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Role of In-Service Training Program for Quality Education: A Study on Higher Secondary Teachers' Training Institutes (HSTTI) in Bangladesh

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University of Rajshahi

Role of In-Service Training Program for Quality Education: A Study on Higher Secondary Teachers' Training Institutes (HSTTI) in Bangladesh

A Dissertation Submitted to the Rajshahi University for the Degree of Doctor of Philosophy

Researcher

Md. Izaharul Islam
Session: 2010-2011

Institute of Education and Research
Rajshahi University, Rajshahi
Bangladesh

January, 2015

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Ph.D. Dissertation

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**Institute of Education and Research
Rajshahi University
Rajshahi, Bangladesh**

January, 2015

Dedicated

To the living memory of my late Father who teaches
to consolidate the success already been achieved;
To my wife who always Wishes for continued success
and To my Mother and son who give me the
inspiration to go ahead

Declaration

I do hereby declare that this dissertation entitled *Role of In-Service Training Program for Quality Education: A Study on Higher Secondary Teachers' Training Institutes (HSTTI) in Bangladesh* submitted to the Institute of Education and Research (IER), University of Rajshahi, Bangladesh for the Degree of Doctor of Philosophy (Ph.D) has been prepared by me under the honorable supervisor Dr. Md. Ruhul Amin, Professor, Department of Political Science, Rajshahi University, Rajshahi.

This is an original work and no such study has been done earlier in any other University or Institute for any Degree or Diploma.

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Certificate

This is to certify that Md. Izaharul Islam a Ph.D. Research fellow at the Institute of Education and Research (IER), University of Rajshahi, Session: 2010-2011 has completed his research work entitled *Role of In-Service Training Program for quality Education: A Study on Higher Secondary Teachers' Institutes (HSTTI) in Bangladesh* under my direct supervision. So far as I know, the dissertation has not been previously submitted to any university/institute for any kind of degree or diploma. This is an original research work. It appears to be satisfactory for submission to the Institute of Education and Research (IER), University of Rajshahi in fulfillment of the requirement for the degree of Doctor of Philosophy in Education.

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Acknowledgement

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List of Acronyms

AD	:	Assistant Director
ADB	:	Asian Development Bank
AEWP	:	Annual Educational Work Plan
AKSA	:	Applicable the Knowledge, Skills and Attitude
AVA	:	Audio Visual Aids
AWP	:	Annual Work Plan
BANBEIS	:	Bangladesh Bureau of Educational Information and Statistics
BEd	:	Bachelor of Education Degree
BEERI	:	Bangladesh Education Extension and Research Institute
BISE	:	Board of Intermediate and Secondary Education
BMTTI	:	Bangladesh Madrasha Teachers' Training Institute
BRDB	:	Bangladesh Rural Development Board
CBE	:	Computer Based Education
CBT	:	Competency Based Teaching
CPAP	:	Change the Positive Activities of Principals
CPD	:	Continuning Professional Development
DF	:	Degrees of Freedom
DSHE	:	Directorate of Secondary and Higher Education
EEC	:	Education Extension Centre
ERM	:	Educational research Methodology
ESD	:	Education for Sustainable Development
FGD	:	Focus Group Discussion
FSSAP-2	:	Female Secondary School Assistance Project-2
GB	:	Board of Governance
GOB	:	Government of Bangladesh
GPA	:	Grade Point Average
HDI	:	Human Development Index
HRD	:	Human Resource Development
HRM	:	Human Resource Management
HSC	:	Higher Secondary Certificate
HSEP	:	Higher Secondary Education Project
HSTTI	:	Higher Secondary Teachers' Training Institute

IBS	:	Institute of Bangladesh Studies
ICT	:	Information and Communication Technology
IEC	:	Implementation and Evaluation Committee
IER	:	Institution of Education and Research
IPCPT	:	Institution Positive Change through Training
IST	:	In-Service Training
KSA	:	Knowledge, Skill and Attitude
LandD	:	Lecture and Discussion
LandP	:	Lecture and Practice
LP	:	Lesson Plan
LS	:	Likert Scale
LSBE	:	Life Skill Based Education
LSD	:	Least Significant Difference
MDG	:	Millennium Development Goal
MEd	:	Master of Education
MIS	:	Management Information System
MoE	:	Ministry of Education
MP	:	Member of Parlament
NACTAR	:	National Academy for Computer Training and Research
NAEM	:	National Academy for Educational Management
NCTB	:	National Curriculum and Textbook Board
NGO	:	Non Government Organization
NGTTC	:	Non Government Teachers' Training College
NIEMR	:	National Institute of Educational Management and Research
PE	:	Public Examination
Ph.D.	:	Doctor of Philosophy
PIU	:	Project Implementation Unit
PTA	:	Parent Teacher Association
PTRP	:	Presentation Techniques of Resource Persons
RC	:	Resource Center
RMGB	:	Role of the Members of Governing Body
RP	:	Resource Person
RPDK	:	Resource Persons Depth of Knowledge
SAS	:	Statistical Analysis System
SBA	:	School Based Assessment
SBTTP	:	Subject Based Teachers Training Program
SD	:	Standard Deviation

SE	:	Standard Error
SEDP	:	Secondary Education Development Project
SESIP	:	Secondary Education Sector Improvement Project
SMART	:	Specifically, Measurably, Attainably, Rationally and Timely
SPSS	:	Statistical Package for Social Science
SRACH	:	Student Reward Achievement Befor and After the Training
TNA	:	Training Need Assessment
ToT	:	Training of Trainer
TQI-SEP	:	Teaching Quality Improvement in Secondary Education Project
TQM	:	Total Quality Management
TRACH	:	Teachers Reward Achievement before and after the training
TTC	:	Teacher's Training Colleges
UGC	:	University Grants Commission
UNDP	:	United Nations Development Program
UNICEF	:	United Nation International Childrens Emergency Fund
UNISCO	:	United Nation Internation Scientific Cultural Organization
WHO	:	World Health Organization

Abstract

The purpose of the study is to measure the impact and evaluation of HSTTIs Training provided to the higher secondary level (college) principals, subject teachers and computer teachers. The study work has been completed with a set of objectives to identify the change of trainees' competence through the in-service training program provided by HSTTIs to the higher secondary level principals, subject teachers and computer teachers. The study has been done to analyze the trainees' knowledge, skill and attitude before and after training program, and to find out the gap between rural and urban higher secondary level college teaching learning practice and class room delivery. The study has also been done to evaluate the impact of the training measured in terms of qualitative change on the high secondary level institutions. Primary data were basically collected from the field level working places of the trainees. There were four groups of respondents i.e. college principals-70, classroom subject teachers-298 and ICT based computer teachers-70 who received training from HSTTI, Rajshahi and HSTTI Barisal and other respondents of high officials, stakeholders-82 from the HSTTIs in Bangladesh. Questionnaires, interview schedule, observation and documents were used as data collection instruments. Data were presented by qualitative and quantitative approaches. For the data analysis, statistical techniques were used in different approaches such as tabular form, percentage, mean, standard deviation, graphical presentation, coefficient of variation two-way ANOVA analysis, DMRT test, chi-square test etc. In this study all respondent groups attached with the work almost equvocally agreed about the necessity and importance of In-service training for the college teachers. It was found that the training coursess organized by five HSTTI for college principals, subject teachers and computer teachers training are effective. The performance of trainee college teachers are deviated signifacantly between pre and post test in all the five HSTTIs. So the difference between the from the pre-training and post training evaluation way statistically significant (principal training p-value-0.000, t-value- 20.88, computer teacher p-value- 0.000, t-value- 14.812, subject teacher p-value-0.000, t-value- 20.638. This study are important findings that most of the respondents opined the training course content, training methodology, training objective and training evaluation process in very good. Secondly 70% of the respondent agrees that

effectiveness of training outcomes for the institutional management of the higher secondary levels (college). In their study 70% respondents agree that effective change takes place after the teaching learning approaches through In-service HSTTI training program. 70% of the respondents opined that HSTTI In-service training impact on the field levels changed the student philosophy and other 30% respondent agreed to their self-development. All HSTTIs training programs are able to change the respondents (principals, subject teachers and computer teachers) knowledge, skill and attitude towards their professions. Then lastly In-service training has long term positive impact (in this study various dependent veriable chi-square test (χ^2) and p-value test maximum result are significant) on quality education at the higher level institutions and on the working places of the trainees. So it should, here, be affirmed that the In-service teachers training at higher secondary level be organized regularly for professional improvement of the teachers vis-a-vis the developed quality of education. This study would help HSTTIs high authority to initiate the innovative mechanism for the development of managerial activities, strength and weakness of the training institute, training program, trainees, trainers/ resource persons and training environment of the higher secondary level institutions. Overall, the study has been able to fulfill the national goal in the field of educational management, subject and pedagogical, ICT in education of higher secondary level institutions in Bangladesh.

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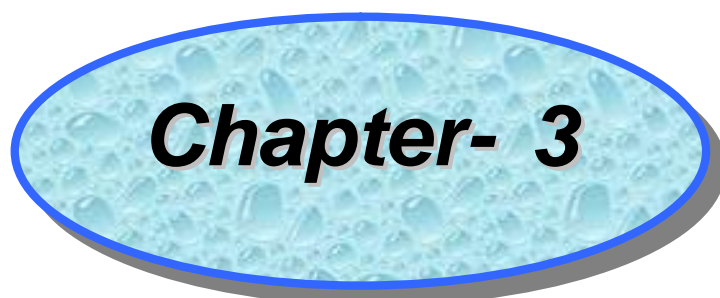
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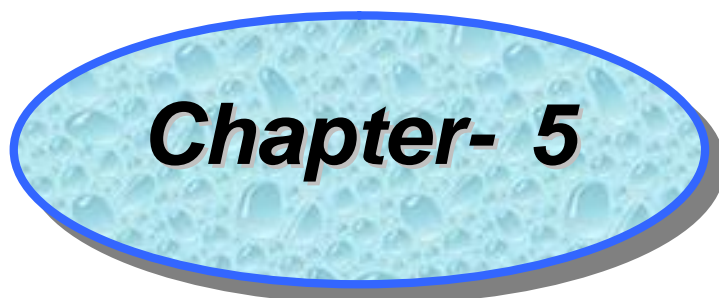
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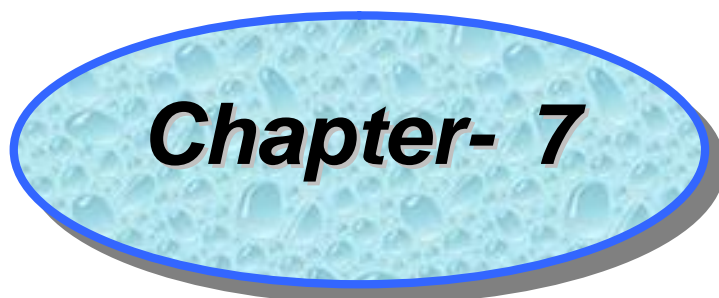
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INTRODUCTION

1.1 Prelude

Education is the key to all success. Education helps in the development of individual's cognitive and affective abilities. Shahmohammadi, stated that teachers are called nation-builders. In every country, in every period and in every society the role of teachers is of great importance. [1] The main responsibility of imparting and spreading of education basically depends on the teachers. But all teachers are not capable of executing the true purpose of education properly, let alone the quality education. Though the history of teaching and educational management of this country is old, history of teachers' training management is not long enough. The outline of modern teachers' training management basically initiated during the British period. Teachers must be trained up to teach with proper method for imparting education in accordance with the demand of the age. Hence, teacher's training is inevitable in any educational management. This statement is also equally applicable to the educational management in Bangladesh.

Education is a process of human enlightenment and empowerment for the achievement of better and higher quality of life. Effective teacher education acquires a more crucial importance being a key factor in ensuring quality college education. A sound and effective system of education results in the continuous development of learner's potentialities, the strengthening of their skills and the fostering of positive interests, attitudes and values.[2] We consider education as the backbone of a nation, it is also the nervous system of all development of the nation. All sorts of developments are for the people and done by the people. It is education that develops human brains, body and mind. It is education that ensures growth of head, heart and hands of human beings. Unless education is qualitative, developing of quality human resource is not possible and so in the case of quality management. Inversely, it is quality management that can ensure quality education to develop quality human resource. Ensuring quality education for all is a great challenge for us. The main important force behind quality education and development of skilled human resource is a team of properly qualified, skilled and committed teachers 'Technology has emerged as the most important factor in the

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1 Shahmohammadi, N. Evaluation of Teachers' Education Programs in Iran (Case Study), Iran, (2012), p. 13.
2 Dave Hill, Social Class and Education, Institute for Education Policy Student, London (1999), p. 16.

modern world. Computer and Information Technology has become the most inspiring and important part of education all over the world. We need to give it a priority in our education system as well.

Education is a continous process which changes the behavior of an individual towards certain objectives. It is mainly concerned with teaching-learning programme. Our society is changing rapidly and so new techniques are being adopted in education to meet the changed needs. Education has become more important in the modern world and a base for over all development especially in developing countries. Education is accepted as a fundamental right of all members of a society. The purpose of education is not merely to inculcate new knowledge and skills in the individuals but also to prepare children for social responsibility and to meet the challenge of the time.[3] The role of teachers and teacher education program are important for building the national development. While education is being transformed as a result of these changes, it is expected that teachers will educate, teach, guide, evaluate, and demonstrate their capacity to develop themselves to participate in the process of modernizing the school and making it more proactive and receptive to change.[4]

It is well known that in our country teaching is the most unattractive profession and a teacher is not occupying an honorable position in the society. To make the teaching profession attractive, then the quality of teacher-edcuation needs to be improved in Bangladesh. At present, the college teachers, especially non-trained teachers, are not aware of their methodological asepcts towards teaching and learning processes. The remain reluctant and non-effective to perform their everyday classes because of their lack of training. It is noticeable in education system of Bangladesh that there was no scope of subject based training for college teachers before 1994. Realizing the necessity and the importance of training the government of Bangladesh has established five (5) Higher Secondary Teachers' Training Institutes (HSTTI) in five major cities in Bangladesh to train up the higher secondary level college teachers and these institutes cover the six divisions of the country. The mission of HSTTI is to increase competences in educational management in secondary and higher secondary level

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3   Shah, S. Comparative Study of the Performance of Trained Primary School Teachers with and Without In-service Training and Development of a Strategy of Future (2003), p. 18.
4   Aggrawal, Teachers for the twenty first contury. Educational Reforms in India for the 21 the country New Delhi. Shipra publications (2000), p. 23.

teachers. Five HSTTIs are making relentless effort to successfully implement various training programs of the government aiming at improving the quality of education at the secondary and higher secondary levels and also contributing to the pace of development of the country.

Higher secondary Teacher's Training Institute (HSTTI) was established by the Higher Secondary Education Project (HSEP) of the Ministry of Education in the year 1995. Higher Secondary Education project (HSEP) started its work from July 1992 with the financial help of ADB, UNDP & Bangladesh Govt. Higher Secondary Education Project (HSEP) set up 5 campuses at the 5 HSTTIs in Mymensingh, Comilla, Barisal, Khulna, Rajshahi in the year 1998. To train teachers of Higher Secondary level of education was one of the chief objectives of HSEP. There was no provision for training of the Higher Secondary Teachers before 1995. The project came to an end in June 1999 keeping back its landmark HSTTI as a permanent set up in the country.

1.2 Statement of the problem

The Teacher education programs of Bangladesh are closely related to primary and secondary levels of education in the country. The main purpose of this program is to produce trained teachers for the existing primary and secondary schools of the country. Recently Higher Secondary Teachers Training Institute (HSTTI) has conducted a 56/40 day in service higher training course for the college teachers. Developing the quality of education and teachers and upholding the dignity of teachers the role of teacher training is very important. Present training systems at different levels in the country are mostly conventional, mechanical incomplete, certificate based and inadequate in proportion to the demand. The curriculum and syllabus of training are not updated and also not at all consistent with the process of development of global knowledge and technology.

The quality of education is generated through the training and it plays a vital role to develop the nation. To train the different types of teachers, to improve their teaching quality, there are various training institutions in deferent levels. There are 54 Primary Teacher's Training Institutes (PTTI) in Bangladesh to train up the primary school teachers. There are 14 Government Teachers Training Colleges (TTCs) and more than 100 Non-Government Teachers Training Colleges (NGTTCs) mainly training for the

secondary level teachers. It is noticeable in education system of Bangladesh that there was no scope of subject and pedagogy based training for college teachers before 1994.

Higher Secondary Teachers Training Institutes have been working relentlessly to increase the depth of knowledge of the subject based teachers and to develop the professional proficiency of the teaching community and ICT based computer teachers and to increase effectiveness of Education Management system in our country. A change in education system is being introduced with a view to reducing the difference form that of the developed world. Among these reformations, the introduction of new curriculum, grading system and culture of brain storming system in place of verbatim is the notable. Therefore, so apt and skilled teacher's training is needed for proper and useful application of quality education. The HSTTIs are rendering Training to the teachers of Non Govt. College subject teachers. Principals, Computer teachers and head teachers in Secondary and higher Secondary levels which are needed for the proper and qualitative development of education.
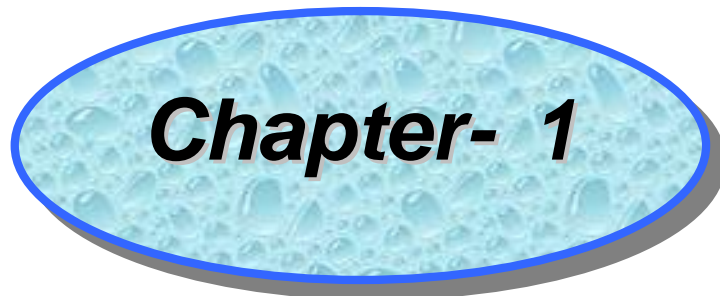
Table 1: **Statistics of the courses run by the five higher Secondary Teachers Training Institutes (HSTTI) in Bangladesh**

Sl. No.	Name of Course	HSTTI, Rajshahi			HSTTI, Khulna			HSTTI, Moymansing			HSTTI, Comilla			HSTTI, Barisal		
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
01	Subject Based Training Course for Higher Secondary Level Teachers (56/40 days)	3539	686	4225	3428	584	4012	2589	640	3229	2448	791	3639	2737	625	3362
02	Educational Administration & Management Training Course for the Principal (20 days)	366	05	371	325	10	335	206	10	216	312	12	324	244	06	250
03	Computer Training Course for higher Secondary level Teachers (27 days)	414	54	468	367	67	434	281	35	316	380	65	445	335	45	380
04	Refreshers Training Course for Higher Secondary Teachers (14 days)	640	67	707	284	36	320	377	56	433	315	37	352	163	20	183
	Higher Secondary Level Teachers Training, Sub Total	4959	812	5771	4904	697	5101	3453	741	4194	3855	905	4760	3479	696	4175
05	Computer Training Course for Secondary level Teachers (30 days)	363	56	419	358	37	395	270	86	356	362	65	427	279	56	335
06	Subject-based Training Course for Secondary level School Teachers (30 days)	240	43	283	122	21	143	259	16	275	245	14	259	106	08	114
07	Educational Administration and Management Course for Head Teacher (21 days)	390	05	395	316	08	324	365	15	380	360	15	375	366	11	377
08	Educational Management and Academic Supervision Course for Head Teacher (10 days	393	03	396	328	04	332	418	21	439	291	08	299	368	10	378
09	Educational Management and Academic Supervision Course for Asst. Head Teacher (10 days)	185	06	191	217	09	226	212	06	218	207	10	217	280	08	288
10	Subject-based Training Course for Secondary level School Teachers (14 days)	1135	212	1347	1158	222	1380	1225	90	1315	914	81	995	1148	184	1332
11	Professional Development Training Course for School Head Teachers (21 days)	2887	46	2933	2210	17	2227	1998	173	2171	2144	160	2304	1683	96	1779
12	Follow up Course for Head Teacher (6 days)	2573	38	2611	1897	15	1912	1515	134	1649	1803	104	1907	1601	85	1686
13	Training of Trainer (TOT) Course for Secondary level Teachers (6 days)	261	32	293	217	26	243	125	25	150	202	39	241	188	32	220
14	New Head teacher pre-service Training course for secondary level (35 days)	226	13	239	302	19	321	330	23	353	382	10	392	348	18	366
15	ICT, Digital Content Development Training for Secondary & Higher Secondary A2I, ICT Project, Dhaka	372	221	593	130	20	150	392	64	556	470	36	506	535	112	647
16	Follow up Training Course for Pre-Service Head Teacher (6 days)	153	08	161	171	09	180	274	18	292	267	09	276	269	15	284
	Secondary Level Teachers Training Sub Total	9178	683	9861	7426	407	7833	7383	671	8054	7647	551	8198	7177	635	7806
	Secondary & Higher Secondary Level Teachers Training Grand Total	14137	1495	15632	11830	1104	12934	10836	1412	12248	11502	1456	12958	10656	1331	11987

Source: 5 HSTTIs officials records (1995 -June'2013)

This table 1 above shows the total training courses and training summary of secondary and higher secondary level teachers of five HSTTIs in Bangladesh. HSTTI Rajshahi completed (1995- June 2013) training of total 5771 trainees among whom were higher secondary level subject teachers 4225, principals 371 and computer teachers 468. HSTTI Rajshahi completed secondary levels different training courses of 9861 teachers. HSTTI, Rajshahi trained total 15632 traines. Then HSTTI Khulna Higher secondary levels teacher trainee completed 5101 (June, 2013) and secondary level different training completed trainee 7833 lastely HSTTIs Khulna total trainee completed 13935. Then HSTTI Mymensingh Higher secondary levels teacher trainee completed 4194 (June, 2013) and secondary level different training completed trainee 8054 lastely HSTTI, Mymensingh total trainee completed 12248. Then HSTTI Commilla Higher secondary levels teacher trainee completed 4760 (June, 2013) and secondary level different training completed trainee 8198 lastely HSTTI, Commilla total trainee completed 12958. Then HSTTI Barisal Higher secondary levels teacher trainee completed 4175 (June, 2013) and secondary level different training completed trainee 7806 lastely HSTTI, Barisal total trainee completed 11987. Then lastely 5 HSTTIs higher secondary level teacher total trainee completed 24000. This total teacher have been own institution training implementation. This total teacher training outcome till now no monitoring, no impact evaluation and directly no research work. So this problem choice my research area, title and selected objective.

This paper has attempted to highlight the clear conceptions of the term quality education and has stressed upon the need and importance of it. It has also shown how and why the quality education is so important to produce quality human resource. It is a mission of institutional management. Institutional management is the key to ensure quality education. There is one paragraph elaborately discussing the conception, nature, scope and characteristics of institutional management. It has highlighted the importance and role of institutional management towards quality education.

1.3 Review of the Literature

Review of relevant literature is essential to know the available works in the field of the present study. At this stage the researcher has tried his best to find and review the relevant works of the study. A few related research works, articles, reports and books on teacher education/Teacher training, Teacher Training curriculum, Training evaluation, Training management available are briefly reviewed below:

It is very important to say that the government based teacher's training concept tends to focus on what teachers need to know, rather than on what they actually know and how that knowledge might be expanded. This approach for teachers' professional development is not fruitful, because it does not take teacher's pre-existing beliefs and personal needs into consideration though these are necessary and significant for professional development; and it comes up with prerequisite condition for academic and administrative success.[5] Training must be provided for trainees, who are future educators, with the skills they need to perform assessments, to collect and consider information relevant to their teaching, and to plan and implement their exertions and efforts accordingly. Tseng (2008) described that several key indicators have to explain the problems experienced in training programs. Furthermore, he cited that effective in-service training is for a lifetime and includes a focus on increasing teachers' professional knowledge and builds the awareness for upgrading their skills. However, he suggested that it should improve the teachers' performance.[6]

The educational training program requires institution's wide support; it needs commitment from top to bottom managements and employees and successful training program is driven from clear objectives and must be delivered to the right people with appropriate technique. In addition researcher found that training management procedure was good.[7] Moreover a successful teacher is required to be equipped with the characteristics like mastery of subject matter, professional training, sound physical and mental health, devotion and dedication to his or her profession and researcher also

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5 Bayrakct, M. In-Service Teacehr Training in Japan and Turkey: A Comparative Analysis of Institution and Practices (2009), pp. 27-30.
6 Tseng, Motivation of Participation in In-Service training based on Problem solving: a modified Delphi study (2008), p. 9.
7 Mrnphrngeha, Evaluation of the effectiveness of XYZ Company Safety training program (2004), p.14.

mentioned that the resource persons were knowledgeable and competent. Duate, (2005) stated that teachers' training is to be comprehended as a series of courses which generate 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. Nevertheless, research has explored the importance of training for in service teachers and as well as their practices that the training courses appear as a salient part of teaching and it is understood through the professional development and echoing its importance for an ever ending process.[8]

According to Malik and Khan, (1998) it is imperative for a teacher to be identified to have the proficiency in the subject knowledge as well as professional training. All the characteristics stated above become essential for the professional training along their institutions. [9] LeBel et al., (2010) cited that the direct training and indirect training both are complementary to each other. Direct training appreciates the introduction of role-playing, modeling, rehearsal, and feedback; on the contrary, indirect training perceives the intervention or assessment procedures, often through the use of written materials. Navarro et al., (2000)[10] described that the teacher training is one kind of investment and it becomes an expectation especially in In-service teacher's training. It is very difficult to desert the old habits and for this reason training activities have little effect on their motivation and ability to use the innovation or good practices they were exposed to during training.[11] Aydin and Baskan (2005) stated that the integration of subject didactics into teachers training academic discourses and practices are comprised according to the approach of different levels. One of the problems of higher education in Turkey is related with teacher training and the Turkish Higher education system has discovered the problems of teacher training policies through the approach of Higher Education Council. However, opined that coordination and cooperation deficiencies are to be experienced between the institutions involved due to the lack of planning observation. [12]

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8 Duarte, ICT and In-service Teachers' training: Numbers and trends (2005), pp. 4-8.
9 Malik & Kahn, Evaluation of Teachers' Program at Higher Education Level (1998), pp. 18-22.
10 Navarro and Verdisco, Teachers Training in latin America: Innovation and trends (2000), p.14.
11 LeBel, Kilgus, Briesch & Chafouleas. The Impact of Training on the Accuracy of Teacher-Completed Direct Behavior (2010), pp. 9-11.
12 Aydin & Basken. The problem of teacher training in Turkey (2005), p. 42.

Ali. Iman *et* al (2007) this research report has analised that the objectives are set up to determine the application of lessons learnt from the respective training course, performance of the principles and limitations of the implementation of their lesson learnt. The report has used the methodology that it has taken only five district and 40 principals, some teachers, GB members, Questionnaires and interview schedule have been used as the tools of data collection from the primary sources. Findings of the research report are of different perspectives such as the training outputs have given the positive impact for the institutions, the participants apply government rules and regulations, introduce new teaching – learning technique, students apply different rules and mechanisms for the betterment of their study. The respondents are shifting the training result in their respective institutions; reflect their activities in their working environment. Some of the respondents are not have interested to shift the training result in their working place; some of them do not interest to share the training results with other colleagues. Maximum number of the respondents do not follow the Annual Work Plan (AWP). They have also the lack of Annual Educational Work Plan (AEWP) for the effective classroom. Maximum of them do not make any educational development plan; co-curricular activities are not held regularly which is one of the indicators for the students to change the positive attitudes. Principals cannot play vital role in running his/her institutions properly. The methodology of this research report has used questionnaires, interview schedule and observation. [13]

But in this research work, researcher wants to identify existing real training and the impact which the respondents achieve during the training course. Researcher also wants to determine the strength and weakness of the trainer, to explore resource person's skill, attitude, and knowledge, and to find out the shortcomings to implement the training the training results such as lack of personal awareness, political pressure, motivation of students through teachers' performance or activities.

Maleque. M.A et al (2007) this research report has examined the effect of educational research methodology course on the participants or respondents work place and tries to analyze practical opinion from the participants about how the course is more effective in respect of their professional expertise and efficiency. The method of the research

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13 Ali Md. Iman, Md. Abul Kamal, Bhuiyan Md. Farhadul Islam, Research reports on "*The Effect of Educational Administration and Management Training Course for the colleges and Sr. Madrasas*". NAEM, Ministry of Education, New Market. Dhaka (2007), pp. 6, 12-15, 46-47.

report used is sample survey of the selected participants who would get the position of 1st to 10th position during the Foundation training courses. Instruments of data collections are questionnaires and Focus Group Discussion.[14]

The respondents of the ERM Course are not involved in the activities in case of the other set of activities. A few of the participants get awarded PhD degree after completing the training course. Lack of internet facilities, permission for higher study from the heads of the authority, lack of incentives for the research work, lack of relationship with their professional duties and multidisciplinary groups of the respondent participants have been identified as the for this.

In the present research work, researcher wants to determine the training provision and characteristics of resource persons, analyze the training curriculum in terms of content, scope extent and duration, and evaluate the curriculum in terms of its effectiveness to achieve the set objectives. Strength and weakness of resource persons in terms of their knowledge, training skills and effectiveness and qualitative and quantitative change of institutional administration and management are also special concerns of this present study. Samples are collected through random sampling from the whole population.

Huda Nurul A.F.M et al (2007) these research reports have verified the efficiency of college administration, effectiveness of academic discipline and evaluated the existing co-curriculum activities. The methodology of the study is mainly document analysis. Data have been collected from primary and secondary sources and sample has been selected in the purposive approach; and sample in comparison to population size is very small. The success of government colleges' administrators like principal depends a lot on an orchestrated effort by the other helping hands i.e., vice principal , head of the departments, classroom teachers, staff council, hostel suppers, office staffs and others stakeholders. The teachers students and parents suggest that to introduce semester system, examination should be taken in time and the best students should be rewarded. Teachers opinion is that the administration completes the jobs properly. [15]

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14 Dr. M.A Maleque, B.B. Balo and M. Ahmed. A Fellow-up Study of Educational Research Methodology Course Conducted conducted by NAEM (Research report), Dhaka: NAEM (2007), pp. 2-3, 24.

15 A.F.M Nurul Huda, Dr. Mohammed Nurul Islam and Mohd Mozammel Hossain Chowdhury *Effectiveness of admimistration in the government college of Bangladesh (*Research report), Dhaka, NAEM (2007) pp. 5, 11-13, 17-24.

But in the research of impact of the training program on educational administration and management training, subject based training, computer training conducted by HSTTI the researcher wants to know that during the training program, the respondent earn some knowledge, skill and attitude from the training content to implement the training objectives. If the respondents use their training knowledge, skill and attitude in their respective educational institutions, it is said that the training impact is positive.

Pathan Atiqul, et al (2011) the objectives of the study have been stated that the process of Training Need Assessment (TNA) system designing the professional development course for Head teachers, to analyze the course curriculum and contents of the professional development course for Head teacher, to find out the effectiveness of the implementation methods and processes of the professional development training course for Head teachers, to find out the impact and roles of the trained head teachers at educational institutes and to make recommendations, and strategies for further improvement of head teachers' knowledge, skill, efficiency and capacity in managing their educational institutions effectively. The methodologies of the study used are- (i) quantitative approach and (ii) qualitative approach. Samples have been collected purposively and data have been collected from primary and secondary sources. Questionnaires, FGD and document analysis are the methods of data collection used in the research.

The findings of the study are as follow: (i) maximum number of the respondents implement the training results partially, ((ii) the guardians lack attention about the students, (iii) Head teachers are able to make the Annual Work Plan (AWP) and lesson plan, group work, SBA in curriculum implementation are developed in the classroom situation, (iv) Training materials are not up to the mark, (v) training has not followed the base line survey by TQI-SEP Project,(vi) The research team finds that the purpose and objective,(vii) the hand outs and other materials have not discussed the overall improvement of competencies required for the teachers' (vii) In the context of classroom, teaching materials, textbooks and aditing materials have not included the training objectives that the trainees learn after the sessions (ix) There is no monitoring mechanism whether the learning of training is being implemented.

But in this research work, the researchers want to know the knowledge, skill, and attitude of the resource persons, to find out the limitation of the respondent to

implement the training outcomes in their institutions, to critically analyze the existing system of education in higher level of Bangladesh, and to evaluate the impact of training measured in terms of qualititative and quantitative change on the institutional administration and management. Samples are selected through purposive/random sampling approach.[16]

Amin Ruhul (2007) the Training of Trainers (TOT) book discussed that the different activities of Trainer's who conducts several types of training, coordinates the training over all the activities to run the training course. The writer discusses the allocation of time for managing the different parts of the training. The whole activities of training have been split in fourteen parts, such as: course introduction, adult learning, learning domain, learning styles, Experimental learning, some thoughts about training, Training Principles, Training cycle, training needs assessment (TNA), writing learner objectives, Training methodology, Designing training media, Designing a training module and Facilitation skills. The above points have been discussed from different angles. The writer has tried to differentiate the adult vs childhood classroom learning, characteristic and principles of adult learning and how learning is the transformation of information into useful knowledge. Training cycles are different in respect of the types of learners and teachers' activities are also different in the level of learners groups. Trainer should setup the two types of objectives; e.g. to set up module oriented and preparing them conduct the session to satisfy the learners demand. To conduct the training, the trainer follows the training method which has several factor; Human factors, Objectives, Subject area, time and material factors and principle of learning. Learner's evaluation processes are explained in the book also.[17]

Saleha Khatun (1999) Saleha Khatun analyzed that a national consultant under problem collaboration between the Government of Bangladesh and the European Commission made a report on organizational and Management Aspects of B.Ed course in Govt. Teachers Training College in 1999, through experiences gathered by her survey and visits during consultancy period. In this report summary she discussed over few points

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16 Pathan Md. A. Islam, AHM Yousuf, K.M. Maroof and Dr. Harun. *An impact Study on professional Development Training Course for Head teacher under TQI-SEP at NAEM* (Research report), Dhaka: NAEM (2011), pp. 22-23, 24-30, 82-99.
17 Amin M. Ruhul. A Training Curriculum on Training of Trainers (TOT), Suitable for Professional Trainers', A H Development Publishing House, Dhaka-1205 (2007).

like yearly calendar, teaching staff, class routine library, laboratory, practice teaching and internal assessment. The findings of the study have shown the lacks and constraints with the managerial process and also the existing facilities of the Govt. TTCs.[18]

Islam M.R (2004) the study undertakes to investigate the managerial problem lying with the conducting process of government and Teachers Training Colleges. This dissertation is mainly result of a field survey conducted over 11 government TTCs and partly of a few documents analysis on educational administration and management situation of the country. The study field of enquiry is divided into six broad aspects. The first part of the study deals with the existing facilities and management aspects. The second refers to examining the problems prevailing with the management process. The third is deviated to examine the quality and competence of the teaching staff as well as effectiveness of their classroom teaching. The fourth is involved in identifying the extent of professional knowledge and skill of the office, library and hostel staff and their role within the present conditions. The fifth attempts to investigate the opportunity as well as the threats prevailing for the Trainees with the existing teaching learning environment and the final part sum up the whole observation.[19]

Halim, M.A. (2004) in his research article has discussed the teacher education in Bangladesh from the perspective of Teacher Training for Secondary School. It describes the issue effective teacher education is a key factor to ensuring quality school education. The main propose of the teacher Education program is to produce trained teachers for the existing educational institutions of the country. The study aimed to discuss the existing teachers' education programs in Bangladesh from the perspective of teacher training for secondary Schools, Statistical of the government of Bangladesh. Project reports on education, national education policy, report of national committee on education national/international conference papers and printed materials related to teacher education/training were taken as the source of the study. It investigated the growth in teacher education, administration and management, characteristics of

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18 Khatun. Saleha, Report on Organizational and Management Aspects of BEd course in Govt. Teachers Training College, PROMOTE Dhaka (1999), pp. 26-27.
19 Islam M.R. Education Administration in Bangladesh: A study of Managerial problems of Government Teachers Training College. Ph.D Thesis IBS University of Rajshahi (2004), p. 19.

students, admission Procedure curriculum and syllabus, evaluation system, in service training, quality of teacher education and problems of secondary teacher education.[20]

Hossain, M.H (2004) in this research article has stated the Education for sustainable Development in teacher Education and Training Institute of Bangladesh: A curriculum status analysis. This article has attempted to study curricula of teacher education and training institution of Bangladesh in the light of UN/UNESCO theme: Education for sustainable Development (ESD). The study has revealed major strengths and weaknesses of teacher education and training curricula in the light of ESD prerequisites. The study has advocated a balanced curricula design with knowledge friendly content at all levels of teacher education and training curricula in Bangladesh.[21]

Halim, M.A. (2007)[22] in his research article has identified that the barriers in In-Service Teacher Education is the essential activities in order to vitalize the knowledge and skill continuously. This paper is an attempt to discuss the reflection of respondents in context of barriers of in-service training program responses obtained through questionnaire from mathematics teacher and academic supervisors. The study reveals that there is an adequate facility for in-service training in West Bengal than that in Bangladesh. It is found that one of the main barriers for in-service training program is 'shortage of mathematics teacher in the schools' of Bangladesh than that of West Bengal. The findings of the study indicate the need for well-trained mathematics teacher at primary level in Bangladesh with sound background of mathematics subject.

Hossain, M.L (2010) in their research article on the present study has analyzed the view to assessing the effectiveness of the training courses conducted by HSTTIs for the college teacher' of Bangladesh. The study work has been completed with a set of objectives, viz to indentify the need and importance of subject based training to measure the strength and weaknesses of the training programs and to compare the performance of subject based teachers before and after the training programs. There

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20 Halim M.A. Teacher Education in Bangladesh from the perspective of Teacher Training for Secondary Schools. Teacher's world journal of Education and Research vol. 26-27. IER University of Dhaka (2004), pp. 91-94.
21 Hossain. M.H and Siddique M.A Nur. Education for sustainable Development in Teacher Education and Training Institution of Bangladesh: A curriculum status Analysis. Teacher world Journal of Education and Research. Vol. 33-34 IER University of Dhaka (2008), pp. 19-20.
22 Halim M.A. Barriers in In-Services Training programme: Reflection of Mathematics Teacher and Academic supervisors. Teachers world journal of Education and Research Vol. 30-31 IER, University of Dhaka (2007), pp. 205-209.

were three respondent groups i.e. heads of colleges, classroom teachers who have received training from HSTTIs and staff of five training institutes. In this study all the respondent groups, attached with the work, unequivocally agreed about the necessity and importance of subject based training of classroom teachers. It was emphasized on regular training because curriculum and syllabus are changing day by day, as per the need of the age. According to the weighted average value on the opinions of respondents are: subject based training is inevitable to make effective teaching boost up the professional motivation of teachers, make skilled teachers for producing quality learners ensure standard teaching-learning methods and techniques, improve knowledge of teachers for satisfactory service, develop capacity to change the training techniques, enable to learn techniques to make the lessons understandable, improve presentation skills, develop confidence level for conducting sessions, recognize the dignity of own profession, makes teacher familiar with modern and need based curriculum, develop the creativity in conducting the classroom session. It is found that the training courses organized by five HSTTIs for mathematics and Chemistry teachers are effective. The performance of trainees of subject based teacher of mathematics and chemistry are deviated significantly between pre and Post Test in all the five HSTTIs. In fine, it should be affirmed here training for subject based teachers at higher secondary level should be organized regularly for professional improvement of teachers vis-a-vis the development of education system.[23]

In the present research work researcher wants to identify the change of performance of teachers before and after training in term of knowledge skill and attitudes, and to analyze the existing situation of quality Education of training in the respective services, and to evaluate the impact of the training measured in terms of quantitative and qualitative changes on the higher secondary level institutions. Therefore, the study is considered most significant to provide a guideline for the present study. So far literature reviewed, the researcher has not found any research work directly in the field of Role of Higher Secondary Teachers' Training Institute (HSTTI) for quality Education: A Review of this field would be an important topic of a research work.

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23 Hossain M.L and Islam M.R. Effectiveness of Training courses for college level Teachers conducted by Higher Secondary Teacher' Training Institute (HSTTI's) of Bangladesh NAEM journal of National Academy for Education Management (NAEM) Vol-5. Ministry of Education Dhaka, (2010), pp. 12-13.

1.4 Definition of the key terms of the study

Role: Role means any relatively standardized social position involving specific rights and obligations, which an individual is expected or encouraged to perform. In the present study the researcher has attempted to specify the role of In-Service (HSTTI's) training evaluation & Impact of higher secondary levels teachers in Bangladesh.

In-Service Training: In-service training means by taking training to carry on the existing profession with required competency. According to Shah, S. et al., (2011) In-service teacher training enhances the performance of a teacher. In-Service training takes place after an individual begins work responsibilities. In the present study the researcher attempted In-Service training that is Non-Govt. College Principals, Subject Teachers, and Computer Teachers in Higher Secondary levels. [24]

Evaluation: An Evaluation is a systematic determination of merit, worth and significance of something or someone using criteria against a set of benchmark standards. A program evaluation is the systematic collection of information about the activities, characteristics and outcomes of programs to make judgment about the program, improve program effectiveness (Patton, M.Q. 1997). [25]

Pretest and Post-test: The pretest/post test is a common form of evaluating training programs in terms of knowledge, performance improvement of the participants. Identical tests may be used for pretest and post test to compare performance scores before and after the training respectively.

HSTTI: Higher secondary teachers' training institutes (HSTTI's) is the attached DSHE of ministry of education, Government of the People's Republic of Bangladesh. The HSTTI's is imparting In-Service training to the Non-Govt. College Principals, Subject Teachers and Computer Teachers Higher Secondary & Head Teachers in Secondary levels for the proper and qualitative development of education.

Quality Education: Quality education means competent teacher, appropriate teaching leaning process, effective content, suitable learning environment and quality student

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24 Shah, Kiani, K. Mahmood and Hossain. In service training of secondary level teacher: A follow up of teachers performance in comparative perspective (2011), p. 17.
25 Patton, M.Q. *Utilization focused Evaluation*: The New Century Text (3rd ed.) Thousand Oaks, CA. Sage. (1997) p. 23

Pedagogy: Pedagogy means science of teaching. Pedagogy defines teaching learning approaches related to all subject and how to teach well. Pedagogy is derived from two Gerick litter 'paid and agogus'. Paid means student/learner and agogus means conduct teaching learning system. Pedagogy training is done on the model KSA, K=Knowledge, S=Skill and A=Attitude.

1.5 Objective of the study

(a) The General Objective of the study

The general objective of "Role of In-Service Training Program for Quality Education" is to compare and signify the overall impact of training, which the trainees achieve from the In-service Training Programs for the long-term sustenance of the training results in their Higher Secondary Level Institutions.

(b) The Specific objectives of the study

- ❖ To identify the changes of Trainees' Competence through the In-Service Training Program provided by HSTTIs to the Higher Secondary level Principals, Subject Teachers and Computer Teachers. (Before and after training).

- ❖ To analyze the existing situation of Trainees' knowledge, skill and attitude after training in their respective services.

- ❖ To find out the gap between rural and urban higher secondary level (college) teaching learning practice and classroom delivery.

- ❖ To evaluate the impact of the training measured in terms of quantitative and qualitative changes on the higher secondary level institutions

1.6 Research Question

This study aimed at exploring the evaluation and the impact of In-Service Training Program of HSTTIs in Bangladesh specifically attempted to achieve the following questions:

- ❖ What is the In-service Training Program scenario for the Higher Secondary Level (College) Principals, Subject Teachers and Computer Teachers?

- ❖ What are the participants/Trainees satisfaction levels in the In-Service training program?

- ❖ How is the effect of training perceived to solve the education Management problem to their institutions?
- ❖ What type of changes do trainees bring about in the teaching learning practice after training in their respective services?
- ❖ How is the change that takes place in the ICT in education of In-service training program in the higher secondary levels?
- ❖ What are the existing situations of quality education of In-Service Training Program in the Higher Secondary levels?

1.7 Rationale of the study

"Good education requires good teachers." It implies that the most capable and appropriate people should be reunited into the teaching profession, provided with a high quality pre-service program of teacher education then they should be offered opportunities for upgrading their knowledge and skills for the full length of their professional career. There is a need for major reorientation of teacher education to ensure that teachers are furnished with the necessary knowledge and skills to cope with the new demands placed on them. Teacher education needs to be adequately strengthened and upgraded to accommodate the changing role of the teachers so that the teachers can effectively address and conform properly to the issues regarding education.[26]

Without research it is impossible to make comments in any issues. Training is not enough to develop the competencies of the teacher as well as education. It needs to be evaluated whether it is applicable to the participants or not. So it is necessary to conduct a research in this area.

