

SUBJECT BASED SCIENCE TRAINING OF PRYMARY EDUCATION IN BANGLADESH: CURRENT STUTUS AND PRACTICES IN THE CLASSROOM

NAZMUS SAKIB KHAN KANA

Head Teacher Kalapara Government Primary School, Kalapara, Patuakhali, Dhaka, Bangladesh.

Abstract

This study aimed to explore the reflection of the science training of primary education in Bangladesh in teacher's practices of science teaching at primary level. The study was done in two GPSs in north east Bangladesh. Data for this study were collected from the schools, science teachers, Head teachers AUEOs, URC instructors and following document review, classroom observation and in-depth interview generally used in qualitative approach, using semi-structured interview guidelines and classroom observation checklist the data have been analyzed according to the research questions. Mainly here in this study it emphasized on the subject based science training. The necessity and importance of learning proper logic and reasons of the environment is enhancing day by day. The study found that the teachers sometimes follow the training manual but they maintain traditional system. Teachers, supervisors and instructors were not quite aware of science training. Learning happened rapidly and easily if the training rule were used properly. Problems such as time management, preservation, tendency for following traditional method among senior teachers, lack of motivation, lack of monitoring and supervision etc. hinder development and science teaching by the teacher's. Financial support, monitoring and supervision, training for teachers are be enriched. To ensure in science teaching it is recommended to consider barriers came out from the study in order to fulfillment of teachers' problems and students' learning needs.

Key word: Subject based training, reflection, traditional system, monitoring and supervision.

I. Introduction:

Two wrong don't make anything right. So, when we want be perfectionist and become more fruitful in our life, we just need to change the way we are doing that. There are many people think they can find a suitable way of getting better and better every day. But when they go to the real field, they face the true condition. It's not about just thinking and submitting. It is something more and training emphasizes on this theory. This paper will be the symbol for the importance of subject based science teachers training in Bangladesh. In the Primary School Certificate (PSC) and Ebtedayee Examinations-2017, the number of a participant across the country is 3,096,075 students. As many as 28, 04,509 examinees sat for PSC examinations while 2, 91,566 students are appearing in the Ebtedayee examinations that Year at over 7,200 centers across the country and 12 centers abroad of the total PSC examinees, 12, 99,985 are male and 15, 04,524 females while among the Ebtedayee examinees 1, 53,152 are male and 1, 38, 414 female students. (PSC, Ebtedayee exams begin, 2017) But the matter of fact is, in the same year 2017, the number of JSC examinees was 20, 90,000 nearly. In each year we can see that the number of students attends the PSC exam is larger than the JSC examinees. Going up to the higher level, we will feel that every year a huge number of students get dropped out. If we want to find out the reason, we will get that the incompetency of the teachers in the classroom, especially in the foundation level. So, the students don't get that kind of motivation neither by the teacher nor by their teaching to become more sustainable in their academic career. That's about teacher. Going to the topic science based or logic based subject, the teachers in the rural area fails to act according to the class room demand while teaching the students science. The fault is not all about teachers' incompetency, also the fault of the system. Our education system doesn't provide the teacher perfect training about subject based science knowledge. Though we nearly 50 Primary Teachers training institute but still these PTI's don't provide the perfect training for the teachers. Especially the teachers of the rural areas lag behind. We know that the most of the students in our country get the fundamental knowledge from the village school. So, if they don't get the proper treatment from the teachers, day by day they become

frustrated and sometimes don't even want to continue their study in the school. That's how the Problem begins. In this paper, it tried to find out the problems of subject based science teachers training in Primary Education of Bangladesh exploring the research topic and problem. Then it tried to introduce the research questions, purpose of the study and significance of the study. In next Section, this paper related the research topic and problem with some literatures and presented a literature review. It also showed the methodologies it used in this study. Finding out the problem, it tried to discuss all of the factors related to this study. This paper also showed some recommendation in the context of primary education in Bangladesh.

