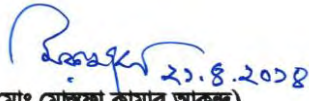
প্রফেসর
নৃবিজ্ঞান বিভাগ
রাজশাহী বিশ্ববিদ্যালয়
রাজশাহী-৬২০৫, বাংলাদেশ
অফিস : ০৮৮-০৭২১-৭১১১৩৯
বাসা : ০৮৮-০৭২১-৭৫১৪১৫
ফ্যাক্স : ০৮৮-০৭২১-৭৫০০৬৪

যাঁর জন্য প্রযোজ্য

জনাব মোঃ হালিম সারওয়ার (সহকারী পরিচালক, উচ্চ মাধ্যমিক শিক্ষক প্রশিক্ষন ইনস্টিটিউট, ময়মনসিংহ) ২০১১-২০১২ শিক্ষাবর্ষে শিক্ষা ও গবেষণা ইনস্টিটিউট রাজশাহী বিশ্ববিদ্যালয়ে ভর্তি হয়ে “Subject Based Teacher Training Program at Higher Secondary Level in Bangladesh” শিরোনামে আমার তত্ত্বাবধানে পি.এইচ.ডি প্রোগ্রামে গবেষণারত আছেন। তাঁর গবেষণা কাজের অংশ হিসেবে তিনি শিক্ষা মন্ত্রণালয়ের অধীন বিভিন্ন প্রতিষ্ঠানে/শিক্ষা প্রতিষ্ঠানে তথ্য সংগ্রহের উদ্দেশ্যে কাজ করছেন। এ লক্ষ্যে তথ্য সংগ্রহের নিমিত্তে তাঁকে সার্বিক সহযোগিতা করার জন্য অনুরোধ করা হলো। উল্লেখ্য যে প্রদত্ত তথ্য শুধুমাত্র গবেষণার কাজে ব্যবহৃত হবে।

সদর অবগতি ও প্রয়োজনীয় ব্যবস্থা গ্রহণের জন্য প্রেরিত হলোঃ

১. পরিচালক (প্রশিক্ষণ) মাধ্যমিক ও উচ্চ শিক্ষা অধিদপ্তর, বাংলাদেশ, ঢাকা।
২. পরিচালক জাতীয় শিক্ষা ব্যবস্থাপনা একাডেমী (নায়েম), ঢাকা।
৩. পরিচালক, উচ্চ মাধ্যমিক শিক্ষক প্রশিক্ষন ইনস্টিটিউট, ময়মনসিংহ/রাজশাহী/খুলনা/বরিশাল/কুমিল্লা।
৪. অধ্যক্ষ
৫. অফিস কপি।


(ড. মোঃ মোস্তফা কামাল আকন্দ)
অধ্যাপক
নৃ-বিজ্ঞান বিভাগ
রাজশাহী বিশ্ববিদ্যালয়।