The aims of the study will be to determine important factors in achieving accurate and effective subject and pedagogy based in service training for professional development and how to improve the training programs for the post training performance of the teachers. The implication of this study is to identify the institutional performance existing in the In-service Training Program to improve, design and develop in-service training program for higher secondary level college teachers in Bangladesh.

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26 Aggrawal ,Teachers for the twenty first contury. Educational Reforms in India for the 21 the country New Delhi. Shipra publications. (2000) p. 26

Even now it is said "No teacher comes to techers' training institution as a full fledged teachers." Hence there is always a need for in-service education program for teachers and other educational personnel (AFFID, UNESCO, 1986)[27] Educational Management, Subject based and ICT based In-service training for teachers are essentional to promote the continuous improvement of the total professional staff, to keep the professionals abreast of new knowledge, to release creative abilities, to eliminate deficiencies in the background preparation of teachers and to give help to those teachers who are new in teaching and facing many questions and extensive problems. So, this is the justification of the proposed research work on **Role of In-Service Training Program for Quality Education: A Study on Higher Secondary Teachers' Training Institutes (HSTTI) in Bangladesh**.

1.8 Limitation of this Study

HSTTI has been vested with the responsibilities to develop the managerial, pedagogical capacity of the heads of the secondary and higher secondary level institutions since1995. The total number of the higher secondary level institute is 3547 but HSTTI, Rajshahi has covered only 1164 Institutions and HSTTI, Barisal has covered 394 institutions till December, 2013 though there are 31338 Higher Secondary Levels teachers in these Institutions.[28] In this research work sample has been collected only of 520 participants either purposively or randomly out of 210 institutions, which constitutes a small part of the research work. Another limitation is the size of the sample and collection representative data. The present situation is that the respondents are not interested to spend time for the researchers. For the above reasons the representative data/ sample collection is so tough from the experimental field. Lack of awareness of the respondents is one of the most important limitations of the respective data. The impacts of the in-service training are to find out evaluative or qualitative results. So, statistical analysis is complicated to use in such kind of research work as it is difficult to measure the qualitative development.

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27 Affid, United Nation Educational Scientific and Cultural Organization (UNESCO) (1986), p. 37.
28 Bangladesh Education Statistics BANBEIS Dhaka. (2012).

1.9 Significance of the study

HSTTI is the training institute under DSHE, Ministry of Education. The role of HSTTI for management and administrative training, subject Teacher Training, Computer Training is very much important to fulfill its (HSTTI) aims and objectives. The heads of the respective institutes play vital role to run the institutions properly. If the impact of training is positive, it is said that HSTTI training is very much helpful to run the institution properly. Training makes a trainee eligible to survive within his working environment. It is the proper medium to disseminate the new /up-dated knowledge to run the institutions smoothly. If the results of training activities are effective, the impact of training is better. But it is so difficult to find out the impact of training activities which results in their working places. It is not easy to say that the training is good or bad only by conducting the training. The assessment and effectiveness are vague if we do not measure and show in a pen-picture. For measuring the role of training, the researcher has collected the data from the respective fields to satisfy respective stakeholders. If the collection of data satisfies the training objectives, this study fulfills the mission/goal of the institutions/training Courses. So it is relevant to conduct the study for determining the role of educational training provided by HSTTI on the existing system of higher secondary education in Bangladesh.

1.10 Scope of the Study

HSTTI has been conducting training for the principals, subject teachers, computer teacher of secondary and higher secondary level since 1995. The authority of HSTTI has designed the training activities according to the demand of the secondary and higher secondary institutions all over the country. The authority has tried to analyze critically and solve the problem according to the designed training program. In this research work, the researcher wishes to examine the status of training and the characteristics of the resource person's who conduct the training sessions during the training. The authority of HSTTI is pre-determined that the training results are able to bring about quite positive change of respondents' knowledge, skills and attitude for the development of the respective institutes. The researcher tries to analige training in terms of content, scopes extent and also analige the duration, evaluation of the curriculum in terms of its effectiveness to achieve the set object. Strength and weakness

of the resource persons are an important indicator of the study. The researcher wants to know the resource person's knowledge, skills and attitude through the data collection form the respective places.

1.11 Research Theory and Concept

Five steps of Training Evaluation

The processes of training evaluation can be divided into five steps identifying purposes of evaluation; selecting evaluation methods; designing evaluation tools, collecting data; and analyzing and report results.

| Step 1 : Identifying Purposes of Evaluation | Step 2 : Selecting Evaluation Method | Step 3 : Designing Evaluation Tools | Step 4 : Collecting Data | Step 5 : Analyzing and Report Results |

Step 1: Identifying the Purposes of Evaluation
- Before developing evaluation systems, the purposes of evaluation must be determined.
- Why do we want to evaluate training programs?

Step 2: Selecting Evaluation Method
- Kirkpatrick's four levels of evaluating training programs
- Reaction, learning, behavior, and result

Step 3: Designing Evaluation Tools
- Questionnaire
- Pre/Post Test
- Impact Survey

Step 4: Collecting Data
- Who, When, how to collect data?

Step 5: Analyzing and Report Results
- Evaluation data analysis
- Reporting

(a) Four Levels of Training Evaluation Model, Krikpatrick 2006

The four levels of evaluation is one of the most commonly used methods for evaluating training programs. The four sequential levels of evaluation were originally proposed by

Donald L. Kirkpatrick (2006)[29], Professor Emeritus at the University of Wisconsin. This concept has been increasingly adopted in private companies to evaluate their training programs, and gradually applied for training programs under technical assistance projects of the Japan International Cooperation Agency (JIC). According to his concept, capacity development is realized by the four sequential steps: (i) Reaction; (ii) Learning; (iii) Behavior; and (iv) Results.

Level 4 : Results   What occurred as the final results?

Level 3: Behavior   How has the behavior of participants changed after the training program?

Level 2: Learning   What have participants learned?

Level 1: Reaction   How do participants react to the training program?
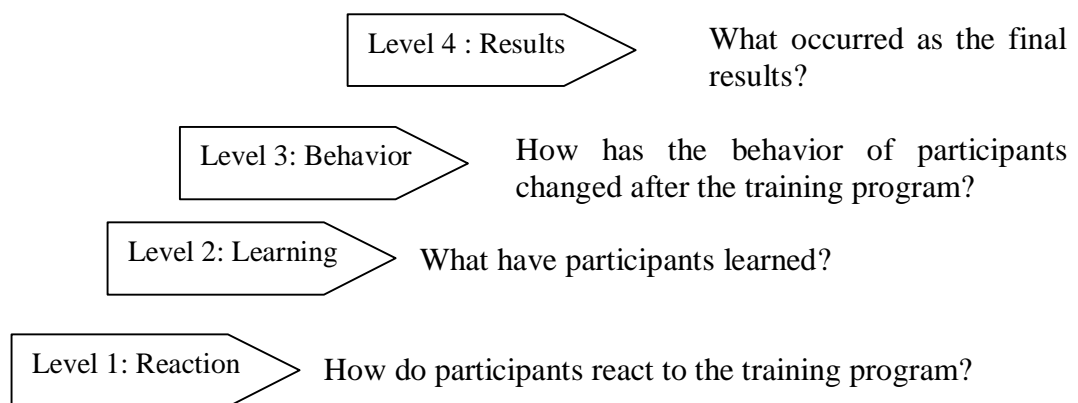
Level 1: Reaction

Evaluation on this level measures how participants react to the training program. It is important to get a positive reaction. Although a positive reaction may not ensure learning, if participants do not react favorable, they probably will not be motivated to learn.

"Evaluating reaction is the same thing as measuring customer satisfaction. It training is going to be effective, it is important that trances react favorable to it. Otherwise, they will not be motivated to learn." Kirkpatrick (2006) Evaluating Training Programs.

Level 2: Learning

Evaluation on this level measures the extent to which participants change attitudes, improve knowledge, and/or increase skills as a result of attending the training program. One or more of these changes must take place if a change in behavior is to happen.

Level 3: Behavior

Evaluation on this level measures the extent to which change in participants' behavior has occurred because of attending the training program. In order for change to take place, four conditions are necessary.

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29 Donald Kirkpatrick and Kirkpatrick Evaluating Training Programs (3rd ed.). San Francisco, CA: Berrett-Koehler Publishers. (2006), pp. 22-24.

- The person must have a desire to change.
- The person must know what to do and how to do it.
- The person must work in the right climate.
- The person must be rewarded for changing.

Level 4 : Results

Evaluation on this level measures the final results that occurred because the participants attended the training program. Examples of the final results include increased production, improved quality and decreased costs. It is important to recognize that these results are the reason for having some training programs.

(b) There are three possible opportunities to undertake an evaluation:

Pre Training Evaluation: It is a method of judging the worth of a program before the program activities begin. The objective of this evaluation is (a) To determine the appropriateness of the context of training activity and (b) To help in defining relevant training objectives.

Context and Input Evaluation: is a method of judging the worth of a program while the program activities are happening. The objectives of this evaluation are (a) To assess a training course or workshop as it progress (b) To find out the extent of program implementation and (c) To determine improvement and adjustments needed to attain the training objectives.

Post Training Evaluation: is method of judging the worth of a program at the end of the program activities. The focus is on the outcome. It tries to judge whether the transfer of training to the job has taken place or not.

The onus to decide on the effectiveness of the training program should primarily be on the employee and through his performance and quality of output, the organization should form impressions. The employee undergoing training therefore should demonstrate the additional skills and competence at his workplace to enable the organization to value of it and to realize the value such efforts adding to the organization in achieving its goals and objectives and to frame and practice relevant HR policies and processes. This model has been used a guideline for my research work design, methodology & data collection, analysis etc.

1.12 Conceptual framework

Philip (1997)[30] cited in Monphongeha, P. (2004) defined '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 arc predominantly use in the evaluation of training. Monphongeha P. (2004)[31] summarized several types of program evaluation model. Out of these most important modes are Stufflebeams system based model, Kirkpatrick goal based model and Philips five level of evaluation model.

Table 2: Summary of the training evaluation model

Philips Five levels of Evaluation	Kirkpatrick four levels of evaluation	Stufflebeams four levels of evaluation
Reaction and Plan action	Reaction	Context
Learning	Learning	Input
Job application	Behavior	Process
Business	Result	Product
Return on investment	---	---

⊟ **The Philips five level of Evaluation model (Philip, 1997)**

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

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

3. Learning. The second level, learning concentrates on degree of skill, knowledge, and attitude that participants have changes in.

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

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

6. Return on investment. The fifth level Return on investment is needed because it allows the converting business result to financial unit, its added value, and its costs. Return on investment step provides the highest value of information and highest power of shown results compared to other four levels. So, access to return on investment is the most difficult level.

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30 Philip Five levels of training evaluation moel In Service Training Program. (1997), pp. 10-15.
31 Monphongeha P, Evaluation of the effectiveness of XYZ Company Safety training program. (2004), pp. 19-21.

⊟ The Kirkpatrick Four level Model (Kirkpatrick, 2006)

Kirkpatrick Model defined four levels for measurement training outcomes as 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 score compare their knowledge.

3. Behavior. Behavior is the third of measuring the effectiveness of the training program. This level of measurement can be done through behavior observation methods such as peer cvaluation. Changing behavior is a time consuming and on-going process. According to Kirkpatrick (2006), changed behavior is difficult to measure and may not be accessible.

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

⊟ The CIPP Model of evaluation (Stufflebcam, Daniel L, 1997)

The CIPP Model of evaluation was developed based on four basic decision stages from the education field. Four components of CIPP arc 1.Context evaluation 2.Input evaluation 3.Process evaluation 4.Product evaluation.[32]

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 best accomplish the program goals. Examples of input evaluation result are

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32 Stufflebeam, Daniel L, The CIPP model of Evaluation. (1997), p. 5.

procedures, policies and proposals. Input evaluation supports planning the program.

3) Process evaluation provides the feedback to persons who arc responsible for implementing the program. The data collection can be obtained 1'rom 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.

The researcher has studied the training evaluation models stated above. Three models are discussed here. Each of the models has its strengths and philosphical background and is applicable for training evaluation. Each of the models has some limitation as well Philips (1997) evaluation model, for example, has five levels: reaction and plan action, job application, results, business and return on investment. Here, return on investment step provides the highest value of information and highest power of shown results compared to other four levels. Here return on investment step provided the highest value of information and highest power of shown results, compared to other four levels. Secondly the Stufflebeam CIPP Model contains four basic stages from the field of education. Lastly, kirkpatrick four level models define four levels for evaluation, impact and measurement of training outcomes as reaction, learning, behaviour and results. So comparing and contrasting these models the research has decided to use the kirkparbick four level training evaluation model for comprehensive study **Role of In-service Training Program for Quality Education**.

Conceptual Framework

Role of In-Service Training Program

Educational administration and management training course for the college principals (20 days)

Subject and pedagogy based training course for higher secondary level subject teachers (40 days)

Computer training course for higher secondary level computer teachers (27 days)

Conducting Training

Training course content & Method

* Content of the program
* Training technique & Method
* Content objective
* Training Evaluation Process
* Training Duration

Role of Trainer

* Engagement capacity
* Content Knowledge
* Pedagogical aspects
* Use of Teaching aids
*Time & classroom management

Trainee's satisfaction

* Coordination & management
* Training Brochure
* Activities and Handouts
* Training Environment & Facilities
* Residence & Hostel management

Trainee's Attitude

* Behavioral change
* Efficiency of teaching Methods
* Increase of knowledge
* ICT in education
* Competent teacher

HSTTI's Training Evaluation and Impact by using Kirkpatrick (2006) model

Quantitative and qualitative change on the higher secondary level institution

Quality Education of Higher Secondary level

Fig. 1: Research Conceptual Framework

1.13 Defination of quality education and indicators and fremework

1.13.1 Defination of quality education

What does quality mean in the context of education? Many definitions of quality in education exist, testifying to the complexity and multifaceted nature of the concept. The terms efficiency, effectiveness, equity and quality have often been used synonymously (Adams, 1993).[33] Considerable consensus exists around the basic dimensions of quality education today, however. Quality education includes:

- Learners who are healthy, well-nourished and ready to participate and learn, and supported in learning by their families and communities;
- Environments that are healthy, safe, protective and gender-sensitive, and provide adequate resources and facilities;
- Content that is reflected in relevant curricula and materials for the acquisition of basic skills, especially in the areas of literacy, numeracy and skills for life, and knowledge in such areas as gender, health, nutrition, HIV/AIDS prevention and peace;
- Processes through which trained teachers use child-centred teaching approaches in well-managed classrooms and schools and skilful assessment to facilitate learning and reduce disparities;
- Outcomes that encompass knowledge, skills and attitudes, and are linked to national goals for education and positive participation in society.

This definition allows for an understanding of education as a complex system embedded in a political, cultural and economic context. This paper will examine research related to these dimensions. It is important to keep in mind education's systemic nature, however; these dimensions are interdependent, influencing each other in ways that are sometimes unforeseeable.

This definition also takes into account the global and international influences that propel the discussion of educational quality, while ensuring that national and local educational contexts contribute to definitions of quality in varying countries (Adams, 1993). Establishing a contextualized understanding of quality means including relevant stakeholders. Key stakeholders often hold different views and meanings of educational

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33 Adams D, Defining educational quality. Improving, Educational Quality project publication # 1 : Biennial Report: Arlinglon. V.A. Institute for International Research. (1993), pp. 56-60.

quality. Indeed, each of us judges the school system in terms of the final goals we set for our children our community, our country and ourselves.[34]

Definitions of quality must be open to change and evolution based on information, changing contexts, and new understandings of the nature of education's challenges. New research— ranging from multinational research to action research at the classroom level— contributes to this redefinition.

Systems that embrace change through data generation, use and self-assessment are more likely to offer quality education to students.[35] Continuous assessment and improvement can focus on any or all dimensions of system quality: learners, learnin environments, content, process and outcomes. Each of these will be discussed below.

1.13.2 Indicator of quality education

I. Quality Learners

School systems work with the children who come into them. The quality of children's lives before beginning formal education greatly influences the kind of learners they can be. Many elements go into making a quality learner, including health, early childhood experiences and home support.

❑ Good health and nutrition.
❑ Early childhood psychosocial development experiences.
❑ Regular attendance for learning.
❑ Family support for learning.

II. Quality Learning Environments

Learning can occur anywhere, but the positive learning outcomes generally sought by educational systems happen in quality learning environments. Learning environments are made up of physical, psychosocial and service delivery elements.

❑ Physical elements

- Quality of school facilities.
- Interaction between school infrastructure and other quality dimensions.
- Class size.

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34 Beeby, C. The quality of Eduation in developing countries: Cambridge, Massachusetts: Harvard University press (1966), pp. 37-40.

35 Glasser, W. The quality school: Managing students without coercion. New York NY: Perennial Library (1990), p. 16.

❑ Psychosocial elements

- Peaceful, safe environments, especially for girls.
- Teachers' behaviours that affect safety.
- Effective school discipline policies.
- Inclusive environments.
- Non-violence.

❑ Service delivery

- Provision of health services.

III. Quality Content

Quality content refers to the intended and taught curriculum of schools. National goals for education, and outcome statements that translate those goals into measurable objectives, should provide the starting point for the development and implementation of curriculum.[36]

❑ Student-centred, non-discriminatory, standards-based curriculum structures.

❑ Uniqueness of local and national content.

❑ Literacy.

❑ Numeracy.

❑ Life skills.

❑ Peace education.

❑ Challenges in reaching large numbers of children with quality content.

IV. Quality Processes

Until recently, much discussion of educational quality centred on system inputs, such as infrastructure and pupil-teacher ratios, and on curricular content. In recent years, however, more attention has been paid to educational processes—how teachers and administrators use inputs to frame meaningful learning experiences for students. Their work represents a key factor in ensuring quality school processes.

❑ Teachers

❑ Continuing support for student-centred learning.

❑ Active, standards-based participation methods.

❑ Teacher feedback mechanisms.

❑ Teacher beliefs that all students can learn.

❑ Teachers' working conditions.

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36 UNICEF), Curriculum report card. Working Paper Series, Education Section, Programme Division. New York, NY: Author (2000), pp. 6-12.

- ❑ Supervision and support
  - Administrative support and leadership.
  - Student access to languages used at school.
  - Using technologies to decrease rather than increase disparities.
  - Diversity of processes and facilities.
- ❑ **Teacher**
- Professional learning for teachers

The highest quality teachers, those most capable of helping their students learn, have deep mastery of both their subject matter and pedagogy.[37] The preparation that teachers receive before beginning their work in the classroom, however, varies significantly around the world and even within the least developed countries. In Cape Verde, Togo and Uganda, for example, 35 per cent to 50 per cent of students have teachers who had no teacher training. Yet in Benin, Bhutan, Equatorial Guinea, Madagascar and Nepal, over 90 per cent of students do have teachers with some form of teacher training. In these latter countries, most teachers have, at least, lower secondary education; this contrasts sharply with Cape Verde and Tanzania where over 60 per cent of students have teachers with only a primary education.[38] Perhaps as a consequence of too little preparation before entering the profession, a number of teachers in China, Guinea, India and Mexico were observed to master neither the subject matter they taught nor the pedagogical skills required for good presentation of the material.[39] This affects educational quality since student achievement, especially beyond basic skills, depends largely on teachers' command of subject matter and their ability to use that knowledge to help students learn.[40] A recent evaluation of the East African Madrasa (Pre-school) Programme noted the importance of mentoring by trainers in the form of continuous support and reinforcement of teacher learning by on-site visits to classrooms following a two week orientation training and alongside weekly trainings in Madrasa Resource Centres.[41]

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37 Darling Hammond, L. Doing what matters most: Investing in quality teaching, Kurtztown, Pennsylvania: National Commission on Teaching and America's Future (1997), pp. 15-20.

38 Postlewaithe, N, The conditions of primary schools in least-developed countries. International Review of Education, (1998), 44 (4), pp. 289-317.

39 Carron, G. and Chau, T.N. The quality of primary schools in different development contexts, paris: UNESCO.

40 Mullens, J., Murnane, R., and Willett, J. (1996). The contribution of training and subject matter knowlede to teaching effectiveness in Belize. Comparative Education Review(1996), 40 (2), pp. 139-157.

41 Brown, G., Brown, J., and Sumra, S. The East Africa Madrasa Programme: The Madrasa resource centres and their community-based preschool programme. Evaluation Report prepared for the Aga Khan Foundation (1999), pp. 76-80.

- **Teacher competence and school efficiency**

Whether a teacher uses traditional or more current methods of instruction, efficient use of school time has a significant impact on student learning. Teachers' presence in the classroom represents the starting point. Many teachers face transportation and housing obstacles that hinder them from getting to school on time and staying until school hours are over. Many teachers must hold second jobs, which may detract from the time and energy they expend in the classroom. Teachers may miss school altogether. A study in China, Guinea, India and Mexico found that nearly half the teachers interviewed reported being absent at some point during the previous month, requiring other teachers to compensate for them or leaving students without instruction for the day. Next, when teachers are present, learning occurs when teachers engage students in instructional activities, rather than attending to administrative or other non-instructional processes.[42] As mentioned above, the opportunity to learn and the time on task have been shown in many international studies to be critical for educational quality. Finally, some schools that have been able to organize their schedules according to children's work and family obligations have seen greater success in student persistence and achievement. In Ethiopia, for example, schools that began and ended the day earlier than usual and that scheduled breaks during harvest times found that educational quality improved. "The quality of a school and the quality of teaching of the individual teacher is [sic] higher in schools that are able (and willing) to make more efficient use of the available time of its teachers and its pupils".[43]

- **Ongoing professional development.**

Professional development can help overcome shortcomings that may have been part of teachers' pre-service education and keep teachers abreast of new knowledge and practices in the field. This ongoing training for teachers can have a direct impact on student achievement. Case studies from Bangladesh, Botswana, Guatemala, Namibia and Pakistan have provided evidence that ongoing professional development, especially in the early years after initial preparation and then continuing throughout a career,

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42 Fuller, B., Dellagnelo, L., et al. How to raise children's literacy? The influence of family, teacher, and classroom in Northeast Brazil. Comparative Education Review, (1999), 43(1), 1-35.

43 Verwimp, P. Measuring the quality of education at two levels: A case study of primary schools in rural Ethiopia, International Review of Education (1999) 45(2), pp. 167-196.

contribute significantly to student learning and retention.[44] Effective professional development may take many forms; it should not be limited to formal off-site kinds of programmes. Dialogue and reflections with colleagues, peer and supervisor observations and keeping journals are all effective ways for teachers to advance their knowledge.[45] A programme in Kenya, the Mombassa School Improvement Project, built on this approach to professional development and showed that teachers supported with in-service as well as external workshop training improved significantly in their abilities to use child-centred teaching and learning behaviours.[46] In India, an effective programme used interactive video technology to reach a large number of teachers who sought professional development. This programme found that training using interactive video technology led to improved conceptual understanding of pedagogical issues for a large number of geographically dispersed teachers.[47]

V. Quality Outcomes

The environment, content and processes that learners encounter in school lead to diverse results, some intended and others unintended. Quality learner outcomes are intentional, expected effects of the educational system. They include what children know and can do, as well as the attitudes and expectations they have for themselves and their societies.

- ❑ Achievement in literacy and numeracy.
- ❑ Using formative assessment to improve achievement outcomes.
- ❑ Outcomes sought by parents.
- ❑ Outcomes related to community participation, learner confidence and life-long learning.
- ❑ Experiential approaches to achieving desired outcomes.
- ❑ Health outcomes.
- ❑ Lifeskills and outcomes.

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44 Craig, H., Kraft, R., and du Plessis, J. Teacher development: Making an impact. Washington, D.C.: Academy for Educational Development, ABEL Clearinghouse for Basic Education (1998), p. 30-32.
45 UNICEF. Curriculum report card. Working Paper Series, Education Section, Programme Division. New York, NY: Author (2000), p. 26.
46 Anderson, S.E. A coordinated district consultant/ teacher center approach to school-based teacher development: The Mombasa School Improvement Project. San Antonio, Texas (2000), pp. 13-15.
47 Maheshwari, A., and Raina, V. Inservice training of primary teahcers through interactive video technology: An Indian experience. International Review of Education, (1998), 44(1), pp. 87-101.

VI. Bringing it together

Together, these factors result in quality outcomes. Evaluations have shown that NEU schools have increased student retention, improved attendance by girls and significantly increased reading achievement when compared to traditional schools. They have also contributed significantly to the social and emotional growth of students in terms of participatory behaviour, working in groups, helping other pupils and expressing opinions in the classroom.

Bringing together the many dimensions that contribute to educational quality — learners, environment, content, process, and outcomes — is a difficult task. It requires knowledge, resources, commitment and willingness to change. Chile's programme for quality improvement in primary schools and the Nueva Escuela Unitaria of Guatemala represent just two of the many efforts seeking to improve the quality of education in the developing world. These efforts must continue and expand if children's right to quality education is to be ensured and fulfilled.

1.13.3 Framework of quality eduction

LEARNERS AND TEACHERS AS LEARNERS
Health and Psychosocial Development
- Good healh and nutrition status
- Learner confidence and self-esteem
- Regular attendance for learning
- Family support for learning
- Positive early childhood exampriences

ENVIRONMENTS
Physical Elements
- Access to quality school facilities including water and sanitation
- Class size

Psychosocial Elements
- Peaceful, safe environments especially for girls
- Inclusive environments

Service Delivery
- Provision of health services

QUALITY OUTCOMES
- Learning what tney need to learn, for learning through life.
- Healthy, well-nourished, and free from expioitation, violence and labour
- Able to participate in decisions that affect their lives in accordance with their evolving capacities
- Able to respect diversity, practice equality and resolve differences without violence.

CONTENT
Materials
- Comprehensible, gender-sensitive, relevant to schooling

Curriculum
- Based on defined learning outcomes
- Non-discriminatory and student centred
- Includes relevant knowledge on gender equity, HIV/AIDS, health, nutrition and peace

Standards
- Standards and targets for student learning

PROCESSES

Students
- Intervention and special assistance where needed
- Time on task
- Relevant, student centred methods leading to active participation

Teachers
- Competence and school efficiency
- Ongoing professional learning for teachers
- Feedback mechanisms that target learning needs
- Frequent monitoring and assessment by teachers that leads to further learning
- Positive living/working conditions

Supervision and support
- Adjustment in school hours and calendars to support student learning
- Using technology to decrease rather than increase disparities Financial resources for education systems, esp. for recurrent budgets

Fig. 02 Flow diagram of quality education

1.14 Chapter outline of the thesis

Chapter-1:   **Introduction**

Chapter-2:   **Research Methodology**

Chapter-3:   **In-Service Training Program in Bangladesh**

Chapter-4:   **Socio-economic Condition of the Respondents**

Chapter-5:   **Existing Situation of Quality Education through In-servlce Training of HSTTIs in Bangladesh**

Chapter-6:   **Qualitative Analysis of HSTTIs In-service Training Program and Institutions**

Chapter-7:   **Summary, Recommendation and Conclusion**

1.15 Conclusion

This chapter explains the overall evaluation and impact of In-service training, which the trainees earn from the In-service training programs for the long term sustenance of the training results in their higher secondary levels institutions. This chapter also includes the following issues such as what are the aims and objectives of HSTTI, duties and responsibilities of HSTTI trainers, training materials, training facilities etc. On the basis of historical background of this necessity and the importance of training the government of Bangladesh has established five (5) Higher Secondary Teachers Training Institutes (HSTTI) in five major cites in Bangladesh to train up the higher secondary level college teachers and these institution cover the seven divisions of the country. Statement problem has been included for justifying the research title and objective, research questions are set to find out the real scenario about the evaluation and impact of the educational management, subject and pedagogy and computer training courses of Higher Secondary level colleges. Different role and impact and effectiveness of In-service training related literature have been included to justify the research topic for the research work. Rationale, justification, limitations, feasibility, significance and scope of the study have also been included in the introduction chapter. Operational definition or key terms/words, research concept and theory, conceptual frame work and lastly quality education definition, indicators and framework have also been included in this chapter.

RESEARCH METHODOLOGY

2.1 Prelude

Research is a careful and exhaustive investigation of a phenomenon with an objective of advancing knowledge. On the other hand it may be described as a systematic investigation to find solutions to a problem. So, methodology is very important in a research work. Methodology used in a research for data collection, interpretation, analysis scientifically and presentation of the findings of the work. So, one method is not adequate to unearth the factors involved. Multiple approaches are often necessary to know about human behavior. In this present research the following methods have been used for collecting the necessary data.

2.2 Type of the Research

This is an evaluative mixed method research. Both qualitative and quantitative data has been used for satisfying the objective of the study. Survey method, observation, interview schedule and documentary analysis have been used. It is an educational survey research, which is a part of social research.

2.3 Selection of the study Area

Bangladesh Govt. through the Ministry of Education has established 5 HSTTIs in five major cities in Bangladesh to train up mainly the higher secondary level college principals, subject teachers, computer teachers and these HSTTI covers the seven divisions of the country. HSTTI Rajshahi has been covering training areas of 16 districts of Rajshahi and Rangpur divisions and HSTTI, Barisal have been coveing training areas of 06 districts of Barisal division and 05 districts of Dhaka division. HSTTI Rajshahi and Barisal have been selected purposively as the study area. So the research fellow has selected Rangpur Division with 8 districts and Rajshahi division with 8 districts and Barisal division with 06 districts and Dhaka division with 05 districts of Bangladesh as a study area for this research work.

2.4 Research design

Figure: 3: Flow chart of the research design

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                    ┌──────────────────────────────────┐
                    │  Research Proposal Development    │
                    └──────────────────────────────────┘
                                    ↓
                    ┌──────────────────────────────────┐
                    │     Finalizing of objectives      │
                    └──────────────────────────────────┘
                                    ↓
                      ┌────────────────────────────┐
                      │     Research Question       │
                      └────────────────────────────┘
                                    ↓
                    ┌──────────────────────────────────┐
                    │      Review of Literature         │
                    └──────────────────────────────────┘
                                    ↓
                    ┌──────────────────────────────────┐
                    │      Conceptual framework         │
                    └──────────────────────────────────┘
                                    ↓
                        ┌───────────────────────┐
                        │   DATA COLLECTION     │
                        └───────────────────────┘
                    ↓                               ↓
    ┌──────────────────────────┐       ┌──────────────────────────┐
    │ Qualitative data         │       │ Quantitative Data         │
    │ Collection               │       │ collection                │
    └──────────────────────────┘       └──────────────────────────┘
                ↓                                   ↓
    ┌──────────────────────────┐       ┌──────────────────────────┐
    │ Survey Questionnaire     │       │ Pre and post test        │
    │ (Open and Closed         │       │ questions (close ended   │
    │ questions), Interviews   │       │ questions) and           │
    │ schedule, Observation    │       │ participants score,      │
    │ (checklist, document)    │       │ performance records (HSC)│
    └──────────────────────────┘       └──────────────────────────┘
                ↓                                   ↓
    ┌──────────────────────────┐       ┌──────────────────────────┐
    │ Qualitative data analysis│       │ Quantitative data analysis│
    └──────────────────────────┘       └──────────────────────────┘
                    ↘                       ↙
            ┌──────────────────────────────────────┐
            │ Combined qualitative and quantitative │
            │ findings, results and interpretation  │
            └──────────────────────────────────────┘
                             ↓
            ┌──────────────────────────────────────┐
            │      Presentation final results       │
            └──────────────────────────────────────┘
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This research design as a training course evaluation, impact study, identifies the role of In-service training program for quality education. The research design included qualitative and quantitative research method.

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2.5 Respondent/ Participants

The respondent of the study are divided into two categories such as high officials and trainers or resource persons and trainee teachers/percipients.[1] Here higher secondary level college trained teachers' include principals, subject teachers and computer teachers in different colleges of HSTTI Rajshahi and Barisal.

Table 3: Summary of trained teachers/respondents in HSTTI Rajshahi

Sl. No.	Name of training course	Number of training	No. of Days	Trained		Total Participant	Proposed sample
				Male	Female		
01	Subject Based Training Course for Higher Secondary Level Teachers	56	56/40	3539	686	4225	186
02	Educational Administration & Management Training Course for the Principal	15	20	366	05	371	50
03	Computer Training Course for higher Secondary level Teachers	24	27	414	54	468	50
	Higher Secondary Level- Total	95		4414	745	5064	286

Source: HSTTI, Rajshahi official records (1995- June, 2013)

This table above (table 3) discribed the summary of trained teachers/respondents in HSTTI Rajshahi. Here subject based training course for Higher Secondary level teacher, course duration 56/40 days total number of training 56, total trained perticipant 4225 and researcher proposed/ target no. of sample 186. Secondly educational management training course for the principals, course duration 20 days, total of training 15, total trained perticipant 371 and researcher proposed/ terget number of sample 50. Thirdly computer training course for higher secondary level teachers, course duration 27 days, total number of training 24, total trained perticipant 468 and researcher proposed/ target no of sample 50. HSTTI, Rajshahi proposed total sample 286. Here next table 5 explained that sample size and sampling procedures and sampling area as matrix format.

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1 Here high officials include of NAEM, BMTTI, DSHE, Director training cell, Dhaka, chairman, controller and college inspector of Different BISEs, Trained principal, GB members of different colleges.

Table 4: Summary of trained teachers/respondents in HSTTI Barisal

Sl. No.	Name of training course	Number of training	No. of Days	Trained		Total Participant	Proposed sample
				Male	Female		
01	Subject Based Training Course for Higher Secondary Level Teachers	54	56/40	2737	625	3362	112
02	Educational Administration & Management Training Course for the Principal	15	20	244	06	250	20
03	Computer Training Course for higher Secondary level Teachers	24	27	335	45	380	20
	Higher Secondary Level- Total	93		3316	676	3992	152

Source: HSTTI, Barisal official records (1995- June, 2013)

This table above (table 4) discribed the summary of trained teachers/respondents in HSTTI Barisal. Here subject based training course for Higher Secondary level teacher, course duration 56/40 days total number of training 54, total trained perticipant 3362 and researcher proposed/ target no. of sample 112. Secondly educational management training course for the principals, course duration 20 days, total of training 15, total trained perticipant 250 and researcher proposed/ terget number of sample 20. Thirdly computer training course for higher secondary level teachers, course duration 27 days, total number of training 24, total trained perticipant 380 and researcher proposed/ target no of sample 20. HSTTI, Barisal total proposed sample 152. Here next table 08 explained that sample size and sampling procedures and sampling area as matrix format.

2.6 Sampling and Sample size

The sample size and sampling procedures and sampling area are explained in the following Tables as matrix format.

Table 5: Sampling procedure and sample size: primary source

Types of sample	Sampling	Nature of respondents	Respondents come from	Size of Sample
Experimental group of trainee respondents	Purposive	Respondents, participate in pretest & post test evaluation and Survey questionnaire data collection from the field levels after training from HSTTI Rajshahi.	Trained respondents: HSTTI,Rajshahi. College Principals………50 Subject teachers……..… 186 (English,Chemistry, Biology,Accounting) and computer teachers…..50	286
Experimental group of trainee respondents	Purposive	Respondents, participate in pretest & post test evaluation and Survey questionnaire data collection from the field levels after training from HSTTI Barisal.	Trained respondents: HSTTI,Barisal. College Principals……….20 Subject teachers……......112 (Agriculture studies, Chemistry,Islamic studies, Home economics) and computer teachers……20	152
Administrative, monitoring evaluation Trainers Resource person Trained Principal group	Purposive	Data has been collected coming from High Official & Stack holder of HSTTIs' through interview schedule	DSHE, Director Training Cell,Dhaka……………… 06 NAEM,BMTTI Faculties...09 Trainers/resource persons of different HSTTIs…….. .13 HSTTIsFaculty member.....40 & Trained Principals, GB member...............…........14	82
			Total	520

Secondary Sources

Types of information	Collect from where
Research reports	RU central library, IBS library, BIDS library, HSTTI office record, training brochure & library, TTC library TQI-SEP, IER library BANBEIS report, NAEM report and library, PP (HSEP), BISE, Rajshahi, Barisal, Dhaka & Dinajpur HSC Results and selected different 200 colleges last Five years HSC results
Journals	
Books	
Published & unpublished documents	
College documentation	College office and library

2.7 Sources of the Data

Both qualitative and quantitative data have been used in this research.

Primary Data Sources

Primary data has been collected from the study area and respondents who have taken the above mentioned training. HSTTI training information, budget allocation and enrollment list of participants, are the primary sources of data. Documents of trained participants' institutions have been collected that they introduced before the training period in the individuals working places. The researcher observation results collected from the field during the data collection period have also been used as the source of primary data.

Secondary Data Sources

The secondary data sources are the official statistics, reports, documents, theses and dissertations, Unpublished dissertations, books, journals, daily newspapers, domestic and international periodicals, etc. Secondary data sources also include annual reports of the concerned institutions such as HSTTI Publication, HSTTI Training Broachers, TTCs library, NAEM library and documentation, BRAC university, BIDS, IER Dhaka university, TQI-SEP, IMED and so on. Internet, electronic media are used as secondary sources of data.

2.8 Research Tools
2.8.1 Different research tools used in this study

- Survey questionnaires (open and closed question) for principal, subject teachers and computer teachers (Appendix- A1, A2, A3).

- Interview schedule for high officials and Stakeholders of HSTTIs' (Appendix-B)

- Observations: Simulation/class room observation checklist and documents analysis (Appendix-D1, D2)

- Tests: pre-test & post-test questions. and Participant score (Appendix-F1 to F8)

- Performance records: BISE, Rajshahi, Dinajpur, Barisal and Dhaka last six years HSC Results & selected different 200 colleges last Five years HSC results.

Questionnaires, interview schedule, observation document are the important three tools used in this study, which is explained below:

Questionnaires: Questionnaires are the strong data collection tools for the present study. In this study the respondents were trained principals and trained subject teachers, computer teachers who are working in same institution. Principals have given the data according to the information during the training period and the results of training, which is applied in their working institution. In the questionnaires they have got the sufficient scope of giving their personal opinions regarding training courses, training institutions, resource persons, training materials etc. and got the opportunities to express some massage about their working places such as teachers, students, and guardians through the open-end questionnaires. The subject and computer teachers' opinions have been collected through another questionnaires that have been used for crosschecking the principals.

Interview Schedule: The researcher has been used interview schedule for all important information what kinds of innovative idea are applied, what kinds of new mechanisms were applied for the betterment of students and teachers, and what kinds of infinitives are taken for the institutional improvement. The researcher has used this tool to measure the differences between various activities before and after the training period in there working institution.

Observation: Observation tool has been used to minimize the valid information gaps of all other data collection tools. For collecting the secondary data, researcher has collected some documents from different Institute and respective colleges. The pre-test, post-test results have been collected as secondary documents from HSTTIs Rajshahi, Barisal and public examination results have been collected from the different college documents and BISE, Rajshahi, Dianjpur, Barisal and Dhaka.

2.9 Questionnaire Development

Required questionnaires have been made to collect necessary data in quest of achieving the objectives set in the study. Questionnaires are pretested on respondents in the study areas before making them as final.

2.9.1 Validity and Reliability of the Questionnaires

Validity is concerned with whether a test measures what it intends to measure both the construct and the content. Validity of an instrument makes it sure that the data collected through them are correct. Content validity asks if the test content matches the content of the study and construct validity examines if the test matches a theoretical construct. The following aspects have been considered to design the questionnaires in order to ensure the content validity of the questionnaires.

- Objectives of the proposed study

- Opinions of the writers regarding research methods.

- Suggestions of experienced researchers and Trainer/ Teacher educators working at HSTTIs.

- Comments of college principal, subject teachers and computer teachers received in pre-testing of the questionnaires.

2.10 Data Collection

2.10.1 Data Collection Process

- Different tools have been used in this study to collect both quantitative and qualitative data. Relevant information are collected from the respondents through observation, pre-evaluation, post evaluation, questionnaire survey and interview schedule etc. The researcher, if necessary, makes the questionnaire understandable to the respondents. Relevant documents viz books, journals, research Papers, website materials have been consulted during data collection.

2.10.2 Data Collection Period

In this study 1st phase primary Data have been collected from December-2011 to June-2012. Then the study program has been converted to Ph.D. Finally data have been collected from February-2013 to Decemberr-2013 for the Ph.D program.

2.11 Techniques of Data Analysis

The collected data were analyzed following bio-metrical techniques developed by based on the mathematical models of Fisher *et. al.* (1932)[1] and those of Hayman (1958); De-Way and Lu (1959)[2] and Allard (1960)[3].The techniques used are described under the following subheads:

Mean: Data on individuals were added together then divided by the total number of observations and the mean was obtained as follows:

$$\overline{X} = \frac{\sum\limits_{i=1}^{n} X_i}{n}$$

Standard Deviation: The Standard Deviation is a measure of how spread out numbers are. Its symbol is σ (the Greek letter sigma). The formula is easy: it is the square root of the Variance. So,

$$SD = \sqrt{\frac{1}{n}\sum_{i=1}^{n}\left(X_i - \overline{X}\right)^2}$$

Standard error (SE): Standard error (SE) was calculated according to following formula

$$SE = \frac{SD}{\sqrt{n}}$$

Where, SE = Standard Error ;SD = Standard Deviation ; n = Number of observation.

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[1] Fisher R.A. Immer R.R, Tedin O. The genetical interpretation of statistics of the third degree in the study of quantitative insheritance, Genetics (1932), 17, 107-124.
[2] Deway, D.R. and Lu, K.H. A correlation and path coefficient analysis of components of orested wheatgrass seed produaton, Agrony (1959), 51: 515-518.
[3] Allard, R.W. Principles of plant breeding. John Whiley Sons Inc. New York (1960) pp. 485.

Least significant difference (LSD): Least significant different was carried out according to following formula. DMRT test was carried according to Duncan (1955)[4] using the following formula. LSD values at 5% was calculated where the value of variance ratio for treatment effect were significant.

$$\text{LSD} = \sqrt{\frac{(\text{Error Mean Square}}{r}} \times t_{0.05} \quad \text{at (EMS) df}$$

Where, r = Number of repetition.

Analysis of variance: Variance analysis is a measurement of dispersion of a population, so for testing the significant differences among the population so for testing the significant differences among the populations the analysis of variance is necessary. Variance analysis for each character was carried out separately on mean value of different groups of teacher.

Table 6: Expectation mean square (EMS) test used in the analysis of variance for two-way classification data with unequal number of observations per Cell.

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Sum of Square (MS)	Expectation of MS
Factor one	SS_A	I-1	MS_A	$(I-1)\sigma^2 + JK\sum_{i=1}^{I}\alpha_i^2$
Factor two	SS_B	J-1	MS_B	$(J-1)\sigma^2 + IK\sum_{j=1}^{J}\beta_j^2$
Interaction	SS_{AB}	(I-1)(J-1)	MS_{AB}	$(I-1)(J-1)\sigma^2 + K\sum_{i=1}^{I}{}'\delta_{ij}^2$
Error	SS_E	IJ(K-1)	MS_E	$(K-1)IJ\sigma^2$
Total	SS_{tot}	IJK-1		

Where, MS_A represents mean square of factor one (A), MS_B represents mean square of factor two (B), MS_{AB} represents mean square of interaction (AB), MS_E represent Error mean square.

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[4] Duncan, D.B. A multiple range and multiple F-Tests, Biometrics (1955) 11, 1-42.

Test of significance: Analysis of variance (ANOVA) is a statistical technique to analyze variation in a response variable (continuous random variable) measured under conditions defined by discrete factors (classification variables, often with nominal levels). Frequently, we use ANOVA to test equality among several means by comparing variance among groups relative to variance within groups (random error).

Assumptions of two-way ANOVA

- The populations from which the samples were obtained must be normally or approximately normally distributed.
- The samples must be independent.
- The variances of the populations must be equal.
- The groups must have the same sample size.

Objectives of ANOVA

1. It identifies the causes of variation and sort out corresponding components of variation with associated degrees of freedom.
2. It provides test of significance based on F-distribution.