II. Purpose of the study

The main purpose of this study is to know about the current status of subject based science training in Bangladesh and the practices in classroom at present. It is the 21st century but we cannot see the same kind of teaching facilities in the rural and urban areas. Especially in the science based subjects the students of the rural areas face various kinds of problems. This paper will try to find all this cases.

The other purpose of this study is to know about the problems the teachers face in their training. As we see the main fact of the study is about good teaching learning process in science classes this paper will also focus on the training of the teachers in PTI's. These study also find out the problems they face in the classroom and the difficulties, they also face implementing the training in the classroom. Finally, another purpose is to know the opinions of the teachers and trainers and how much they can apply their knowledge and how can they improvise this section.

III. Significance of the Study

In an education system, the main factors are teachers and students. So, everything that focuses on education that actually focuses on teachers and students. This paper represented both students and teachers present condition to develop. Subject based teachers training in primary education actually talks for the teachers' development and students' progress. This paper showed the findings of this research and when the authority will read this paper they will know a total view of the primary teachers training and they can focus on the factors that should change. This paper will help the authority to make changes and development of the infrastructure, curriculum, teaching learning process in PTI's and activities and so on. This paper summarized all the problems and factors for development in the primary education teachers training especially subject based science teachers training that would help to make changes in education system. As my paper is showing the main factors of education, so it would provide something to make changes in this portion of education which will help to change the total teaching learning process.

IV. Objective

1. To explore the of subject based science training status.
2. To find out the challenges of teachers thinking about implementing the knowledge and skills they gained in training.
3. To explore teacher's perception when applying the training they got?

V. Research Questions

- 1) What is the current status of subject based science training?
- 2) What do teachers think about implementing the knowledge and skills they gained in training?
- 3) What types of problems do they face when applying the training they got?

VI. Methodology

In this study, the research topic and research problem both are related to the teachers training. As we measure teachers' quality not teacher's quantity so here in this paper the research approach it has chosen is Qualitative. Qualitative research tends to be more exploratory and description based in nature, seeking to provide total view and insight into how individuals (or organizations, groups, etc.) understand aspects of their worlds. In this paper, It showed the present status of the primary education system of our country along with the subject based teachers' training. From the starting of this paper the theme was to clarify the condition, obstacles, problems and solutions of the subject based science teachers training in our country. It cannot change this showing some statistics rather the qualitative research will show the problems and solution and how the authority can avail the present situation for further development.

In this study, it worked for the subject based science training. For that, it had to take interviews, it also made observation checklist to show the quality of our system for the primary subject based science teachers' training.

VII. Data collection methods and tools

There are two most common qualitative methods such as observation and interview that it used the field of research for collecting and analyzing data. It also used document review as authentic for data collection. Data collection methods which it used in my study are presented below:

Interview: It was conducted interview with two assistant teachers teaching science, two head teachers, one AUEO and one URC Instructor using interview guides. It considered their every point of view sincerely and asked them about various teaching technique of science class. During the interview time, for capturing the conversation it also used field note along with tape recorder and interview guide.

Observation: It was observed two assistant teachers teaching at grade five for five consecutive days using observation checklist. The observation focused to know student's interaction, teachers' activity and teachers teaching learning process in the field note. It was tried to collect information on real classroom situation focusing on the types of teaching methods.

VIII. Data collection procedure

It used qualitative method for collecting data. It was totally exploratory. It tried to analyze the data in qualitative manners under some major themes. It used narrative method to analyze the collected data.

IX. Data Analysis

Data collection has been done in two schools by using interview, focus group discussion and observation methods of data collection. In this study content analysis method was used to analyze the data collected from the field. A tape recorder was used as a data collection tool for interviewing and FGD of the respondents. Firstly, transcription was done then organization of data and observation notes were written. Then data were reviewed several times and were highlighted with different color highlighters that were corresponded directly with the research questions.

After organizing and matching the data with research questions, the data were reviewed to find out different themes and issues emerging from the data. In this study data categorization by different themes were consistent with the research questions. The next step was to identify the themes and issues for formal presentation of analytical thinking. Citations that were short, interesting, critical, and related to the research questions were selected for this study. If citation was from the observation, then observation notes were used.

For capturing the thoughts and meanings of the data the themes and subthemes were reviewed and written them down on separate piece of paper. The last step was to present the qualitative data. So the main points under each theme were summarized and some direct citations from the data that are related to the themes were provided. Data were cited that added additional information and strengthened the summarized points.

X. Ethical concern

According to Johnson & Christensen (2004, p.01) "Ethics as the principles and guidelines that help us to uphold the things we value". Ethical issue mean that steps were taken in this research in an unbiased manner and drew each conclusion to the best of researcher ability and without introducing researcher own vested interest (Kumar, 2005). Researcher played his role as a researcher in the field rather as a supervisor. To make a research paper we worked on many participants as well as various institutes. We used various methods to collect data from them to enrich our research with information. For this people gave us information believing us. After working on this paper if we publish it, then it may cause so many problems for those participants if we just specify them. So we should become more ethical here. For preventing this problem, it tried to this level best not to specify their names. It was much confidential. They trusted me and it kept it as much as it could. It was not biased while collecting data. It tried to become more comfortable and easy to them. Before data collection from the respected school's researcher took permission from the gatekeeper as well as from the respondents.

XI. Demographic profile of the participants

In this research, the target population is teachers who participated regularly in the primary training sessions. They are the first priority. It also gave importance to the head teachers, assistant teachers, and URC instructors. It was collected data from URC instructor and Education officers. Not only that it was taken interviewed the URC Instructors, Head teacher. That's how did the research on this study. It also observed the trainee who attended the regular teachers' training classes in URC. These observations also helped to get this job done.

XII. Result

Introduction

Research data and other findings about the subject based science teachers training presented in this chapter.

The main goal of my research was to find out the current status of the subject based science teachers training and the problems of implementing the training experience in the classroom. Based on the all kind of data gathered from the research, it is found that subject based primary teachers training was very important to develop the skills of the teachers about science subjects through the training provided by the URC. The collected data also showed that the teachers who don't have the training are not able to perform well in the classroom. But the trained teachers have the ability to maintain the classroom well. They used many techniques relevant to the topic to make the classroom more enjoyable and fruitful.

It talked to the trained and non-trained government primary school teachers and also observed their classroom. It also talked to the students of the classroom. It also spent time with the URC instructors; AUEO, Head teachers and the trainers of the subject based primary teacher's trainers and collected data through interviews and classroom observation.

After collecting the data, it was categorized the data in some sections according to the following themes:

- 1. Current status of the science training, for the primary school teachers.**
- 2. Importance of science teachers training,**
- 3. Stakeholders (Instructor, AUEO, head teachers, and assistant teachers) views about implementing science training in the classroom.**
- 4. Problems and challenges in implementing the science training.**

Detailed of the themes below step by step.

Current Status of Subject- Based Science Training for the Primary School Teachers

Training largely depends on the instructional methodologies and materials that are used in the training. In the subject based science training try to train the teachers on the updated and most efficient forms of methods. The training methodology is designed based on the science book of the primary level and is outlined in a training manual. One of the URC Instructors said in this regard, "There are many methods used in subject based science training. They are: Direct Instruction, Flipped Classrooms, Kinesthetic Learning, Differentiated Instruction, Inquiry-based Learning, Expeditionary Learning, Personalized Learning, and Game-based Learning (Interview # 04)." That URC Instructor also provided information about the training materials used in the training period. "Normally the handmade teaching materials are used. Also the materials which cost least are get priority in the class. Digital materials are used in this training. These are laptop, multimedia and digital content. (Interview # 03)." Another URC instructor said that, "There are many methods used in science training. The participatory method is used in conducted by the trainees. (Interview # 04)." Another teacher also said, "Cost effective materials like chalk board, models, multimedia, digital content are used in the training. (Interview # 13)." As perceived by a Head Teachers expressed his opinion, "There is almost no follow up training in teachers training but we try to support teachers to have their further training and skill development. (Interview #12)." One AUEO mentioned his perception in this way, "URC actually works for facilitating the training sessions. They give much effort to make the training fruitful science teacher receives 6 days subject based science training by the observation of URC. (Interview #05)." Apart from these one of the URC Instructor expressed that, "In the subject based science training session there are practices about time management in the classroom, use of teaching materials and methodologies for science classes. (Interview # 10)." Subject based science training is very encouraging for our educational development as well as competency based teaching-learning. In this one of the URC Instructors said, "Actually the subject based science training content the basic knowledge of science. The areas basic science are environmental matters, air, water, soil, natural phenomena technologies, health and food liked lesson plan, assessment materials development use, demo class and different type of teaching techniques. (Interview #09)." That meant the teachers also appreciated the training to developed their skills and competencies of the teaching learning process.