Interpretation: ANOVA is a particular form of statistical hypothesis testing heavily used in the analysis of experimental data. A statistical hypothesis test is a method of making decisions using data. A test result (calculated from the null hypothesis and the sample) is called statistically significant if it is deemed unlikely to have occurred, assuming the truth of the null hypothesis. A statistically significant result (when a probability (p-value) is less than a threshold (significance level)) justifies the rejection of the null hypothesis. Analysis of variance provides the basis for test of significance. Significance of differences among the population was worked out by F test (Variance ratio) as follows:

$$F = \frac{MS\,(Between\,Group)}{MS\,(Within\,Group)} \sim F_{nBinW}$$

Where, MS = mean square (required)

Chi-square (χ^2) test

Using sample data, find the degrees of freedom, expected frequencies, test statistic, and the P-value associated with the test statistic. The approach described in this section is illustrated in the sample problem at the end of this lesson.

- **Degrees of freedom.** The degrees of freedom (DF) is equal to:

$$df = (r - 1) * (c - 1)$$

Where r is the number of levels for one categorical variable, and c is the number of levels for the other categorical variable.

- **Expected frequencies.** The expected frequency counts are computed separately for each level of one categorical variable at each level of the other categorical variable. Compute r * c expected frequencies, according to the following formula.

$$E_{r,c} = (n_r * n_c) / n$$

where $E_{r,c}$ is the expected frequency count for level r of Variable A and level c of Variable B, n_r is the total number of sample observations at level r of Variable A, n_c is the total number of sample observations at level c of Variable B, and n is the total sample size.

- **Test statistic.** The test statistic is a chi-square random variable χ^2 defined by the following equation.

$$\chi^2 = \sum \left[(O_{rc} - E_{rc})^2 / E_{rc} \right]$$

Where O_{rc} is the observed frequency count at level r of Variable A and level c of Variable B, and E_{rc} is the expected frequency count at level r of Variable A and level c of Variable B.

- **P-value.** The P-value is the probability of observing a sample statistic as extreme as the test statistic. Since the test statistic is a chi-square, use the Chi-Square Distribution Calculator to assess the probability associated with the test statistic. Use the degrees of freedom computed above.

Interpret Results

If the sample findings are unlikely, given the null hypothesis, the researcher rejects the null hypothesis. Typically, this involves comparing the P-value to the significance level, and rejecting the null hypothesis when the P-value is less than the significance level.

2.12 Data Generating Process

Different tools have been used in this study to collect both quantitative and qualitative data. Relevant information have been collected from the respondents through observation, pre-evaluation, post evaluation, questionnaire survey and interview schedule etc. The researcher, if necessary, makes the questionnaire understandable to the respondents. Relevant documents viz Book, Journals, research Papers, daily papers country paper, website materials are consulted during data collection.

2.13 Data Analysis Procedures

After collecting data and information for the study though survey questionnaire, interview schedule data and pre-evaluation data and post evaluation data have been carefully reviewed, classified, tabulated and analyzed. Both qualitative and quantitative data are used in this research. After editing and processing the statistical techniques the researcher has used statistical package for social science (SPSS-15.0) which is necessary to analyze date in this study.

2.13.1 Quantitative Data

After editing and processing, the statistical techniques- descriptive statistics, multiple regression and logistic regression are used to analyze the quantitative data. The findings are presented in different chapters with possible interpretation and comment. Statistical package for social science (SPSS-15.0) is used to analyze necessary data in this study.

2.13.2 Qualitative Data

Qualitative Data are analyzed by using statistical methods. Such data are collected from official statistics, reports, documents, theses and dissertations, books and journals through inductive method. Data collected from primary sources, say, in depth interview, discussion with the concerned persons, seminars and workshops on education are analyzed through inductive and deductive methods.

2.14 Conclusion

This chapter includes the type of the research, selection of the study area and research design. The type of the respondents/participants, 2 HSTTI has been selected purposively as the study area out of 5 HSTTIs. Study area has been selected randomly from two hundred higher secondary level colleges from the previously mentioned 02 HSTTIs Rajshahi and Barisal working area. Respondents in HSTTI, Rajshahi trained principals 50, subject teachers 186 and computer teachers 50, total 286. Respondent in HSTTI Barisal principals 20, subject teachers 112 and computer teachers 20, total 152. Others respondent data have been collected from higher officials and stake holders 82 of 5 HSTTIs through interview schedules. Here total number of respondents of this research is 520. Primary sources of data, secondary sources of data, sampling procedures and nature of sample, nature of respondents, sample and sample techniques have also been explained in the research methodology chapter. In this study different tools such as questionnaires, interview schedule observation and document analysis have been used for the collecting of data. The observational tool has been used to find out the research gap and help to minimize the gap. Qualitative and quantitative data have been analyzed in the research through different statistical tools such as mean, standard deviation, frequency tables, graphical forms, two-away ANOVA, SPSS 15.0 others statistical formula in depth interview, discussion with concerned persons, inductive and deductive methods etc. Validity and reliability of the questionnaires, data collection process and data collection period have also been included in this chapter to ensure the quality of research work.

IN-SERVICE TRAINING PROGRAM IN BANGLADESH

3.1 Prelude

Education is the key to a nation's development. Education means to achieve the goal of poverty alleviation. An educated nation, which is modern in genius and intellect and forward looking in thinking, can put the country at the zenith of its development. That is why education is the backbone of a nation (National education policy-2010).[1] This chapter discribed Education system, education structure, aims and objecttives of secondary and higher secondary (levels) Education, Aims and objectives of teacher training Education, In-service training institutions NAEM, BMTTI profile, training activities and statictics of training summary, HSTTI Rajshahi and Barisal In-service training status, training objective, training activities, overall facialities of HSTTIs, Statictics of training summary, Manpower and budgetary informations of the HSTTIs In-service training program. Mainly this chapter of the research has also been arranged on this basis of the secondary data and related literature. Researcher focused on relavence and status In-service Training programs and Institutions.

3.2 Education System of Bangladesh

3.2.1 Definition of Education

The word education comes from three Latin words. They are 'educare' meaning 'taking care'; 'Educate' meaning 'bringing up', 'Educatum' meaning 'learning or teaching method'. Most of the education specialist explained the word education in this way. E=Equity, D=Discipline, U= Unity, C= Charter, A= Aim/Attitude, T= Tolerance, I= Intelligence, O=Obedience, N= Nobility.

Therefore, we can say that the person who bears all these qualities has got education.

New Oxford Advanced Learners Dictionary defines the term, 'education as a process of teaching, training and learning, especially in school or colleges to improve knowledge and develop skills. Basically, education is the process by which our mind develops through formal learning at an institution like a school, College or University.

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[1] National Education Policy, 2010 (Final Version) Ministry of Education, Bangladesh

Education is a two way process and a quantitative process of change in the behavior of an individual and the result of an interaction of his/her innate capacity and the environment in which he lives. It is a process by which accumulated knowledge, skills, and attitudes of a system are acquired and transmitted to or within and exchanged among its members or elements. Learning may be defined as the substance of education. In the constitution of Bangladesh, it is clearly pledged that there shall be a uniform course of basic education for all. Skilled manpower is the key to national development.

Learning systems are grouped into three categories:

- Informal Education
- Formal Education
- Non Formal Education

3.2.2 In Bangladesh there are several types of education system. These are

- Pre-primary and primary education
- Secondary education
- Higher education
- Vocational and Technical education
- Madrasah education
- Religious and moral education
- Engineering education
- Medical nursing and health education
- Science education
- Business education
- Agriculture education
- Fine arts education
- Law education
- Computer science and information technology education
- Teachers' Training education
- Special co-curricular education
- Library science education etc.

3.2.3 According to Basic Education Statistics 2010, total scenario of education management of Bangladesh

Table 7: Number of Institution, Enrolment and Teacher in Post-Primary and Primary by management and sex, 2010

Type of School	Manage Ment	Ins.	Teacher			Student			Indicators		
		Total	Total	Fem.	% Fem	Total	Girl	% Girl	TSR	SPI	TPI
Primary School Education	Public	37672	181455	105431	58.10	9885697	5061165	51.20	54	262	5
	Private	45002	199502	68128	34.15	7018849	3475421	49.52	35	156	4
	Total	**82674**	**380957**	**173559**	**45.56**	**16904546**	**8536586**	**50.50**	**44**	**204**	**5**
Secondary School Education	Private	18723	210780	47917	22.73	7240497	3873157	53.49	34	387	11
	Public	317	7231	2417	33.43	225277	106519	47.28	31	711	23
	Total	**19040**	**218011**	**50334**	**23.09**	**7465774**	**3979676**	**53.31**	**34**	**392**	**11**
College Education	Private	3068	77320	16265	21.04	1505166	716423	47.60	19	491	25
	Public	256	9900	2310	23.33	889109	358523	40.32	90	3473	39
	Total	**3324**	**87220**	**18575**	21.30	**2394275**	**1074946**	**44.90**	**27**	**720**	**26**
Madrasah Education	Public	3	104	0	0.00	6064	231	3.81	58	2021	35
	Private	9358	107743	10911	10.13	2194863	1167427	53.19	20	235	12
	TOTAL	**9361**	**107847**	**10911**	10.12	**2200927**	**1167658**	**53.05**	**20**	**235**	**12**
University Education	Public	31	9163	1656	18.07	262941	81988	31.18	29	8482	296
	Private	51	5710	1701	29.79	200939	49125	24.45	35	3940	112
	Total	**82**	**14873**	**3357**	22.57	**463880**	**131113**	**28.26**	**31**	**5657**	**181**
Technical & Vocational Edu	Public	251	4015	542	13.50	133897	17999	13.44	33	533	16
	Private	2597	11286	2708	23.99	314030	70521	22.46	28	121	4
	Total	**2848**	**22455**	**4611**	**20.53**	**447927**	**102581**	**22.90**	**20**	**157**	**8**
Professional	Public	70	1795	486	27.08	19120	9357	48.94	11	273	26
	Private	214	3123	450	14.41	50823	14516	28.56	16	237	15
	Total	**284**	**4918**	**936**	**19.03**	**69943**	**23873**	**34.13**	**14**	**246**	**17**
Teacher Education	Public	90	1039	275	26.47	17663	10058	56.94	17	196	12
	Private	92	830	255	30.72	8613	2437	28.29	10	94	9
	Total	**182**	**1869**	**530**	**28.36**	**26276**	**12495**	**47.55**	**14**	**144**	**10**
All (Post-primary)	Public	1018	33247	7686	23.12	1554071	584675	37.62	47	1527	33
	Private	34103	416792	80207	19.24	11514931	5893606	51.18	28	338	12
	Total	**35121**	**450039**	**87893**	**19.53**	**13069002**	**6478281**	**49.57**	**29**	**372**	**13**
All (Primary + Post-primary)	Public	38690	214702	113117	52.69	11439768	5645840	49.35	53	296	6
	Private	79105	616294	148335	24.07	18533780	9369027	50.55	30	234	8
	Total	**117795**	**830996**	**261452**	**31.46**	**29973548**	**15014867**	**50.09**	**36**	**254**	**7**

www.banbeis.gov.bd(2010)

This table shows (table 7) the several types of education system, management teacher and student enrolment and indicators.

3.2.4 Education structure of Bangladesh

Accordingly to Bangladesh Bureau of Educational Information and Statistics (BANBEIS) the education system of Bangladesh is divided into 4 levels-- Primary (from grade 1 to 5), Secondary (from grade 6 to 10), Higher Secondary (from grade 11 to 12) and Higher Education. The entry age for primary is 6 years. The junior, secondary and higher stages are designed for age groups 11-13, 14-15 and 16-17 years. Higher secondary is follows by graduate level education in general, technical, engineering, agriculture, business studies, and medical streams requiring 5-6 years to obtain a Masters degree. In the general education stream, higher secondary is follows by college/university level education through the Pass/Honors Graduate Courses (4 years). The masters Degree is of one year duration for holders of Bachelor Degree (Honors) and two years duration for holders of (Pass) Bachelor Degree. Higher education in the technical area also starts after higher secondary level. Engineering, agriculture, business, medical and information and communication technology are the major technical and technological education areas. In each of the courses of study, except for medical education, a 5- year course of study is required for the first degree. According to the National Education Policy 2010 Education structure in Bangladesh would be divided three into major stages-primary, secondary and higher educations. The Primary education will be 8-year cycle; secondary education will be 4- year cycle and then higher education.

In the present study education refers to only general higher secondary education (grade 11-12) for the principals, subject teachers and computer teachers in courses of study within institution.

Figure: 4: Flow diagram of education structure of Bangladesh

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

www.banbeis.gov.bd

3.3 Aims and Objectives of Secondary and Higher Secondary

Education

In these levels the main objectives of education are Four (4) which are given bellow:

- Learning to learn
- Learning to do
- Learning to live together
- Learning to be

In the new academic structure, the secondary level of education will include Classes IX to XII. At the end of this level, students will choose different streams of higher studies according to their capabilities, or they will earn their livelihood by their acquired vocational education or they can seek further vocational skills.

The aims and objectives of secondary education are:

- to help developing learners' latent intellect and comprehensive inner faculties;
- to develop a learner with competencies so that s/he can compete in the job market, especially in the economic sector of the country;
- to impart quality education at this primary level to extend and consolidate the knowledge acquired during primary education to help the students acquire a strong foundation of quality higher education;
- to make efforts to mitigate discriminations among various secondary educational institutions and among various socio-economic, ethnic and socially backward groups; special steps will be taken to support advancement of education in the backward regions as long as necessary;
- to design, continue and implement a uniform curriculum and syllabus for the selected subjects, irrespective of streams.

3.4 Background of Teacher's Education and Professional Development

To ensure the quality education sometimes Government takes necessary actions for the betterment of the teachers and head of the institutions through the education commission. The different education commissions and their policies are discussed in this section briefly.

Education Commission Reports 1813-2003, June 2006, 2010)

In any developed country, the education system runs through the guideline of education policy. Education policy reflects the future plan of education for surviving in the next generation properly in the country.

In the history of education in Indian Sub-Continent (1813-1853)

40 years' duration, there was no guideline in teacher education in the educational policy. In that period there was no significant contribution of the people of this region to the development in the educational sector. The Policy was made for desire of the English Lord.

Hunter Commission Report (1882)

HCR expressed the some recommendations for the development of the secondary education about their fund, quality of education, contribution of government, higher study of meritorious scholars etc. But there was no guideline about teacher's education.

Lord Carjon Education Reforms (1901-1904)

Lord Carjon recommended some recommendation about education for the betterment of the educational scenario of the sub-continent. There reforms were about teaching-learning process and educational research in the university level. There were also reform express about curriculum development and examination system

Sadlar Commission Report (1919)

Report expressed about teachers' training for the development of primary and secondary education in this area. He said that secondary education is the basic lavel for the development of the higher education. If the secondary education is established well through proper teachers' training, higher education stands a proper position for the Development of the future generation. The report demanded for taka 40 lacks yearly for educational development as well as teachers' education through proper teachers' training.

William Adam Report (1935-1938)

The report expressed that teachers should be encouraged to read books and normal schools for standardization of education. Teacher is to be trained for classroom teaching.

The East Bangle Education System Reconstruction Commission (1949-1951)

This commission recommended about secondary education that should be the aim for providing through the school society, experience of democratic living and training in self-government and leadership. The committee also suggested that the secondary school teacher should perform his responsibilities, must have adequate training and must be contend. Madrasa education is one of the important parts of our educational development. The heads or the principal of Madrasa show the low performance of educational administration and management capacity for the lack of trained teacher and adequate facilities for such training. Teacher's training of Madrasa is one of the utmost urgencies and adequate and immediate steps should be taken to provide adequate facilities for training of Madrasa teachers.

Ataur Rahman Commission (1957)

This commission discusses about primary education and secondary educational administration regarding training and management. The reform commission also expresses about adult education. It is so remarkable that teachers' education is one kind

of adult education. The teachers' education and other education are fully different in respect to norms, values, behaviors, attitude and others so many factors.

S.M. Sharif Commission (1958)

Sharif Commission expressed about primary in-service training and co-training, secondary in-service training and co-training. University education: higher education and research, profession oriented education: professional educational institutes and research management. The commission also emphasized to increase budget for the betterment of the training. Here government only allocated the budget but there was no guideline for how to conduct the training.

Nur Khan Commission (July, 1969)

The commission recommended creating a literate society and attaching high priority to the development of analytical and technical skills. The report attached some of the best talents of the country into the teaching profession. There should be no bar to teacher earning money from his writing or other creative work but no teacher should be permitted to undertake private tuition or financial consideration.

Education Extension Center (EEC-1959 (Present name of NAEM)

EEC was established for the teacher's education for the area of East Pakistan. Form the beginning EEC has taken the responsible primarily for pedagogic in-service training of secondary school teachers. The center underwent rule and structural transformation during the last four decades to meet the changing needs of time and the system of education in the country.

The Commission on Student's Problem and Welfare, Dec 1964 (Hamoour Rahman)

The commission expressed about teachers' training. This commission suggested that technical or special pay should be given to induce people to go into this profession.

Khuda Commission (1974)

The commission expresses that the updated material collected from the other Countries and apply our education system through proper training which are applicable for our countries. Basically teacher-learning mechanisms were introduced m our educational system for the betterment of teachers.

Mofiz Commission (1987-1988)

The Mofiz commission expressed the trained-up trainer in the training institutes should be recruited. It also suggested the govt. to increase the highly qualified post for experienced trainer for the betterment of the training in the educational institutions. This commission also suggested that the opportunities for educational research should be increased. To adopt the suggested and theoretical knowledge and relate the internal evaluation system throughout sourcing examiners should be built.

Shumsul Haque Commission (1997)

The commission recommended to standardize the training curriculum and course curriculum for the demand of the nation, to train-up the teacher in country and outside the country for implementing the new curriculum and syllabus for the specific subject teachers, to increase the teacher training and refresh the teacher within five years interval. The commission also suggested that the teacher's dignity should be upheld and the deviation between government and non-government teachers should be reduced.

Bari Commission (2002)

The commission expressed that NAEM should build excellenced body for proper in service and pre-service training to develop the policy for increasing the NAEN faculties skill, knowledge and attitude for giving better service. The faculties' of NAEM must be non- transferable. NAEM should build the Resource Center (R.C) for local teachers' training within short time and recruit the university teachers through assessing their educational qualification, merit, higher degree, training experience etc for proper evaluation. University teachers should be trained up to increase their knowledge and skill through local and foreign training and research work.

Moniruzzaman Miah Commission (2003)

The Miah commission expresses that every teacher's training college should have the minimum infrastructure facilities; otherwise financial support should be cancelled. Each head of the institute might take educational administration and management training course. Teachers' of the Teachers Training Colleges (TTC), HSTTI should have the master's degree in pedagogy and related subject. Every five years of interval, teachers should take training once. Education transfer for teachers' training should be developed in our country through educational projects. To develop the curriculum and syllabus, teachers and trainers should be included in those activities. In-service subject

syllabus, teachers training should be introduced. Science teacher should be trained up through Science center under supervision of NAEM. It is also said to introduce the teacher's training through distance approach.

Kabir Chowdhury Commission (2010)

The recent commission has expressed the qualified teachers need quality and proper education otherwise proper education will not be possible in the country. Teacher's training is the procedure which changes the teachers' knowledge, skill and attitude and fulfills the demand of the teacher community. The remarkable training institutes of Bangladesh are (i) 14 govt. teachers' training colleges for the training of secondary level teachers, (ii) National Academy for Educational Management (NAEM) for the heads of the secondary and higher secondary level institutions. It also bears the responsibilities of Foundation training for BCS education cadre officers and others subject based and management oriented courses. Near about 27 types of training courses are conducted by NAEM.(iii) 5 HSTTIs bears the responsibilities of college level subject based training and educational administration and management training and computer training courses for the higher secondary-level institutes. Institute of Education and Research (IER), Dhaka University also bears the responsibilities of educational research, (iv) 106 non-govt. teacher training colleges bears the responsibilities to conduct traininig for the Bachelor of Education (B.Ed.) degree and other private universities give the B. Ed, and M. Ed, degrees. This report has also expressed, the teachers acquire the knowledge and skill in the field of teaching-learning process through teacher's training.

3.5 Aims and objectives of Teacher Training Education

Qualified teachers are essential for proper and quality education. To ensure the quality of teachers, it is essential to recruit qualified teachers through scientific and transparent recruitment process on one hand, and on the other, quality teachers' education and repetitive demand-driven training is imperative to develop the professional excellence of the teachers. The existing teachers' training system of our country is very traditional, insufficient, certificate-based, loaded with theoretical knowledge, incomplete in practical learning, based on rote learning and testing system is also conventional. That is why the expected results are not achieved. At present, there are 14 government training colleges, National Academy for Educational Management (NAEM) for

the college level teachers, 1 Training Institute for the Madrasa teachers, 5 HSTTIs for the subject-based training, educational management training and computer training of higher secondary college teachers, college principal and computer teachers and 1 Institute of education and research for higher training and research under Dhaka University. 14 government training colleges offer B.Ed courses and some of them also award M.Ed degree to the teachers.

The Open University also awards B.Ed and M.Ed degree through distance learning. Besides, there are 106 private secondary teachers' training centers. The infrastructures, quality of training system, contents taught in all these institutions are, to a large extent, of low standard. For the training of the teachers of primary schools, there are 54 government and 2 private Primary Training Institutes. 1-year training is provided in all these institutions. The existing teachers' training system is inadequate, far short of demand and poorly traditional. So the number of trainers should be increased and the quality of training will be enriched. Besides, there should be a system to evaluate the efficiency of the trainers too.

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 the 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 enrich their quality to analyze problems and to take decisions;

- to train teachers of all levels in information technology and to ensure wider use of IT to build up a modern and developed Bangladesh;

- to inspire them to be conscious of their duties and responsibilities;

- to encourage and make them confident to take part in research work.

3.6 Teachers' Education in the New Paradigm

In the perspective of teacher education as a long-term process that includes regular opportunities and experiences planned systematically to promote growth and development in the profession has been welcomed by educators everywhere. This shift has been so dramatically that many have referred to it as a new image of teacher learning, a new model of teacher education, a revolution in education, and even a new paradigm of professional development.

This new paradigm of teacher education has several characteristics. First of all, it is based on constructivism rather than on a transmission-oriented model. As a consequence, teachers are treated as active learners who are engaged in the concrete tasks of teaching, assessment, observation, evaluation, feedback, reflection etc. Several research studies have shown that when the constructivist method is used in the preparation of teachers, the results are quite positive where teachers are engaged, reflective, thoughtful, and effective. A few new studies, however, have been critical of this method, as it appears to be most effective only with middle-class learners, or only when it is used in very specific contexts and under certain conditions, something that could potentially limit the effectiveness of its use in teacher education.

It is also conceived of as a long-term process, as it acknowledges that teachers learn over time. As a result, connected experiences (rather than one-shot presentations) are thought of as most effective as they allow teachers to relate prior knowledge with regular follow-up support is perceived as an "indispensable catalyst of experiences of the change process" (Schifter, Russell, and Bitable, p. 30).

This approach to teacher education is conceived as a process that takes place in a particular context. Contrary to the traditional staff development opportunities that to connect the "training" with the actual experiences in the classroom, the most effective professional development is based in schools, connected to the daily activities of

teachers and learners. Schools/ colleges are transformed into communities of earners, communities of inquiry, professional communities, and caring communities because teachers are engaged in professional development activities. The most successful teacher development opportunities are "on the job learning" activities such as study groups, action research, and portfolios.

Many identify this process as one that is intimately linked to schools' or colleges' form since professional development is a process of culture building. This process is not just skill and effective based training that is affected by the coherence of the school/college program. In this case, teachers are empowered as professionals; they are expected in the same ways as society expects them to treat students. Teachers' professional development that is not supported by school and curriculum reform is not effective.

With this approach to teacher education and professional development, a teacher is considered a reflective practitioner, someone who comes into the profession with a certain knowledge base and who will connect this new knowledge and experiences with that prior knowledge. For this reason, the role of professional development is to facilitate teachers' building new pedagogical theory and practice and help teachers improve their expertise in the field.

Professional development is regarded as a collaborative process. Even though there may be some opportunities for isolated work and reflection, most effective professional development happens when there are meaningful interactions, not only among teachers, but also among administrators, parents, and other community members.

Professional development may look and be very different in diverse settings, and even in the setting there may be a variety of dimensions. There is not "one best" form of professional development that can be implemented anywhere. Scholars and educators must evaluate their needs and cultural beliefs and practices to decide which professional development model may be most successful in that particular context It is clear in the literature that workplace factors (one significant variable of "the context") such as school structure and school culture can influence teachers' sense of efficacy and professional motivation. Apparent contradictory results reported in the literature (such as the fact that some studies conclude that the best professional development is designed and implemented at a smaller scale, while others say that, it is better at a

larger, system-approach scale) may be explained not by deciding that one study is more accurate than another, but by examining the contexts in which the different studies are completed. In his 1995 article, "Results-Oriented Professional Development: In Search of an Optimal Mix of Effective Practices," Thomas Gus key argues strongly about the importance of paying attention to context so that the "optimal mix" of professional development processes can be identified and planned. In other words, professional development has to be considered within a framework of social, economic, and political trends and events. In another 1995 article, "Professional Development in Education," Gus key writes: "The uniqueness of the individual setting will always be a critical factor in education. What works in one situation may not work in another .... Because of the enormous variability in educational contexts, there will never be 'one right answer.' Instead, there will be a collection of answers, each specific to a context. Our search must focus, therefore, on finding the optimal mix-that assortment of professional development processes and technologies that work best in a particular setting" (p. 117).

This new form of teacher education has had a significant positive impact on teachers' beliefs and practices, students' learning, and on the implementation of educational reforms. In fact, Linda Darling-Hammond noted in a 1999 article in the Journal of Staff Development "investments in teachers' knowledge and skills net greater increases in students' achievement [in the United States] than other uses of an education dollar" (p. 32).

3.7 Teachers' Educations and Professional Development

The attitude of Teacher education and professional development in the twenty first centaury is important. Most countries acknowledge that initial or pre-service teacher education is just the first step in a longer process of professional development. A maximum of countries have begun to realize that the same level of preparation for all teachers is needed. A minimum of a bachelor's degree to enter programs that prepare teachers is advocated.

In terms of the content of teacher preparation programs, many of outcries vary in their emphasis on particular components of the curriculum or the time allocated to each one. But in general, most include courses and experiences that address subject matter,

foundation of education courses, professional studies (such as pedagogy and methods of courses), and child development, and a practicum, or student. The tendency in maximum of countries has been to emphasize the teaching of content in the initial preparation and to emphasize the pedagogy in the practicum and programs of induction for new teachers as well as other professional development opportunities. The aims are to increase the length of teacher preparation programs and to increase the amount of time pre-service teachers spend in practicum sites. Pre-service programs that provide opportunities for supervised practice teaching throughout the duration of the course have, been the most effective. There is a wide variation of length for this practical experience of student teachers in the world. In some countries where the practicum is short, teachers are required to have extensive in-service opportunity to practice under serious supervision.

In the developed and developing countries, the need for more teachers and the lack of candidates entering the profession have been fertile round for the creation of a number of alternative teacher certification programs. These programs usually include a heavy component of in-service training and usually begin with a "crash course" on pedagogical knowledge that is completed in a very short period of time. The creation and proliferation of such programs have generated great controversy in most countries where they exist. Among more recent developments is a tendency to offer new teachers some support in the form of "induction programs." Induction programs are planned for systematic programs of sustained assistance to the new teachers. Finally, trend in "in-service education"   is to offer a variety of opportunities for Professional development that goes beyond the "one-shot" short course or workshop traditionally offered to experienced teachers.

3.8 Education and Educational Training Situation of Bangladesh

3.8.1 The Number of Colleges and Involved Teachers

The secondary and higher secondary educational institutes are not enough in respective of total population of Bangladesh. The following table shows the Comparative picture of public and private institutions/ schools and colleges from the year 1995-2012.

Table 8: Number of colleges and number of teachers

Year	Number of colleges			Number of Teacher		
	Public	Private	Total	Public	Private	Total
1995	233	1041	1274	11437	2350	35027
1996	233	1136	1396	9834	30231	40085
1997	233	1436	1669	9869	33735	43424
1998	233	1666	1898	9701	38204	47905
1998	233	2106	2339	9661	48668	28329
2000	251	2176	2427	10744	50671	61415
2001	251	2260	2511	9496	33735	64720
2002	251	2383	2634	9509	58508	68017
2003	251	2543	2794	8234	66032	74266
2004	251	2599	285	74266	69082	78869
2005	251	2899	3150	10962	79439	90401
2006	251	2946	3197	10830	78293	89123
2008	252	3025	3277	10446	77269	87715
2009	253	3094	3347	10246	76045	86291
2010	256	3068	3324	9900	77320	87220
2011	265	3210	3475	10433	85187	95620
2012	288	3259	3547	11910	83663	95573

Source: Bangladesh Education Statistics, report-2012

The relation of increasing the institutes between public and private sector is 87% [0.87]. The result indicates that the increasmg tendency of public and private institutions highly positive or trend is acceptable. Again the relation of increasing the number of teachers between the public and private sector is less (18%) [r=0.18]. The relatin of the trend shown above suggests that the government is not emphasizing the privates sector.

3.8.2 The Number of Educational Institutions (colleges) and Teachers

The number of colleges and the teacher are shown in the following table

Table 9: Number of educational institution and teachers

Management type	No of institute	Total	Number of teacher	Total
School & colleges	Private=748	**758**	Private=12666	12751
	Public=10		Public=85	
Higher secondary colleges	Private=1150	**1178**	Private=20779	21092
	Public=28		Public=312	
Degree colleges (Pass)	Private=1079	**1172**	Private=37675	39741
	Public=93		Public=2066	
Degree colleges (Hon's)	Private=235	**316**	Private=1010	13006
	Public=81		Public=2906	
Masters colleges	Private=47	**123**	Private=2443	8983
	Public=76		Public=6540	
Grand Total		**3547**		95573

Source: Bangladesh Education Statistics, report-2012

Table 9 shows the number of college level educational institutions from where the respondents come to join the training courses on educational administration and management conducted by NAEM. The respondents have come from five types of institutions, such as (i) Schools & colleges, (ii) Higher secondary colleges, (iii) Degree colleges (Pass), (iv)Degree colleges (Hon's) and (v) Masters colleges. The BANBEIS data also show that all over the country 3547 college level institutions are available.

3.8.3 The Number of Training Institutions, Teachers and professionals in Bangladesh

Table 10: Information of Training Institutions of Bangladesh

Training institutions	Management	No of institute	No of teacher	No of professional
Primary training institute (PTI)	Public	54	632	13266
	Private	--	—	-
Teacher training colleges (TTC)	Public	14	360	6850
	Private	104	1234	12452
Technical teacher training colleges (TTTC)	Public	1	21	75
	Private	--	—	--
Vocational teacher training institute (VTTI)	Public	1	6	120
	Private	-	--	--
Physical education college	Public	4	52	675
	Private	25	229	2838
HSTTI	Public	5	66	544
	Private	-	—	--
BMTTI	Public	1	25	1935
	Private	—	—	--
Total		209	2625	38733

Source: Bangladesh Education Statistics, report-2012

Table 10 shows the number of teacher training institutions of Bangladesh from primary to higher secondary level. The total numbers of training institutions, total number of teachers and total numbers of professionals are shown in the above table. There are 54 primary training institutes public sector PTIs in Bangladesh. The number of teacher training colleges ise public 14, private sector 104, technical teacher training colleges only 01, vocational teacher training institute 01, physical education college public 04, private 25, HSTTI public 05, and BMTTI public 01. Total number of teachers training institution is 209, number of teacher 2625.

3.9 National Academy for Educational Management (NAEM), Dhanmondi, Dhaka-1205

3.9.1 NAEM Profile

Official Name	:	National Academy for Educational Management (NAEM)
Ministry	:	Ministry of Education
Address	:	NAEM Road, Dhanmondi, Dhaka-1205
Year of Establishment	:	1959 - Education Extension Centre
	:	1975- Bangladesh Education Extension & Research Institute (BEERI)
	:	1982 - National Institute for Education Administration Extension & Research (NIEAER)
		1992- National Academy for Educational Management (NAEM)
Area		8 Acres
Executive Head of the Academy	:	**Director General**
Functional Divisions	:	**Four Divisions:** Planning & Development Training & Implementation Research & Documentation Administration & Finance
Personnel	:	Director General - 01 Directors - 04 Deputy Directors - 07 Assistant Director - 16 Training Specialist - 26 Other Officers - 09 Staff - 78
NAEM Motto	:	**Teacher for Quality Education**
Website	:	www.naem.gov.bd
E-mail	:	info@naem.gov.bd

3.9.2 Historical Background

The National Academy for Educational Management (NAEM) is an apex institution in the fields of Educational Administration and Management, Educational Planning and Research in Bangladesh. It was established in 1959 as Education Extension Center responsible primarily for pedagogic in-service training of secondary school teachers. The center underwent several roles and structural transformations during the last four decades to meet the changing needs of time and the system of education in the country.

The metamorphosis of NAEM dates back to 1959 when it was established as Education Extension Center. After the emergence of Bangladesh, the center was upgraded and entitled as Bangladesh Education Extension and Research Institute (BEERI) in 1975. The BEERI was entrusted with additional responsibility for research and management training of education functionaries including College and Madrasah teachers and administrators.

In order to minimize the cost of education and promote effective educational management, the National Institute of Educational Management and Research (NIEMR) was amalgamated with BEERI and renamed as the National Institute for Education Administration Extension and Research (NIEAER) in 1982. The NIEAER once again transform to National Academy for Educational Management (NAEM) for satisfying the needs of quality management of educational institutions in 1992. The Academy aims at developing as a center of excellence in the field of educational administration and management training in Bangladesh.

NAEM has a self-contained complex of physical facilities e.g. Administrative and Academic Buildings, Library, Information Center, Auditorium, Classrooms, Seminar/Conference Rooms, Cafeteria, Residential Quarters, Hostels, Mosque and so on.

The Director General (DG) is the chief executive of NAEM. 4 Directors, 7 Deputy Directors, 16 Assistant Directors, 26 Training Specialists, 9 other Officers and 78 Staff support him to run the academic and administrative activities.

The Academy conducts six basic training courses as priority basis. These are (a) Foundation Training Course for BCS Education (General & Technical) Cadre Officers (b) Senior Staff Course on Education and Management (SSCEM) for Professors of different subjects (C) Advance Course on Education and Management (ACEM) for Associate Professors of different subjects of different government colleges (d) Educational Administration and Management Course for Principals and Heads of Secondary and Higher level institutions (e) Educational Research Methodology Course for selected members of BCS Education (General & Technical) Cadre Officers and (f) Education Planning and Development Training Course.

3.9.3 Training Activities of NAEM

It has been previously explained that NAEM conduct different types of training programs. The following table shows that the name of the training courses, nature of participants, total number of courses and the number of participants during the periods 1981 to June 2013.

Table 11: NAEM Training Course Summary (1981 to June 2013)

Course Name	Participants	Total Course	No of participants
Educational Administration and Management Training Oirse(General)	Head Teachers of the Secondary level institutions	82	2411
"Education[31] Administration and Management Training Courses (Integrated)	Head Teachers of the Secondary level institutions	75	2619
Refreshers course on Educational Administration and Management	Head Teachers of the Secondary level institutions	20	457
Educational Administration and Management Training Course(General)	Principals of colleges and madrasah	87	2286
Educational Administration and Management Training Courses(Integrated)	Principals of colleges and madrasah	101	2734
Refreshers course on Educational Administration and Management	Principals of colleges and madrasah	27	622
Educational Administration and Management Training Course (Special)	Officers of HSTTI	01	31
Foundation Training Courses	BCS (Education) Cadre Officers	138	14996
Educational Research Methodology Training Courses	Lecturer/Asst. Prof. of Government Colleges	32	811
Discipline and Appeal Rules Training Course	Officers of Mo E	01	28
Communicative English Language Course	English Teacher at Secondary level Institutions	40	1419
Library Planning & Management Course	librarian of Higher Secondary level institution	21	631
Computer Application Course	Secondary Heads and School Teacher	38	787

Course Name	Participants	Total Course	No of participants
Orientation Training Course	Newly Recruited BCS Officers	23	1011
Educational Administration Training Course	District Education Officers	07	161
Training of Trainers (TOT)	Principal/Lecturer/ Head Teacher/ HSTTI officers/Assistant Teacher	17	489
Computer. Application Training Course	Officers of DSHE, NAEM, BANBEIS,DIA, HSTTI, TTC, NCTB,BISE	25	678
Test Training Course	Head Teacher o School	03	75
Educational Research Methodology Training Courses	BCS Cadre officers(1st to 10* position holder in Foundation Training)	02	70
"Office management Course -. -	Officers of DSHE, NAEM, & SESIP, Principal, DEO, Education Board Officers	23	631
"Office management Course	Field level Typist Cum Clerk	06	234
Disaster Management Training Course	Principal/Lecture/Head teacher	09	220
Institutional Management Training Course	Principals of college	12	330
Refreshers' Course on institutional Management	Principals of college	02	79
Institutional Management Course	Head Teachers of Secondary level	18	690
Project Management Course	Project Implementation officer/ officer of MOE	37	871
Educational Management and Academic Supervision course	FSSAP-II Head Teachers	01	25
Computer Application Course	SESIP, NAEM, DHSE Officers/Staffs/Project Officers of FSSP	25	678
Computer Teacher Training Course	Computer Teachers of Secondary Schools	04	98
Orientation Course (Subject _wise)	Newly Recruited Govt. School Teacher (English/Bangla)	06	252

Course Name	Participants	Total Course	No of participants
Awareness of Female Stipend Programmed office and Financial Management	Field level Project Officer	01	45
Institutional management Course	Head Teachers of Secondary School	20	716
Education Planning and Development	Officers of MOE	18	497
	Total	922	37682

Source: NAEM ffocial records 1981-June 2013

The above tables show that NAEM conducts the training in different stages. They are revenue funded courses and development-funded courses. The development funded courses are two types; one is implemented in NAEM and another is implemented in HSTTI. Total 37682 participants were trained up during the above mentioned period. It is remarkable that most of the participants were teachers and come from different colleges of Bangladesh.

3.10 Overview of Bangladesh Madrasa Teachers Training Institute (BMTTI), Gazipur

3.10.1 Introduction

When a person receives training, his knowledge and efficiency on that particular subject improve; and ultimately his morality changes. Teaching is the main duty for a teacher. As a result, a teacher needs a lot of training. Madrasa Education is one of the important parts of the education of Bangladesh. But in this part, professional expertise of the teachers is very rare. So to meet this challenge, Bangladesh Madrasa Teachers Training Institute (BMTTI) has been established.

Those who teach in different madrasas in our country are mostly without training. To make them skilled and expert on modern teaching approaches, training courses run by BMTTI are immediately needed.

3.10.2 Introduction of Institution

Bangladesh Madrasa Teachers Training Institute (BMTTI) is an institution under the Ministry of Education, Bangladesh. It was established in 1995 to train the huge number of madrasa teachers in Bangladesh.

Main goals and objectives

a. To adapt madrasa education to a modern shape, to meet the ever changing social demands,

b. To create the institutional facilities for the trained teachers,

c. To arrange trainings for the teachers before the teaching and during the teaching,

d. To help improve the qualitative value and expertise of the teachers,

e. To lessen the existing difference between general education and madrasa education.

Location

It is situated at Board Bazar, in Gazipur just beside National University, Open University and Islamic University of Technology (IUT). The institution includes a five-storeyed administrative and academic building, a five-storeyed male hostel, a two-storeyed female hostel, playground and different types of trees in its premises.

The employees the institution includes are the Principal, the Vice-Principal, four associate professors, one assistant director, six assistant professors, ten lecturers, and forty four officials.

If the location, facilities and goals and objectives are evaluated, this institution is a modern one. This institution has already drawn the attention of the intellectuals of the country and has been contribution to the qualitative improvement of education.

3.10.3 Facilities

The trainees of BMTTI get the following facilities during the training period:

a. Residential hostel facilities

b. Food facilities in the institutional dining managed by the trainees themselves

c. Extra-curricular activities such as playing the institutional playground,

d. Taking prayers in the institutional mosque,

e. Others

3.10.4 Training Goal and Objectives

By improving the professional expertise of the teachers, the development of the students and their minds is possible.

    a. To expend the subject knowledge of the teachers. In this step, the selected subject is Mathematics.

    b. To introduce practical, modern and activity-based teaching methods and approaches,

    c. To improve their efficiency regarding preparing lesson plan and evaluation methods,

    d. To provide them with real-life techniques and strategies of institution management,

    e. To raise the awareness in the trainees about the application of this received knowledge in their institutions,

    f. To train the trainees on computer literacy.

3.10.5 Training methodology

In the training, group work, mandatory participation, and activity based procedure are followed. Every trainee must participate in the training session actively. Following steps are there:

    a. Speech delivery,

    b. Group work,

    c. Individual participation,

    d. Practical activity,

    e. Quiz session,

    f. Preparing report

    g. Participatory method,

    h. Presentation

    i. Demonstration

3.10.6 Training Evaluation Procedure

The trainees' performances are evaluated during and after the training session. The evaluation consists of 4oo marks. The total marks are distributed in the following way:

Table 12: Training Evaluation of BMTTI, Gazipur

Subject	Total marks
Post-test evaluation (subjective)	100
Post-test evaluation (general)	75
Active participation in session	25
Hostel, and campus discipline	25
computer	25
Study tour report preparation	(25+25)= 50
Simulation and lesson plan	30
Quiz on general knowledge	30
Physical training	40
Total	400

Table 13: Overall grading system is done in the following way

80% and above	A+
70% and less than 80%	A
60% and less than 70%	B+
50% and less than 60%	B
40% and less than 50%	C

3.10.7 Training Summary of Bangladesh Madrasa Teachers Training Institute (BMTTI), Gazipur

Table 14: All Training Summary of BMTTI, Gazipur

Sl. No.	Name of Training	Batch	Perticipant No.
1.	Subject training for Dakhil level	Till 91th batch	10,252
2.	Educational administration and management training for principals	Till 45th batch	1544
3.	Educational administration and management training for madrasa supers	Till 52th batch	2024
4.	Subject (Arabic) training for senior madrasa lectures	Till 23th batch	1133
5.	Subject (English) training for senior madrasa lectures	Till 11th batch	286
6.	Subject (Math) training for senior madrasa lectures	Till 3rd batch	107
7.	Subject (Biology) training for senior madrasa lectures	Till 2nd batch	61
8.	Educational administration and management training for heads of the Ibtedayee	Till 29th batch	1129
	Total		16536

Source of information: office records, BMTTI, Gazipur (20th November, 2012)

3.11 Overview of HSTTIs in Bnglades

3.11.1 Introduction HSTTIs

Higher Secondary Teacher Training Institute (HSTTI) was established by the Higher Secondary Education project (HSEP) of the Ministry of Education in the year 1995 Higher Secondary Education Project (HSEP) has been working from July 1992 and with the financial help of ADB UNDP and Bangladesh Govt. Higher Education Secondary Project (HESP) constructed 5 campuses of the 5 HSTTIs at Mymensingh, Comilla, Barisal, Khulna, Rajshahi in the year 1998 To train teachers of Higher Secondary level. There was no provision for training of the Higher Secondary Teachers before 1995. The project came to an end in June 1999 keeping back its landmark HSTTI as a permanent set up in the country.

3.11.2 Geographical position and Area

Five HSTTI are located at the Divisional Head quarters of Rajshahi, Khulna, Barisal except Dhaka, Sylhet and Chittagong. The campuses are accommodated in an area of approximately 2 acres of land inside the Teachers Training College of Mymensingh, Comilla, Rajshahi, Khulna and Barisal.

3.11.3 Mission of HSTTI

- To increase competence in teaching learning process and reflective practice of Higher Secondary level subject based college teachers.
- To develop competence in teaching learning process and practices for effective and innovative class room management.
- To accelerate competences in educational management and supervision system of secondary level Head teachers.

3.11.4 Objectives of the HSTTI

The aim and objectives of the HSTTIs have been set as follows:

a. In-service training to all teachers of H/S level of education.

b. Orientation of teachers with the new curriculum and syllabus of H/S education.

c. To create consciousness amongst teachers for need of training.

d. To develop right attitudes for commitment towards profession.

e. To make teachers professionally skilled.

f. To upgrade expertise in educational management.

g. To develop the teaching quality of school and college teachers.

h. To ensure a quality education that will create an environment for the appreciation and practice good values.