Importance of Science Teachers Training to Teach Science:

The data I got from the research participants of the study helped me to explore the importance of science subject based teachers training. Subject based training on science improves the overall skills of the teachers. For example, one of the trained teachers said, "Science (SBT) subject based training is important as it provides in-depth and exclusive training on science. The training teaches various important things to teach science according to the need and situation of our classroom. The teachers can then come up with their own original ideas on science teaching. Therefore, science SBT is important. (Interview # 10)." Then I tried to learn more about the importance of the subject based teachers training in this regard one of the URC instructor said, "as it is essential to know science for better life, the science training will help a teacher to give something great to the students. Science teaching is not about lecture methods, it is also a matter of art, logic and techniques. So, it is much necessary for each teacher. (Interview # 09)." One of the AUEOs also mentioned, "I can know many subjects but he can't able to know each and every fact of that subject well. Every teacher should have a specific subject area where he/she will feel comfortable to teach. That's why I think the subject based training is getting more importance day by day. (Interview # 10)." Subject based training is done based on the syllabus of science

books in primary level. The main objective of the training is to improve teaching skills of science teachers. So one of the assistant teachers told, "Science training is needed, especially in our country because we have certain problems with our way of traditional science teaching that we need to solve. We have moreover a scarcity of resources, so training can help teachers with a new perspective and find a solution for the existing problems. In short, science training can enhance the quality of our science education and therefore we need it. (Interview # 08)." The above-mentioned Assistant teachers also added opinions about the content knowledge and pedagogical skills. "As I said, in SBT we work on a specific subject and its contents teachers can learn a lot and fill the gaps they had. They can take help from each other and build their content skill on that. (Interview # 04)." One of the trained teachers said, "In subject based science training we learn a lot about teaching and practicing science in the boundaries of a school. We are taught different techniques and methods and trained to improvise them if necessary, to deliver a quality science teaching. In so many ways, science training enhances pedagogical skills. (Interview # 05)." One of the Head Teachers said, "Science SBT is important as it provides in-depth and exclusive training on science. The training teaches various important things to teach science according to the need and situation of our classroom. The teachers can then come up with their own original ideas on science teaching so science SBT is important. (Interview # 07)." The importance of teachers training and subject based science teachers training are almost equal but the time is giving more importance to the subject based science teachers training. In this regard one of the URC Instructor said, "As it is essential to know science for better life, the science training will help a teacher to give something great to the students. Science teaching is not about lecture methods, it is also a matter of art, logic and techniques. So, it is much necessary for each teacher. (Interview #01)." Here contents of the subject based science training helps teachers to become more skillful in science teaching. In this regard one of URC Instructors said, "Actually the subject based science training contains the basic knowledge of science. The areas of basic science are environmental matters, air, water, soil, natural phenomena, technologies, health and food linked lesson plan, assessment, materials development and use, demo class and different type of teaching techniques and these would help the teacher to take classes and also to develop teaching skills. (Interview #06)."

So, after all these opinions, it was also visited the classroom and observed the classes of a trained and non-trained govt. school teacher very carefully. And it found that a trained teacher has maintained some plans before entering the class. He used teaching aids and lessons plan. Not only that a trained teacher has skills of maintaining the class using teaching learning methodologies. The trained teachers were much attentive in the teaching learning process. Their use of language, techniques of classroom management and activities of joyful learning were noticeable. Again taking with some students of the trained teachers I have found that they were much satisfied after the class (Class observation #01). During the classroom observation, I found that students are learning in joyful environment and sharing their knowledge with each other.