3.11.5 Functions of HSTTI Training

HSTTI gives in-service training on "subjects and pedagogy' to the teachers of higher secondary level. It is also conducting training course on "Educational Administration and Management". "Educational Management and Academic Supervision" for the heads of secondary and Higher Secondary level institutions and "subject based training program including computer" for the teachers of secondary level.

On going program

1. Subject and pedagogy based Training (In-Service) of College subject Teachers.
2. Administration and Management Training for Higher Secondary level College principals.
3. Computer Training for College Computer Teachers
4. Professional development Training for the Head of the Secondary School.
5. Follow-up Training for the Head of the secondary Schools.
6. Computer Training program for Secondary level teachers.
7. TOT-Training for the Assistant Teachers government and non-government Secondary Schools.
8. LSBE-Training for the Head Teachers/Assistant Teachers and Education Officers of the Secondary level.
9. Digital contents development Training for Secondary and Higher Secondary level teachers.
10. Professional development Training for the Head of the Secondary School under TQI-SEP-2 project

3.11.6 Present status of manpower in five HSTTIs

The five HSTTIs are still in the processing for entry into the government revenue budget. A total of 380 posts were proposed to transfer in the revenue. Ministry of Establishment recommended for only 241 posts. The present rank structure of the manpower in each HSTTI is shown in the following table

Table 15: Manpower in five HSTTIs

SI No.	Post	PP-approved	recommended	Not recommended
1.	Director	5	5	-
2.	Facultry Member i) Additional Director ii) Deputy Director iii) Assistant Director	 15 30 45	 5 10 20	 10 20 25
3	Class-I Officer	15	5	10
4	Class-2 Officer	10	10	-
5.	Employee-3 class	95	87	08
6	Employee- 4 class	165	99	66
	Total in five HSTTIs	380	241	139
	Total in each HSTTI	76	48	

Source of information: office records, HSTTIs in Bangladesh

The above table 15 shows that the number of total manpower of Govt.project (HSEP) proforma in five HSTTIs approved 380.but Govt. revenue budget transfer manpower recommended total 241. Total in each HSTTI manpower 48 HSTTI, Rajshahi existing manpower Director-01, Additional Director-01, Deputy Director-02, Assistant Director-04 Assistant programer-01 and others Employee-39.

3.12 In-service training budget of HSTTIs in Bangladesh

3.12.1 Subject based teachers training budget of higher secondary level

Table 16: Subject based teachers training budget of HSTTIs in Bangladesh (Batch = 01, perticipant = 80, course duration, 40 days)

Sl. No.	Expenditure criteria	Quantity	Amount	Total amount
1.	Opening and closing, chief guest honorium	1500×2	3000	3000
2.	Opining clossing brackfast	90×20×2	3600	3600
3.	Participant daily allowance	80×40×200	640000	640000
4.	Participant TA allowance	80×800	64000	64000
5.	Participant training materials	80×500	40000	40000
6.	Participant books allowance	80×800	64000	64000
7.	PT (kit) dress and cats allowance	80×1000	80000	80000
8.	Educational tour and AR field trip	80×1200	96000	96000
9.	Guest speaker Honarium	48×750	36000	36000
10.	Participant training manual	80×500	40000	40000
11.	Others: course materials, evaluation honarium, PT teacher and certificate	27000×1	27000	27000
			Grand total	1093600

Source: HSTTTIs training budget copy 2013-2014

This table aboves (table 16) shows the subject based teacher training program (SBTTP) budget (HSTTIs) of higher secondary level teachers in Bangladesh. This table mainly focused that college subject teacher perticipant daily allowance only 200 tk, TA allowance 800 tk, training materials- 500 tk, book allowance-800 tk, Pt (kit) allowance-1000 and Education tour, AR field trip allowance-1200 tk. Here total batch 01,

participant 80, grand total budget 10,93,600. So one HSTTI, 01 year budget 10,93,600×5 = 59,63,000.

3.12.2 Education management training budget of higher secondary level principals as HSTTIs in Bangladesh

Table 17: Education management training budget of higher secondary level principals (Batch = 01, perticipant = 30, course duration, 20 days)

Sl. No.	Expenditure criteria	Quantity	Amount	Total amount
1.	Opening and closing, chief guest honorium	1500×2	3000	3000
2.	Opining closing brackfast	35×20×2	1400	1400
3.	Participant daily allowance	30×20×200	120000	120000
4.	Participant TA allowance	30×1000	30000	30000
5.	Participant training materials	30×500	15000	15000
6.	Participant training manual	30×500	15000	15000
7.	Educational tour allownace	30×1000	30000	30000
8.	Guest speaker honarium	31×1000	31000	31000
9.	Others: course materials, evaluation honarium, certificate and etc.	20000	20000	20000
			Grand total	265400

Source: HSTTTIs training budget copy 2013-2014

This table aboves (table 17) shows the education management training budget of higher secondary level principals budget HSTTIs in Bangladesh. This table mainly focused that college principal perticipant daily allowance only 200 tk, TA allowance-1000 tk, training materials-500 tk, training manual allowance-500 tk, and Education tour allowance-1000 tk. Here total batch 01, perticipant 30, grand total budget 265400. So one HSTTI, 01 year budget 265400×2 = 530800.

3.12.3 Comptuer teachers training budget of higher secondary levels computer teachers as HSTTIs in Bangladesh

Table 18: Comptuer teachers training budget of higher secondary level comptuer teachers (Batch = 01, perticipant = 20, course duration, 27 days)

Sl. No.	Expenditure criteria	Quantity	Amount	Total amount
1.	Opening and closing, chief guest honorium	1500×2	3000	3000
2.	Opining closing brackfast	25×20×2	1000	1000
3.	Participant daily allowance	20×27×200	108000	108000
4.	Participant TA allowance	20×800	16000	16000
5.	Participant training materials	20×500	10000	10000
6.	Participant books allownance	20×600	12000	12000
7.	Participant training manual and certificate	20×550	11000	11000
7.	Educational tour allowance	20×1000	20000	20000
8.	Guest speaker honarium	72×1000	72000	72000
10.	Others: course materials, evaluation honarium, lab charge and etc.	18000	18000	18000
			Grand total	271000

Source: HSTTTIs training budget copy 2013-2014

This table aboves (table 18) shows the computer training budget of higher secondary level computer teacher in the HSTTIs in Bangladesh. This table mainly focused that college computer teacher perticipant daily allowance only 200 tk, TA allowance-800 tk, training materials-500 tk, training book allowance-600 tk, and Education tour allowance-1000 tk. Here total batch 01, perticipant 20, grand total budget 271000. So one HSTTI, 01 year budget 271000×5 = 1355000.

3.13 Facilities of infrastructure and others

The institute has 3 storied Academic Building, 4 storied Hostel Building, 2 storied Rest house duplex Director House and Hostel Super House

1. Academic Building:

a) Hall room:

On the 1st floor of the Academic Bhaban there is 120 seated hall room known as Padma with well equipped sound system for inauguration, closing, seminar, symposium and workshop etc and also has a classroom cum conference room with well quipped sound system for 30 participants on the ground floor.

b. Training Class Room:

The institute has eight well furnished class rooms (40 seated), two computer labs with 30 computers and one Audio visual class room Computer labs having air condition with internet facilities.

c. Training equipment facilities:

- Four multimedia projectors
- Six overhead projectors
- Audio-Visual Aids and Instruments
- Teaching-Learning Aids, Tools and Instruments
- Other equipments

d. Library:

HSTTI has a Library having 6000 books of various categories. Nearly 40 readers can use the Library at a time. The location of the library is on the 1st floor of the academic building.

2. Residential facilities (Hostel):

HSTTI to provide boarding facilities has a four storied hostel buildings with 180 seats.

3. Rest House:

There are three comfortable two seated well decorated rooms and one air conditioned VIP room.

3.14 Status of HSTTI Training program, Rajshahi

3.14.1 Summary of the existing training programs in Higher Secondary Teachers' Training Institute, Rajshahi

Table 19: Summary of the existing training programs in Higher Secondary Teachers' Training Institute, Rajshahi

Sl. No.	Name of Course	Total Courses	No. of Days	Trained		Total Participant	Remarks
				Male	Female		
01	Subject Based Training Course for Higher Secondary Level Teachers	56	56/40	3539	686	4225	HSEP NAEM DSHE
02	Educational Administration & Management Training Course for the Principal	15	20	366	05	371	DSHE
03	Computer Training Course for higher Secondary level Teachers	24	27	414	54	468	DSHE
04	Refreshers Training Course for Higher Secondary Teachers	08	14	640	67	707	HSFSP
	Higher Secondary level Sub Total			**4950**	**812**	**5771**	
05	Computer Training Course for Secondary level Teachers	21	30	363	56	419	MOE
06	Subject-based Training Course for Secondary level School Teachers	05	30	240	43	283	SESIP
07	Educational Administration and Management Course for Head Teacher	12	21	390	05	395	NAEM
08	Educational Management and Academic Supervision Course for Head Teacher	09	10	393	03	396	FSSAP-II
09	Educational Management and Academic Supervision Course for Asst. Head Teacher	04	10	185	06	191	FSSAP-II
10	Subject-based Training Course for Secondary level School Teachers	24	14	1135	212	1347	FSSAP-II
11	Professional Development Training Course for School Head Teachers	41	21	2887	46	2933	TQI-SEP
12	Follow up Course for Head Teacher	37	6	2573	38	2611	TQI-SEP
13	Training of Trainer (TOT) Course for Secondary level Teachers	11	06	261	32	293	TQI-SEP
14	New Head teacher pre-service Training course for secondary level	07	35	226	13	239	TQI-SEP
15	Follow up Training Course for Pre-Service Head Teacher	05	06	153	08	161	TQI-SEP
16	Life Skills Based Education (LSBE) Training Course for Head Teacher & Educational Officers	06	05	180	06	186	DSHE & UNICEF
17	Digital Contents development Training for Secondary & Higher Secondary level	22	12	372	221	593	ICT Project, MOE
	Secondary Level Teachers Training Sub Total			**8986**	**689**	**10047**	
	Secondary & Higher Secondary Level Teachers Training Grand Total			**13945**	**1501**	**15818**	

Source: HSTTI, Rajshahi Official Records (1995-June 2013)

3.14.2 Summary of Subject and pedagogy based training courses HSTTI, Rajshahi

Table-20: Summary of the subject and padegogy based training course

Subject	Course No Subject wise	Total participants	Male	Female	Remarks
Bangla	09	350	231	119	
English	08	223	201	22	
Economics	07	251	190	61	
Civics	07	246	200	46	
Logic	05	174	130	44	
Islamic History	05	169	151	18	
History	05	185	150	35	
Sociology	04	154	118	36	
Social Welfare/ Social Work	05	195	153	42	
Physics	07	202	185	17	
Chemistry	06	223	203	20	
Botany	03	76	62	14	
Zoology	03	91	78	13	
Mathematics	06	216	208	08	
Geography	05	195	183	12	
Psychology	04	138	103	35	
Statistics	04	160	146	14	
Management	06	220	187	33	
Accounting	06	239	225	13	
Islamic Studies	05	196	178	18	
Marketing	03	111	94	17	
Biology	05	180	141	39	
Agriculture Studies	01	32	22	10	
Total=	56	4225	3539	686	

Source: HSTTI, Rajshahi Official Records (1995-June 2013)

This table shows the (Table 20) subject and padagogy based training course, total perticipant and subject summary of HSTTI Rajshahi through Inservice training program. Here total subject training at higher secondary level (College) 23 subject teacher, total course 1995, June, 2013 56 course, course duration 56/40 days. Such as subject Bangla-250, English-223, Economics-250, Civies-246, Logic-174, Islamic istory-169, History-185, Sociology-154, Social work-195, Physics-202, chemistry-223, Botany-76, Zoology-91, Mathmatics-216, Geography-195, Psychology, 138, Statistics-160, Management 220, Accounting 239, Islamic Studies-196, Marketing-111, Biology-

180, Agriculture studies-32. Total subject teacher trained completed 4225 here male 3539 and female 686.

3.14.3 Summary of education administration and management training program for the higher secondary level principals in HSTTI, Rajshahi

Table 21: Summary of education administration & management training program

SL. No.	Training duration	Batch No.	Total participant	Male	Female	Remarks
1.	11.12.2006-30.12.2006 (20 days)	01	40	40	0	
2.	05.02.07-24.02.07	02	37	37	0	
3.	07.04-07-26.04.07	03	34	34	0	
4.	01.09.07-20.09.07	04	26	26	0	
5.	04.02.08-23.02.08	05	30	30	0	
6.	11.10.08-30.10.08	06	29	28	01	
7.	02.03.09-21.03.09	07	27	27	0	
8.	13.02.10-04.03.10	08	22	20	02	
9.	04.05.10-23.05.10	09	20	20	0	
10.	04.12.10-23.12.10	10	12	12	0	
11.	09.03.11-28.03.11	11	23	23	0	
12.	10.09.11-29.09.11	12	16	16	0	
13.	07.02.12-26.02.12	13	17	16	01	
14.	01.12.12-20.12.12	14	21	20	01	
15.	23.12.13-14.03.13	15	17	17	00	
	Total=	15	371	366	05	

Source: HSTTI, Rajshahi Official Records (1995-June, 2013)

This table above (table-29) shows that HSTTI, Rajshahi through Educations administration and management training course perticipant summary at the higher secondary levels principal. HSTTI Rajshahi training started 11,12,2006 to 30.12.2006 (20 days) at 1st batch total perticipant 40 person. Lastly 15th batch raining time 23.12.13 to 14.03.13 percipanted training 17. Then 15th batch total training perticipant 371 here male perticipant 266 and female perticipant only 05.

3.14.4 Summary computer training for higher secondary levels computer teacher (HSTTI Rajshahi)

Table 22: Summary computer training in HSTTI, Rajshahi

SL. No.	Training duration	Batch No.	Total participant	Male	Female	Remarks
1.	04.11.06- 30.11.06 (27 days)	01	20	17	03	
2.	05.03.07-31.03.07	02	20	16	04	
3.	17.04.07-13.05.07	03	20	20	0	
4.	03.11.07-29.11.07	04	20	18	02	
5.	02.02.08-28.02.08	05	20	20	0	
6.	03.05.08-29.05.08	06	20	13	07	
7.	04.10.08-31.10.08	07	20	17	03	
8.	10.11.08-06.12.08	08	20	15	05	
9.	02.03.09-28.03.09	09	20	19	01	
10.	22.08.09-17.09.09	10	19	17	02	
11.	02.12.09-28.12.09	11	19	17	02	
12.	08.05.10-03.06.10	12	20	18	02	
13.	02.12.10-28.12.10	13	19	17	02	
14.	01.01.11-27.01.11	14	21	19	02	
15.	07.05.11-02.06.11	15	17	17	0	
16.	08.10.11-03.11.11	16	19	18	01	
17.	07.12.11-02.01.12	17	16	15	01	
18.	07.01.12-02.02.12	18	20	19	01	
19.	08.02.12-05.03.12	19	19	18	01	
20.	02.05.12-29.05.12	20	20	17	03	
21.	05.04.12-01.10.12	21	20	19	01	
22.	05.11.12-01.12.12	22	20	17	03	
23.	22.12.12-17.01.13	23	20	16	04	
24.	19.01.12-14.03.13	24	20	16	04	
	Total=	19	468	414	54	

Source: HSTTI, Rajshahi Official Records (1995-June, 2013)

This table above (table 22) shows that HSTTI, Rajshahi computer training for computer teacher of higher secondary levels. HSTTI Rajshahi computer training started 04.11.2006 to 30.11.06 (27 days) at 1ˢᵗ Batch total particiant 20. Lastely 24ᵗʰ training period 19.01.12 to 14.02.13 perticipated trainee 20. Hare HSTTI, Rajshahi computer training for computer teachers at Higher Secondary levels total course 24. During training period 04 November from February 2013 total perticipant 468. Here Male 414 and Female 54.

3.15 Status of HSTTI Training program, Barisal

3.15.1 Summary of all existing training programs in higher secondary teachers' training institute, Barisal

Table 23: Summary of all existing training programs in higher secondary teachers' training institute, Barisal

Sl. No.	Name of Course	Total Courses	No. of Days	Trained		Total Participant	Remarks
				Male	Female		
01	Subject Based Training Course for Higher Secondary Level Teachers	54	56/40	2737	625	3362	HSEP NAEM DSHE
02	Educational Administration & Management Training Course for the Principal	15	20	244	06	250	DSHE
03	Computer Training Course for higher Secondary level Teachers	24	27	335	45	380	DSHE
04	Refreshers Training Course for Higher Secondary Teachers	05	14	163	20	183	HSFSP
	Higher Secondary Level Sub-Total			3479	696	4175	
05	Computer Training Course for Secondary level Teachers	24	30	294	61	355	MOE
06	Subject-based Training Course for Secondary level School Teachers	02	30	106	08	114	SESIP
07	Educational Administration and Management Course for Head Teacher	12	21	366	11	377	NAEM
08	Educational Management and Academic Supervision Course for Head Teacher	15	10	368	10	378	FSSAP-II
09	Educational Management and Academic Supervision Course for Asst. Head Teacher	08	10	280	08	288	FSSAP-II
10	Subject-based Training Course for Secondary level School Teachers	24	14	1148	184	1332	FSSAP-II
11	Professional Development Training Course for School Head Teachers	36	21	1683	96	1779	TQI-SEP
12	Follow up Course for Head Teacher	30	06	1601	85	1686	TQI-SEP
13	New Head teacher pre-service Training course for secondary level	10	35	348	18	366	TQI-SEP
14	Follow up Training Course for Pre-Service Head Teacher	05	06	269	15	284	TQI-SEP
15	Life Skills Based Education (LSBE) Training Course for Head Teacher & Educational Officers	04	05	99	10	109	DSHE & UNICEF
16	Digital Contents development Training for Secondary & Higher Secondary level	24	12	535	112	647	ICT Project, MOE
Secondary Level Teachers Training Sub Total				7097	618	7715	
Secondary & Higher Secondary Level Teachers Training Grand Total				10576	1314	11890	

Source: HSTTI, Barisal Official Records (1996-June 2013)

3.15.2 Summary of subject and pedagogy based training in Higher Secondary Teachers' Training institute, Barisal

Table 24: Summary of subject and Pedagogy based Training courses (54 Batch)

Subject	Course No Subject wise	Total participants	Male	Female	Remarks
Bangla	09	289	208	81	
English	07	155	125	30	
Economics	07	237	172	65	
Civics	07	210	174	36	
Logic	05	156	134	25	
Islamic History	05	175	144	31	
History	05	165	138	27	
Sociology	03	95	75	20	
Social Welfare/ Social Work	06	151	111	40	
Physics	07	175	158	17	
Chemistry	06	185	152	33	
Philosophy	01	20	16	04	
Mathematics	07	191	176	15	
Geography	02	75	65	10	
Statistics	01	26	22	04	
Management	08	258	218	40	
Accounting	07	227	196	31	
Islamic Studies	05	196	176	20	
Marketing	01	27	24	03	
Biology	05	150	111	39	
Agriculture Studies	03	101	87	14	
Secretarial Science	01	34	29	05	
Sanskrit	01	35	29	06	
Home Economics	01	29	0	29	
Total=	54	3362	2737	625	

Source: HSTTI, Barisal Official Records (1996-June 2013)

This table shows the (Table 24) subject and padagogy based training course, total perticipant and subject summary of HSTTI Barisal through Inservice training program. Here total subject training at higher secondary level (College) 23 subject teacher, total course 1996, June, 2013 54 course, course duration 56/40 days. Such as subject Bangla-289, English-155, Economics-237, Civies-210, Logic-156, Islamic istory-175, History-165, Sociology-95, Social work-151, Physics-175, chemistry-185, Mathmatics-

191, Geography-75, Philosophy-20, Statistics-26, Management 258, Accounting 227, Islamic Studies-196, Marketing-27, Biology-150, Agriculture studies-101, secretarial science-34, Sanskrit-35. Total subject teacher trained completed 3362 here male 2735 and female 625.

3.15.3 Summary of education administration and Management Training program for the higher secondary level principals HSTTI, Barisal

Table 25: Summary of education administration and management training program for the higher secondary level principals HSTTI, Barisal

SL. No.	Training duration	Batch No.	Total participant	Male	Female	Remarks
1.	11.12.2006- 30.12.2006 = 20 Days	1	28	28	0	
2.	20 Days	2	17	15	02	
3.	20 Days	3	18	17	01	
4.	20 Days	4	20	20	0	
5.	20 Days	5	16	15	01	
6.	20 Days	6	16	16	0	
7.	20 Days	7	18	18	0	
8.	20 Days	8	17	16	0	
9.	20 Days	9	12	12	0	
10.	20 Days	10	10	10	0	
11.	20 Days	11	21	21	0	
12.	20 Days	12	14	13	01	
13.	20 Days	13	15	15	0	
14.	20 Days	14	18	17	01	
15.	20 Days (05.02.13 – 24.02.13)	15	10	10	0	
			250	244	06	

Source: HSTTI, Barisal Official Records (2006-June, 2013)

This tables above (table-25) shows the HSTTI, Barisal through Educational administration and management training course perticipant summary at the higher secondary levels principal. HSTTI Barisal training started 11.12.2006 to 30.12.2006 (20 days) at 1st batch total perticipant 28 person. Lastly 15th batch raining time 05.02.13 to 24.02.13 percipanted training 10. Then 15th batch total training perticipant 250 here male 244 and female perticipant only 06.

3.15.4 Summary of computer training for higher secondary levels computer teacher in HSTTI, Barisal

Table 26: Summary of computer teacher training in HSTTI, Barisal

SL. No.	Training duration	Batch No.	Total participant	Male	Female	Remarks
1.	27 Days	1	18	16	02	
2.	27 Days	2	18	16	02	
3.	27 Days	3	15	15	0	
4.	27 Days	4	13	13	0	
5.	27 Days	5	18	15	03	
6.	27 Days	6	17	14	03	
7.	27 Days	7	15	13	02	
8.	27 Days	8	14	08	0	
9.	27 Days	9	13	16	04	
10.	27 Days	10	08	13	01	
11.	27 Days	11	20	10	0	
12.	27 Days	12	14	9	02	
13.	27 Days	13	10	14	01	
14.	27 Days	14	11	09	0	
15.	27 Days	15	15	16	02	
16.	27 Days	16	09	14	0	
17.	27 Days	17	18	15	02	
18.	27 Days	18	14	15	01	
19.	27 Days	19	17	15	03	
20.	27 Days	20	16	15	02	
21.	27 Days	21	20	15	05	
22.	27 Days	22	20	17	03	
23.	27 Days	23	20	16	04	
24.	27 Days	24	19	17	02	
	Total		380	335	45	

Source: HSTTI, Barisal Official Records (2006-June, 2013)

This table above (table 26) shows that HSTTI, Barisal computer training for computer teacher of higher secondary levels. HSTTI Barisal computer training started November, 2006 (27 days) at 1st Batch total particiant 18. Lastely 24th training period February, 2013 perticipated trainee 19. Hare HSTTI, Barisal computer training for computer teachers at Higher Secondary levels total course 24. During training period 04 November from February 2013 total perticipant 380. Here Male 335 and Female 45.

3.16 Findings of this chapter

- Out of the 3547 colleges in the country only 288 (8.12%) are uner government management, 1936 (54.58%) are intermediate colleges, 1172 (33.04%) are degree (pass) colleges, 316 (8.9%) degree (hons) level colleges. There are 123 (3.47%) colleges offering master degree courses.

- There are 118 teacher training colleges, 104 are privately managed and the remaining 14 are public colleges.

- There are 54 primary teacher training institutes. All are managed by government and primary level teachers get training from these institutions.

- There is only one training institute named BMTTI in Gazipur for the teachers of Madrasha education system of Dakil, Alim, Fajil levels.

- BMTTI, Gajipur is an In-service training institution under the Ministry of Education was established in 1995 to train the huge number of Madrasha teachers in Bangladesh. BMTTI conducted eight types of training of total 16536 trainees (1995 to November, 2012) in different stages.

- There are only one In-service training apex institution was established in 1959 as the National Academy for Education Management (NEAM) in the field of education administration and management, educational plnning and research in Bangladesh.

- NAEM conducts the In-service training in different stages such as secondary, higher secondary and college levels of Govement and Non-govement instations. According to NAEM officials records 1981- June 2013 total 37682 trainees participated in different training programs.

- HSTTI, Rajshahi arranged subject and pedagogy based In-service training for 4225 higher secondary level college teachers (1995 June, 2013 training duration 56/40 days). Here male perticipants are 3539 (83.76%) and female perticipants are 686 (16.23%).

- HSTTI, Rajshahi arranged educational management In-service training for 371 Higher secondary level principals (duration 20 days). Here male perticipants are 366 and only 05 female.

- HSTTI, Rajshahi conducted computer based In-service training for 468 higher secondary level computer teachers (training duration 27 days). Here male perticipants 414 and female perticipants are only 54.

- HSTTI, Barisal conducted subject and pedagogy based In-service training for 3362 higher secondary level college teachers (1996 June, 2013 training duration 56/40 days). Here male participants are 2737 (81.40%) and female participants are 625(18.59%).

- HSTTI, Barisal conducted educational management In-service training for 250 higher secondary level principals (duration 20 days). Here male perticipants are 244 and only 06 female.

- HSTTI, Barisal rendered computer based In-service training for 380 higher secondary level computer teachers (training duration 27 days). Here male perticipants are 335 and female perticipants are only 45.

- Present status of manpower is per HSTTI 09 faculty members and other employee 39. This manpower is not sufficient for verious types of training programs in secondary and higher secondary levels.

- HSTTIs In-service training program budget allocation for the allowance of the perticapants such as daily allowance, TA, Training materials, book allowance and kit allowance are not sufficient in our present condition.

3.17 Conclusion

This chapter of the research has been arranged on the basis of the secondary data and related literature. Mainly the researcher focuse on relavence and status of In-service Training programs and Institutions. Here this chapter discribed Education system,Education structure, Aims and objecttives of secondary and higher secondary Education, Aim and objective of teacher training Education. In-service training institutions NAEM, BMTTI profile, training activities and statictics of training summary. HSTTI Rajshahi and Barisal In-service training status, training objective, Training activities, overall facilities of HSTTIs, Statictics of training summary, Manpower and budgetary informations of the HSTTIs in-service training program are also taken into account. HSTTI, Rajshahi arranged subject and pedagogy based In-service training for 4225 higher secondary level college teacers (1995 June, 2013 training duration 56/40 days). Here male participants are 3539 (83.76%) and female perticipants are 686 (16.23%). HSTTI Rajshahi conducted educational management In-service training for 371 Higher secondary level principals (duration 20 days) here male are 366 and only 05 female and in conducted computer based In-service training for 468 higher secondary levels computer teachers (training duration 27 days) where male perticipants were 414 and female perticipants were only 54. HSTTI, Barisal rendered subject and pedagogy based In-service training for 3362 higher secondary level college teacers (1996 June, 2013 training duration 56/40 days). Here male perticipants were 2737 (81.40%) and female perticipants were 625(18.59%). HSTTI Barisal conducted educational management In-service training for 250 Higher secondary level principals (duration 20 days) where male participants were 244 and only 06 female and rendered computer based In-service training for 380 higher secondary levels computer teacher (training duration 27 days) where male perticipants were 335 and female perticipants were only 45.

SOCIO-ECONOMIC CONDITION OF THE RESPONDENTS

4.1 Prelude

This chapter focuses on the socio-economic condition of the respondents such as non-govt. college principals, subject teachers and computer teachers who recived training from HSTTIs. Mainly these respondents received training from HSTTI, Rajshahi and HSTTI Barisal. These respondents were selected from 200 colleges under these two HSTTIs. The purpose of this chapter is to investigate the socio-economic condition of the respondents.

4.2 Brief discription of the study area and respondents' working area

Bangladesh Govt. through the ministry of Education has established 5 HSTTIs in five major cities in Bangladesh to train up mainly the higher secondary level college principals, subject teachers, computer teachers and it covers the seven divisions of the country. HSTTI, Rajshahi has been conducting training covering the areas of 8 districts in Rajshahi division and eight districts in Rangpur Division; and HSTTI, Barisal has been conducting training covering the areas in six districts of Barisal Division and five districts of Dhaka Division. So HSTTI Rajshahi and Barisal have been selected purposively as my study area of the research. Furthermore, information from high officials and faculty members, resource persons and stakeholders of HSTTIs in Bangladesh has been collected through Interview schedule.

Table 27: Summary of the respondents' working area at the higher secondary level institutions

Working area	Urban	Rural	Total	Frequency	Percentage
HSTTI Rajshahi	55 (39.5%)	85 (60.7%)	140	140	70.0
HSTTI Barisal	26 (43.3%)	34 (56.7%)	60	60	30.0
Total	81 (40.5%)	119 (59.5%)	200	200	100.0

This table above (table 27) that shows the summary of total 200 respondent/perticipants working area i.e. rulal and urban at the higher secondary level institutions. Under HSTTI, Rajshahi respondents are selected from 140 colleges. Here 85 (60.7%) selected colleges are from rural area and 55 (39.5%) selected colleges are from urban area.

Under HSTTI, Barisal respondent selected from total 60 colleges. Here 34 (56.7%) selected colleges are from rural area and 26 (43.3%) selected colleges are from urban area. So total 119 (59.5%) colleges are selected from rural area and 81 (40.59%) colleges are selected from urban area out of total 200 colleges of higher secondary levels.

4.3 Status of respondents/trainee teachers

4.3.1 Status of the respondent principals, subject teachers and computer teachers

Table 28: Total Summary of the respondents of HSTTIs (Rajshahi and Barisal)

Teacher catagory	No. of Respondent	Friquency	Percentage
Principal	70	70	15.98
Computer teacher	70	70	15.98
Subject teachers	298	298	68.04
Total	438	438	100.00

This table 28 shows the total summary of the respondent of two HSTTI, Rajshahi and Barisal. Here total principal-70 (15.98%), Computer teacher 70 (15.98%) and classroom subject teacher 298 (68.04%). Total respondents 438 are included purposively selected covering 10 subjects.

Table 29: Respondent summary of two HSTTIs Rajshahi and Barisal

Institute	Training catagory	Teacher catagory	Perticipant/ respondent	Frequency	Percentage
HSTTI Rajshahi	Educational management	Principal	50	50	17.5
	Computer training	Computer teacher	50	50	17.5
	Subject and pedagogy	Subject teacher	186	186	65
	Total		286	286	100.00
HSTTI Barisal	Educational management	Principal	20	20	13.7
	Computer Training	Computer teacher	20	20	13.7
	Subject and pedagogy	Subject teacher	112	112	73.7
	Total		152	152	100.0

This table 29 above shows the respondent summary of two HSTTIs. HSTTI Rajshahi trainee respondent selected principals-50, computer teacher-50 and classroom subject teacher 186. Here classroom subject teacher included English-30, Chemistry-30,

97

Biology-30, Accounting-30, Geography-31 and Political Science-35 and HSTTI, Barisal respondent selected principal-20, Computer teacher-20 and classroom subject teacher-112. Here classroom subject teachers included Agriculture studies-24, Chemistry-30, Islamic studies-30 and Home economics-28.

4.3.2 Summary of the respondents through interview schedule for high official and stakeholder of HSTTIs in Bangladesh

Table 30: Summary of Respondents' through Interview schedule

Respondent catagory	No of respondent	Frequency	Percentange (%)
Faculty member of HSTTIs	40	40	48.70
Resource person/ trainers	13	13	15.85
High official, Dhaka	06	06	7.32
NAEM faculty, Dhaka	05	05	6.10
BMTTI faculty, Gajipur	04	04	4.87
Trained principal and GB member	14	14	17.07
Total	82	82	100.00

This table 30 above show that others respondent HSTTIs high official, faculty member, resource person, trained principal, GB member and NAEM, BMTTI faculties of Interview schedule for data collected of Inservice training program at higher secondary level in Bangladesh.

4.4 Level of education and professional qualification of the respondent teachers

Total perticipant/ respondent teachers all of them got masters degree (masters of Science, Arts, Commerce) but had not satisfactory number of professional degree.

Table 31: Professional qualification of the respondent teachers

Education type/sub	Perticipant No.		Total	Masters degree with proffessional certificate				
	HSTTI Rajshahi	HSTTI Barisal		M.Sc/MA/ M.com	B.ed	M.ed	M.Phil	Ph.D
Science	154	73	227	227	23	09	09	06
Arts	88	76	164	164	19	11	10	05
Commerce	44	03	47	47	05	02	02	01
Total	286	152	438	438	47	22	21	12

This table above (table 31) explain thats total respondent teachers level of education and proffessional qualification of two HSTTIs Rajshahi and Barisal. Total respondent

438 all of then got masters degree (master of science, arts and commerce). Here masters of science (M.Sc.) No. of respondent 227 out of 438. Secondly masters of arts (MA) no. of respondent 164 out of 438 and thirdly masters of commerce no. of respondents 47 out of 438. The respondent teacher had not satisfactory number of professional qualification. There are only 47 respondent have got B.Ed degree, only 22 respondent have got M.Ed. degree, only 21 respondent have got M.Phil and only 12 respondent have got PhD degree.

4.5 Demographic characteristics of the respondents

4.5.1 Religious status of the respondents

In this study 342 (78.08%) respondents are Muslim and 85 (19.41) respondents are belong Hindu community. Through a good number of people in Bangladesh are belonged in defferent religious communities like Buddha, Christian and others of the respondents are found from that religious group.

4.5.2 Age structure of the respondents

Table 32: Age structure of the respondents

Respondent age	Principal	Subject teacher	Computer teacher	Total	Prequency	Percentage
30-35 years	-	126	32	158	158	36.07
36-40 years	09	98	30	137	137	31.28
41-45 years	26	42	08	76	76	17.35
46-50 years	35	32	-	67	67	15.30
Total	70	298	70	438	438	100.0

This table above 32 shows that age structure of the respondents at the higher secondary levels college principls, classroom subject teacher and computer teacher. Here 30-35 years age value of the respondents total number of 158 (36.07%) and 36-40 years of them 137 (31.28%) thridly 41-45 years age group 67 person (17.35%) lastly 46-50 yers age group respondents number 67 (15.30%).

4.5.3 Sex and marital status of the respondents

Table 33: Sex and marital status of the respondents

Status	HSTTI Rajshahi	HSTTI Barisal	Total	Frequency	Percentage
Male	210	108	318	318	72.60
Female	76	44	120	120	27.40
Total	286	152	438	438	100.0
Married	244	128	372	372	84.93
Unmrried	42	24	66	66	15.07
Total	286	152	438	438	100.0

This table 33 shows that total 438 respondents 318 (72.60%) are male and 120 (27.40%) are female and in this research 372 (84.93%) of the respondents teachers' are married and 66 (15.07%) are unmarried.

4.6 Socio-economic chractistics of the respondents

4.6.1 Job experiences of respondent teachers

The background and experience level of respondent has been detected by their response that most of the principals, classroom subject teachers and computer teachers had better teaching experience.

Table 34: Job experience of the respondents

Job experience	No. of respondent	Frequency	Percentage (%)
01-05 years	52	52	11.87
05- 10 years	202	202	46.12
10-15 years	140	140	31.96
15+ and above	44	44	10
Total	438	438	100.0

This table 34 shows that most of the respondent teachers were highly experienced. This highest number.202 (46.12%) of teachers had 05-10 years teaching experience.Secondly 140 (31.96%) who received training of teachers had 10-15 years teaching experience. However only 52 (11.87%) respondent teachers' had 01-05 years teaching experience. Lastly 44 person (10%) respondent teachers had 15+ and above years teaching experience.

4.6.2 Information of monthly income range of respondent teachers

Table 35: Monthly income range of the respondent teachers

Income range (tk)	Principal	Computer teacher	Subject teacher	Total	Frequency	Percentage (%)
10000-15000		46	178	224	224	51.14
15000-20000		14	100	114	114	26.03
20000-25000	32	10	20	62	62	14.16
25000 and above	38	-	-	38	38	8.67
Total	70	70	298	438	438	100.0

This table 35 shows that respondent teacher monthly income range 10,000-15,000 of 224 (51.14%) person, secondly 15,000-20,000 range respondent teacher 114 (26.03%) prson, thirdly 20,000-25,000 range respondnet teachers 62 (14.16%) person. Lastly 25,000 and above respondent teachers monthly income range 35 (8.67%) person.

4.7 Findings of this chapter

- In this study under HSTTI, Rajshahi selected working area urban colleges are 55 (39.5%) and rural 85 (60.7%) out of 140 colleges (higher secondary levels).

- In this study under HSTTI, Barisal selected working area urban colleges 26(43.3) and rural 34 (56.7%) out of 60 colleges (Higher secondary levels)

- In this study total number of respondents in two HSTTIs Rajshahi and Barisal is Higher Secondary level College Principals 70 (15.98%), classroom subject teachers 298 (68.04%) and computer teachers 70 (15.98%) out of total 438 respondent.

- In this study the respondents levels of education show that Masters of Science (M.Sc.) 227, Master of Arts (M.A) 164 and Master of Commerce (M. com) 47 out of 438 respondents.

- All respondents/participants have got masters degree (Masters of Science, Arts and Commerce) but do not have satisfactory number of professional degree such as BEd, MEd, M.Phil and PhD.

- In this study total number of respondents 438 who fall in the years age group 30-50 years. Among thous 275 (67.35%) respondents are in the age group 30-40 years.

- Among 438 respondents 318 (72.60%) are male and 12 (27.40%) are female.

- In this research 372 (84.93%) of the respondent teachers are married and 66 (15.07%) are unmarried.

- Most of the respondent teacher's monthly income range is very poor. 224 (51.14%) respondents teachers fall in the 10,000-15,000 range out of total 438 and secondly, 114 (26.03%) respondents teachers are from the income range 15000-20000.

4.8 Conclusion

In this chapter the basic information of the respondent teachers principals, subject teachers and computer teachers have been presented in brief and from the description one can get primary idea about the study area, respondent working area, rulal, urban area of institions and their status of training category, teachers category, subject and demografic characteristics and socio-economic income range, job experience and their institutions. In this study total number of respondents in two HSTTIs Rajshahi and Barisal is Higher Secondary level College Principals 70 (15.98%), classroom subject teachers 298 (68.04%) and computer teachers 70 (15.98%) out of total 438 respondents. All respondents/participants have got masters degree (Master of Science, Arts and Commerce) but do not have satisfactory number of professional degree such as BEd, MEd, M.Phil and PhD. In this study total number of respondents is 438 who fall in the age group 30-50 years. Among them 275 (67.35%) respondents are in the age group 30-40 years. Among 438 respondents 318 (72.60%) are male and 12 (27.40%) are female. Most of the respondent teacher's monthly income range is very poor. 224 (51.14%) respondents teachers fall only 10,000-15,000 in range out of total 438 and secondly, income 1500-20000 range respondent teacher 114 (26.03%). Here HSTTI Rajshahi and Barisal Respondent Colleges (Higher Secondary Level) selected of 200. Selected colleges are two types of Rural and urban, Urban 81 (40.5%) and Rural 119 (59.5%) are out of 200. In the research rural and urban area selected college information collected data. There is gap between higher secondary level teaching learning practice, quantitive and qualatitive measurement by the in-service HSTTIs training program in the urban and rural areas.

EXISTING SITUATION ON QUALITY EDUCATION THROUGH IN-SERVICE TRAINING OF HSTTIS IN BANGLADESH

5.1. Prelude

This chapter has been arranged on the basis of primary data. The researcher has used several methods such as survey method, questionnaire and observation method for collecting data; the researcher has also used pre-test and post test evaluation instruments. Data have been collected from the trained principals, subject teachers and computer teachers and documents of the colleges have been collected to find out the training evaluation and impact of the In-service training provided by HSTTIs. In this chapter it has been discussed that the training has increased the positive knowledge, skills and attitudes of the trained principals, subject teachers and computer teachers. As a result, these concerned trainees take initiatives to do overall development of their respective services.

5.2 Status of Training program of HSTTI, Rajshahi and Barisal

Table 36: Analysis of variance (Two-way ANOVA) table for training category and location status by HSTTIs in-service training

Source of Variation (SV)	Sum of Square (SS)	Degrees of Freedom (df)	Mean Sum (MS)	F	p-value
Training Category (TC)	2099.1970	3	699.7323	24.13	0.0000
Location (L)	34.1260	1	34.1260	1.18	0.2037
TC ×L	1581.9790	3	527.3263	18.18	0.0000
Error	5973.7240	206	28.9987		
Total	9689.0260	213			

Interpretation: Calculated value of F is 24.13 is significant at 1% level of significance. Calculated value of F is 1.18 is insignificant at 1% level of significance with 1 and 206 df. Also calculated value of F is 18.18 is significant at 1% level of significance with 3 and 206 df. So observed value (Interaction) of F is significant at 1% level of significance and null hypothesis is rejected. It is therefore concluded that the interaction means significantly different.

Hypothesis

H_0: There are no significant differences among the treatment (Training Category) means.

H_1: There are significant differences among the treatment (Training Category) means.

5.3 Status of Training program of HSTTI, Rajshahi

Table 37: Comparative analysis of pretest and post test of the training program of HSTTI, Rajshahi (Appendix F_1 to F_4)

Statistics	Principal		Computer Teacher		Subject (English) Teacher		Subject (Chemistry) Teacher	
	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test
N	30	30	30	30	30	30	30	30
Min	24	42	16	35	10	33.33	13.33	36.67
Max	42	50	41	48	30	50	33.34	48.34
Mean	31.934	45.467	30.134	44.467	18.999	44.389	24.221	42.612
SD	4.741	2.096	6.224	2.837	4.582	3.347	6.107	3.054
CV	14.846	4.612	20.656	6.380	24.118	7.541	25.213	7.168
t-value	20.880		14.812		23.638		19.354	
p-value	0.000		0.000		0.000		0.000	

Descriptive statistics can include graphical summaries that show (table-37) the spread of the data, and numerical summaries that either measure the central value of a data set or that describe the spread of the data. Perhaps the most basic statistical analysis is descriptive analysis. Descriptive statistics can summarize responses from large numbers of respondents in a few simple statistics. When a sample is obtained, the sample descriptive statistics are used to make inferences about characteristics of the entire population of interest. This chapter introduces basic descriptive statistics, which are simple but powerful.

From the above table we see the t-value and its corresponding p-value, all p-value describe significant mean difference between pre-test and post-test of the performance score among four category of teachers level (Principal, Computer teacher, English teacher, and Chemistry teacher) by the training program. We also see highest difference between pre and post-test of minimum value is 23.33 (post-test = 33.33 and pre-test= 10) that is observed in case of English teacher, second in Chemistry Teacher. Considering maximum we get 20 is observed for English teacher that is high in

compare to the other categories of teacher. In case of mean also play the difference performance score continue for computer teacher. The mean performance score of English teacher is pre-test=18.33 and post-test=44.39.

Figure 5: **Effect of training among the teachers by pre and post evaluation (HSTTI, Rajshahi)**
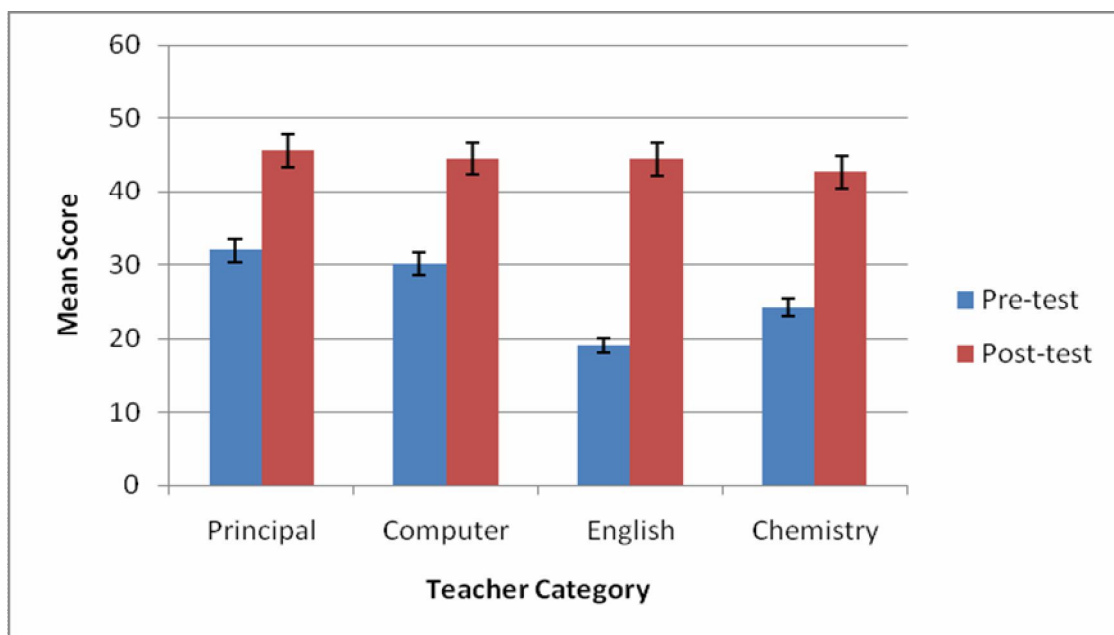
Table-38: Mean difference pre-test and post-test among teacher's category.

Categories	n	Mean	Variance
Principal	30	13.53 bc	12.60
Computer Teacher	30	14.33 b	28.09
Subject (English) Teacher	30	25.39 ab	34.61
Subject (Chemistry) Teacher	30	18.39 a	27.08

Different letters are significantly difference at 5% level of significance by Duncan's Multiple Range Test (DMRT) (Duncan, 1995).

5.4 Status of In-service Training program of HSTTI, Barisal

Table 39: Comparative analysis of pretest and post test of the training program (Appendix F_5 to F_8)

Statistics	Principal		Computer Teacher		Subject (Agriculture Studies) Teacher		Subject (Islamic Studies) Teacher	
	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test
N	20	20	20	20	24	24	30	30
Min	20	34	12	39	13.333	26.667	8.334	30.000
Max	40	48	32	45	33.333	50.000	33.334	50.000
Mean	28.600	41.700	18.250	40.950	23.541	41.597	19.778	40.111
SD	6.492	4.508	6.060	1.669	6.413	5.372	6.575	3.913
CV	22.699	10.812	33.205	4.077	27.246	12.915	33.248	9.756
t-value	**9.492**		**20.538**		**18.598**		**16.377**	
p-value	**0.000**		**0.000**		**0.000**		**0.000**	

Descriptive statistics can include graphical summaries that show (table-31) the spread of the data, and numerical summaries that either measure the central value of a data set or that describe the spread of the data. Perhaps the most basic statistical analysis is descriptive analysis. Descriptive statistics can summarize responses from large numbers of respondents in a few simple statistics. When a sample is obtained, the sample descriptive statistics are used to make inferences about characteristics of the entire population of interest. This chapter introduces basic descriptive statistics, which are simple but powerful.

From the above table we see the t-value and its corresponding p-value, all p-value describe significant mean difference between pre-test and post-test of the performance score among four category of teachers level (Principal, Computer teacher, Agriculture Studies teacher, and Islamic Studies teacher) by the training program. We also see highest difference between pre and post-test of minimum value is 27 (post-test = 39 and pre-test= 12) that is observed in case of computer teacher, second in Islamic Studies teacher. Considering maximum we get 16.66 is observed for the both Agriculture Studies and Islamic Studies that is high in compare to the other categories of teacher. In case of mean also play the difference performance score continue for computer teacher. The mean performance score of computer teacher is pre-test=18.250 and post-test=40.95.

Figure-06: Effect of training among the teachers by pre and post evaluation (HSTTI, Barisal)
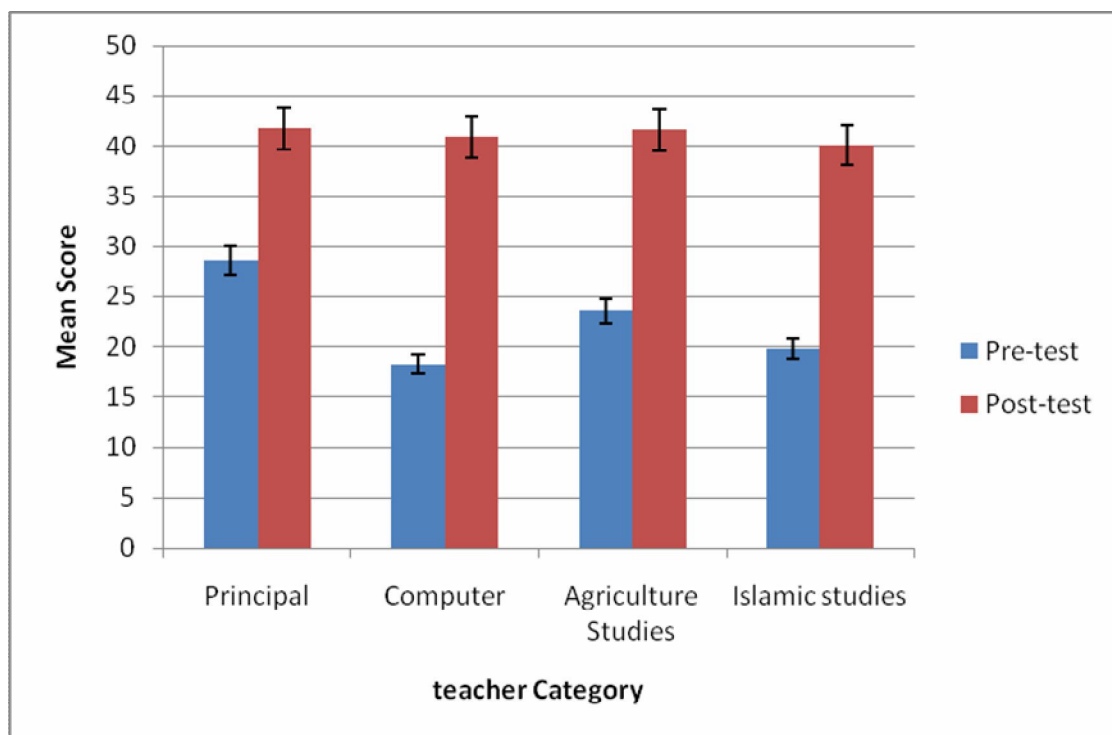
Table-40: Mean difference pre-test and post-test among teacher's category.

Categories	*n*	*Mean*	*Variance*
Principal	20	13.100 a	38.094
Computer Teacher	20	18.334 a	21.717
Subject (Agriculture Studies) Teacher	24	22.894 b	24.988
Subject (Islamic Studies) Teacher	30	20.334 ab	46.244

Different letters are significantly difference at 5% level of significance by Duncan's Multiple Range Test (DMRT) (Duncan, 1995).

5.5 Discussion and Outcomes of Training Activities of HSTTI, Rajshahi and HSTTI, Barisal

Table: 41 Percentage of the respondent teachers' opinion regarding training contents, methods and others (Appendix A₁, A₂ and A₃)

Indicator	Response/ Opinion	Principal		Computer Teacher		Subject Teacher	
		HSTTI Rajshahi (%)	HSTTI Barisal (%)	HSTTI Rajshahi (%)	HSTTI Barisal (%)	HSTTI Rajshahi (%)	HSTTI Barisal (%)
Training Course Content	Strongly agree	54.0	40.0	4.0	10.0	31.7	21.4
	Agree	44.0	40.0	34.0	60.0	43.5	46.4
	Neutral	2.0	10.0	62.0	30.0	23.7	27.7
	Disagree	0	10.0	0	0	.5	3.6
	Strongly disagree	0	0	0	0	.5	.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Suitability of Training Course Content	Very Suitable	84.0	80.0	24.0	35.0	50.0	46.4
	Suitable	16.0	20.0	68.0	65.0	46.8	49.1
	Less suitable	0	0	8.0	0	3.2	4.5
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Training Methodology	Strongly agree	30.0	35.0	4.0	5.0	31.2	25.9
	Agree	54.0	40.0	34.0	45.0	47.3	42.0
	Neutral	16.0	20.0	62.0	50.0	20.4	30.4
	Disagree	0	5.0	0	0	1.1	1.8
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Training Course Duration	Yes	52.0	60.0	32.0	30.0	55.9	53.6
	No	48.0	40.0	68.0	70.0	44.1	46.4
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Training Evaluation Process	Yes	98.0	90.0	94.0	80.0	80.1	87.5
	No	2.0	10.0	6.0	20.0	19.9	12.5
	Total	100.0	100.0	100.0	100.0	100.0	100.0

The above table-41 (HSTTI, Rajshahi) shows that opinions regarding the training course content of different level of participants, where 54% Principals opine in favor of strongly agree level, Subject teachers' opinion is 31.7% that is strongly agree, and computer teachers' opinion is 34% in favor of agree. Secondly 62% computer teachers' opinion is neutral and 43.5% Subject teachers' opinion agrees. Regarding suitability of training course content, this table shows that 84% of the principals say that training course content isvery suitable and 50% subject teachers give the opinion that training course content is very suitable. In case of Computer teachers 68% opines that training

course content is suitable and 24% computer teachers give the opinion of very suitable. Regarding training methodology this table shows that 54% Principals opine agree 62% computer teachers opinion about training methodology is neutral and 47.3% subject teachers opine about training methodology agree. Secondly 31.2% subject teachers opinion strongly agree , 30% principals opinion is strongly agree and 34% computer teachers opinion is that training methodology is agree. Regarding training course duration, this table shows that 48% respondent Principals opine that training course duration (20 days) is not sufficient, 68% respondent computer teachers say that training course duration (27 days) is not sufficient and other maximum 44.1 subject teachers opine that training course duration (40 days) is not sufficient. Secondly 52% principals, 32% computer teachers and 55% subject teachers opine that training course duration is sufficient. The real scenery shows that maximum respondent teachers opine that training course duration needs to be extended. Regarding training evaluation process this table shows the different level of participants, where 98% Principals opine in favor of answer yes and Computer teachers opinion 94% that is maximum yes answer and Subject teachers opinion is 80.1% in favor of training evaluation process overall maximum respondents teachers opinion regarding the training evaluation process is right.

The above table-41 (HSTTI, Barisal) shows that opinions regarding the training course content of different level of participants, where 40% Principals opine in favor of Strongly agree level, 46.4% subject teachers opinion is agree and 60% computer teachers' opinion is in favor of agree. Secondly 30% computer teachers opinion is neutral and 21.4% Subject teachers' opinion is strongly agree. Regarding suitability of training course content, this table shows that 80% of the principals say that training course content is very suitable and 46.4% subject teachers give the opinion that is very suitable the training course content is very suitable. In case of Computer teachers 65% opines that training course content is suitable and 35% computer teacher give the opinion of very suitable. Regarding training methodology this table shows that 40% Principals opine, agree, 45% computer teachers say that training methodology is agree and 42% subject teachers opine about training methodology agree. Secondly 25.9% subject teachers opinion is strongly agree, 35% principals opinion in strongly agree and 50% computer teachers opinion is neutral. Regarding training course duration, this

table shows that 40% respondent principals opine that the training course duration (20 days) is not sufficient, 70% respondent computer teachers say that training course duration (27 days) is not sufficient and other maximum 46.4 subjective respondent teachers opine that training course duration (40 days) that is not sufficient. Secondly 60% principals, 30% computer teachers and 53.6% subject teachers opine that training course duration is sufficient. The real scenery shows that maximum respondent teachers opine that training course duration needs to be extended. Regarding training evaluation process this table shows the different level of participants, where 90% Principals opine in favor of answer yes and Computer teachers opinion 80% is maximum yes answer and Subject teachers opinion is 87.5% in favor of training evaluation process overall maximum respondents teachers opinion regarding the training evaluation process is right.

5.6 Satisfaction level of the Participants/ trainees of HSTTIs In-service Training Program

Table: 42 Opinion of trainees' outcomes or satisfaction of HSTTI training Program (Appendix A₁, A₂ and A₃)

Indicator	Response/ Opinion	Principal		Computer Teacher		Subject Teacher	
		HSTTI Rajshahi (%)	HSTTI Barisal (%)	HSTTI Rajshahi (%)	HSTTI Barisal (%)	HSTTI Rajshahi (%)	HSTTI Barisal (%)
Effectiveness of Training Objective	Yes	96.0	100.0	98.0	95.0	98.9	99.1
	No	4.0	0	2.0	5.0	1.1	.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Training Coordination and Management	Yes	100.0	95.0	94.0	100.0	93.0	94.6
	No	0	5.0	6.0	0	7.0	5.4
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Quality of Training Materials for Participants	Excellent	14.0	10.0	12.0	5.0	5.9	7.1
	Very Good	44.0	35.0	74.0	20.0	36.0	29.5
	Good	42.0	35.0	12.0	75.0	45.7	52.7
	Average	0	20.0	2.0		9.7	10.7
	None	0	0	0	0	2.7	0
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Facilities of Study tour & Co-Curricular Activities	Yes	96.0	60.0	86.0	80.0	89.8	88.4
	No	4.0	40.0	14.0	20.0	10.2	11.6
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Financial Facilities of Training Program	Yes	16.0	15.0	22.0	30.0	15.6	16.1
	No	84.0	85.0	78.0	70.0	84.4	83.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Availability of Residence Facilities & Other Hostel Management	Yes	54.0	55.0	98.0	100.0	65.6	82.1
	No	46.0	45.0	2.0	0	34.4	17.9
	Total	100.0	100.0	100.0	100	100.0	100.0

The above table-42 (HSTTI, Rajshahi) regarding the opinion of trainees' outcomes or satisfaction shows that 96% principals, 98% computer teachers and 98.9% subject teacher opine yes about the effectiveness of Training objectives. Regarding Training co-ordination and Management system, this table shows that 100% principals, 94% computer teachers and 93% subject teachers opine yes. Regarding quality of training materials, this table shows that 44% principals, 74% computer teachers, and 36% subject teachers opine very good whel 45.7% subject teacers opine 'good'. Regarding Training facilities of study four & Co-curricular activities, this table shows that 96% principals respondent 'yes' 86% computer teachers respondent yes and 89% subject

teachers respondent yes, Regarding Financial facilities of training program, this table show that 84% principals think not sufficient, 78% computer teachers 84.4% subject teachers also think not sufficient theirfore maximum trainee think that financial facilities should be increase. Regarding availability of residence facilities & other hostel management system, this table show that 54% principals, 98% computer teachers' and 65.6% subject teachers opine yes, 46% principals and 34.4 subject teacher opine not sufficient.

The above table-42 (HSTTI, Barisal) regarding the opinion of trainees outcomes or satisfaction shows that 100% principals, 95% computer teachers and 99.1% subject teacher opine yes about effectiveness of Training objectives. Regarding Training coordination and Management system, this table shows that 95% principals, 100% computer teachers and 94.6% subject teachers opine yes. Regarding quality of training materials for participants, this table shows that 35% principals opine very good, 75% computer teacher good, and 52.7% subject teacher opine good. Regarding Training facilities of study tour and Co-curricular activities, this table shows that 60% principals, 80% computer teachers and 88.4% subject teacher respondent that the facilities are sufficient. Regarding financial facilities of training program, this table show that 85% principals think not sufficient, 70% computer teachers and 83.9% subject teachers also think not sufficient. Therefore maximum trainees think that financial facilities should be increased. In regarding availability of residence facilities and other hostel management system this table show that 55% principals, 100% computer teachers and 82.1% subject teachers opine yes while and 45% principals and 17.9% subject teachers opine that hostel facilities should be increased.

5.7 Observational Changes of the Trainees'/Respondents' Knowledge, Skills and Attitude

Table: 43 Observational changes of trainees'/respondents'training program (Appendix A₁, A₂ and A₃)

Indicator	Response/ Opinion	Principal		Computer Teacher		Subject Teacher	
		HSTTI Rajshahi (%)	HSTTI Barisal (%)	HSTTI Rajshahi (%)	HSTTI Barisal (%)	HSTTI Rajshahi (%)	HSTTI Barisal (%)
Change of the trainees Knowledge, skill and Attitude by the Training Program	Enough	72.0	80.0	36.0	45.0	66.1	60.7
	Average	28.0	15.0	56.0	55.0	31.7	37.5
	Less Average	0	5.0	4.0	0	2.2	1.8
	None	0	0	4.0	0	0	0
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Effectiveness of Training for the Institutional Management	Excellent	40.0	65.0	12.0	50.0	37.6	26.8
	Very Good	54.0	30.0	40.0	20.0	45.7	49.1
	Good	6.0	5.0	42.0	30.0	15.6	24.1
	Average	0	0	6.0	0	1.1	0
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Training Impact on the field levels	Change the students philosophy	62.0	85.0	92.0	85.0	94.1	92.9
	Good Result	8.0	5.0	8.0	10.0	3.8	5.4
	Adaptation	6.0	5.0	0	5.0	1.6	.9
	Self-development	24.0	5.0	0	0	.5	.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Problem of implementing training outcomes	Yes	30.0	50.0	22.0	60.0	47.8	38.4
	No	70.0	50.0	78.0	40.0	52.2	61.6
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Concerned stake holders needed for implementing the training outcomes	Student's co-operation	4.0	20.0	34.0	25.0	33.3	50.0
	Colleague's co-operation	86.0	65.0	2.0	20.0	8.1	4.5
	GB co-operation	10.0	15.0	46.0	10.0	4.3	35.7
	Principle's help	0	0.0	18.0	40.0	46.2	8.9
	Upper level co-operation	0	0	0	5.0	7.5	.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0

The above table-43 (HSTTI, Rajshahi) regarding changes of the trainee's knowledge, skill and attitude by the training program shows that 72% principals opine enough, 28% average, 36% computer teachers opine enough and 56% computer teachers avarage and

66.1% subject teachers opine enough. Regarding effectiveness of training for the institutional management, this table shows that 54% principals agree in favour of very good, 40% computer teachers agree for very good and 45.7% subject teachers agree in favour of very good levels. Regarding Training impact on the field levels, this table shows that 62% principals, 92% computer teachers and 94.1% subject teachers think that the training program changes the student philosophy. Regarding problem of implementing training outcomes, this table shows that 30% principals, 22% computer teachers and 47.8% subject teachers opine yes while, 70% principals, 78% computer teachers, 52.2% subject teachers opine no. Regarding concerned stake holders needed for implementing the training outcomes, this table shows that 86% principals think that colleagues cooperation is needed. 34% computer teachers vot for the need of student Co- operation. 46% feel the need of GB Co-operation, and 33.3% subject teachers think that student Co-operation needed for implementing the training outcomes.

The above table-43 (HSTTI, Barisal) shows that in regarding change the trainee's knowledge, skill and attitude by the training program, respondent teacher 80% principal opinion average, 15% are enough, 45% computer teacher opinion that enough & 55% computer teachers opinion average and 60.7% subject teacher opinion that enough change the trainees. In regarding Effectiveness of training for the institutional management, this table shows that 65% principals agreed that in favour of Excellent, 50% computer teacher agreed that Excellent and 49.1% subject teacher agreed that in favour of very good levels. In regarding Training impact on the field levels, this table shows that 85% principal opinion that change the students' philosophy, 85% computer teacher opinion that change the student philosophy and 92.9% subject teacher opined that change the student philosophy by the training program. In regarding problem of implementing training outcomes, this table shows that 50% principal, 60% computer teachers and 38.4% subject teachers opinion that yes answer, Others opinion 50% principal, 40% computer teachers, 61.6% subject teacher opinion that no answer. In regarding concerned stack holders needed for implementing the training out comes, this table show that 65% principals opinion needed for colleagues cooperation. Computer teacher 25% agreed to student Co- operation, 40% agreed to Principal Co-operation, and 50% subject teacher agreed that student Co-operation need for stack holder for implementing the training outcomes.

5.8 Opinion of Trainees on trainers' evaluation in the in-service training program

Table: 44 Opinion of Trainees regarding Trainers' Evaluation for Training Program (Appendix A₁, A₂ and A₃)

Indicator	Response/ Opinion	Principal		Computer Teacher		Subject Teacher	
		HSTTI Rajshahi (%)	HSTTI Barisal (%)	HSTTI Rajshahi (%)	HSTTI Barisal (%)	HSTTI Rajshahi (%)	HSTTI Barisal (%)
Subjective Knowledge on training program	Strongly agree	40.0	45.0	14.0	5.0	29.6	12.5
	Agree	52.0	45.0	52.0	50.0	45.2	50.9
	Neutral	8.0	10.0	34.0	45.0	25.3	31.3
	Disagree	0	0	0	0	0	5.4
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Ability for Active participation & Motivation	Strongly agree	32.0	20.0	10.0	5.0	33.3	30.4
	Agree	66.0	60.0	56.0	45.0	40.9	39.3
	Neutral	2.0	15.0	34.0	45.0	24.7	28.6
	Disagree	0	5.0	0	5.0	.5	1.8
	Strongly disagree	0	0	0	0	.5	0
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Satisfaction of Educational Aids and Modern technology	Yes	60.0	80.0	60.0	80.0	78.5	66.1
	No	40.0	20.0	40.0	20.0	21.5	33.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Types of resource parson/ trainer	Education Expert	48.0	20.0	0	15.0	19.4	20.5
	Govt. Officer	40.0	40.0	0	0	.5	0
	Subjective Expert	12.0	35.0	18.0	0	73.1	78.6
	Computer Expert.	0	5.0	82.0	85.0	7.0	.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0

The above table- 44 (HSTTI, Rajshahi) regarding trainers' evaluation in the training program shows that 52% principals, 52% computer teachers and 45% subject teachers opine that agree on the subjective knowledge on training program while 27.6% subject teachers strongly agree. Regarding ability for active participation and motivation this table shows that 66% principals opine agree, 56% computer teachers opine agree and 33.3% subject teachers opine strongly agree level. Regarding satisfaction of educational

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aids and modern technology this table shows that 60% principals opine yes, 60% computer teachers opine yes, while 40% computer teachers opine no and 78.5% subject teachers opine yes. Regarding types of resource person/ trainer selection this table show that 48% principals opinion is education expart, 40% principals opinion is govt. officer chose the training, 82% computer teachers opinion is computer expart and 73.1% subject teachers choice is subject expert.

The above table-44 (HSTTI, Barisal) show that role of trainees regarding trainer evaluation subjective knowledge on training program 45% principals opinion that strongly agree level, 50% computer teacher opinion that agree level, and subject teacher opinion 50.9% agree, 31.3% opinion neutral level. In regarding ability for active participation & motivation this table shows that 60% principal opined agree, 45% computer teacher opined that agree level and 39.3% subject teachers commend agree level. In regarding satisfaction of educational aids and modern technology this table shows that 80% principals opined yes answer, 80% computer teacher opinion yes answer, 20% computer opinion no answer, and 66.1% subject teacher opinion yes answer. In regarding types of resource person/ trainer selection this table show that 40% principal opinion Govt. officer, 35% principal opinion subject expert chose the training program, 85% computer teacher opinion chose the Computer expert and 15% subject expert, 78.6%, subject teacher opinion that chose the types of subject expert.

5.9 Opinion of respondent teachers on quality of education through In-service training program

Table: 45 Opinion of respondent teachers on quality of education through training (Appendix A₁, A₂ and A₃)

Indicator	Response/ Opinion	Principal		Computer Teacher		Subject Teacher	
		HSTTI Rajshahi (%)	HSTTI Barisal (%)	HSTTI Rajshahi (%)	HSTTI Barisal (%)	HSTTI Rajshahi (%)	HSTTI Barisal (%)
Quality of Education through training program	Strongly agree	32.0	30.0	16.0	25.0	59.1	56.3
	Agree	58.0	65.0	64.0	55.0	32.8	33.0
	Neutral	10.0	5.0	18.0	20.0	7.5	10.7
	Disagree	0	0	2.0	0	.5	0
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Effectiveness of Training for developing the Institution	Yes	90.0	100.0	100.0	100.0	99.5	94.6
	No	10.0	0	0	0	.5	5.4
	Total	100.0	100.0	100.0	100.0	100.0	100.0
The necessity of this Training for Building Digital Bangladesh	Yes	100.0	100.0	98.0	95.0	97.8	99.1
	No	0	0	2.0	5.0	2.2	.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0

The above table-45 (HSTTI, Rajshahi) about the opinion of the respondent teachers on the quality of education through training program 58% principals opinion is agree, 64% computer teachers opine agree and 59.1% subject teachers opine strongly agree levels. Regarding effectiveness of training for developing the institution this table show that 90% respondent principals, 100% computer teachers and 99.5% subject teachers opine in favour of yes. About the necessity of this training for building Digital Bangladesh, this table-45 shows that 100% principals, 98% computer teachers opine in favour of yes and 97.8 % subject teachers opinion is also yes. So the maximum number of respondent principals, subject teachers and computer teachers think that the quality of education through training program and the necessity of this training program for building digital Bangladesh is obviously inperative.

The above table-45 (HSTTI, Barisal) shows that opinion of the respondent teacher quality of education through training 65% principal opinion agree, 55% computer teacher opined agree and 56.3% subject teacher opined strongly agree levels. In regarding Effectiveness of training for developing the institution this table show that

100% respondent principal, computer teacher and 94.6% subject teacher opined In favour of yes answer and other indicator the necessity of this training for building Digital Bangladesh, this table-33 shows that 100% principals, 95% computer teachers opined in favour of yes answer and 99.1% subject teacher opinion yes answer. So the maximum respondent teacher principals, subject teachers' and computer teachers' opinion about quality of education through training program and the necessity of this training for building digital Bangladesh.

5.10 Opinion of respondents (data collected by Interview schedule) on training course contents, methods and other factors (N-82)

Table 46: **Opinion of respondents on training course contents, methods and other factors (Appendix-B)**

Indicator	Response/Opinion	Frequency	Percent	Chi-squares test
Suitability of SHTTI In Service training Course Content	Strongly Agree	32	39.0	χ^2=168.664 and p-value= 0.000
	Agree	47	57.3	
	Neutral	3	3.7	
	Disagree	0	0.0	
	Strongly disagree	0	0.0	
	Total	82	100.0	
Effectiveness of HSTTI In-service training objective	Strongly Agree	31	37.8	χ^2=97.634 and p-value= 0.000
	Agree	44	53.7	
	Neutral	7	8.5	
	Disagree	0	0.0	
	Strongly disagree	0	0.0	
	Total	82	100.0	
Appropriateness of In-service training Methodology	Strongly Agree	23	28.0	χ^2=107.634 and p-value= 0.000
	Agree	50	61.0	
	Neutral	9	11.0	
	Disagree	0	0.0	
	Strongly disagree	0	0.0	
	Total	82	100.0	
Suitability of Duration of the HSTTI In Service training Program	Strongly Agree	20	24.4	χ^2=85.439 and p-value= 0.000
	Agree	47	57.3	
	Neutral	11	13.4	
	Disagree	4	4.9	
	Strongly disagree	0	0.0	
	Total	82	100.0	
Appropriateness of HSTTI In-service training evaluation Process	Strongly Agree	8	9.8	χ^2=63.732 and p-value= 0.000
	Agree	42	51.2	
	Neutral	21	25.6	
	Disagree	11	13.4	
	Strongly disagree	0	0.0	
	Total	82	100.0	

The above table- 46 shows that about the suitability of HSTTI In-service training course content 57% respondent agree while 39% respondents strongly agree. Regarding effectiveness of HSTTI In-service training objective this table show that 54% respondent agree, 37.8% respondents strongly agree. Regarding appropriateness of In-service training methodology this table shows that 61% respondents agree and others 28% respondents opine strongly agree. Regarding the indicator suitability of duration of the HSTTI In-service training program this table shows that 57.3% respondent agree and other 24.4% respondents strongly agree. Regarding appropieateness of HSTTIs In-servce training evaluation process this table shows that 51.2% respondents agree wile 25.6% respondents remain neutral. This table shows that all indicator/variable chi-squre (χ^2) value and p-value are significant

5.11 Opinion of respondents on resource persons/ trainers' evaluation by interview schedule (N-82)

Table 47: Opinion of respondents on resource persons/ trainers' evaluation (Appendix-B)

Indicator	Response/Opinion	Frequency	Percent	Chi-squares test
Trainer's approaches were Participatory and Interactive	Strongly Agree	30	36.6	χ^2=62.756 and p-value= 0.000
	Agree	36	43.9	
	Neutral	13	15.9	
	Disagree	3	3.7	
	Strongly disagree	0	0.0	
	Total	82	100.0	
Presenter's Subject, Pedagogy and ICT Knowledge were excellent	Strongly Agree	13	15.9	χ^2=121.780 and p-value= 0.000
	Agree	55	67.1	
	Neutral	12	14.6	
	Disagree	2	2.4	
	Strongly disagree	0	0.0	
	Total	82	100.0	
The Courses objectives were Covered by the trainers/facilitators	Strongly Agree	12	14.6	χ^2=185.195 and p-value= 0.000
	Agree	65	79.3	
	Neutral	3	3.7	
	Disagree	2	2.4	
	Strongly disagree	0	0.0	
	Total	82	100.0	
Trainers / facilitators Ability for Active Participation &Motivation	Strongly Agree	20	24.4	χ^2=85.195 and p-value= 0.000
	Agree	46	56.1	
	Neutral	15	18.3	
	Disagree	1	1.2	
	Strongly disagree	0	0.0	
	Total	82	100.0	

The above table- 47 whether the traineers' aproaches were perticiaptory and interactive in the training program 43.9% respondent agree and 36.6% respondents strongly agree. Regarding presenters/Trainees' subject, pedagogy and ICT knowledge were excellnt this table shows that 67.1% respondent agree while 15.9% respondent opine strongly agree. Regarding the courses objective were covered by the trainers in the training program this table shows that 74.3% respondent agree and other 14.6% respondent strongly agree. Regarding trainees ability for active participation and motivation this table shows that 56% respondents agree and other 24.4% respondent strongly agree, 18.3% respondents remain neutral. This table shows that chi-squre (χ^2) value and p-value are significant for all the indicators/variables.

5.12 Opinion of respondents (N-82) on training outcomes/satisfaction level of the in-service training

Table 48: Opinion of respondents on training outcomes/satisfaction level

Indicator	Response/Opinion	Frequency	Percent	Chi-squares test
Satisfaction of Education Aids and ICT based Materials	Strongly Agree	11	13.4	χ^2=84.220 and p-value= 0.000
	Agree	45	54.9	
	Neutral	24	29.3	
	Disagree	2	2.4	
	Strongly disagree	0	0.0	
	Total	82	100.0	
In-service training Co-ordination and Management were evident	Strongly Agree	13	15.9	χ^2=115.439 and p-value= 0.000
	Agree	54	65.9	
	Neutral	12	14.6	
	Disagree	3	3.7	
	Strongly disagree	0	0.0	
	Total	82	100.0	
Sufficiency of the Financial facilities of HSTTI In-service training Program	Strongly Agree	3	3.7	χ^2=39.829 and p-value= 0.000
	Agree	32	39.0	
	Neutral	25	30.5	
	Disagree	18	22.0	
	Strongly disagree	4	4.9	
	Total	82	100.0	
Sufficiency facilities of Study tour & Co-curricular Activities	Strongly Agree	6	7.3	χ^2=65.561 and p-value= 0.000
	Agree	36	43.9	
	Neutral	32	39.0	
	Disagree	8	9.8	
	Strongly disagree	0	0.0	
	Total	82	100.0	
Availability of Hostel facilities and Management	Strongly Agree	17	20.7	χ^2=91.780 and p-value= 0.000
	Agree	49	59.8	
	Neutral	12	14.6	
	Disagree	4	4.9	
	Strongly disagree	0	0.0	
	Total	82	100.0	

The above table-48 shows that regarding the satisfaction of educational aids and ICT based materials of the In-service training program 54.9% respondents agree, and 29.3% respondents remain neutral. Regarding in-service training co-ordinating and management were evident this table shows that 65.9% respondents fully agree and 15.9% respondents strongly agree while 14.6% responents remain neutral. Regarding sufficiency of the financial facilities of HSTTIs In-service training program this table shows that 39% respondents agree and 30% respondents keep neutral and other 22% respondents disagree, i.e. financial ficilities are not sufficient. Regarding facilities of study tour and co-curriculur activities this table shows that 43.4% respondents agree, 39% respondents keep neutral. Regarding availability of hostel facilities and Management systems this table shows that 59.8% respondents agree and 14.9% respondents strongly agree. This table shows that chi-squre (χ^2) value and p-value are significant for all the indicators/variables.

5.13 Opinion of respondents on the change of the trainees' knowledge, skills and attitude

Table 49: Opinion of respondents on the change of the trainees' knowledge, skills and attitude (Appendix-B)

Indicator	Response/Opinion	Frequency	Percent	Chi-square test
Change of the trainees Knowledge. Skill and Attitude by the In-service Training Program.	Strongly Agree	29	35.4	χ^2=100.073 and p-value= 0.000
	Agree	46	56.1	
	Neutral	5	6.1	
	Disagree	0	0.0	
	Strongly disagree	2	2.4	
	Total	82	100.0	
Effective Change in the Teaching Learning Approach By the In-service Training Program.	Strongly Agree	12	14.6	χ^2=145.195 and p-value= 0.000
	Agree	59	72.0	
	Neutral	10	12.2	
	Disagree	1	1.2	
	Strongly disagree	0	0.0	
	Total	82	100.0	
Impact of Training on the field Level Activities	Strongly Agree	8	9.8	χ^2=115.439 and p-value= 0.000
	Agree	53	64.6	
	Neutral	19	23.2	
	Disagree	2	2.4	
	Strongly disagree	0	0.0	
	Total	82	100.0	

The above table- 49 shows that regarding the changes of the trainees knowledge, skill and attitude by the in-service training program 56.1% respondents agree and 35.4% respondents strongly agree. Regarding effective change in the teaching learning approach by the in-service training program 72% respondents agree and 14.2% respondents strongly agree. Regarding the impact of training on the field level activities this table shows that 64.6% respondents agree and 23.2% respondents remain neutral. This table shows that chi-squre (χ^2) value and p-value are significant for all the indicator/variables.

5.14 Opinion of respondents on quality of education and ICT in education through In-services training

Table 50: Opinion of respondents on quality of education and ICT in education through In-services training (Appendix-B)

Indicator	Response/Opinion	Frequency	Percent	Chi-square test
Quality of Education through In-service Training Program	Strongly Agree	15	18.3	χ^2 =117.146 and p-value= 0.000
	Agree	54	65.9	
	Neutral	11	13.4	
	Disagree	2	2.4	
	Strongly disagree	0	0.0	
	Total	82	100.0	
Effectiveness of In-service Training for developing the Higher Secondary level Institution.	Strongly Agree	29	35.4	χ^2 =111.293 and p-value= 0.000
	Agree	48	58.5	
	Neutral	5	6.1	
	Disagree	0	0.0	
	Strongly disagree	0	0.0	
	Total	82	100.0	
The necessity of HSTTI In-service Training for Building Digital Bangladesh	Strongly Agree	37	45.1	χ^2 =91.171 and p-value= 0.000
	Agree	38	46.3	
	Neutral	5	6.1	
	Disagree	1	1.2	
	Strongly disagree	1	1.2	
	Total	82	100.0	

The above table-50 responded by high officials, trainers faculty members trained principals GB members respondents regarding quality of Education through In-service training program 65.9% respondents agree, and 18.3% respondents strongly agree. Regarding effectiveness of training for developing that Higher Secondary level Institution this table shows that 58.5% respondents agree and 35% respondents strongly agree. Regarding the necessity of this training for building digital Bangladesh, this table show that 45.1% respondents strongly agree and 46.3% respondents fully agree. This

table shows that chi-squre (χ^2) value and p-value are significant for all the indicator/variables.

5.15 Comparative analysis of College Training Information and Last five years HSC Examination Result (HSTTI, Rajshahi)

Table-51: Comparative analysis of College Training Information and Last five years Higher Secondary Level (HSC) Examination Result (2008, 2009, 2010, 2011, 2012) (Appendix E$_1$ and E$_2$)

Board & No of College.	Total Teacher	Total Trained Teacher	Untrained Teacher	Percentage of Trained Teacher	Year	Total Student	Passed Student	Average Passing Rate	Average GPA 5
Rajshahi Board 90 College	2732	1467	1265	53.69	2008	10261	6588	64.20	1.14
					2009	10149	6687	66.88	2.16
					2010	11799	8331	70.60	4.04
					2011	11760	8519	72.24	4.96
					2012	14772	11695	79.17	6.57
Dinajpur Board 50 College	1205	664	541	55.10	2008	5706	3387	59.36	0.50
					2009	5613	3619	64.56	0.75
					2010	6973	4869	69.69	1.80
					2011	7469	5607	75.10	2.84
					2012	8361	6373	76.22	5.08

Source: College Official records. (2008-2013)
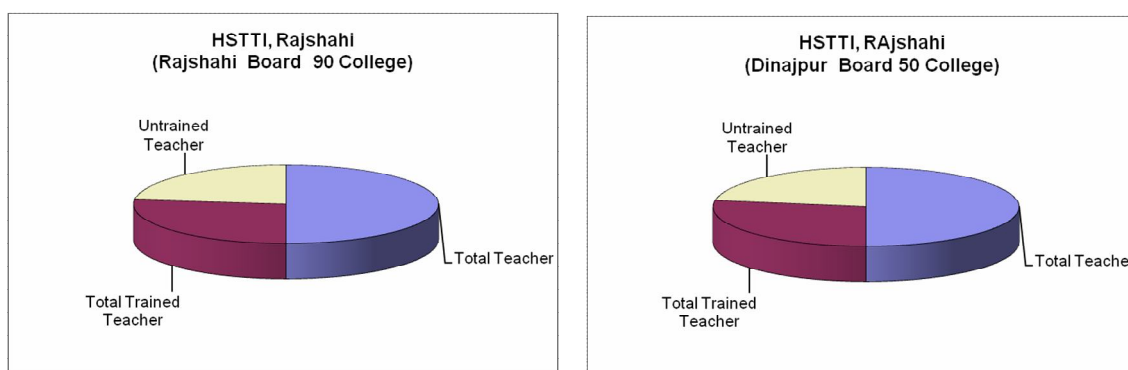
Fig. 7: Percentage of trained teachers of HSTTI, Rajshahi

5.16 Comparative analysis of College Training Information and Last five years HSC Examination Result (HSTTI, Barisal)

Table 52: **Comparative analysis of College Training Information and Last five years Higher Secondary Level (HSC) Examination Result (2008, 2009, 2010, 2011, 2012) (Appendix E₃ and E₄)**

Board & No of College.	Total Teacher	Total Trained Teacher	Untrained Teacher	Percentage of Trained Teacher	Year	Total Student	Passed Student	Average Passing Rate	Average GPA 5
Barisal Board 40 College	1161	726	435	62.53	2008	5511	3718	67.46	4.9
					2009	5020	3623	72.17	8.38
					2010	5814	4340	74.65	9.80
					2011	6096	4593	75.34	10.27
					2012	7498	5728	76.40	13.75
Dhaka Board 20 College	555	287	278	51.71	2008	2936	2017	68.70	2.85
					2009	3047	2046	67.19	2.90
					2010	4017	2792	69.50	5.20
					2011	4318	3182	73.69	10.75
					2012	5113	4012	78.47	20.30

Source: College Official records. (2008-2013)
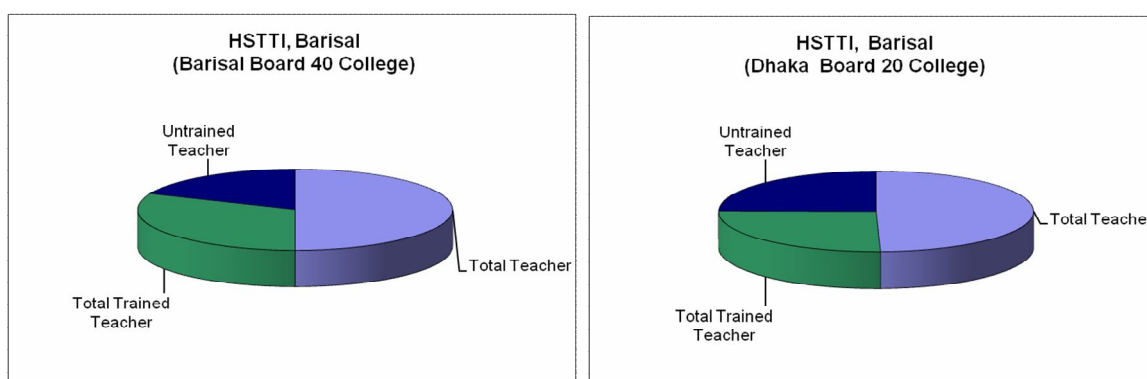
Fig. 8: Percentage of trained teachers of HSTTI, Barisal

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5.17 Quantitative and Qualitative change of the Higher Secondary levels Institution

Table: 53: **Comparative analysis of six years Higher Secondary levels public examination results (Rajshahi and Dinajpur Board Results 2009, 2010, 2011, 2012, 2013, 2014)**

Board	Parameter	2009	2010	2011	2012	2013	2014
Rajshahi	Passing Rate	70.47	75.43	79.01	78.44	77.69	78.55
	No. of Pass student	52339	61987	61379	82467	81631	87720
	No. of Examinee	75612	83737	79206	106966	106989	113369
	No. of Appeared	74274	82174	77681	105135	105072	111680
	% of Student getting GPA 5	3.00	6.82	7.45	6.54	7.30	6.84
	No. of Student getting GPA 5	2229	5602	5788	6872	7666	7641
Dinajpur	Passing Rate	55.90	67.54	66.18	75.41	71.94	74.14
	No. of Pass student	32722	49202	48685	64679	63624	71940
	No. of Examinee	59393	73898	75457	87504	89622	98373
	No. of Appeared	58541	72852	73568	85773	88444	97033
	% of Student getting GPA 5	2.37	2.49	3.07	5.84	3.88	4.61
	No. of Student getting GPA 5	1388	1814	2260	5009	3433	4474

Source: BISE, Rajshahi and Dinajpur Official Records 2009, 2010, 2011, 2012, 2013 and 2014

Figure-09
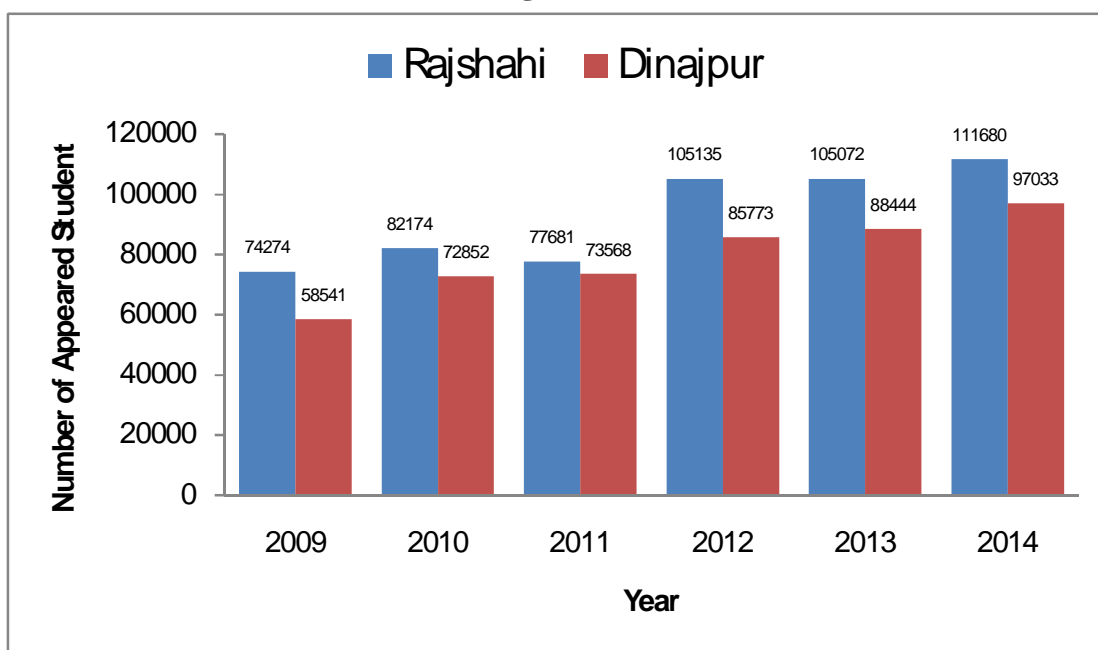
Figure 09: Shows that the number of appeard student in both boards in creased every year

Figure-10
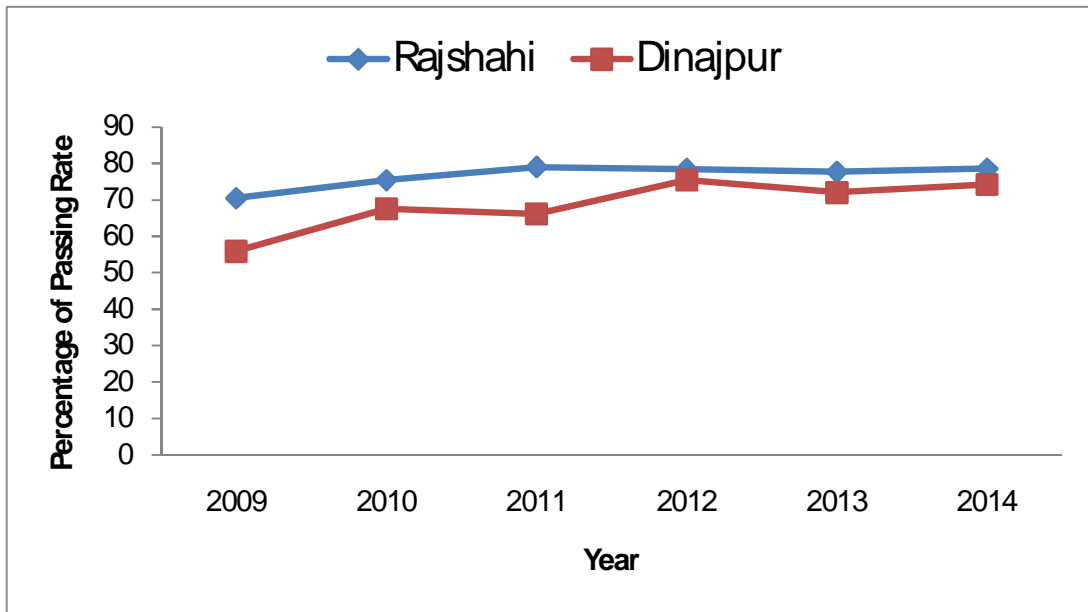
Figure 10 shows the percentage of passing rate of Rajshahi Board and Dinajpur Board in case of Rajshahi board the percentage passing rate increases gradually and contioususly upto 2011. Though there is a little decrease during the following years, it is negligible. But in case of Dinajpur board the percentage of passing rate in fluctuating.