On the other hand, I found a non-trained teacher. But the non-trained teachers were struggling in the class as they were conventional teaching styles. Distinguishing between the two types of students, I found that the students of the trained teachers were more attentive in the class rather than the non-trained teachers. I also talked to some students of the non-trained teachers and the students said that their teachers try hard to help but they don't understand the way of teaching of the non-trained teachers. (Class observation #02).

Stakeholders Views about Implementing the subject based Science Training:(Instructor, AEUO, Head Teachers and assistant teachers)

Teacher's views about implementing the subject based Science Training I took the interviews of the teachers of the schools to talk about implementing the science training knowledge in the classroom; they all highly appreciated the fact of implementing the knowledge of the science training in the classroom. One assistant teacher said, "A science teacher should have several competencies to successfully lead a class. A science teacher should be able to motivate students, engage them in science teaching, and deliver great content knowledge in classroom effectively. A competent science teacher has an ability to guide a student such a way that the student becomes very much driven to learn science and scientific values. A science teacher also encourages the students to work without the fear of failure. (Interview # 02)."

There are some Teachers' Guide books in the school, such as teacher's guide, teacher's edition, teaching package, curriculum along with text book which are published by the NCTB. Teachers get important instruction from Science training for talking preparation for specific lesson. Selection of appropriate science teaching learning process for achieving specific learning outcomes is very helpful for teacher. One of teacher said about this, "I conduct my science class with getting preparation by making proper lesson plan that are directly related to that content. I use various types of materials in my science class such as charts, model, globe, real non-living objects, leaves, seeds that are available in surroundings. I prepare some lesson plane in the school, materials in the school, some I collect form home and some are collected from the students. For example, rice seeds are collected from home. I use learning materials that are related to the content. For example, a toy car is used to show the use of mechanical energy. Chips are used as TLM (Teaching learning materials) when I conduct a class of junk food. Textbook is also various colorful pictures are arranged according to the content there. So I

got all these ideas from a science training and I applied different techniques and own original ideas in my science teaching. (Interview # 01).” This data shows that trained teachers used different activities in science teaching and develop teacher’s science classroom teaching.

Head Teachers’ Views about Implementing the Science Training

Head teachers always provided feedback to assistant teachers for teaching learning process, one of the Head teachers said in this regard, “a trained teacher performs very effectively and efficiently in a class. Because of the training they know many strategies for teaching science and they can create their own strategies at times. They are more time conscious, efficient and they are able to engage students in science learning. So, I can say their performances have definitely increased. (Interview # 06).”

Another Head teacher said, “There are some teacher uses in their techniques. Some teacher is applying different technique and methodologies and activities. Some teachers can not apply their methods as there are not enough resources in the school (Interview#12).” Head teachers mostly were found to be ignorant about implementing science training and curriculum. One of the head teachers expressed his views about implementing, “science training and curriculums as competency based is related to science curriculum but in this moment I cannot recall it elaborately. (Interview # 03)” Another Head teacher said in this regard that, “science curriculum is a full mirror of education, we teach the students according to curriculum for gaining primary terminal competency. (Interview # 04).” This data shows that the head teachers also have not poses sound knowledge about implementing science curriculum although they received science training and curriculum dissemination training.