Figure-11
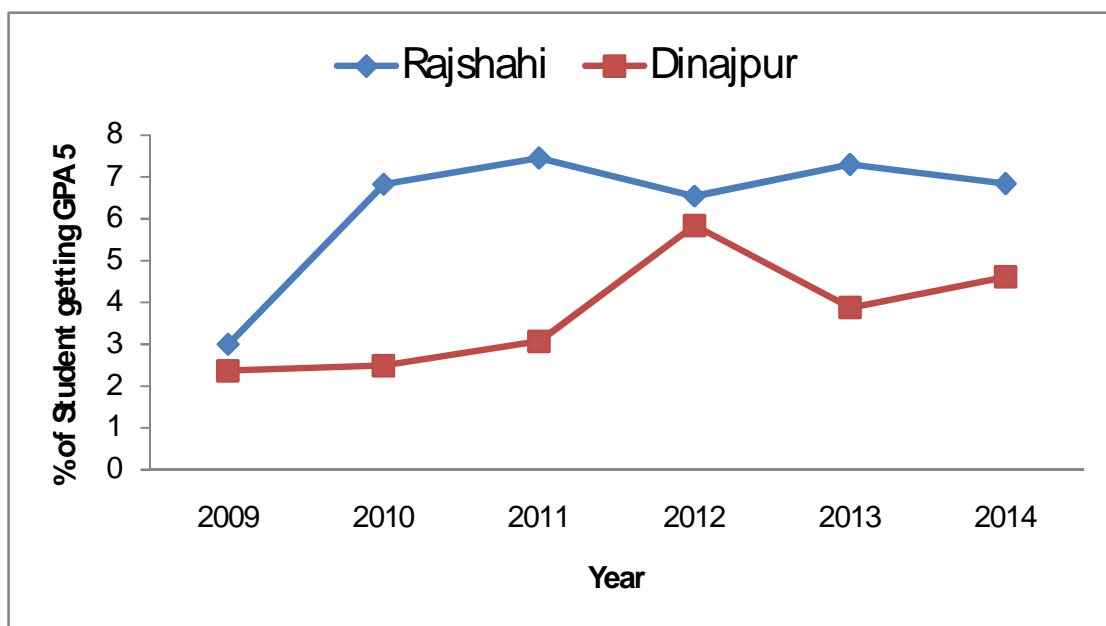
Source: BISE, Rajshahi and Dinajpur Official record 2009, 2010, 2011, 2012, 2013 and 2014

Figure 11 shows the percentage of getting GPA-5. In case of Rajshahi Board, the percentage of GPA-5 continuously increases from 2009-2013. Though there is a decrease in 2014, it is quiet negligible. In case of Dinajpur Board, the percentage of getting GPA-5 continuously increases upto 2012. There is a sudden decrease in 2013 but the percentage again increases following year.

5.18 Quantitative and Qualitative change of the Higher Secondary levels Institution

Table 54: **Comparative analysis of four years Higher Secondary levels public examination results (Dhaka and Barisal Board 2009, 2010, 2011, 2012, 2013, 2014)**

Board	Parameter	2009	2010	2011	2012	2013	2014
Dhaka	Passing Rate	71.53	72.10	76.84	81.82	74.04	84.54
	No. of Pass student	109060	140548	160027	191580	195045	251772
	No. of Examinee	153966	196313	210219	236463	26551	300554
	No. of Appeared	152470	194925	208112	234155	263426	297814
	% of Student getting GPA 5	6.19	5.65	8.54	10.72	8.48	10.71
	No. of Student getting GPA 5	9450	11020	17786	25104	22347	31902
Barisal	Passing Rate	67.57	74.71	72.44	66.98	71.69	71.75
	No. of Pass student	20039	26179	25934	28144	37403	39402
	No. of Examinee	30203	35624	36375	42710	52904	55.779
	No. of Appeared	29655	35041	35803	42019	52173	54915
	% of Student getting GPA 5	1.95	4.18	3.63	4.51	3.55	4.05
	No. of Student getting GPA 5	577	1467	1301	1895	1853	2225

Source: BISE, Dhaka and Barisal official record 2009, 2010, 2011, 2012, 2013 and 2014

Figure-12
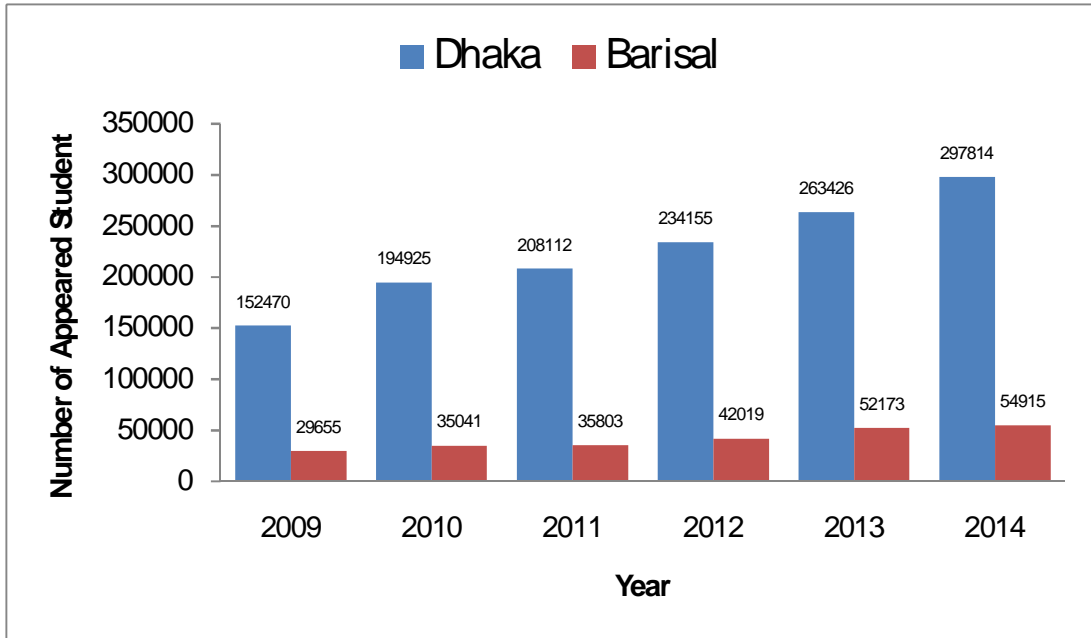
Figure 12 shows that the number of appeared student in Dhaka and Barisal boards increased every year.

Figure-13
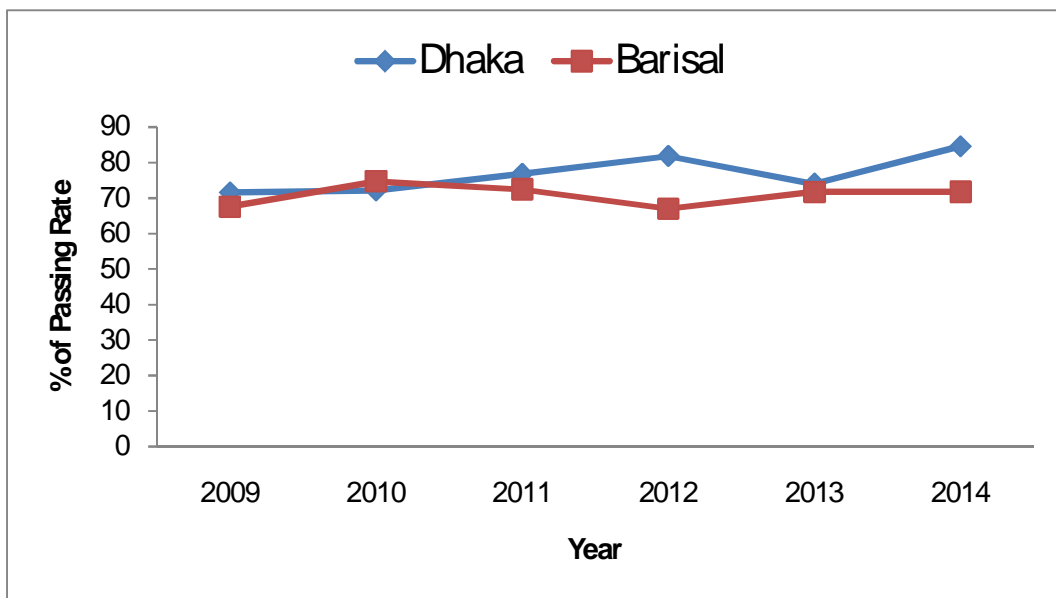
Figure 13 shows the percentage of passing rate of Dhaka and Barisal Board in case of Dhaka Board there is a gradual and continuous increase in the percentage of passing rate upto 2012. Though the rate decreases in 2013, it increases again in 2014. In case of Barisal Board the passing rate is fluctuating but it is almost linear.

Figure-14
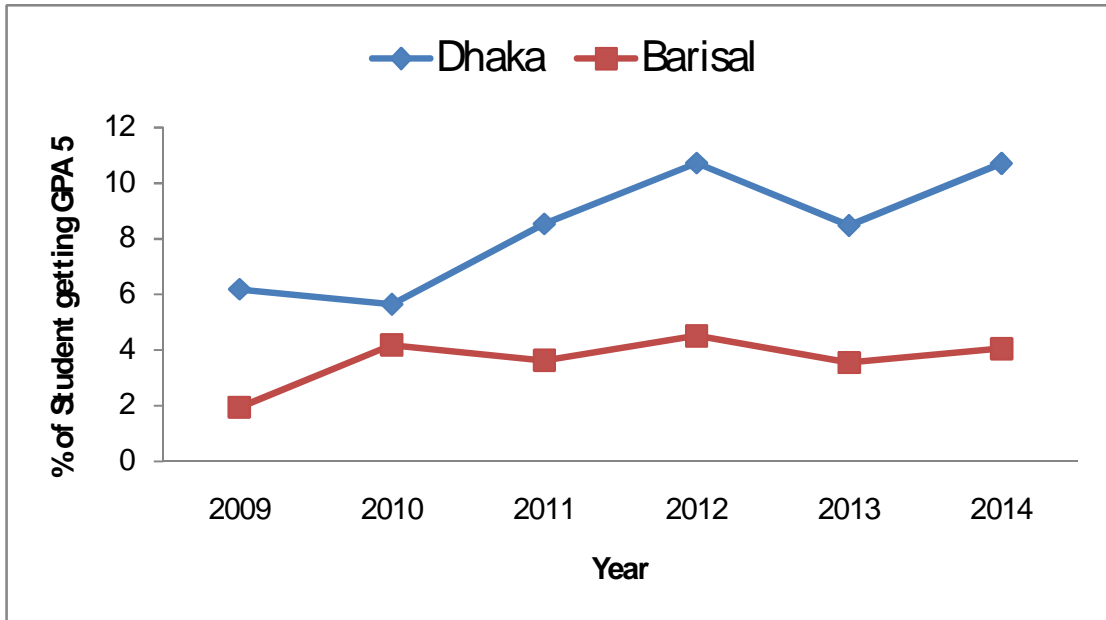
Figure 14 shows the percentage of getting GPA-5. In case of Dhaka Board, the percentage of GPA-5 continuously increased from 2009-2014 through there is a decrease in 2010 and 2013. But in case of Barisal Board, the percentage of getting GPA-5 continuously increases though it decreases in 2011 and 2013.

5.19 Findings of this chapter

- Most of the respondent teachers opined that the training course content, training methodology and the training objectives are very excellent, and the training evaluation process is very good.

- Most of the respondent teachers opine that the training course duration is shorter than necessary. It should be extended.

- Regarding the training satisfaction level, they answer that the effectiveness of training objective, training coordination and management, quality of training materials for participants, facilities for study tour and Co-curricular activities are mostly very good.

- Maximum respondent teachers opine that the availability of residence facilities and other hostel management are very good.

- Most of the respondents have opined that financial facilities of training program are not sufficient; and they have proposed that daily allowance, books allowance, kit allowance, and education tour allowance should be increased.

- Maximum respondent teachers agreed that the training program of trainers/resource persons' quality were very good; and most of the teachers were in favor of the subject expert as the resource person/trainer.

- Most of the respondent teachers opined that trainer's subject and pedagogy knowledge and technique applied to training session for active participation were good.

- Maximum of the respondent teachers opined yes answer regarding the effectiveness of training objective.

- HSTTI, Rajshahi In-service training program is able to increase the knowledge regarding pretest evaluation and post test evaluation. Results indicating progress towards improvement from pretest to post test which have greater impacts on quality education

- HSTTI, Barisal In-service training program is able to increase the knowledge regarding pretest evaluation and post test evaluation. Results indicating progress towards improvement from pretest to post test which have greater impacts on quality education

- 70% of the respondents agree that effectiveness of training outcomes for the institutional management are of very good level.

- 70% of the respondent teachers opine that HSTTI In-service training impact on the field levels change the student's philosophy and other 30% respondents agree to their self-development.

- Most 40% respondents opine yes answer in case of the problem of implementing training outcomes and most (60%) of the respondents opine no answer. So follow up activities must be conducted to improve the effectiveness of the training.

- In-service training information of Rajshahi and Dinajpur Educaiton Board under HSTTI, Rajshahi shows that 54.69% teachers of 140 colleges have taken their training and performances of these colleges in HSC result show a quantitative and qualitative change within five years.

- In-service training information of Barisal and Dhaka Education Board under HSTTI, Barisal shows that 57.17% teachers of 60 colleges have taken their training and performances of these colleges in HSC result show a quantitative and qualitative change within five years.

- HSTTI, Rajshahi In-service Training is able to increase the performance of Higher Secondary levels regarding public examination of Rajshahi and Dinajpur Education Boards.

- HSTTI, Barisal In-service Training is able to increase the performance of Higher Secondary levels regarding public examination of Barisal and Dhaka Education Board.

5.20 Conclusion

This chapter has been arranged on the basis of primary and secondary data. The study has used several method such as survey method, questionnaire and observation method for collecting data. This research has also used pre-test and post-test evaluation score of the trainee respondents. pre-test and post-test comparative analysis, two-way ANOVA test, DMRT test of pre-training evaluation and post training evaluation of the HSTTIs in-service training program. HSTTI In-service program is able to increase the knowledge regarding pre-test evaluation and post test evaluation. Result indicating progress towards improvement from pre-test to post have grater impact on quality education. Primary data have been collected from the trained principals, subject teachers and computer teacher and documents of the colleges have been collected to find out the training evaluation and impact of the In-service training provided by HSTTIs. In this chapter it has been disscussed that the training has increased the positive knowledge, skill and attitude of the trained principals, subject teachers and computer teachers. In-service training information of Rajshahi and Dinajpur education boards under HSTTI Rajshahi shows that 54.69%, teachers of 140 colleges have taken their training and performance of these colleges in HSC result shows a quantitative and qualitative change within five years. Training information of HSTTI Barisal shows that 57.17% teachers of 60 colleges have taken their training and perormance of these colleges in HSC result show a quantitative and qualitative change withing five years. As for the results, these concerned trainees take inititive to overall development of their respective service.

QUALITATIVE ANALYSIS OF HSTTI'S TRAINING PROGRAM AND INSTITUTIONS

6.1 Prelude

The results of training sustain for a long time. Educational institute is a social organization. The society builds the educational institutes for its necessity. The educational administration and management training conducted by HSTTIs is very effective for the achievement of skills and attitudes. This chapter has described qualitatively to measure the impact of training. The issues included in this chapter have been discussed as follows. Firstly, a conceptual Framework has been considered to measure the impact of training. Interrelation and association among the factors have been shown for the measurement of the training impact. The factors for the evaluation of the training provided by HSTTIs have been focused. The aims, objectives and different sides of the training such as training factors, training methods, communication and standard of training have been compared with those of HSTTIs. For the measurement of training impact, the qualitative data collected through Survey questionnaire, interview schedule, observation and document analysis have been explained in this chapter. The positive and negative sides of training institute/ training have been collected from the trained principals, subject and computer teachers. In the same way data have been collected from the teachers to explore how the trained principals, subject and computer teachers, apply the training outcomes in their institutes. Here success, failure, negligence, positive and negative sides and external and internal threats have been discussed qualitatively

6.2 Measurement of the Impact in HSTTI In-service Training

The over all discussion is important for measuring the impact of training. Education basically depends on teachers' knowledge, skills, and attitude. The untrained teachers do not know how to develop the teachers' knowledge, skills and attitude. Through the training trained teacher will be able to earn the above skills in duration of time. Trained heads of the institutions are the master trainer of their respective institutions. The trained principals/heads/respondents of heads of the institutions have been treated as the master trainer of their working places. The training institution here HSTTI assumes

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that the trained up principals, subject teachers and computer teachers shift their training results to the working places where teachers are involved to conduct the session in specific subject. If the teachers give their services with professional commitment such as following the teaching learning procedures, gaining the subject knowledge, obeying the govt. rules and regulation, following the regular attendance, specially taking care of the weak students, involving the guardian for the students better performance etc, the institutions will satisfy the stakeholders demand. The principals are person who properly guide the teachers, monitor and evaluate the teacher-students, show the self-transparency and accountability etc. the stakeholder support the institutions. Through HSTTI administration and management training, principals get the message and they try to implement it in their working atmosphere. It is assumed that if principals apply results to fulfill the demand of the teachers, students, guardian as well as the stakeholders, it is said that HSTTI educational administration and management, Subject and pedagogy based training and computer training impact is positive for all over the country. If principals, Subject teachers are unable to apply the training results in their working place as well as working atmosphere, it is said that there is not any impact of HSTTI training for fulfilling the target or earning the mission and vision.

6.3 Framework of Training Impact

Qualitative analysis for the impact of the educational administration and management and subject in various perspectives is necessary. Numerical and descriptive data are used to measure quality. Descriptive data are very useful for measuring the qualitative analysis. Data are collected through survey questionnaire, interview schedule and observation. The validity of observed data depends on truthfulness researchers and honesty. In this study, the researcher has collected some information through observation, sharing of the respondent's idea, discussion with the trained-up heads of the institutions, verifying some documents etc. Some interesting information has come through these kinds of sources, such as the regulation books, salary sheets, result sheets and so on.

It is very difficult to collect qualitative data through observation. Descriptive information is convenient to discuss the present situation of training institutes, quality

of the resource persons, strength and weakness of training institutions, shortage of the logical support to conduct the training courses.

The researcher has assumed the conceptual framework to determine the impact of the qualitative approach with the help of the "School management" model.

6.3.1 Impact Measuring Procedures of Training

Impact means long-term effects/results, which exist in the field. The following flow chart shows the impact

Figure 15: Impact-Output Model of HSTTI In-Service Training

Training input	Training process	Training output
To training content To training Material To training Environment Training brochure To training methodology	❖ To resource person ❖ To classroom Management ❖ To teaching material ❖ to motivation ❖ Time management	❖ To publish results ❖ To certificate award ❖ To create commitment ❖ Efficiently of teaching methodology ❖ Computer teacher

Training Impact

Training Outcomes

❖ To increase the public examination results.
❖ To change the Positive attitude
❖ To teacher conduct in the session with preparation
❖ To monitoring activates
❖ To consider the others opinion to take decisions
❖ To increase the students attendance
❖ Effective and creative contents

❖ To share the training idea
❖ To initiate of applying the training results
❖ To help the stakeholders
❖ To make the quality student

Source: The researchers design impact-output model of training

The model shows the different development factors which contribute to the significant development of the successful primary education. The training scenario of secondary

and higher secondary levels in Bangladesh is that there is no measuring tool to measure the training outcomes or results. The heads of the training organizations can play the vital role for effective training courses. If he/she establishes a strong monitoring and evaluation committee to supervise the committee's activities, training results show the positive manner. Training results depend on the interference of the stakeholders of the training institutes and the heads of the training institutes. Their honesty, sincerity, self realization, integrity, positive attitude etc. are the main factors to measure the impact of the training institutes.

6.4 HSTTIs' In-Service Training Assessment

Pres-test

Pre-test achievement of any training activities is an important issue. To assess the trainee's base level depth of knowledge, skill and attitude measure some evaluation tools are used. Pre- test is the technique to assess such level by a structured questionnaire.

Post-test

Post-test is the technique which is used to measure the results of training time activities for certain period of time. In pre-test and post-test technique, some instruments/tools are same. The difference between two tests i.e., pre-test and post-test are treated as the achievement of the specific training program.

Other techniques

The other techniques for collecting data from field level are

      (i)   survey Questionnaire,

      (ii)   observation

      (iii) Interview schedule,

      (iv) Document analysis

6.5 Aim of the Study on Training

Training is the continuous process for human development. The policy makers suggest that skillful manpower is able to produce training. Training makes the worker more confident of the production mechanism. The following literature explains the background of training.

Teacher's Training: Yoges Kumar Singh and Ruchika Nath (2005)[1] express that nineteenth century saw numerous experiments in diverse direction in the field of curriculum change all over the country. They also express about the teachers training direction to the preparation of primary, secondary, and higher secondary collegiate courses. In the context of Bangladesh the training scenario of primary education is comparatively smooth, secondary is medium and the higher educational training is hardly taken by the teachers of the institutes.

Educational Administration and Management, Subject and pedagogy, Computer training are conducted for the heads and subject teachers of the secondary and higher secondary level institutes. The aims and objectives of HSTTIs (according to HSTTIs' Training Brochure) are to ensure proper educational plan at all levels of post primary education, to provide professional and technical support to the education sector for improving institutional capacity on education and to promote increased efficiency and effectiveness of the educational planning of the post primary education sub-sector.

According to Sing and Nath (2005), the aims of the training course are to give the teachers an all-round preparation for their work from both theoretical and practical points of view. On the other hand, they need knowledge of the subjects which they have to teach, an acquaintance with the nature of the mind of the trainees/students and of the principles, which underlie the teaching art and some knowledge of the history of education in the past. They learn by actual practice in the classroom to control and teach the class. In the management training the heads of the institutes are the participants/ trainees. The trained teachers learn different types of mechanisms on how to develop the institutions along with developing the public examination results, how to increase the manner and attitude of the teachers and students, how to satisfy the demand of the community, how to build the future nation of a country through the educational institutions. In the management training, the heads of the respective institutions are treated as master trainers in their working places. After training they achive many things from the training through motivational activities. But in observation trained-up heads of the institutions are able to achieve many things through motivation. Most of the trained teachers reduce punishment for better results in public examination, change the positive attitude, increase the classroom attendance, manners and etiquette etc.

1 Y.K. Singh and R. Nath. Teacher Education A.P.H Publishing Corporation New Delhi, (2005), pp. 30-33.

N. Romaswmi (1992)[2] in his book A Handbook of Training & Development, about the importance and relevance of training, preparation for training, methods of training communication of training, motivation of training, problems and solutions, relationship in training, and training and development. HSTTIs follows the above mentioned events during the training course.

Training is a pre-planned process to change and enrich the trainees knowledge, skill, attitude, behavior, etc through learning to acquire effective performance in an activity or range of activities. The past motto is "training begins where education ends:" but it is now "training with education." Training makes a man community perfect. Training makes the man competent, perfect, proper, useful, workable etc., in communities or workplaces. A man may not possess the skills to do the required job at a required standard of performance. Training is always a purposive approach. It is a means for maintenance and improvement of the level of performance of a person in a section or department. Training is always updated. In the management training, participants or the heads of the institutions are unable to know the updated knowledge for the survival in the working places. The demands of the social values, norms, rules and regulation etc., are always changing. For the adaptation of the new events and facts, training has to be conducted. Through proper training a man can change his attitude to apply the new events and facts for the need of the society or to fulfill the stakeholder's satisfactions.

Training always is purposeful. This is a means for maintenance and improvement of the level of performance of person/participants in a section or a department. Training is a performance e.g. improved layout of plan and equipment, improved systems and procedures, restructuring of jobs etc. The basic theme of the training is permanent change of attitude and behaviors. The participants of training are adult persons and they have already earned some norms and values of personal experiences, form their existing environment. It is so difficult to break their existing norms, values, belief etc. Training manager uses the different mechanisms for the adult learner for how to adopt the new knowledge, which changes their existing beliefs. For his fulfillment, trainer should consider the functions such as

    (i)   Identification of training needs,

    (ii)   Design of plans,

2 N. Ramaswani. A Hand book of Training and Development, T.R Publication private Ltd. T. Nagar, Madras (1992), pp. 12-16.

(iii)   Implementation process

(iv)   And the assessment of training effectiveness. Planning, organizing, learning and controlling are the four functions of training management. These are the basic functions that characterize the work of the trainer/teacher who conducts the training.

6.6 Setting the Training Objectives

Training objectives are some kind of statements of what training is expected to achieve at the beginning. Setting training objectives must be in accordance with SMART theory; because the training is one of important functions in human resource management and it is also a costly process. So the training objectives should be set up for the training so that trainees can transfer the training results in their working places. Identification of the training needs correctly is the most wanted thing for setting training objectives. Some analysis of the employee can be done. This is also important to design the training program. An employer can do a task is a systematic analysis of the behavior required to carry a task analysis, fault analysis, a task with a view to identifying aids necessary for successful instruction analyzing which it can be identified what kind of difficulties the employee faces while giving task. Where the incidence of errors or faults in a job can be fairly high the faults analysis method can be useful for identifying the actual faults. Identifying the faults and the frequencies of faults are factors important for setting training objectives. The most common method of analyzing the skills required in work of a no-supervisory nature in industry or commerce is that known simply as skill analysis. Knowing of skills of an employee is important to set objectives of trainings. As a major function of human resource management process, training and development have higher contribution to the organization when recruiting new employee, training programs are important to induction part of HRM process. Not only for the induction of HRM process, but also for other parts of the process: such as performance appraisal etc. When establishing training objectives these kinds of specific things should be considered. Some mandatory factors are involved in survey based training systems according to the objectives of a study. So it is very essential to identify such factors according to the objectives of any study. Therefore to conduct any training program, the trainer should follow the training method, which has several factors. Such as, Human factors,

Objectives, Subject area, time and material factors and principle of learning (see, Amen, 2007)

Setting objectives of training depends on the organization. It may differ from organization to organization. In an organization again the setting of the objectives basically depends on its vision, mission and corporate objectives. These have to be achieved without any argument. But in operation level, it is identified that most of the time employees make lots of mistakes because of lack of training. Even it they are highly paid, highly motivated peoples mistake this cannot be decreases to a large extent. These types of situations are the indicators of the training needs and the training objectives. Training objectives should be achieved and fulfilled for training needs of an organization of training objectives create stress on the employees, the outcome the training may not be achieved through the objectives.

6.7 Component of Training

For the preparation of the training, conscientious preparation before presenting any knowledge or skill or practical lesson is the substance of effective teaching and training. Trainers' skill and attitude are updated through their constant teaching experience and their capability of adapting themselves to every new situation. A trainer should use his preparation time for personal motivation and self development. The knowledge or skill or behavior to be imparted to the trainees should first be analyzed and specified. Teacher preparation makes a difference in both teachers' effectiveness and their likelihood of remaining in the profession, says "Stamford University Professor Lin Darling-Hammond, executive director of the National Commission on Teaching an American's future." Before the Preparation for Training, trainer or resource person has to consider the following events: (i) Aims and purpose of the lesson,(ii) Duration of the class, (iii) Relevance of the respective topic of conducting session,(iv) Trainees' baseline and attitude, (v) Trainers' training /instructing techniques to be followed,(vi) Trainers' attitude towards the trainees,(vii) Training aids,(viii) Trainers' evaluation through the trainees .

6.8 Methods and technique of training program

In the educational training trainers follow different approaches for conducting training lesson for measuring the impact of training. The participants or the trainee of the educational training are adult persons. Normally their age limit is 20-56. For the adult trainees, trainers are more competent than their trainees. Some of the methods applied for teacher trainer are lecture methods, participatory approach, discussion method, problem solving method, brain storming methods, peer learning method, presentation in different issues, reporting technique, portfolio preparation and presentation, syndicate method etc. One of the most important methods for the trainer or the teacher is that which is called the "Teacher Method". Teacher will decide method, which is applicable for the certain groups of participants or trainees. Before conducting the session teacher will have to consider trainees' or participants' status, age, educational qualification, their training background and other qualification if they have.

6.9 Communication in Training

Communication is an important part of training. During the training and after the training communication is more effective event. Trainer's first impression is drawn during the training activities. Trainer's positive impression is one of the most important events for communication of the training. The trainer's positive first impression is one kind of tonic or medicine for the trainee. For effective training communication a trainer has to follow the following events to measure the proper impact of training: (a) to introduce individually in the first session, (b) to introduce themselves through peer groups, (c) to collect the personal information through registration form, (d) to motivate to communicate one another through other activities, (e) to inform their duties and responsibilities during the training course, (f) to monitor their activities and discuss it during the training period, (g) to motivate to obey the norms and values which are included the training Brochure, (h) to inform the indicator of evaluation that they have to follow during the training period, (i) to involve each participants in the group activities and give the opportunities to present group outcomes one by one,(j) to build up the commitment that the training results have to apply in their respective working places, (k) to build up the commitment that the participants communicate one another to share their problems and how to solve it (1) after completing the training program, to

communicate the participants on behalf of training manager for their safe returning, (m) to monitor the participants /trainees within a short span of time by the trainer of the respective training institutes.

6.10 Comparative Study of Standard Training and HSTTIs' In-Service Training

Objectives of training course on educational administration and management are as follows: Objectives are pre-determined assumption of any training program/course/project. It is a guideline on what kind of message they (respondents) earn from the training course. The researcher has tried to determine the training impact for setting the objectives of the respective educational administration and management-training course, conducted by HSTTIs' the backgrounds of objectives are as follows:

1. The heads of the higher secondary level of institution have to know the past and present situation of educational systems. To inform their teachers, students, guardians as well as for their betterment they have to explain the chronological description to their stakeholders to achieve their instructional aims and objectives.

2. They want that different kinds of programs will be taken by the government to build the future generation. Educational instructions are proper media to know the messages of government and adopt the programs, which are taken by the government. It is the duty of the heads of the institution to help stakeholders to implement government's given programs and projects.

3. The techniques have to be applied to solve different problems during the working period. Training institutes also identify the key point problems and how to solve them by using their existing resources and government rules and regulations. Heads of the institutes should be able to know how to solve the problems with the help of the community support.

4. The trainees should be taught how to maintain the personnel management efficiently. The heads of the institutions have to apply the rules and regulations of their working places/ respective institutions. Here some factors are involved such as teacher and staff recruitment policy, salary pattern, financial rules and regulation, drawing and disbursement system, spending of the government and nongovernment

fund. Through the fairness of above activities, the heads of the institutions will prove that they are able to run the institution properly and then none will disturb them.

5. From the training course the participants will be able to earn the process how the institution changes for the demand of the society. The demand of the society is different from institution to institution. The heads of the institutions are able to adapt training result considering the society as well as government needs.

6. Financial laws, rules and regulations, purchase rules are the basic needs for the institution. Sometimes honest and competent heads face the trouble for the lack of knowledge on financial laws, rules and regulations, purchase rules etc. Finance is the critical factor to run the institution properly. In the HSTTIs' training course, the participants are able to know the message and also know how to use it properly.

7. Creation of positive attitude is most important for the participants to run the institute with the help of others. Without positive change in the attitude, none of the new messages can be implemented in their working places. If they change their attitude positively, they will easily implement the new message for the betterment of the institutes as well as beneficiaries. By using their positive attitude, they will earn the qualities of ledership.

(Mishra, 2007)[3] Broad objectives of training in educational administration and planning are as follow

   i. Familiarizing the trainees with the planning process, dimensions and techniques of planning or developing planning skill

  ii. Equipping the trainees with the techniques of educational management at institutional level or educational administration at a large level

 iii. Developing analytical abilities and diagnostic skills of educational problems.

 iv. Developing decision making skills to improve quality of decision making.

HSTTIs conducts different types of training in the field of educational area. Educational administration and management, subject and pedagogy based and computer training are three of the training program for the heads of institution (principals), Subject teacher and Computer techers'. Educational administration and

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3 R.C. Mishra, Theory of Education Administration A.P.H Publishing corporation, New Delhi-110002, (2007), pp. 116-120.

management training is important training program which facilitates the heads of the institutions about how to make an institute better. The purpose of training program is to develop the abilities of an individual to satisfy current and future manpower needs, to supplement educational management and administration or to train for taking up higher responsibilities. Training goes hand in hand with education was the motto in the past.

6.11 Trainees' Comment about HSTTIs' Atmosphere through Open-ended questionnaires

The researcher has observed and collected the information from the trainees about training atmosphere regarding resource person's attitude, facilities of HSTTIs Faculties of HSTTIs' etc.

6.11.1 Resource person's attitude

- 30% resource persons come to spend the time
- Evaluation results should be implemented for selecting the resource persons.
- Personal biasness should be reduced while selecting the resource persons.
- Some of the resource persons conduct the session without preparation
- Some of the speakers do not follow time management
- The resource persons should be selected properly
- Some of the resource persons who are expert in Madrasha education should also be selected

6.11.2 Facilities of HSTTIs'

i. The computer based ICT activities should be increased

ii. The Hostel management should be improved

iii. Some of the institutions arrange the training program in the institutions with self-finance.

iv. HSTTIs should introduce the monitoring system after the training period in the respective institutions

6.11.3 Faculties of HSTTIs'

Some of the HSTTIs faculties develop themselves regarding conducting training activities

 i. Technical session should be more practical

 ii. Some of the HSTTIs faculties behaviors are not up to the mark.

 iii. Respondents believe that the format of evaluation sheet is not followed properly.

 iv. The Complain Box for the betterment of the institutions should be arranged

 v. In-service training should be arranged frequently

 vi. The bill to send the participants should be ensured within due time

 vii. Lack of co-ordination among the members of the coordination committee should be removed

 viii. Some relevant contents should be included in training program.

 ix. Residential facilities should be compulsory during the training period

6.11.4 Others

 a) All the non-government teachers should be included in HSTTIs' training activities

 b) Some of the principals do not help the researcher by providing real information

 c) The permanent HSTTIs' faculties should be trained-up

 d) The training in the starting of the job should be introduced.

 e) HSTTIs' training should be compared to that of other training institutions

6.12 Qualalitive Analysis of HSTTI's In-service Training Program activities evaluation & impact by interview schedule for high officials, trainers, faculty members & trained prinpals.

Table 55: Opinion Of respondent regarding training course content, method and others factors (Appendix B)

Indicator	Respondent Opinion
HSTTI's In Service training Course Content	• Moderate and satisfactory. Some important concepts included. • Need based new pedagogical concept • Add more subject class • Add communicative English class • Some content need to change
HSTTIs' In-service training Methodology	• It is satisfactory for trainers. But should be more participatory. • Training Methodology, i.e. new and modern techniques should be included and implemented properly. • Participatory Approach • Learner bossed Teaching Learning Process • Audio visual and multimedia presentation
Duration of the HSTTI In Service training Program	• Subject based training should be 56 days (20 days pedagogy and 36 days subject) duration and Educational management training should be 30 days. • Duration of the session could be extended. • Competent course co ordination and management committee • Provide up-to-date training module and materials • Need more support and facilitation • Post training monitoring • To start follow up training

Table 56: Opinion of respondent regarding trainner evaluation and training evaluation process of the In-service HSTTIs Training program (Appendix B)

Indicator	Respondent Opinion
Trainer's/facilitator's/resource person of In-service training program.	• Modern subject knowledge and methodology should be conducted. • Should be more competent on methodology • Should appoint trainers with pedagogical background • Should be technology oriented • Should be competent in subject knowledge • More use audio visual aids • Need more training for trainers
HSTTI's In-service Training Evaluation process.	• For subject training the present practices of evaluation is universal. But principal management training evaluation. • Continuous Assessment System (CAS) could be introduced. • Evaluation process should be modernized. • Written subjective training examination should be omitted • In the assessment process creativity should be emphasized

Table 57: Opinion of respondent regarding In-service Training satisfaction level (Appendix B)

Indicator	Respondent Opinion
HSTTI's In-service training Materials and classroom facilities.	• Very good. Could be excellent if all the rooms were well-equipped with modern facilities. • Class room Facilities should be improved • Number of computer should be increased • During training monitoring • Internet facilities should be increased
HSTTI's In-service training Co-ordination and Management.	• In the training Co-ordination and management, basic rules of monitoring and evaluation should be followed. • Training Co-ordination and management are satisfactory. But there must be strong monitoring through higher authorities.
Financial facilities of HSTTI In-service training Program.	• Financial facilities should be increased as in other BCS education cadre service. • Should be increased in the basis of present market value

facilities of Study tour & Co-curricular Activities	• It can be evaluated from the comment of trainers. • Co-curricular activities can play supplementary role. • Monetary support should be increased
Hostel facilities and Management of In-service training program.	• Scope for improvement exist. • More facilities should be implemented ie. Wi-Fi connection, more magazine, library etc. • Should be increased, trainee, friendly envirmant should be arranged.

Table 58: Opinion of respondent regarding change the trainees' knowledge, skill and attitude by the In-service training Program (Appendix B)

Indicator	Respondent Opinion
Effective Change in the Teaching Learning Approach By the In-service Training Program.	• To get the feedback of this training field level classroom observation is needed. • It has great impact on the teachers attitude skill and knowledge • Develop teaching skill, attitude, knowledge share experience teaching learning develop capacity for student evaluation
Impact of Training on the field Level Activities	• Impact can be assessed by academic supervision and evaluation in the classroom situation. • Effective teaching learning approach in classroom. • A good number of trained teachers implement the techniques while others don't change. A strong monitoring system can improve the situation. • Quality teacher should be increased
Quality of Education through In-service Training Program	• Increases teachers' skill, attitude, and knowledge & ensure proper teaching learning environment in the class room. Through which quality of education gradually • Trainees should apply their achieved knowledge, skill, and attitude from this training program of their classroom teaching and learning. • Effective teaching made by In-service training. So quality Education is possible by HSTTI In-service training.

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Table 59: Opinion of respondent regarding quality of education and ICT in education through in In-services training (Appendix B)

Indicator	Respondent Opinion
Problem of Implementing In-service training outcomes.	• Traditional ideas, lack of commitment, lack of initiative to bring about any change, poor academic background, private tuition etc. • Due to absence of logistic support from GOB. budget • Maximum non Govt. college of remote areas • Trained teacher can't implement their knowledge in the service • Lack of sincerity of trainees, administrations, environment and facilities both teachers and institution.
Impact of ICT in education by the In-service Training Program	• ICT has a positive role in this program at higher secondary levels. • ICT in education should be increased in participation with ICT lab. • Short term freshers and refreshers course of ICT in Education should be organize and implement to enhance the skills of college teachers.
Others recommendation.	• Demonstration/Simulation class should be recorded for all trainee teachers. Then by Audio-Video system. Must be shown their session. • Active participation of the trainees and trainee centered sessions should be more and more emphasized. • SBTTP, Educational Management and Computer training should be compulsory for the college Principal, Subject and Computer teacher • The latest books should be included in library • Make the institute more clean • Trained subject based resource person needed • Post training one increment should be introduced in the Job at the higher secondary levels. • Sufficient budget allocation of the training program

6.13 Institutional Information through the Researcher Observation and Respondents' Comments (Appendix C, D$_1$ and D$_2$)

Observation is the strong data collection instrument in the research work. In this study, some qualitative data have been collected from the field through observation. The information has minimized the gap of other ways of collecting data. The observation information is explained here.

6.13.1 Training Institutional Shortcoming

In the training institution, maximum 40% outsider trainers come to conduct the treaining sessions. Normally the resource persons are more qualified in the respective field than the faculty members. Before starting the training courses, manager selects the list of resource persons for the different training courses. Respondents comment on some' of those selected resource persons. They do not conduct their training session properly. They come to earn money and spend the time. Respondents believe that those resource persons are selected partially by the training manager or faculties. The desire of the respondents is that HSTTIs should arrange the training courses for all subject teachers.

The existing training contents do not fulfill the respondents' requirement. Training contents may be rearranged considering the real situation of the field. Resource persons of the training should be selected according to the evaluation format. Hostel facilities of the training institutions are not congenial to stay in the training period.

In the age of the globalization, update technology such as ICT facilities, computer networking, e-learning, e-library etc should be included in the training program. In the short time of training, respondents are not familiar with the new information. That is why the duration of training should be extended. Skilled resource persons should be selected without being biased. In the context of technical session, specialized resource persons should be included. It is a puzzle situation that some of the resource persons and faculties do not conduct the session within fixed time.

In the field level situation, the study shows that of the skills, knowledge, attitude and behavior some of the resource persons as well as faculties are not up to the mark. They should know the problem, technique of managing conflict. They should minimize the crisis on the field level real situation. According to the nature of problem, resource persons/ faculties prepare the relevant study material before conducting the training

session and include the new mechanism in the training program, which is helpful for present problem-solving situation. In the present market circumstances, training remuneration is not sufficient. For effective training, it is an important motivator to change the attitude during the training period.

The faculties/trainers of HSTTIs are not confident enough regarding training knowledge. It demands to arrange more national and international training programs for their better service. It also requires the invitation of the international resource persons to share the training idea for the development or self inspiration of local resource persons/faculties. It has been dubious success in promoting the skill, attitude and behavior through the training activities. HSTTIs should increase skilled manpower to eradicate mental heterogeneity of the respondents. There is no reliable scope to put the respondent complain. In that context, institute should setup a complain box for all trainee or respondents or others.

Training is a continuous process to adopt the new knowledge. Training institutions should arrange the training courses after some day interval. As a result, participants or trainees will be able to adopt the new information, applying in their working places.

Evaluation mechanism is the most important tool to select the resource persons. In this context, the evaluation format of HSTTIs is not properly judged to select the resource persons. So the evaluation format should be developed to ensure the skillful and knowledgeable resource persons.