AUEOs Views about Implementing the Science Training

AUEO expressed his views in this regard, “the teachers having the training are more skillful then those who don’t have the training. They don’t perform as per need of the classroom and the result becomes measurable. (Interview # 02)”. AUEO also told, “The subject based science training is a training process which contains the basic knowledge of science. The areas of basic science are environmental matters, air, water, soil, natural phenomena, technologies, health and food. (Interview #04,” Again AUEOs mentioned, “For enhancing science teacher’s activities, it is necessary to increase the number of activity in the science training. If the newly joined science teacher practices the activities more in the training, then they will be able to implement it in the classroom. (Interview #03)” AUEO is a supervisor and administrative officer in cluster. So his views about implementing the science teach and science curriculum is most important. AUEOS said, “as far as I know science curriculum is related to content but at the moment I cannot describe it details and no explained science terminal competency. (Interview # 09)”

URC Instructors Views about Implementing the Science Training

URC Instructors are mainly responsible to arrange subject based training in URC according to the direction of higher authority. Instructor’s views reflected that URC can fulfill the demand of teachers providing training and funding is needed every year for making it possible. One URC Instructor interviewed and his opinion was, “although there is no training program of science subject in this year. Previous period I motivated the teachers in science subject and gave instructions to different activities such as group work, pair work, doing by learning, project method, visited the outgoing and handmade materials. I fulfill the demand of a science teacher in this way. Science activities based teach help the teachers as well as student. So each school should have applied different activities in science class properly. (Interview # 05).”

Problems and Challenges Implementing Science Teachers

DPE training related officers when they made this subject based science training they faced different types of challenges. AUEOs understand problems in a particular school easily because he visits schools regularly in his cluster. AUEOs observation reflects that lack of motivation and teachers have to prepare some lesson plane in science teaching AUEOs reflection in this regard is that, “there are numerous problems in science teaching in government primary schools. One AUEO interviewed and expresses that shortage of time in school for preparing for the class, class time duration, teachers feeling comfort in using traditional method, teacher’s lack of interest in teaching class, large number of students in the class, teacher’s duty, opportunity and financial problem, proper monitoring and supervision are some of the barriers in science teaching. (Interview # 10)” An AUEO commented on this topic, “Taking about the improvement, I would mention that govt. should pay more attention to the training institutions. These institutions should be improved and updated and greater number of compulsory training should be included. (Interview # 13)” Again, another important challenge in this matter is the shortage of training time. Teachers didn’t get enough time to practice what they learned. Almost everyone admitted the importance of practicing and complained about the shortage of time. Training period was 6 days which apparently was not enough. About that an instructor said, “The science teacher receives 6 days subject based training from URC. This training time is very short. I think that it is needed to increase from 6 days to

twenty days this training time. (Interview # 14)” An assistant teacher pointed two things, “There were two things that I could point out. Firstly, they could improve the quality of training manuals, keep it updated. Secondly, the training should be 10 days long, so teachers could get the scope of practicing. (Interview # 14)” Now, from this comment we got another reference to a problem which is the modernization of the training materials. The teachers that we interviewed all suggested in favor of the updating of the training manual. Last problem that was found is regarding the implementation of the training in the classrooms. In many cases, teachers had difficulties with the implementation. A head teacher told that, “Teachers should be provided with more equipment and time to successfully apply new techniques in science teaching. Class size and shortage of time, huge Syllabus are also some great problem that we must address now. (Interview # 12)” When an URC Instructor visited schools he can realize the problem in sciences teaching. Instructors said, “Time management, lack of raw materiel’s financial problem, teacher’s quality lack of student motivation and lack of science skill knowledge are constraints in science teaching in GPS. (Interview # 06)” instructor also said, “it is hard for a teacher to manage time for science teaching in 35 minutes’ class duration time lack of economic support no science library in a particular school, are some of the problems in doing by learning in the classroom teaching. In some cases, teachers are not so skilled for knowledge science. (Interview # 07)”

XIII. Discussion

In the Primary Education system, the increasing rate of primary teachers training institutes and the rate of the courses provide by the URCs and training institute is not enough. The classroom and materials used in the classroom is also not that high class. So, the teachers and trainers both feel uncomfortable and unsatisfied. Another observation it must include is about the circumstances of the classroom. It is also not always perfect for the teachers to implement their studies and experience. The govt. doesn’t pay a good attention to this subject based training sectors. That’s why the total process still remains conventional.

From this observation another thing it was found about the motivation of the teachers and teachers’ training. As they got recruitment without knowing the education system, it’s terms and problems so they don’t find any good reason of getting trained. And the result of that lack of motivation, the teachers neither in the training nor in the classroom give their hundred percent to the training and implementation. In this paper it included all of the possible problems, causes and reasons of failing of primary subject based training implementation.

In this study it was found why the subject based teachers’ training is essential; It also included the sessions topics, time in the context of need based sub cluster training. That’s what my resulting data might show to the readers. In a research paper we looked for two main things. One is about the purpose and other one is finding of the study and observations. The result is important because this shows the findings of the research. Like as, here our purpose of the study was about finding the current status and problems of subject based teachers’ training in Bangladesh. And from every phase of this result, we can get the idea of the teachers’ training institutes and the teachers’ awareness about the training. Not only that we also found what problems do the teachers face when they get into the training and what are the barriers of implementing the training. Without knowing the result, the final step of the research the policy makers will not able to take efficient activities to prevent the current situation of the subject based science teachers’ training. When we want to solve any kind of problem in education system, we have to go to the field and research on the specific topic. Then analyzing the result, we will get the findings to make change in that particular educational field. Here this paper is going to show how each portions of the result will help the policy maker to recover the educational issues. Starting with the research statement, in this paper we can found the detail about research statement. In the result section, we have also seen that the current status of the teachers training for subject based primary education. Here the govt. or the policy makers will able to know the current condition of the subject based training and they can easily think how it should be. The next thing the result portion mentioned about the research problem. To solve any issues in the educational field, we have to know the research problems in details. Like as, the factors related to the subject based primary teachers’ training are: training institute, training methods, motivation of the teachers, condition of the training institutes, perfection of the training sessions, the implementation problem and the cause of failing, project related to this study and failing to develop this study and so on.

This study also mentioned each of these problems in detail for the readers so that they can easily understand the situation and the authority can take positive decisions to deal with these issues. In example, the number of teachers’ training college and the number of trainings arrange in each year is not sufficient to cover all the teachers available for get the training and this paper has shown the raise of teachers’ number in graph in the contrast to the PTIs. Here we can also see all the training length and what has included in those sessions. So the authority can easily find the way of changing the current picture of the primary teachers’ training. Before starting the result, I expected something from the research participants as well as from the result of the research. My first expectation was about the number of training sessions for each teacher’s in professional career. I

thought they would get more than one chance to refresh them in their teaching career. But the reality wasn't that. All teachers from govt. and non govt. sectors don't get the training for the insufficiency of the training.

Another thing is it was expected the teachers do implement the experience of the training in the classes but unfortunately that is seen quite often. The teachers barely complete the classes using the teaching methods, teaching aids or lesson plans. While observing the classroom it saw that the teachers mostly use the lecture method and other conventional methods. But what it expected they would make the classroom an art of science teaching leaning. But my expectation wasn't fulfilled. It should also mention that it expected the teacher would be highly motivated to take the training sessions but it is harsh truth that most of them even don't have little motivation for working in the teachers training session. The knowledge of the teachers and the head teachers about the teachers training was quite unclear. So they just go to the training as it is mandatory. The classroom management for the teachers training and teaching learning process is not up to the expectation. Moreover, it was expecting the teacher highly motivated to the training. As they we're not at this level, the outcome was not that fruitful. The only thing I was expecting though it was negative and it is the insufficiency of the number of teachers' training institutes. The teachers training organizations were not able to cover up the needs of the teachers of both govt. and non govt. school teachers. They overall scenario of the expectation was unfulfilled to the context of the primary teachers training of science subject. It visited so many school before I went to the field of the research and from my personal experience, it was sure that the teachers' training has some gap to be addressed. And when I started doing research on the fact it found the same thing it had in our mind. The first thing is about the teachers' expectation and priority to the training. The teachers don't have any expectation from the training and it is in the most of the case. As the whole process goes through a conventional way so the teaching learning process don't get the real charm of it. Interviewing the teachers, it was found that they don't have a lot idea about the difference between the science subject training and others subject training. The result can be seen when they start taking classes. They use the same processes in the science classes what they used in the other subject like social science and language.