Financial rules and regulation are not properly demonstrated during the training period. It is an important issue to measure the skilled and dynamic manager of the educational institutions.

During the training period, sometime it has been seen that there is lack of coordination among the members of coordination committee. HSTTIs should arrange overseas training for the participants. The educational administration and management training includes the respondents who are principals of government and non-government colleges and senior teahcers. In the above-mentioned training course, madrasha related resource persons should be included to conduct the training session. Residential facilities are necessary for effective training. So the participants of the training courses should be given residential facilities in the campus. Most of the cases, training results are not found to be applied in their working places. The training institutions have some

limitations to explore the training results of the respondent participants. The institute should take the responsibilities to conduct the session in different creative dimension and increase the awareness of the heads of the institutes through different committee, such as finance committee, budget committee, discipline committee, and admission committee, annual work plan should be prepared and maintained properly.

6.13.2 Participants Shortcomings

Training is the dynamic system to change the attitude and behavior of the trainees. Some of the respondents are not mentally committed to obeying the norms of the training courses. Some of them come for spending the time and to earn some money and do some personal work. A few of the respondents are not interested in changing the existing behavior and they arc not committed to implementing the training results in their working places. It is interesting that some trained principals do not share the traming results with the other teachers. Political pressure is one of the remarkable issues that creates problem in implementing training outcomes in the colleges/ institutions. Quality education is hampered for some politically recruited principals, because they are busy to obey the direction of the respective party. During the training period some of them always try to find faults/shortcomings of HSTTIs rather than to acquire the knowledge, mechanism, update information from the training. For lack of desire, a few of the respondents do not try to change knowledge, skills, behavior and attitude during the training period. Some trained principals are not able to arrange the teachers-students-guardian meeting for the lack of proper communication skills. Sometimes principals are unable to motivate the teacher in different aspects, i.e. making lesson plan, attending the classes in due time, students' development activities, professionalism etc. A few of the principals do not motivate the teachers to change the negative activates.

6.13.3 Positive Change of Trainees and Institutions

Higher Secondary Teachers' Training Institutes (05) are the regional training institutions of Bangladesh. Some of the principals, subject teachers and computer teachers trained from this institution also take training from other institutions of Bangladesh. They opine that HSTTIs training programs are more effective than those

of other institutions. Some of the principals apply the training results in their working places according to the instruction they receive from the training program. Most of the principals, subject teachers and computer teachers the training results with their colleagues and supporting staffs and motivate their colleagues to conduct the lessons with preparation/lesson plan. Some of the trained principals obey and follow the training instructions themselves.

Some of the principals familiarize themselves with the government rules and regulation such as financial rules, conduct rules, leave rules, maternity leave etc through HSTTIs training program.

A few of the principals initiate the new mechanism that a teacher should take the responsibilities of some students for the betterment of public and others examinations.

Some of the principals increase monitoring to ensure the lessons in time, teacher students attendance, teachers conducting the lessons with preparation and with lesson plan etc. They ensure the implementation decision of the meetings after training program.

6.13.4 Others

Some of the resource persons are skilled and qualified, and they can make the sessions effective and interesting. Some trained principals are unable to implement the training results for the lack of co-operation of of teachers and the pressure of the ruling political party. Some development activities are obstructed for bureaucratic procedures

6.14 Findings of this chapter

- Most of the respondents opine that subject and pedagogy training course should be extended to 56 days (36 days pedagogy + 20 days subject) from 40 days, and educational administration and management training should be extended to 30 days from 20 days.

- Maximum of the respondents expressed their satisfaction for educational aids and modern technology applied in the training session but ICT based classroom and more instructional materials should be ensured.

- Most of the respondents opine that higher secondary level principals need a separate ICT based computer training course of 30 days.

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- HSTTIs' Training program is able to change the knowledge, skill and attitude of the respondent principals, subject teachers and computer teachers towards their professional development.

- HSTTIs Training Programs are continuously run under the revenue budget throughout the year for non-govt. higher secondary level college principals, subject teachers and computer teachers.

- Maximum 70% respondent teachers agree that effective change takes place after knowing the teaching learning methodology by the In-service training program.

- The research has observed maximum participants simulation class before and after training programs teaching methodology of the participants gets comparatively better in the final simulation class.

- The knowledge, skill and attitude of the maximum respondents/participants increase and they ensure proper teaching learning environment in the class room after getting the in service training program which shows that the quality of education improve gradually the training programs.

- The researcher has observed, maximum number of respondents/perticipants, who achieve the training result properly during the training period, show the lack of sincerity, lack of interest in creating academic environment and facilities which are not favourable for their institution after their training.

- HSTTIs have created good scope for training human resource for building the nation in the right way at the right time.

- HSTTIs Training has long term positive impact on higher secondary level institutions and on the working places of the trainees.

- There is no provision for subject and pedagogy based training program for subject teachers of govt. colleges of higher secondary level in Bangladesh.

- The security and privacy of the female trainees are often disturbed due to the lack of their separate hostel facilities.

6.15 Conclusion

The qualitative analysis chapter explains the training in the quantitative approach. Training institutes, trainers, resource persons, training materials etc have been explained in different angles. Training knowledge, skill and attitude are the important key factors for the effective training. For measuring the impact of HSTTIs' training, a conceptual framework has been designed. Different issues have been included in the framework to sum up the training effectiveness. Evaluation methods of training are different from normal evaluation system. The evaluation method's include pre-test, post-test, written examination, observation etc evaluation tools.

Aims and objectives are the important parts of the training activities. HSTTIs' training and other related training objectives have been discussed qualitatively in this chapter. Training has the different components that comprehensively affect the whole activities. Multiple training methods have been applied in the training courses. Report presentation, portfolio presentation, syndicate presentation etc are some special techniques to evaluate the trainees. Combination skills are helpful to transfer the training results in the working places. Measuring HSTTIs' training impact, maximum of the information has been collected from trainees and colleagues of trainees. Both groups have been explained through sharing direct and indirect training ideas. The qualitative data have been collected from the field level environment. Trainees give the information about resource persons' knowledge, skill, attitude and behavior. They also evaluate the resource persons' using of materials and time management. After training period, they evaluate the HSTTIs' facilities and HSTTIs' faculties which are directly and indirectly involved in the training program. The strengths and weakness of training and resource persons have been measured through the open-ended questionnaires which have been collected from the field level institutions. The qualitative information has been collected from the field through the researchers observation. This study has found out shortcomings of training and training institution through (i) institutional shortcomings (ii) participants/trainees' (iii) Positive change of trainees and his institutions and (iv) Others.

SUMMARY, RECOMMENDATIONS AND CONCLUSION

7.1 Prelude

This survey aims evaluate the impact of In-service training program- educational management training, subject based training (SBTTP) and computer training program for the higher secondary level institute (college) provided by HSTTI in Bangladesh. This study findings and results have been evaluated through tringular format and technique. Finally in this chapter summary discussion, findings, recommendation and conclusion are given.

7.2 Summary discussion

This study report has been arranged with six chapters. The chapters have been discussed in the following session:

7.2.1 Chapter one: Introduction

This chapter explains the overall evaluation and impact of In-service training, which the trainees earn from the In-service training programs for the long term sustenance of the training results in their higher secondary levels institutions. This chapter also includes the following issues such as what are the aims and objectives of HSTTI, duties and responsibilities of HSTTI trainers, training materials, training facilities etc. On the basis of historical background of this necessity and the importance of training the government of Bangladesh has established five (5) Higher Secondary Teachers Training Institutes (HSTTI) in five major cites in Bangladesh to train up the higher secondary level college teachers and these institution cover the seven divisions of the country. Statement problem has been included for justifying the research title and objective, research questions are set to find out the real scenario about the evaluation and impact of the educational management, subject and pedagogy and computer training courses of Higher Secondary level colleges. Different role and impact and effectiveness of In-service training related literature have been included to justify the research topic for the research work. Rationale, justification, limitations, feasibility,

significance and scope of the study have also been included in the introduction chapter. Operational definition or key terms/words, research concept and theory, conceptual frame work and lastly quality education definition, indicators and framework have also been included in this chapter.

7.2.2 Chatper two: Research methodology

This chapter includes the type of the research, selection of the study area and research design. The type of the respondents/participants, 2 HSTTI has been selected purposively as the study area out of 5 HSTTIs. Study area has been selected randomly from two hundred higher secondary level colleges from the previously mentioned 02 HSTTIs Rajshahi and Barisal working area. Respondents in HSTTI, Rajshahi trained principals 50, subject teachers 186 and computer teachers 50, total 286. Respondent in HSTTI Barisal principals 20, subject teachers 112 and computer teachers 20, total 152. Others respondent data have been collected from higher officials and stake holders 82 of 5 HSTTIs through interview schedules. Here total number of respondents of this research is 520. Primary sources of data, secondary sources of data, sampling procedures and nature of sample, nature of respondents, sample and sample techniques have also been explained in the research methodology chapter. In this study different tools such as questionnaires, interview schedule observation and document analysis have been used for the collecting of data. The observational tool has been used to find out the research gap and help to minimize the gap. Qualitative and quantitative data have been analyzed in the research through different statistical tools such as mean, standard deviation, frequency tables, graphical forms, two-away ANOVA, SPSS 15.0 others statistical formula in depth interview, discussion with concerned persons, inductive and deductive methods etc. Validity and reliability of the questionnaires, data collection process and data collection period have also been included in this chapter to ensure the quality of research work.

7.2.3 Chapter three: In-service training program in Bangladesh

This chapter of the research has been arranged on the basis of the secondary data and related literature. Mainly the researcher focuse on relavence and status of In-service Training programs and Institutions. Here this chapter discribed Education system,Education structure, Aims and objecttives of secondary and higher secondary Education, Aim and objective of teacher training Education. In-service training

institutions NAEM, BMTTI profile, training activities and statictics of training summary. HSTTI Rajshahi and Barisal In-service training status, training objective, Training activities, Overall facilities of HSTTIs, Statictics of training summary, Manpower and budgetary informations of the HSTTIs in-service training program are also taken into account. HSTTI, Rajshahi arranged subject and pedagogy based In-service training for 4225 higher secondary level college teacers (1995 June, 2013 training duration 56/40 days). Here male participants are 3539 (83.76%) and female perticipants are 686 (16.23%). HSTTI Rajshahi conducted educational management In-service training for 371 Higher secondary level principals (duration 20 days) here male are 366 and only 05 female and in conducted computer based In-service training for 468 higher secondary levels computer teachers (training duration 27 days) where male perticipants were 414 and female perticipants were only 54. HSTTI, Barisal rendered subject and pedagogy based In-service training for 3362 higher secondary level college teacers (1996 June, 2013 training duration 56/40 days). Here male perticipants were 2737 (81.40%) and female perticipants were 625(18.59%). HSTTI Barisal conducted educational management In-service training for 250 Higher secondary level principals (duration 20 days) where male perticipants were 244 and only 06 female and rendered computer based In-service training for 380 higher secondary levels computer teacher (training duration 27 days) where male perticipants were 335 and female perticipants were only 45.

7.2.4 Chapter four: Socio-economic conditions of the respondents

In this chapter the basic information of the respondent teachers principals, subject teachers and computer teachers have been presented in brief and from the description one can get primary idea about the study area, respondent working area, rulal, urban area of instions and their status of training category, teachers category, subject and demografic characteristics and socio-economic income range, job experience and their institutions. In this study total number of respondents in two HSTTIs Rajshahi and Barisal is Higher Secondary level College Principals 70 (15.98%), classroom subject teachers 298 (68.04%) and computer teachers 70 (15.98%) out of total 438 respondents. All respondents/participants have got masters degree (Master of Science, Arts and Commerce) but do not have satisfactory number of professional degree such as BEd, MEd, M.Phil and PhD. In this study total number of respondents is 438 who fall in the

age group 30-50 years. Among them 275 (67.35%) respondents are in the age group 30-40 years. Among 438 respondents 318 (72.60%) are male and 12 (27.40%) are female. Most of the respondent teacher's monthly income range is very poor. 224 (51.14%) respondents teachers fall only 10,000-15,000 in range out of total 438 and secondly, income 1500-20000 range respondent teacher 114 (26.03%). Here HSTTI Rajshahi and Barisal Respondent Colleges (Higher Secondary Level) selected of 200. Selected colleges are two types of Rural and urban, Urban 81 (40.5%) and Rural 119 (59.5%) are out of 200. In the research rural and urban area selected college information collected data. There is gap between higher secondary level teaching learning practice, quantitive and qualatitive measurement by the in-service HSTTIs training program in the urban and rural areas.

7.2.5 Chapter five: Existing situation of quality education through In-service training of HSTTIs in Bangladesh

This chapter has been arranged on the basis of primary and secondary data. The study has used several method such as survey method, questionnaire and observation method for collecting data. This research has also used pre-test and post-test evaluation score of the trainee respondents. pre-test and post-test comparative analysis, two-way ANOVA test, DMRT test of pre-training evaluation and post training evaluation of the HSTTIs in-service training program. HSTTI In-service program is able to increase the knowledge regarding pre-test evaluation and post test evaluation. Result indicating progress towards improvement from pre-test to post have grater impact on quality education. Primary data have been collected from the trained principals, subject teachers and computer teacher and documents of the colleges have been collected to find out the training evaluation and impact of the In-service training provided by HSTTIs. In this chapter it has been disscussed that the training has increased the positive knowledge, skill and attitude of the trained principals, subject teachers and computer teachers. In-service training information of Rajshahi and Dinajpur education boards under HSTTI Rajshahi shows that 54.69%, teachers of 140 colleges have taken their training and performance of these colleges in HSC result shows a quantitative and qualitative change within five years. Training information of HSTTI Barisal shows that 57.17% teachers of 60 colleges have taken their training and perormance of these colleges in HSC result show a quantitative and qualitative change withing five years.

As for the results, these concerned trainees take inititive to overall development of their respective service.

7.2.6 Chapter six: Qualitative analysis of HSTTIs In-service training program and institutions

The qualitative analysis chapter explains the training in the quantitative approach. Training institutes, trainers, resource persons, training materials etc have been explained in different angles. Training knowledge, skill and attitude are the important key factors for the effective training. For measuring the impact of HSTTIs' training, a conceptual framework has been designed. Different issues have been included in the framework to sum up the training effectiveness. Evaluation methods of training are different from normal evaluation system. The evaluation method's include pre-test, post-test, written examination, observation etc evaluation tools.

Aims and objectives are the important parts of the training activities. HSTTIs' training and other related training objectives have been discussed qualitatively in this chapter. Training has the different components that comprehensively affect the whole activities. Multiple training methods have been applied in the training courses. Report presentation, portfolio presentation, syndicate presentation etc are some special techniques to evaluate the trainees. Combination skills are helpful to transfer the training results in the working places. Measuring HSTTIs' training impact, maximum of the information has been collected from trainees and colleagues of trainees. Both groups have been explained through sharing direct and indirect training ideas. The qualitative data have been collected from the field level environment. Trainees give the information about resource persons' knowledge, skill, attitude and behavior. They also evaluate the resource persons' using of materials and time management. After training period, they evaluate the HSTTIs' facilities and HSTTIs' faculties which are directly and indirectly involved in the training program. The strengths and weakness of training and resource persons have been measured through the open-ended questionnaires which have been collected from the field level institutions. The qualitative information has been collected from the field through the researchers observation. This study has found out shortcomings of training and training institution through (i) institutional shortcomings (ii) participants/trainees' (iii) Positive change of trainees and his institutions and (iv) Others.

7.3 Summary Findings

- Out of the 3547 colleges in the country only 288 (8.12%) are uner government management, 1936 (54.58%) are intermediate colleges, 1172 (33.04%) are degree (pass) colleges, 316 (8.9%) degree (hons) level colleges. There are 123 (3.47%) colleges offering master degree courses.

- HSTTI, Rajshahi arranged subject and pedagogy based In-service training for 4225 higher secondary level college teachers (1995 June, 2013 training duration 56/40 days). Here male participants are 3539 (83.76%) and female participants are 686 (16.23%).

- HSTTI, Rajshahi arranged educational management In-service training for 371 Higher secondary level principals (duration 20 days). Here male perticipants are 366 and only 05 female.

- HSTTI, Rajshahi conducted computer based In-service training for 468 higher secondary level computer teachers (training duration 27 days). Here male perticipants 414 and female perticipants are only 54.

- HSTTI, Barisal conducted subject and pedagogy based In-service training for 3362 higher secondary level college teachers (1996 June, 2013 training duration 56/40 days). Here male perticipants are 2737 (81.40%) and female perticipants are 625(18.59%).

- HSTTI, Barisal conducted educational management In-service training for 250 higher secondary level principals (duration 20 days). Here male perticipants are 244 and only 06 female.

- HSTTI, Barisal rendered computer based In-service training for 380 higher secondary level computer teachers (training duration 27 days). Here male perticipants are 335 and female perticipants are only 45.

- Present status of manpower is per HSTTI 09 faculty members and other employee 39. This manpower is not sufficient for verious types of training programs in secondary and higher secondary levels.

- HSTTIs In-service training program budget allocation for the allowance of the perticapants such as daily allowance, TA, Training materials, book allowance and kit allowance are not sufficient in our present condition.

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- In this study under HSTTI, Rajshahi selected working area urban colleges are 55 (39.5%) and rural 85 (60.7%) out of 140 colleges (higher secondary levels).

- In this study under HSTTI, Barisal selected working area urban colleges 26(43.3) and rural 34 (56.7%) out of 60 colleges (Higher secondary levels)

- In this study total number of respondents in two HSTTIs Rajshahi and Barisal is Higher Secondary level College Principals 70 (15.98%), classroom subject teachers 298 (68.04%) and computer teachers 70 (15.98%) out of total 438 respondent.

- In this study the respondents levels of education show that Masters of Science (M.Sc.) 227, Master of Arts (M.A) 164 and Master of Commerce (M. com) 47 out of 438 respondents.

- Most of the respondent teacher's monthly income range is very poor. 224 (51.14%) respondents teachers fall in the 10,000-15,000 range out of total 438 and secondly, 114 (26.03%) respondents teachers are from the income range 15000-20000.

- In this study total number of respondents 438 who fall in the years age group 30-50 years. Among thous 275 (67.35%) respondents are in the age group 30-40 years.

- Most of the respondent teachers opined that the training course content, training methodology and the training objectives are very excellent, and the training evaluation process is very good.

- Most of the respondent teachers opine that the training course duration is shorter than necessary. It should be extended.

- Most of the respondents opine that subject and pedagogy training course should be extended to 56 days (36 days pedagogy + 20 days subject) from 40 days, and educational administration and management training should be extended to 30 days from 20 days.

- Regarding the training satisfaction level, they answer that the effectiveness of training objective, training coordination and management, quality of training materials for participants, facilities for study tour and Co-curricular activities are mostly very good.

- Maximum respondent teachers opine that the availability of residence facilities and other hostel management are very good.

- Most of the respondents have opined that financial facilities of training program are not sufficient; and they have proposed that daily allowance, books allowance, kit allowance, and education tour allowance should be increased.

- Maximum respondent (tranee teachers) agreed that the training program of trainers/resource persons' quality is very good; and most of the teachers are in favor of the subject expert as the resource person/trainer.

- Most of the respondent teachers opined that trainer's subject and pedagogy knowledge and technique applied to training session for active participation were good

- Maximum of the respondents expressed their satisfaction for educational aids and modern technology applied in the training session but ICT based classroom and more instructional materials should be ensured.

- Maximum of the respondent teachers opined yes answer regarding the effectiveness of training objective.

- Most of the respondents opine that higher secondary level principals need a separate ICT based computer training course of 30 days.

- HSTTIs' Training program is able to change the knowledge, skill and attitude of the respondent principals, subject teachers and computer teachers towards their professional development.

- The research has observed maximum participants simulation class before and after training programs teaching methodology of the participants gets comparatively better in the final simulation class.

- The knowledge, skill and attitude of the maximum respondents/participants increase and they ensure proper teaching learning environment in the class room after getting the in service training program which shows that the quality of education improve gradually the training programs.

- The researcher has observed, maximum number of respondents/perticipants, who achieve the training result properly during the training period, show the lack of sincerity, lack of interest in creating academic environment and facilities which are not favourable for their institution after their training.

- HSTTIs Training Programs are continuously run under the revenue budget throughout the year for non-govt. higher secondary level college principals, subject teachers and computer teachers.

- HSTTI, Rajshahi In-service training program is able to increase the knowledge regarding pretest evaluation and post test evaluation. Results indicating progress towards improvement from pretest to post test which have greater impacts on quality education

- HSTTI, Barisal In-service training program is able to increase the knowledge regarding pretest evaluation and post test evaluation. Results indicating progress towards improvement from pretest to post test which have greater impacts on quality education

- 70% of the respondents agree that effectiveness of training outcomes for the institutional management are of very good level.

- 70% of the respondents opine that HSTTI In-service training impact on the field levels change the student philosophy and other 30% respondents agree to their self-development.

- Most 40% respondents opine yes answer in case of the problem of implementing training outcomes and most (60%) of the respondents opine no answer. So follow up activities must be conducted to improve the effectiveness of the training.

- Maximum 70% respondents agree that effective change takes place after knowing the teaching learning methodology by the In-service training program.

- In-service training information of Rajshahi and Dinajpur Educaiton Board under HSTTI, Rajshahi shows that 54.69% teachers of 140 colleges have taken their training and performances of these colleges in HSC result show a quantitative and qualitative change within five years.

- In-service training information of Barisal and Dhaka Education Board under HSTTI, Barisal shows that 57.17% teachers of 60 colleges have taken their training and performances of these colleges in HSC result show a quantitative and qualitative change within five years.

- HSTTI, Rajshahi In-service Training is able to increase the performance of Higher Secondary levels regarding public examination of Rajshahi and Dinajpur Education Board.

- HSTTI, Barisal In-service Training is able to increase the performance of Higher Secondary levels regarding public examination of Barisal and Dhaka Education Boards.

- HSTTIs have created good scope for training human resource for building the nation in the right way at the right time.

- HSTTIs Training has long term positive impact on higher secondary level institutions and on the working places of the trainees.

- There is no provision for subject and pedagogy based training program for subject teachers of govt. colleges of higher secondary level in Bangladesh.

- The security and privacy of the female trainees are often disturbed due to the lack of their separate hostel facilities.

7.4 Recommendation

7.4.1 Effective Training A

- Training should be imparted with versatile methods i.e. participatory method, question answer method, role-play, simulation, group discussion, oral presentation, demonstration, learning by doing method etc.
- Follow up training should be ensured as a regular basis
- Training period should be increased.
- Improving teacher's training facilities and training allowance as perdiem, kits allowance, educational tour allowance and book allowance.
- Training content needs to be updated according to the new information and needs of the participants.
- Hostel facilities and accommodation capacities should be inproved.
- As a reorganization of HSTTI's Training certificate, the trainees should enjoy either one increment or further promotion or both after successful completion of the training.
- Follow up activities must be conducted to improve the effectiveness of the training.
- Refreshment facilities should be enhanced during the training period
- Language Lab. facilities for English Courses should be established.
- Teachers' training should be increased with teachers' motivation.
- ICT Based classroom and more instructional materials should be ensured.
- Latest books should be included in the library for study hour after daily class session
- Value, moral and ethical teaching should be prioritized in all stage of training program
- Need based training should be prioritized
- Sufficient incentives should be allowed into the training allowance.
- More sessions should be added on computer literacy and communicative English.

7.4.2 Effective Training B

- Provision to attract better resource persons outside the district should be reflected in the budget.

- When HSTTI was in project phase, faculty members including the director and officers were 21 in number (in each HSTTI). But the Govt. absorbed only 9 faculty members including the Director and others officers. So, we proposed that the rest of the posts including other sub-ordinate posts must be filled in by absorption (those are waiting for absorption) and a direct recruitment should be followed up for the sake of more effective and better training.

- Attachment, deputation, one step higher position with extra benefits, additional post including the post of the Director to HSTTIs should strongly be discouraged.

- Sufficient number of skilled trainers should be recruited at HSTTIs

- Training course assessment and evaluation techniques should be modernized

- Post training monitoring procedure is necessary to make sure that the trainees use their acquired knowledge, skills, and attitude in the real life situation.

- National and overseas training should be provided to all the faculty members like NAEM.

- Residential facilities for all the faculty members inside the campus should be developed like NAEM.

- Weekly holiday should be allotted as per the rule of other training institutes, like NAEM, BIAM, and BPATC etc.

- A monitoring and evaluation system must be established and it should be performed by the right person at right the time.

- Training should be promulgated as compulsory for all teachers' at regular interval

- Training must be imposed on teachers for at least one month in each three years.

- Regularization and promotion of the faculty members, officers and other staff of HSTTIs are necessary.

- Provision of additional 30% salary should be ensured for all the faculties and staffs of HSTTIs.

7.4.3 Others Recommendations

- Another project should be set up to give subject based pedagogical training for the govt. college teachers training program

- Subject based govt. college teachers training course should be introduced under the same uniform curriculum and syllabus just like the running non-govt. college teachers training course of the HSTTIs in Bangladesh.

- Hostel facilities should be increased and developed

- Library, Laboratory, audio visual laboratory should be more enriched

- Co-ordination and management system should be developed

- Follow up activities must be conducted to improve the effectiveness of the In-service Training Programs

- Each institute will prepare their own budget for each training program. The appropriate authority should approve the budget and release the fund in time

- More HSTTIs should be established in other division like Rangpur, Chittagong and Sylhet after solving the existing problems

- Transportation and monetary facilities should be ensured for the HSTTI officials to observe and monitor the post training activities

- Increasing the regular payment and monetary facilities of non-govt. college principals and others teachers trained from the HSTTIs in accordance with the payment allowance of NAEM.

- To develop the professional skills of the members of the Higher Secondary Teacher Training Institute various training at home and abroad should be arranged.

- Higher secondary Teachers Training Institute should be declared as a Non-vocation department like the National Academy for Educational Management (NAEM)

- New and separate hostel building should be built for the female trainees.

- To the building of Higher Secondary Teachers Training Institutes the numbers of classrooms should be increased and the area of the academic building should be vertically extended

- Necessary furniture, AC, Laptop, Multimedia Projector, others training instruments should be provided with the training rooms.

- The vacated posts like demonstrator, Upper Division Clark, Accountant/Cashier, MLSS and Guards are to be recruited in the HSTTIs on a emergency basis.

- It may be mentioned here that Pakistan, India and Srilanka have such institutes conducting not only the training but also research and evaluation.

- According to the project document of 1992, HSTTI stood for the research and evaluation of training institutes. So the name of HSTTI should be modified because of the institute present need and future up-gradation. It may be renamed as Bangladesh Institute of Teacher's Training and Research (BITTR) or Bangladesh Teacher's Training and Research Institute (BTTRI).

7.5 Recommendation for further research in this study

- The study included only 200 higher secondary level (colleges) institutions of two HSTTIs, Rajshahi and Barisal. The number of respondents was 70 principals, 298 subject teachers and 70 comptuer teachers. Similar study may be conducted on a larger number of respondent of all 05 HSTTIs of the country. So that the findings of the research can be generalized.

- The present study is confined to the principals, subject teacher computer teacher and their stakeholders of HSTTIs of the general education of higher secondary levels. Similar study may be conducted on other streams like Madrasha and technical education of teachers in the same levels.

- The study is limited to higher secondary levels (11 and 12 grade) college teachers only. Similar studies may be conducted on teachers of various levels like primary, secondary and other level teachers in Bangladesh.

- The HSTTIs major training is subject based teachers training program (SBTTP) in Bangladesh for Non-govt. teachers only. To measue the strength, weakness and prospect of govt. and non govt. teachers of Bangladesh a large sclale study on subject and pedagogy based teachers training program should be conducted.

- The present study is confined to the three Major training courses of HSTTIs of Higher secondary level. The objective of this research is to evaluate the role of In-service training program for quality education. This study has the target of developing teachers training system and quality education. To study effective content and suitable learning environment at the higher secondary level in Bangladesh a large scale research could be conducted.

7.6 Conclusion

This study is organized in seven chapters. Data have been collected from the trained Principals, Subject teachers and Computer teachers (Higher Secondary levels Institution) Primary data are basically collected from the field level working places of the trainees. There are four groups of respondents i.e. college principals, classroom subject teachers and ICT based computer teachers who have received training from HSTTI, Rajshahi and HSTTI Barisal and other respondents high officials , stakeholders from the HSTTIs in Bangladesh. Questionnaires, interview schedule, observation and documents are used as data collection instruments. Data are presented through qualitative and quantitative approaches. For the data analysis, statistical techniques are used in different approaches such as tabular form, percentage, two-way ANOVA analysis, DMRT test, chi-square test, cofficient of veriation etc. In this study all respondent groups attached with the work equivocally agreed about the necessity and importance of In-service training for the college teachers. It is found that the training courses organized by five HSTTIs for college principals, subject teacher and computer teachers are effective. The performance of trainees college teachers are change signifacantly between pre and post test in all the five HSTTIs. So the difference between pre-training and post training evaluation is statistically significant (principal training p-value-0.000, t-value- 20.88, computer teacher p-value- 0.000, t-value-14.812, subject teacher p-value-0.000, t-value- 20.638). This study has got important findings that most of the respondents opine that the training course content, training methodology, training objective and training evaluation process are very good. Secondly, 70% of the respondents agree on the effectiveness of training outcomes for the institutional management of the higher secondary level (college). In this study 70% respondents agree that effective change takes place in the teaching learning approaches through In-service HSTTI training program. 70% of the respondents opine that HSTTI In-service training in the field levels has changed the student's philosophy and other 30% respondents agree on their self-development. All HSTTIs training programs are able to change the respondents (principal, subject teachers and computer teachers) knowledge, skill and attitude of their professions. Lastly, In-service training has a long term positive impact (in this study various dependent veriable chi-square test (χ^2) and

p-value test maximum result are significant) on quality education at the higher level institutions and on the working places of the trainees.

Education moulds the status of a society and it is necessary to say that no education system can guarantee the quality of its teachers without providing training. The role of teacher and teacher education program are important for building the national development. Each and every country has the task to make skilled teacher educator to keep in teaching and educating a nation. So it remains the most vital strategy for the development of the society through the development of the world. We know that training is a part and parcel of education. In order to enhance the competence and in keeping them in touch with the techniques of effective teaching it is necessary to provide professional training for teachers along with latest teaching methods. At present the prevailing status shows that the college teachers especially non-trained teachers are not aware of their methodological aspect of teaching learning process. They remain relaxed and non effective to perform their every day lesson for the absence of training.

HSTTIs create a good scope for training human resources towards building the nation in a right way at right time. If we want to say "The Trainees Excellence is our pursuit is the motto of our institutes it will be a far reaching dream. The foundation of both trainees and trainers need to be built up somehow near to excellence by overcoming all difficulties, adversities and deficiencies. The Trainers need more and more training for becoming expert in the profession. The Proposed/effective training in HSTTI as mentioned above will enhance the effectiveness of the training. It is emphasized on regular training because curriculum and syllabus are changing day by day, as per need of the age. According to the percentage average value on the opinions of respondents In-Service training is inevitable to make effective teaching to boost up the professional motivation of teachers, to make skilled teachers for producing quality learners, to ensure standard teaching-learning methods and techniques, to improve knowledge of teachers for satisfactory service, to develop capacity to change the training techniques, to enable to learn techniques to make the lessons understandable, to improve presentation skills, to develop confidence level for conducting sessions, to recognize the dignity of the profession,to make teachers familiar with modern and need based curriculum and to develop the creativity in conducting the classroom session.

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Ensuring quality education for all is a great challenge for us. The most important force behind quality education and development of skilled human resource is a team of properly qualified, skilled and committed teachers 'Technology has emerged as the most important factor in the modern world. Computer and Information Technology has become the inspirable and most important part of education all over the world. We need to give it a priority in our education system as well (National Education Policy-2010 p.05)

Qualitative changes in our education system are the most important priority of the day. We hope that people from all strata of society will be actively involved in this initiative of building the future society. The process of implementing the policy will start with this hope. Education is the most important factor of our present and the future. There has to be qualitative increase in both government and non-government investment and cooperation for education.

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Appendix-A (1)
Institute of Education and Research,
University of Rajshahi, Rajshahi.
M. Phil/ Ph. D Research

Research Title: Role of In-Service Training Program for Quality Education: A Study on Higher Secondary Teachers' Training Institutes (HSTTI) in Bangladesh

[A Survey questionnaire on the comparative evaluation and impact of the College Princpals at the higher secondary level in Bangladesh through In-service Training programs run by HSTTIs]

Questionnaire Designed for the Heads of Institutions (Principals)
Name:
Designation & Subject:
Educational Qualification:
Name of the Institution & Address:
Name of the Training: Training on 'Education Administration and Management'
Duration of Training: 20 days
Batch No.

Questionnaire for Training information
1.01 From your knowledge/ experience what sort of institution is HSTTI?
- ❑ Training Institution
- ❑ Academic Institution
- ❑ Government Office

1.02 In what stages does HSTTI render/provide/run training?
- ❑ Primary
- ❑ Secondary
- ❑ Higher Secondary
- ❑ Higher Education

1.03 The Course Content of Educational Administration and Management Training was sufficient.
- ❑ Strongly agree
- ❑ Agree
- ❑ Neutral
- ❑ Disagree
- ❑ Strongly disagree

1.04 According to you how much suitable is the training course content for running the institution?

- ❑ Very suitable
- ❑ Suitable
- ❑ Less suitable
- ❑ Not suitable

1.05 The training methodology for running the training session was effective?

- ❑ Strongly agree
- ❑ Agree
- ❑ Neutral
- ❑ Disagree
- ❑ Strongly disagree

1.05 Do you think the training objective has been effective?

- ❑ Yes
- ❑ No

1.05 Please give your opinion in favor of your answer.

……………………………………………………………….

………………………………………………………………

1.08 How much suitable is the manual of Educational Administration and Management Training?

- ❑ Excellent
- ❑ very good
- ❑ good
- ❑ average
- ❑ low

1.09 Do you think the training course duration was enough?

- ❑ Yes
- ❑ No

1.10 If the training course duration is not enough, please write your opinion.

……………………………………………………………….

………………………………………………………………

1.11 Do you agree with the training evaluation process?

a. Yes
b. No

1.12 Please give your opinion in favor of your answer.

……………………………………………………………….

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Questionnaire for Role of the Trainner

2.01 The subjective knowledge of instructor on training program was satisfactory.
- ❑ Strongly agree
- ❑ Agree
- ❑ Neutral
- ❑ Disagree
- ❑ Strongly disagree

2.02 The trainer/resource person was capable of making the trainees active and motivated.
- ❑ Strongly agree
- ❑ Agree
- ❑ Neutral
- ❑ Disagree
- ❑ Strongly disagree

2.03 Were you satisfied with the instructor's use of educational aids and modern technology?
- ❑ Yes
- ❑ No

2.04 Please give your opinion in favor of your answer.
…………………………………………………………….
…………………………………………………………
2.05 How much aware was the instructor of time?
- ❑ Excellent
- ❑ very good
- ❑ good
- ❑ average
- ❑ low

2.06 What types of resource person/ trainer are needed for the Educational Administration and Management Training course?
- ❑ Education expert
- ❑ Government officer
- ❑ Subject expert
- ❑ Computer expert

2.07 Were the resource persons/ trainers knowledgeable for the Educational Administration and Management Training course?
- ❑ Yes
- ❑ No

2.08 If the answer is negative, what sorts of trainers are needed to select?

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2.09 Were the lessons presented by the resource persons/ trainers suitable for the use of the institution?

- ❑ Yes
- ❑ No

2.10 Please give your opinion in favor of your answer.

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Questionnaire Related with the Expectations of the Trainees

3.01 Do you think the training co-ordination and management were satisfactory?

- ❑ Yes
- ❑ No

3.02 Please give your opinion in favor of your answer.

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3.03 How was the quality of the training materials provided for the trainees?

- ❑ Excellent
- ❑ very good
- ❑ good
- ❑ average
- ❑ low

3.04 Was the training manual suitable?

- ❑ Yes
- ❑ No

3.05 If the answer is negative, please write your opinion.

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3.06 Were the study tour facilities and co-curricular activities enough?

a. Yes
b. No

3.07 If the answer is negative, please write your opinion.

………………………………………………………………….

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3.08 Was the training environment in favor of you?
- ❑ Yes
- ❑ No

3.09 If the answer is negative, what sort of environment do you like?

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3.10 Will the knowledge gained through the training play any role in community participation?
- ❑ Always
- ❑ Very ofter
- ❑ Some tomes
- ❑ Rearly
- ❑ Never

3.11 Do you think the financial facilities of training program were enough?
- ❑ Yes
- ❑ No

3.12 Please give your opinion in favor of your answer.

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3.13 Were the residential facilities and other hostel management available?
- ❑ Yes
- ❑ No

3.14 Please give your opinion in favor of your answer.

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3.15 As a head of an institution do you think there is any necessity to take part in this sort of training course?
- ❑ Yes
- ❑ No

3.16 Please give your opinion in favor of your answer.

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Questionnaire for Trainees' Change of Attitude

4.01 How much capable/successful has the Educational Administration and Management Training program been to change trainees' knowledge, skill and attitude?
- ❑ Enough
- ❑ Average
- ❑ less average

4.02 How much effective will the knowledge earned from the training be to run the institutional management?
- ❑ Excellent
- ❑ very good
- ❑ good
- ❑ average
- ❑ low

4.03 Effectiveness of Training for the institutional management ?
- ❑ Excellent
- ❑ very good
- ❑ good
- ❑ average
- ❑ low

4.04 How the attitude is changed through the training?
- ❑ Enough
- ❑ Average
- ❑ less average

4.05 What are the training impacts on the field levels?
- ❑ Change in the students' philosophy
- ❑ good result
- ❑ adaptation
- ❑ self-dependent

Questionnaire for Qualitative Standard of Education

5.01 HSTTI has helped to improve quality of education in Higher Secondary and Higher education through training program.
- ❑ Strongly agree
- ❑ Agree
- ❑ Neutral
- ❑ Disagree
- ❑ Strongly disagree

5.02 Is HSTTI training effective for developing the institution?
- ❑ Yes
- ❑ no

5.03 If the answer is positive, how much helpful will it be?
- ❑ Excellent
- ❑ very good
- ❑ good
- ❑ average
- ❑ low

5.04 Is there any necessity of this training for improving quality education?
- ❑ Yes
- ❑ no

5.05 Please give your opinion in favor of your answer.

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5.06 Is there any problem for implementing the training outcomes?
- ❑ Yes
- ❑ No

5.07 Please write down the problems?

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5.08 Who are the concerned stackholders needed for implementing the training outcomes?
- ❑ Students' co-operation
- ❑ colleague's co-operation
- ❑ GB co-operation
- ❑ principal's help
- ❑ upper level co-operation

5.09 Please write your recommendations about this Educational Administration and Management Training program for the improvement of quality education at the Higher Secondary level.

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(Please use extra page if it is needed)

Thank you for helping the researcher to fill up the questionnaire.

Signature & Seal
Date

APPENDIX-A (2)
Institute of Education and Research,
University of Rajshahi, Rajshahi.
M. Phil/ Ph. D Research

Research Title: Role of In-Service Training Program for Quality Education: A Study on Higher Secondary Teachers' Training Institutes (HSTTI) in Bangladesh

[A Survey questionnaire on the comparative evaluation and impact of the Subject Teacher at the higher secondary level in Bangladesh through In-service Training programs run by HSTTIs]

Questionnaire Designed for the subject teachers
Name:
Designation & Subject:
Educational Qualification:
Name of the Institution & Address:
Name of the Training: ''Subject based Training Course"
Duration of Training: 56/40 days
Batch No.

Questionnaire for Training information
1.01 From your knowledge/ experience what sort of institution is HSTTI?
- ❑ Training Institution
- ❑ Academic Institution
- ❑ Government Office

1.02 In what stages does HSTTI render/provide/run training?
- ❑ Primary
- ❑ Secondary
- ❑ Higher Secondary
- ❑ Higher Education

1.03 The course content of Subject based Training was sufficient.
- ❑ Strongly agree
- ❑ Agree
- ❑ Neutral
- ❑ Disagree
- ❑ Strongly disagree

1.04 According to you how much suitable is the training course content for running the institution?

- ❑ Very suitable
- ❑ Suitable
- ❑ less suitable
- ❑ not suitable

1.05 The training methodology for running the training session was effective.

- ❑ Strongly agree
- ❑ Agree
- ❑ Neutral
- ❑ Disagree
- ❑ Strongly disagree

1.06 Do you think the training objective has been effective?

- ❑ Yes
- ❑ No

1.07 Please give your opinion in favor of your answer.

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1.08 How much suitable is the manual of Subject based Training?

- ❑ Excellent
- ❑ very good
- ❑ good
- ❑ average
- ❑ low

1.09 Do you think the training course duration (40 days) was enough?

- ❑ Yes
- ❑ No

1.10 If the training course duration is not enough, please write your opinion.

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1.11 Do you agree with the training evaluation process?

- ❑ Yes
- ❑ No

1.12 If the answer is negative, please give your opinion in favor of your answer.

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1.13 Is Grading System helpful/ effective for evaluating the training outcomes?
- ❏ Yes
- ❏ No

1.14 If the answer is negative, please give your opinion in favor of your answer.

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Questionnaire for Role of the Instructor

2.01 The subjective knowledge of trainer/resource person on training program was satisfactory.
- ❏ Strongly agree
- ❏ Agree
- ❏ Neutral
- ❏ Disagree
- ❏ Strongly disagree

2.02 The trainer was capable of making the trainees active and motivated.
- ❏ Strongly agree
- ❏ Agree
- ❏ Neutral
- ❏ Disagree
- ❏ Strongly disagree

2.03 Were you satisfied with the instructor's use of educational aids and modern technology?
- ❏ Yes
- ❏ No

2.04 If the answer is positive, please write down the names of materials.

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2.05 Were the resource persons and trainers capable of presenting the lessons to your satisfaction?
- ❏ Excellent
- ❏ very good
- ❏ good
- ❏ average
- ❏ low

2.06 What types of resource person/ trainer are needed for the Subject based Training?
- ❑ Education expert
- ❑ government officer
- ❑ subject expert
- ❑ computer expert

2.07 Were the lessons presented by the resource persons/ trainers suitable for the use of the institution?
- ❑ Yes
- ❑ No

2.08 Please give your opinion in favor of your answer.

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Questionnaire Related with the Expectations of the Trainees

3.01 Do you think the training Co-ordination and management were satisfactory?
- ❑ Yes
- ❑ No

3.02 Please give your opinion in favor of your answer.

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3.03 How was the quality of the training materials provided for the trainees?
- ❑ Excellent
- ❑ very good
- ❑ good
- ❑ average
- ❑ low

3.04 Was the training manual suitable?
- ❑ Yes
- ❑ No

3.05 If the answer is negative, please write your opinion.

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3.06 Were the study tour facilities and co-curricular activities enough?
- ❑ Yes
- ❑ No

3.07 If the answer is negative, please write your opinion.

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3.08 Was micro-teaching system effective for making the trainees skilled in the classroom?

- ❑ Enough
- ❑ Average
- ❑ less average

3.09 Was the training environment in favor of you?

- ❑ Yes
- ❑ No

3.10 Will the knowledge gained through the training play any role in community participation?

- ❑ Always
- ❑ Very ofter
- ❑ Some tomes
- ❑ Rearly
- ❑ Never

3.11 Do you think the financial facilities of training program were enough?

- ❑ Yes
- ❑ No

3.12 If the answer is negative, please give your opinion.

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3.13 Were the residential facilities and other hostel management available?

- ❑ Yes
- ❑ No

3.14 Please give your opinion in favor of your answer.

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Questionnaire for Trainees' Change of Attitude

4.01 How much capable/successful has the Subject based Training program been to change trainees' knowledge, skill and attitude?

- ❑ Enough
- ❑ Average
- ❑ less average

4.02 How much effective will the knowledge earned from the training be to run the institutional management?

- ❑ Excellent
- ❑ very good
- ❑ good
- ❑ average
- ❑ low

4.03 Effectiveness of Training for the institutional management ?

- ❑ Excellent
- ❑ very good
- ❑ good
- ❑ average
- ❑ low

4.04 How the attitude is changed through this training?

- ❑ Excellent
- ❑ very good
- ❑ good
- ❑ average
- ❑ low

4.05 What are the training impacts on the field levels?

- ❑ Change in the students' philosophy
- ❑ good result
- ❑ adaptation
- ❑ self-dependent

4.06 Will the training outcomes play any role in locating and solving the problems in the institution?

- ❑ Yes
- ❑ No

4.07 Please give your opinion in favor of your answer.

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Questionnaire for Qualitative Standard of Education

5.01 HSTTI has helped to improve quality of education in Higher Secondary and Higher education through training program?

- ❑ Strongly agree
- ❑ Agree
- ❑ Neutral
- ❑ Disagree
- ❑ Strongly disagree

5.02 Is HSTTI training effective for developing the institution?

- ❑ Yes
- ❑ No

5.03 If the answer is positive, how much helpful will it be?

- ❑ Enough
- ❑ Average
- ❑ less average

5.04 Is there any necessity of this training for improving quality education?

- ❑ Yes
- ❑ No

5.05 Please give your opinion in favor of your answer.

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5.06 Is there any problem for implementing the training outcomes?

- ❑ Yes
- ❑ No

5.07 If the answer is affirmative, please write down the problems.

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5.08 Who are the concerned stackholders needed for implementing the training outcomes?

- ❑ Students' co-operation
- ❑ Colleague's co-operation
- ❑ GB co-operation
- ❑ principal's help
- ❑ upper level co-operation

5.08 Please write your recommendations about this Subject based Training program for the improvement of quality education at the Higher Secondary level.

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(Please use extra page if it is needed)

Thank you for helping the researcher to fill up the questionnaire.

Name & Seal

Date:

APPENDIX-A (3)
Institute of Education and Research,
University of Rajshahi, Rajshahi.
M. Phil/ Ph. D Research

Research Title: Role of In-Service Training Program for Quality Education: A Study on Higher Secondary Teachers' Training Institutes (HSTTI) in Bangladesh

[A Survey questionnaire on the comparative evaluation and impact of the Computer teachers at the higher secondary level in Bangladesh through In-service Training programs run by HSTTIs]

Questionnaire Designed for the Computer teachers'

Name:

Designation & Subject:

Educational Qualification:

Name of the Institution & Address:

Name of the Training: "Computer Training Course"

Duration of Training: 27 days

Batch No.

Questionnaire for Training information

1.01 From your knowledge/ experience what sort of institution is HSTTI ?
- ❑ Training Institution
- ❑ Academic Institution
- ❑ Government Office

1.02 In what stages does HSTTI render/provide/run training?
- ❑ Primary
- ❑ Secondary
- ❑ Higher Secondary
- ❑ Higher Education

1.03 The course content of Computer Training Course was sufficient.
- ❑ Strongly agree
- ❑ Agree
- ❑ Neutral
- ❑ Disagree
- ❑ Strongly disagree

1.04 According to you how much suitable is the training course content for running the institution?
- ❑ Very suitable
- ❑ Suitable
- ❑ less suitable
- ❑ not suitable

1.05 The training methodology and for running the training session was effective.
- ❑ Storngly agree
- ❑ Agree
- ❑ Neutral
- ❑ Disagree
- ❑ Storongly disagree

1.06 Do you think the training objective has been effective?
- ❑ Yes
- ❑ No

1.07 Please give your opinion in favor of your answer.

………………………………………………………………..

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1.08 How much suitable is the manual of Computer Training Course?
- ❑ Excellent
- ❑ very good
- ❑ good
- ❑ average
- ❑ low

1.09 Do you think the training course duration was enough?
- ❑ Yes
- ❑ No

1.10   If the training course duration is not enough, please write your opinion.
- ❑ Two weeks
- ❑ Three weeks
- ❑ Five weeks
- ❑ Six weeks

1.11 Do you agree with the training evaluation process?
- ❑ Yes
- ❑ No

1.12   If the answer is negative, please give your opinion in favor of your answer.

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1.13 Is Grading System helpful/ effective for evaluating the training outcomes?
- ❑ Yes
- ❑ No

1.14 If the answer is negative, please give your opinion in favor of your answer.

……………………………………………………………….

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Questionnaire for Role of the Trainer

2.01 The subjective knowledge of trainner on training program was satisfactory.
- ❑ Strongly agree
- ❑ Agree
- ❑ Neutral
- ❑ Disagree
- ❑ Strongly disagree

2.02 The trainer/resource person was capable of making the trainees active and motivated.
- ❑ Strongly agree
- ❑ Agree
- ❑ Neutral
- ❑ Disagree
- ❑ Strongly disagree

2.03 Were you satisfied with the instructor's use of educational aids and modern technology?
- ❑ Yes
- ❑ No

2.04   If the answer is negative, please give your opinion in favor of your answer.

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2.05   Was the instructor aware of time?
- ❑ Enough
- ❑ Average
- ❑ Low

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2.06 What types of resource person/ trainer are needed for the Computer Training Course?

- ❑ Education expert
- ❑ government officer
- ❑ subject expert computer expert

2.07 Were the resource persons and trainers capable of presenting the lessons to your satisfaction?

- ❑ Excellent
- ❑ very good
- ❑ good
- ❑ average
- ❑ low

2.08 Were the lessons presented by the resource persons/ trainers suitable for the use of the institution?

- ❑ Yes
- ❑ No

2.09 Please give your opinion in favor of your answer.

…………………………………………………………….

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Questionnaire Related with the Expectations of the Trainees

3.01 Do you think the training co-ordination and management were satisfactory?

- ❑ Yes
- ❑ No

3.02 If the answer is negative, please give your opinion in favor of your answer.

…………………………………………………………….

………………………………………………………………

3.03 How was the quality of the training materials provided for the trainees?

- ❑ Excellent
- ❑ very good
- ❑ good
- ❑ average
- ❑ low

3.04 Was the training manual suitable?

- ❑ Yes
- ❑ No

3.05 If the answer is negative, please write your opinion.

……………………………………………………………….

………………………………………………………………

3.06 Were the study tour facilities and co-curricular activities enough?
- ❑ Yes
- ❑ No

3.07 If the answer is negative, please write your opinion.

……………………………………………………………….

………………………………………………………………

3.08 Was the training environment in favor of you?
- ❑ Yes
- ❑ No

3.09 If the answer is negative, please write down what sort of environment you like.

……………………………………………………………….

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3.10 Will the knowledge gained through the training play any role in Community Participation?
- ❑ Always
- ❑ Very ofter
- ❑ Some tomes
- ❑ Rearly
- ❑ Never

3.11 Do you think the financial facilities of training program were enough?
- ❑ Yes
- ❑ No

3.12 If the answer is negative, please give your opinion.

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3.13 Were the residential facilities and other hostel management available?
- ❑ Yes
- ❑ No

3.14 Do you think this sort of training will help you in developing your skill your subject?
- ❑ Yes
- ❑ No

3.15 Please give your opinion in favor of your answer.

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Questionnaire for Trainees' Change of Attitude

4.01 How much capable/successful has the Computer Training Course been to change trainees' knowledge, skill and attitude?
- ❑ Enough
- ❑ Average
- ❑ less average

4.02 How much effective will the knowledge earned from the training be to run the institutional management?
- ❑ Enough
- ❑ Average
- ❑ less average

4.03 How much effective is this sort of program for running the institution?
- ❑ Excellent
- ❑ very good
- ❑ good
- ❑ average
- ❑ low

4.04 How the attitude is changed through this training?
- ❑ Excellent
- ❑ very good
- ❑ good
- ❑ average
- ❑ low

4.05 What are the training impacts on the field levels?
- ❑ Change in the students' philosophy
- ❑ good result
- ❑ adaptation
- ❑ self-dependent

Questionnaire for Qualitative Standard of Education

5.01 HSTTI has helped to improve quality of education in Higher Secondary and Higher education through training program.
- ❑ Strongly agree
- ❑ Agree
- ❑ Neutral
- ❑ Disagree
- ❑ Strongly disagree

5.02 Is HSTTI training effective for developing the institution?
- ❑ Yes
- ❑ no

5.03 If the answer is positive, how much helpful will it be?
- ❑ Enough
- ❑ Average
- ❑ less average

5.04 Is there any necessity of this training for improving quality education?
- ❑ Yes
- ❑ no

5.05 Please give your opinion in favor of your answer.

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5.06 Is there any problem for implementing the training outcomes?
- ❑ Yes
- ❑ No

5.07 If the answer is affirmative, please write down the problems.

…………………………………………………………..

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5.08 Who are the concerned stackholders needed for implementing the training outcomes?
- ❑ Students' co-operation
- ❑ colleague's co-operation
- ❑ GB co-operation
- ❑ principal's help
- ❑ upper level co-operation

5.09 Please write your recommendations about this Subject based Training program for the improvement of quality education at the Higher Secondary level

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(Please use extra page if it is needed)

Thank you for helping the researcher to fill up the questionnaire.

Signature & Seal

Date

APPENDIX-B
Institute of Education and Research,
University of Rajshahi, Rajshahi.
M. Phil/ Ph. D Research

Research Title: Role of In-Service Training Program for Quality Education: A Study on Higher Secondary Teachers' Training Institutes (HSTTI) in Bangladesh

[Interview sehedule paper on comparative evaluation and Impact of HSTTIs In-service training programs for the principals, Subject Teachers and Computer Teachers at the Higher Secondary level in Bangladesh]

Interview Sehedule for High Officials and Stakeholders of HSTTIs'

(DSHE Training Cell, NAEM Faculties, BISE Chairman/ College Inspector/ Controller, BMTTI Faculties, HSTTI Directors/ Faculties/ Resource Person and Trained Principal of Different Colleges).

Name:

....

Designation: ....

Name of the Institution and Address: ....

....

Eucational Qualification: .... Subject ....

		Strongly Agree	5
		Agree	4
Indicator Scale Value ➜		Neutral	3
		Disagree	2
		Strongly disagree	1

Please use the following scale to indicate your response to the statements by putting (√) Mark

SI	Indicator/Variable	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	Suitability of HSTTIs' In-Service Training Course Content.					
2.	Effectiveness of HSTTIs' In-Service Training objective					
3.	Appropriateness of In-Service Training Methodology					
4.	Suitability of Duration of the HSTTIs' In-Service Training Program					
5.	Trainers' approaches were participatory and interactive					
6.	Presenters' Subject, pedagogy and ICT Knowledge were excellent					
7.	The Course objectives were Covered by the Trainers/ Facilitators					
8.	Trainers/ Facilitators Ability for Active Participation & Motivation					
9.	Satisfaction of Education Aids and ICT based Materials					
10.	In-Service Training Co-ordination and Management were evident					
11.	Sufficiency Financial facilities of HSTTIs' In-Service Training Program.					
12.	Appropriateness of HSTTIs' In-service Training evaluation Process					

SI	Indicator/Variable	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
13.	Sufficiency Facilities of Study tour & Co-curricular Activities					
14.	Availability of Hostel Facilities and Management					
15.	Change of the trainees Knowledge. Skill and Attitude by the In-Service training program					
16.	Effective change in the teaching learning approach by the In-Service training Program					
17.	Impact of Training on the field level Activities					
18.	Quality of Education through In-service Training Program					
19.	Effectiveness of In-service training for developing the higher Secondary level Institution					
20	The necessity of HSTTIs' In-Service Training for Building Digital Bangladesh					

Additional Comments/Recommendations

1. HSTTIs' In-Service Training Course Content.

- **Subject and Pedagogy Training (40 Days)**

- **Educational Administration and Management Training (20 Days)**

- **Computer Training (27 Days)**

2. HSTTIs' In-Service Training Methodology.

3. HSTTIs' In-Service Training Evaluation Process.

4. HSTTIs' In-Service Training Co-ordination and Management

5. Duration of the HSTTIs' In-Service Training program

6. Trainers'/ Facilitators'/Resource Person of HSTTIs' In-Service Training program

7. HSTTIs' In-Service Training Materials.

8. In-Service Training Program of Study tour & Co-Curricular Activities

9. Hostel Facilities and Management of In-Service Training Program

10. Financial Facilities of In-Service Training Program

11. Role of In-Service Training Program in the Teaching Learning Approach Changes

12. ICT in Education by the In-Service Training Program

13. Quality of Education through In-Service Training Program

14. Impact of In-Service Training on the Field Levels Activities

15. Problem of Implementing In-Service Training Outcomes

16. Other Recommendations

Signature : ....

Name: ....

Date: ....

APPENDIX-C
Institute of Education and Research,
University of Rajshahi, Rajshahi.
M. Phil/ Ph. D Research

Research Title: Role of In-Service Training Program for Quality Education: A Study on Higher Secondary Teachers' Training Institutes (HSTTI) in Bangladesh.

[A Survey on the comparative evaluation of training programs of HSTTIs for the principals, subject teachers and computer teachers at the higher secondary level in Bangladesh]

Interview schedule/observation sheet for principal on training information and last five year HSC result

(Last five year's HSC results of your college (2008, 2009, 2010, 2011, and 2012) are urgently needed research purpose. These results will be used only for research purpose. So you are cordially requested for providing the necessary data.)

Name of the Institution: ....
Principal Name: ....
Age:...
Educational Qualification: ....
Address:...
The number of the teachers trained from HSTTI., Rajshahi: (Up to- June,2013) ....
The number of teachers without training: ....
The total number of teachers: ....

Additional comments/recommendation:

❖ Role of In-Service Training Program in the Teaching Learning Methodology Changes

❖ ICT in Education by the In-Service Training Program

❖ Quality of Education through In-Service Training Program

❖ Problem of Implementing In-Service Training Outcomes

❖ Overall Recommendation on training:..

Name of the Board	Indicators	2012	2011	2010	2009	2008
Rajshah Dinajpur Barisal and Dhaka	The total number of the students					
	Passed students					
	Passing rate					
	The students who have got GPA 5					

Thank you for providing the researcher with necessary data.

Principal
Date and signature

APPENDIX-D (1)

Institute of Education and Research,
University of Rajshahi, Rajshahi.
M. Phil/ Ph. D Research

Research Title: Role of In-Service Training Program for Quality Education: A Study on Higher Secondary Teachers' Training Institutes (HSTTIs), in Bangladesh.

Simulation/Microteaching Observation Checklist

Name: **Designation and Subject:**

Registration No:

Name of the College and address:

Stage	Observation Checklist	Excellent	Very	Good	Average	Low
Preparation	1. Good lesson plan and necessary mAfterials					
	2. Exchange of greetings and classification					
	3. Arousing interest and drawing attention to lesson					
	4. Evaluating past knowledge					
	5. Announcing lesson and writing the title on the board					
resentation	1. Speaking and writing the purpose of the whole lesson along with the discussion of importance of the present lesson.					
	2. Improvement of the students through teaching methodology					
	3. The proper utility of educational mAfterials and examples in due time					
	4. Ensuring the participation of the students, asking questions and applying strategy					
	5. Providing correct answer to the questions of the students					
	6. Proper application of class management strategy and proper use of teacher's personality, mannerism, voice, and correct pronunciation					
	7. Discussing the real life application of the lesson					
Application/ Evaluation	1. Asking question to check the success of the teaching/making the students engage in solving the problems					
	2. Mentioning the summary of the lesson plan					
	3. Giving homework, assignment and book reference					
	4. Announcing the next lesson plan					
	5. Ending the lesson with thanks					

APPENDIX-D (2)
Institute of Research and Education
University of Rajshahi

M.Phil/P.hd Research Paper

Research Title: Role of In-Service Training Program for Quality Education: A Study on Higher Secondary Teachers' Training Institutes (HSTTI) in Bangladesh.

CLASSROOM OBSERVATION SHEET   Date......................................

Name:	Designation:
College Name:	Class taught:
Topic:	Number of Students:

Preparation Time	Exc	VG	G	Fair	Poor	n/c	Comments
Prior Knowledge							
Catch attention							
Lesson declaration							
Comments of Preparation:							
Preparation Time	**Exc**	**VG**	**G**	**Fair**	**Poor**	**n/c**	**Comments**
Subject Knowledge							
Questioning techniques							
Style of Speaking							
Links prior knowledge							
Appropriate use of teaching aids							
Use of Blackboard							
Body language/eye contact							
Student participation							
Comments of presentation:							
Student Activities	**Exc**	**VG**	**G**	**Fair**	**Poor**	**n/c**	**Comments**
Student understanding							
Student response/asking questions							
Group work							
Pair work							
Individual work							
Students Working on board							
Comments on student activities:							
Evaluation of student learning	**Exc**	**VG**	**G**	**Fair**	**Poor**	**n/c**	**Comments**
Relevant questions							
Learning outcomes met							
Homework set							
Book Reference							
Other Comments:							

Observer Signature

Appendix – E (1)
Institute of Education and Research
University of Rajshahi, Rajshahi
M.Phil/Ph.D Research

Research Title: Role of In-service Training Program for quality Education: A Study on Higher Secondary Teachers' Training Institutes (HSTTI) in Bangladeshi

Respondent Sellected College Training Information (HSTTI, Rajshahi)

SL No.	Name of College & Address	Total Teachers	Trained Teachers	Untrained Teachers
1	Abdul Goni College, Bagha, Rajshahi	28	20	8
2	Ideal Degree College, Belpoqur, Puthia, Rajshahi	50	21	29
3	Mirgonj College, Jamira, Puthia, Rajshahi	21	5	16
4	Jamira College, Jamira, Rajshahi	23	11	12
5	Shahid Nasar Ali Girls School&College, Puthia	23	8	15
6	Alhaj Sujauddula Degree College. Teroyokhadia, Rajshahi	26	6	20
7	Agrenee school & College. Ruet. Motihar, Rajshahi	19	7	12
8	Komala Haq Degree College Motihar, Rajshahi	26	19	7
9	Bakhtiearpur Degree College. Durgapur, Rajshahi	38	24	14
10	Sharanjay Degree College. Tanare, Rajshahi	36	15	21
11	Abdul Karim Sarker Degree College. Tanare, Rajshahi	39	15	24
12	Masjidmission Academy, Rajshahi	22	14	8
13	Charghat Women Degree College, Charghat, Rajshahi	22	11	11
14	Digha High School & College, Bagha, Rajshahi	18	13	5
15	Bashanto Kether College, Mohanpur, Rajshahi	23	8	15
16	Biraldhaha. College Puthea, Rajshahi	23	17	6

SL No.	Name of College & Address	Total Teachers	Trained Teachers	Untrained Teachers
17	Kashieadangha, College, Rajpara, Rajshahi	28	16	12
18	Birqutsha. Obinash School & College, Baghmara, Rajshahi	21	11	10
19	Mohanpur Degree college Mohanpur, Rajshahi	45	25	20
20	Kaligonghat Degree College. Tanare, Rajshahi	35	18	17
21	Kachikata School & College. Ghrudashpur, Natore	25	13	12
22	Goripur High School & College, Lal Pur Natore	18	10	8
23	Jamanpur Degree College, Bagatipara, Natore	29	21	8
24	Sonapatil Naldanga Women College, Naldanga Natore	18	9	10
25	Billhalti Trimohoni Degree College Singra, Natore	41	21	20
26	Gopalpur Degree College, Lal Pur Natore	35	19	16
27	Rahamat Iqbal Degree College, Singra, Natore	42	24	17
28	Billchoaon Shahid Shamsujjaha College, Grudaspur, Natore	25	15	10
29	Digha patia M.K College, natore	42	22	20
30	Shibgang M.H. Degree College, Shibgong, Bogura	45	22	23
31	Dupchacia Mohila College,Dupchacia,Bagura	43	16	27
32	Janata Mohabidalay,Bogura Sadar,Bogura	21	14	7
33	Dhanut Women College ,Dhanut,Bogura	40	23	17
34	Hagra Dhighi School & College, Bogura	19	9	10
35	Habib Pur High School & College,Shibgonj,Bogura	30	13	17
36	Goshaibari Degree College,Dhunut,Bogura	38	20	18

SL No.	Name of College & Address	Total Teachers	Trained Teachers	Untrained Teachers
37	Jalal UddinAhmed College,Adhamdhighi,Bogura	21	6	15
38	Adhamdhighi Pilot Women High School& Collegr,Bogura	28	16	12
39	Dhanut Degree College ,Dhanut,Bogura	44	24	20
40	Chandan baisha Degree College,Dhanut Bogura	32	16	16
41	Vangura Women College, Vangura, Pabna,	19	10	9
42	Bashair banden Degree College, Ishaidi. Pabna	29	15	14
43	Chaikala Degree College. Chatmohar, Pabna	42	22	20
44	Dhulauri Degree College, Shathai. Pabna	31	19	12
45	Dengergram Degree College. Atgherya. Pabna	23	8	15
46	Shamchul Hada Degree College. Shader. Pabna	38	21	17
47	Pabna Islamia Degree College, Pabna	43	14	19
48	Bankola High School & College, Sujanagar	17	10	7
49	Kashinath Pur Women Degree College, Bera Pabna.	29	13	16
50	Debottar Degree College Atgharia, Pabna	38	18	20
51	Perkhidir Pur Degree College, Atghania, Pabna	31	17	14
52	Mohamad Easin Degree College Faridpur, Pabna	28	16	12
53	Shahjadpur Woman College Shahjadpur, Sirajganj	41	23	18
54	Nimgachi Degree College, Raigang. Sirajganj	43	24	19
55	Simla Degree College, Sirajganj	25	15	10
56	Chowhali S.B.M College Chawhali, Sirajganj	15	10	5

SL No.	Name of College & Address	Total Teachers	Trained Teachers	Untrained Teachers
57	Jamuna Degree College Sirajganj	32	12	20
58	Gram pangashi College Raijang Sirajganj	18	10	4
59	Dr. Shamshuddin Salma College, Kamarkhanda, Sirajganj	17	14	3
60	Chowhali Degree College Chawhali, Sirajganj	32	16	16
61	Tarash Women Degree College, Tarash, Sirajganj	45	25	20
62	Rahanpur, P.M. Ideal College, Gomoshtapur Chapai Nawabganj	24	13	11
63	Rangabari U.S. School & College, Chapai Nawabganj	13	7	6
64	Rahanpur, Ushiaf Ali College, Gomoshtapur Chapai Nawabganj	50	30	20
65	Karbala High School & College, Chapai Nawabganj	21	12	9
66	Nababgang City College, Chapai Nawabganj	34	18	16
67	Birsarshith Captation Mohiuddin Degree College, Shibgonj, Chapai Nawabganj	40	21	14
68	Rajbari College, Nachal. Chapai Nawabganj	15	10	5
69	Krishina Gobinda Degree College, Chapai Nawabganj	30	16	14
70	Chakkirti High School & College, Shibgonj, Chapai Nawabganj	22	13	9
71	Shahid Shiriti College Nachal, Chapai Nawabganj	21	12	9
72	Parbotipur S.B. Adrasha College, Gomostapur Chapai Nawabganj	22	12	10
73	Mojibar Rahaman College Akalpur Jaypurhat	52	30	22
74	Amdai United Degree College Amdiui Jaypurhat	51	21	30
75	Sharail Adarsha College Pachbibi. Jaypurhat	21	11	10

SL No.	Name of College & Address	Total Teachers	Trained Teachers	Untrained Teachers
76	Joypurhat Shahid Zia College, Jaypurhat	30	22	8
77	Nandail Dhighi College Kalai, Jaypurhat	20	12	8
78	Mongalbari M.M. Degree College, Joypurhat	26	20	6
79	Jamalgang Degree College, Akkelpur, joypurhat	36	19	17
80	Nurnagar United Degree College, Akkelpur. Joypurhat	34	21	13
81	Fatapur Kalim Uddin College, Manda, Naogaon	19	13	6
82	Dhamairhat Mohila Degree College, Dhamoirhat, Naogaon	45	29	16
83	Panguria Degree College, Porsha, Naogaon	36	21	15
84	Chandannagar College, Niamatpur, Naogoan	19	12	7
85	Naogaon Astan Mollah College, Naogaon	29	20	9
86	Balachari Shiddik Hossain Degree College, Niamatpur, Naogaon	46	20	26
87	Porsha Degree College, Porsha, Naogaon	39	15	24
88	Chowdhury Chan Mohammad Mohila Degree College, Sapahar, Naogaon	40	15	24
89	Krishnapur College, Patnitala, Naogaon	24	16	8
90	Bandaikhara Degree College, Atrai, Naogaon	35	20	15

Source: HSTTI, Rajshahi in Trained Different College Official Records (1995-2013)

Appendix – E (2)
Institute of Education and Research
University of Rajshahi, Rajshahi
M.Phil/Ph.D Research

Research Title: Role of In-service Training Program for quality Education: A Study on Higher Secondary Teachers' Training Institute (HSTTI) in Bangladesh

Respondent Selected College Training Information (HSTTI, Rajshahi)

Serial No.	Name of College & Address	Total Teachers	Trained Teachers	Untrained Teachers
1	Jagad Pur College Birol, Dinajpur	28	15	13
2	Shapla Girls School & College Khanshma, Dinajpur	18	11	7
3	Mainul Hashan College, Birol, Dinajpur	30	16	14
4	Purbo Molllikpur H.S, College, Kahoral, Dinajpur	21	12	9
5	Mogorpara, Degree, College, Nawabgang, Dinajpur	28	22	6
6	Chahal Gagy College, Sader, Dinajpur	22	14	8
7	Nasepur High School & College, Dinajpur	18	5	13
8	Dawgaah Bakultala College, Bachogang Dinajpur	15	4	11
9	Fashala danga College, Sadar, Dinajpur	18	12	6
10	Aftab gang Woman College, Nawabgonj, Dinajpur	27	14	13
11	Rani Ganj Women Degree College, Ghara Gaat, Dinajpur	31	14	16
12	Ghara Gaat Degree College, Dinajpur	29	11	18
13	Birol Women Degree College, Birol Dinajpur	21	13	8
14	Kanchan New Model College, Birol, Dinajpur	26	12	14
15	Birol Degree College, Birol, Dinajpur	34	14	20

Serial No.	Name of College & Address	Total Teachers	Trained Teachers	Untrained Teachers
16	Hakampur Women Degree College, Hakampur, Dinajpur	28	17	11
17	Iceamoty Woman Degree College, Chirirbandar, Dinajpur	17	12	6
18	Adrasha college Sadar Dinajpur	34	22	12
19	Gangaachara Woman Degree College Gangaachara, Rangpur	36	16	20
20	Charan College, Mithapukur, Rangpur	19	9	10
21	Karannir Hat School & College, Sadar Rangpur	16	8	8
22	Itakamuri Shib Chandra Rai College Pergacha, Rangpur	18	12	6
23	Dhal Banga High School & College Shadullapur Ghaibandha	21	15	6
24	Bamandanga Abdul Hak College Shandargang Ghaibandha	35	26	9
25	Mahimaganj Womea College Gobindoganj Ghaibandha	21	13	8
26	Bazarpara College Shandargonj Ghanaibanda	15	9	6
27	Shakhata Pilot Girls High School & College, Shakhata Ghaipanda	25	11	14
28	Banarpara Girls High School & College, Shakhata Ghaipanda	19	13	6
29	Nawoshai College Nagrishri Kurigram	19	4	15
30	Raimary Women Degree College, Raimay Kurigram	34	19	15
31	Nawdanga High School & College Phulbari Kurigram	23	6	17
32	Zadurchar College Raimary Kurigrm	31	17	14
33	Rajarhat Women Degree College, Rajahar Hat Kurigram	27	16	11
34	Bagum Kamrinnsa, Degree College, Sadar, Lalmonir Hat	34	18	16
35	Hatibandha Women Degree College, Hatibandha, Lalmonirhat	34	26	8

Serial No.	Name of College & Address	Total Teachers	Trained Teachers	Untrained Teachers
36	Dhai Khaw Adrasha Degree College, Hatibandha Lalmonirhat	28	15	13
37	Laamli College, Oditmary Lalmonirhat	23	16	7
38	Kanthan Shor Secondary School & College, Oditmary Lalmonirhat	21	15	6
39	Ranaghanda High School & College, Kashirganj Nilphamari	15	10	5
40	Tanganmary Degree College, Jal Dhaka Nilphamari	21	2	19
41	Shaiud Pur Adrasha Giral Scoolege & College Shayedpur, Nilphamari	15	8	7
42	Gagirhat Degree College, Ranishankoil Thakurgaon	22	12	7
43	Moslauddin Degree College, Horipur Thakurgaon	26	8	18
44	Nakmorad Bangabandhu College Ranishankoil Thakurgaon	25	15	10
45	Bhaula Ganj College Debiganj Panchgrar	14	9	5
46	Deberganj Women College, Panchgrar	25	17	8
47	Shakawa Degree College Boda, Panchgrar	31	17	14
48	Balarampur Adrasha College Boda, Panchgrar	26	15	11
49	Changhi Hazra Dangha College, Debigonj Panchgrar	22	11	11
50	Gajdoul Degree College Sadar Panchgrar	19	13	6

Source: HSTTI, Rajshahi in Trained Different College Official Records (1995-2013)

Appendix– E (3)
Institute of Education and Research
University of Rajshahi, Rajshahi
M.Phil/Ph.D Research

Research Title: Role of In-service Training Program for quality Education: A Study on Higher Secondary Teachers' Training Institute (HSTTI) in Bangladesh

Respondents Selected College Training Information (HSTTI, Barisal)

Serial No.	Name of College & Address	Total Teachers	Trained Teachers	Untrained Teachers
1	Kalaskathi Degree College, Kalaskathi, Bakergonj, Barisal	34	16	18
2	Sohid Soronika Degree College, Barisal	47	42	5
3	Paterhat R.C College, Mehediganj, Barisal	24	11	13
4	Omitro lalthe Mohabiddaloy, Barisal	43	40	3
5	Ataher Uddin howladar degree college, Barisal	46	18	28
6	Begum Tofatjul hossen manik miya mohila college, Barisal	35	39	6
7	Hagitaher uddin islamiya degree college, Ujirpur, Barisal	37	31	6
8	Helal Uddin Ahamod Degree College, Bakerganj, Barisal	18	16	2
9	Kasipur High School and college, Barisal	18	16	2
10	Syed Azizulhaq degree college, Ujirpur, Barisal	23	19	4
11	Ujirpur Allhaj B.N. Khan college, Ujirpur, Barisal	35	30	5
12	Arif mahomud degree college, Miladi, Barisal	17	14	3
13	Dr. Rustom ali foraji degree college, Sadar Pirojpur	24	12	12
14	Mativanga degree college, Nazirpur, Pirojpur	28	15	13
15	Bongomata begum fogitunnisa mogib mohila mohabiddaloy, Nazirpur, Pirojpur	21	11	10
16	Goskati mohabiddaloy, Nazirpur, Pirojpur	16	9	7
17	Sabiha khalek Technical and B.M college, Pirojpur	16	12	4

Serial No.	Name of College & Address	Total Teachers	Trained Teachers	Untrained Teachers
18	Kawkhali Mohabiddaloy, Kawkhali, Pirojpur	32	28	4
19	Rajapur degree college, Rajapur, Jhalokathi	30	14	16
20	Sohid Raja degree college, Kathalia, Jhalokathi	38	22	16
21	Rajapur degree college, Rajapur, Jhalokathi	30	14	16
22	Tofatjul hosein(Manik miya) degree college, Jhalokathi	31	20	11
23	Bamna degree college, Bamna, Borguna	28	21	7
24	Taltoli degree college, Taltoli, Borguna	31	24	7
25	Bokulnesa mohila degree college, Amtoli, Borguna	30	14	16
26	Hazi jalal uddin mohila degree college, Borguna	26	13	13
27	Bamna degree college, Bamna, Borguna	28	19	9
28	Taltoli degree college, Taltoli, Borguna	30	21	9
29	Jonotabajar college, Charfeson, Bhola	22	13	9
30	Rebaroham degree college, Bhola	30	14	16
31	Banglabajar fatema nanom degree college, Bhola	28	9	15
32	Halima khatun girls iskul and college, Monpura, Bhola	14	4	10
33	Monoara begum mohila college, Monpura, Bhola	17	9	8
34	Obaydul hok mohabiddaloy, Bhola	21	12	9
35	Fatema motin mohila degree college, Charfeson, Bhola	40	16	24
36	Mowkoron B.L.P degree college, Patuakhali	55	24	31
37	Hazi Jasim uddin meba college, Patuakhali	24	13	11
38	Kalisuri degree college, Bhaupol, Patuakhali	29	20	9
39	Mohamud Isahuk model college, Patuakhali	20	11	9
40	Subidkali mohila degree college, Mirzaganj, Patuakhali	45	20	25

Source: HSTTI, Barisal in Trained Different College Official Records (1996-2013)

Appendix – E (4)
Institute of Education and Research
University of Rajshahi, Rajshahi
M.Phil/Ph.D Research

Research Title: Role of In-service Training Program for quality Education: A Study on Higher Secondary Teachers' Training Institute (HSTTI) in Bangladesh

Respondents Selected College Training Information (HSTTI, Barisal)

Serial No.	Name of college & Address	Total Teachers	Trained Teachers	Untrained Teachers
1	Pandid Shar T.M. Gius Uddin College, Naria, Shariatpur	14	12	2
2	Hagi lalmiah city college, Gopalganj	35	23	12
3	Bongorotno mohabiddaloy kaligram, Gopalganj	30	22	8
4	Rajpot college, Kashiani, Gopalganj	28	9	19
5	Vanga mohila mohabiddaloy, Faridpur	28	14	14
6	Bongobondhu college, Boalmari, Faridpur	18	6	12
7	Foridpur muslim mision college, Faridpur	17	4	13
8	Nobocam polli Degree college, Shaltha, Faridpur	31	26	5
9	Foridpur mohabiddaloy, Faridpur	41	18	23
10	Bongobondhu college sorisa pangsa, Rajbari	21	11	10
11	Goyalondo kamrul islam college, Rajbari	41	23	18
12	Pangsha mohila college, Rajbari	23	10	22
13	Monsur ali college, Baliakandi, Rajbari	40	20	20
14	Rabiya Idris mohila college, Rajbari	24	13	11
15	Liyakot ali City School and college, Rajbari	24	8	16
16	Panghsa college, Rajbari	46	21	25
17	Sohid sordar sajahan Girls School and college, Madaripur	16	2	14
18	Takerhut popular High School and college, Madaripur	15	8	7
19	Sheikh Hasina Academy and womens college, Madaripur	33	18	15
20	Sohid Smrity mohabiddaloy, Kalkani, Madaripur	30	18	12

Source: HSTTI, Barisal in Trained Different College Official Records (1996-2013)

APPENDIX-F (1)

Higher Secondary Teachers Training Institute (HSTTI), Rajshahi.
"Subject & pedagogy training" Course for the college subject teachers'

Pretest and Post Test Results/ Score

Batch-56,	Subject-English	Total Mark-30
Reg. No.	**Pre-test**	**Post test**
01	11	29
02	13	29
03	11	28
04	09	27
05	13	28
06	14	25
07	12	25
08	14	24
09	13	28
10	14	24
11	15	28
12	10	26
13	08	27
14	07	28
15	11	27
16	11	20
17	06	27
18	13	28
19	08	30
20	11	28
21	11	28
22	11	27
23	12	24
24	12	27
25	11	25
26	18	27
27	15	26
28	13	28
29	06	25
30	09	26

Source: HSTTI, Rajshahi Official Records (2012-2013)

APPENDIX-F (2)

Higher Secondary Teachers Training Institute (HSTTI), Rajshahi.
"Subject & pedagogy training" Course for the college subject teachers'
Pretest and Post Test Results/Score

Batch-48,	Subject-Chemistry	Total Mark-30
Reg. No.	Pre-test	Post test
01	14	26
02	20	28
03	15	25
04	12	23
05	18	28
06	11	26
07	12	23
08	17	28
09	10	24
10	10	25
11	10	25
12	18	25
13	14	24
14	11	24
15	10	25
16	17	25
17	18	27
18	16	27
19	08	25
20	20	25
21	19	25
22	11	22
23	12	24
24	20	28
25	17	23
26	13	26
27	12	26
28	20	28
29	16	28
30	15	29

Source: HSTTI, Rajshahi Official Records (2012-2013)

APPENDIX-F (3)

Higher Secondary Teachers Training Institute (HSTTI), Rajshahi.
"Educational Administration & Management" Course for the College principals

Pretest and Post Test Results/ Score

Batch-15,   **Total Mark-25**

Reg. No.	Pretest	Post test
01	18	23
02	17	24
03	14	23
04	17	22
05	15	22
06	13	21
07	16	22
08	14	22
09	17	24
10	17	24
11	12	21
12	13	22
13	13	22
14	13	22
15	21	25
16	18	22
17	13	23
18	13	22
19	15	23
20	18	22
21	18	23
22	15	23
23	17	23
24	17	23
25	17	23
26	19	24
27	20	25
28	14	21
29	17	23
30	18	23

Source: HSTTI, Rajshahi Official Records (2012-2013)

APPENDIX-F (4)
Higher Secondary Teachers Training Institute (HSTTI), Rajshahi.
"Computer training" Course for the college computer teachers'

Pretest and Post Test Results/ Score

	Batch-20,	Total Mark-50
Reg. No.	**Pre-test**	**Post test**
01	33	47
02	34	46
03	40	47
04	31	43
05	30	46
06	31	46
07	40	47
08	26	43
09	32	40
10	35	47
11	34	46
12	33	42
13	34	43
14	41	48
15	34	45
16	36	44
17	34	47
18	28	46
19	30	44
20	31	47
21	22	45
22	24	42
23	29	47
24	31	42
25	21	44
26	20	47
27	19	35
28	29	45
29	16	40
30	26	43

Source: HSTTI, Rajshahi Official Records (2012-2013)

APPENDIX-F (5)
Higher Secondary Teachers Training Institute (HSTTI), Barisal.
"Subject & pedagogy training" Course for the college subject teachers'
Pretest and Post test Results/ Score

Batch-53, Mark-30	Subject-Agriculture Studies	Total
Reg. No.	Pre-test	Post test
01	16	25
02	15	25
03	11	16
04	12	26
05	13	26
06	09	25
07	08	26
08	18	27
09	20	30
10	20	30
11	18	25
12	17	26
13	14	25
14	15	27
15	18	26
16	09	21
17	08	21
18	17	26
19	15	23
20	14	25
21	13	26
22	11	21
23	19	30
24	09	21

Source: HSTTI, Barisal Official Records (2012-2013)

APPENDIX-F (6)
Higher Secondary Teachers Training Institute (HSTTI), Barisal.
"Subject & pedagogy training" Course for the college subject teachers'
Pretest and Post test Results / Score

Batch-53,	Subject-Islamic Studies	Total Mark-30
Reg. No.	Pre-test	Post test
01	09	22
02	10	25
03	12	23
04	13	24
05	09	23
06	05	21
07	11	24
08	19	18
09	18	26
10	10	22
11	18	26
12	14	25
13	13	25
14	12	22
15	09	26
16	10	23
17	11	25
18	20	27
19	11	30
20	12	22
21	13	25
22	06	22
23	07	26
24	11	27
25	12	25
26	15	25
27	14	25
28	09	21
29	05	22
30	18	25

Source: HSTTI, Barisal Official Records (2012-2013)

APPENDIX-F (7)

Higher Secondary Teachers Training Institute (HSTTI), Barisal
"Educational Administration & Management" Course for the College principals

Pretest and Post test Results/ Score

Batch-15   **Total Mark-25**

Reg. No.	Pretest	Post test
01	10	17
02	17	24
03	17	23
04	18	24
05	18	23
06	20	20
07	19	14
08	18	24
09	14	21
10	13	19
11	12	21
12	18	21
13	10	18
14	12	21
15	15	20
16	14	18
17	10	20
18	15	18
19	10	22
20	11	23

Source: HSTTI, Barisal Official Records (2012-2013)

APPENDIX- F (8)
Higher Secondary Teachers Training Institute (HSTTI), Barisal.
"Computer training" Course for the college computer teachers'
Pretest and Post test Results / Score

Batch-20   **Total Mark-50**

Reg. No.	Pre-test	Post test
01	15	40
02	13	40
03	17	39
04	18	42
05	15	40
06	13	41
07	12	40
08	15	42
09	30	45
10	28	43
11	24	43
12	19	40
13	12	40
14	24	39
15	32	44
16	18	41
17	15	40
18	15	40
19	15	40
20	15	40

Source: HSTTI, Barisal Official Records (2012-2013)

APPENDIX- G$_1$
Study Area (HSTTI, Rajshahi)

Source: http://www.electionbd.com/archive/division.php?divon=Rajshahi

Study Area (HSTTI Barisal)
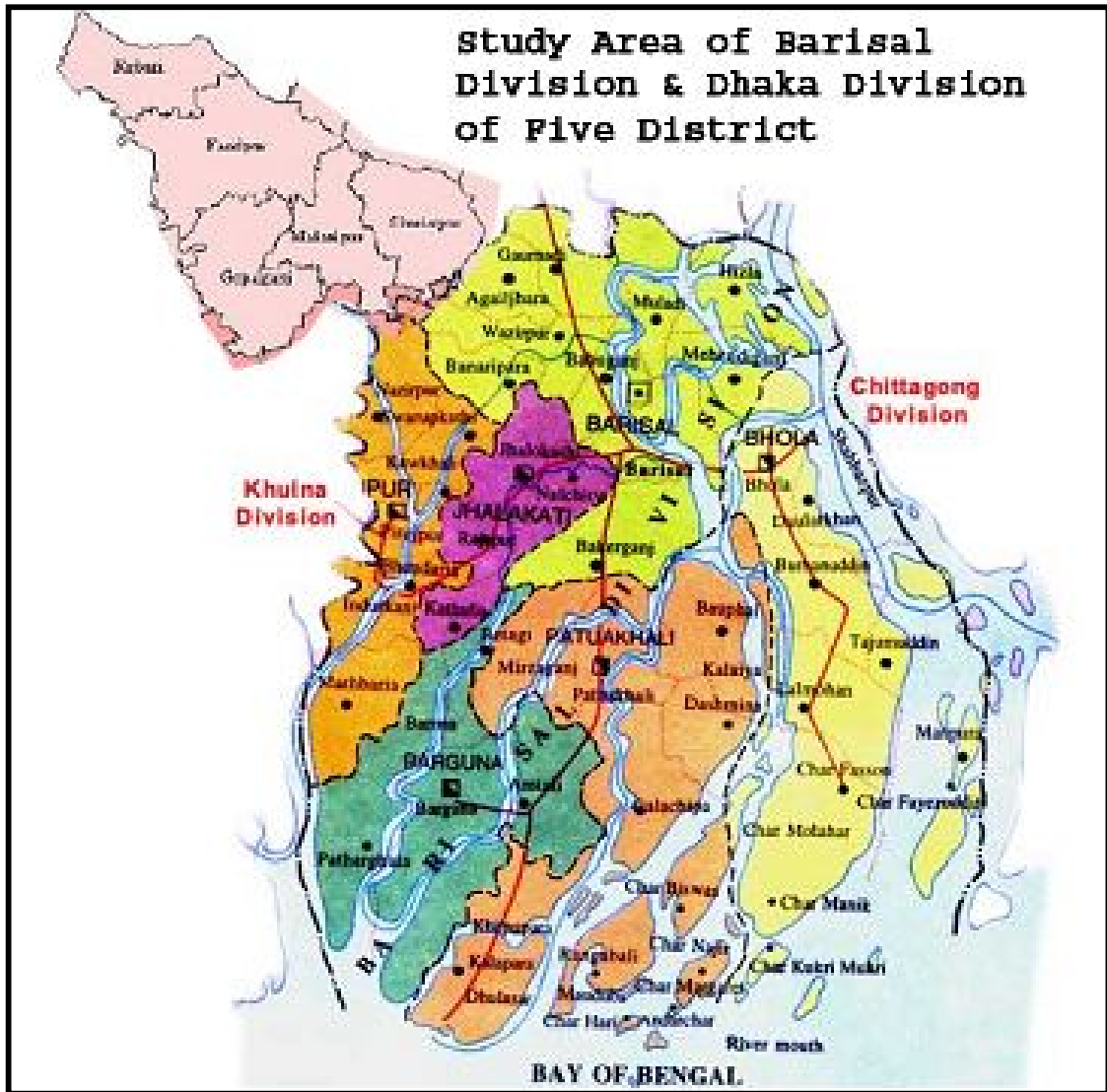
Source: HTTP://WWW.ELECTIONBD.COM/ARCHIVE/MAPS/BARISAL.JPG