Each year the Government announces a huge budget for the education system and educational institutions. So, it thought the teachers training institute are much developed. But it was bitter truth for us when it came across the field of teachers training that the URCs have not improved as the situation demands.

Other part of the assumption was about the training sessions. As the training is insufficient so the teachers can't use the experience. It also thought that the teachers do get refreshment sessions for reviewing their knowledge about the training and they would have the opportunities to share the idea about their condition and problems in the classroom. But refreshing course after a short period of time was unavailable. The need based sub cluster training was not filling the need of all the teachers. So, my assumption was not true.

In our country, less research has been organized about the subject based science training. I found one the assignment point (a study on primary school teachers training in Bangladesh) web page about subject based training in the primary school.

First of all, the point is "Role of training in the primary education improvement". I directly mentioned the importance of the training to develop the total education system and the research related to this field in the assignment point has also mentioned the same result like us.

Secondly, mentioned points were the sufficiency of training facilities and in this point both the result from two studies were same. In the point of differences between trained and non-trained teachers the results from the both studies were same. The trained teachers are better than the non-trained teachers.

Next point is evaluation system of the training is not that good. But the point where our results were not the same is "Implementation of the training in the classroom".

While comparing with the other study in the same field I have got an unexpected data that the teachers do implement their training knowledge in their classroom. But it was not agreeing with the paper of assignment point (a study on primary school teachers training in Bangladesh).

But it thinks there should be more research on the topic about the "lacks of motivation in the training for the teachers of primary school."

XIV. Conclusion:

Primary education is the root of an education system. It also is the foundation of an education system. Whatever the student will learn in future and build their expertise on will be founded on the primary education. If the primary education is not good enough students will have a hard time learning further and building their expertise in any field. So, we need a strong primary education because if we want to build a better human resource we will need better primary education. We have a problem of drop out in primary sector. So, we need to have a better

primary education so that if students drop out for any reason the motivation and knowledge to study in non-formal way.

As we have discussed in this paper, teachers training in primary education in Bangladesh will have a much greater influence in primary education than anything else and subject based training is a very effective way of enhancing teachers' capacity in primary education. The purpose of this study was to know the current state of subject based science training. The current status in primary sector in our country is not very suitable. Many teachers do not have the content or pedagogical knowledge. This is the result of poorly done training. Subject based science training is an initiative taken by the PEDP-1 and now is continued by PTIs and URC. Yet trainees in PTIs and URCs are not satisfied with the training.

From this study we have learned that subject based training is given its importance as we as a nation feel the need to cope up with the modern scientific era and the teachers in primary schools often fail to provide quality science education. We have also learned from the interview sessions with AUEOs, URC instructors, and head teachers that the teachers in science training are more students centric. From the interview we came to know that teachers really appreciate science training and they think that trained teachers can promote different competencies among students. From this study, we have learnt about the problems of subject based training. As the PTIs and URCs are not enough and there are tight schedules for training, teachers do not get enough time for training. Sub-cluster training cannot fulfill the lacking of subject based training. MPO, NGO- run primary schools do not get these subject based training. There is a shortage of trainers in both PTIs and URCs. Trainers do not have enough teaching tools and equipment.

This study asked about the implementation in the classrooms. Teachers can not apply the training knowledge for excessive number of students and student density. Problems with class management and scarcity of tools are also prevailing.

The purpose of this study was to know the current status of subject based training and implement of the training in the classroom. From the above mentioned points we can say the study has achieved its purpose.

Primary education is very important for a nation. Student's future depends on this education system. Primary education works as a foundation of the future education of a child. For that, there should be a standard in primary education. If we want a quality primary education, we cannot deny the great importance of good teachers. Good and capable teachers are able to provide good quality education. In Bangladesh, for the lack of good teachers, students are suffering to a great extent. Students in our country often drop out of school. They cannot have education past primary level. Which is why, Bangladesh needs a strong primary level education to build a better human resource. If students have a quality primary education, they will be encouraged to take further, higher education. Again, the solution to this problem is having competent teachers in primary level. One of the most effective ways of making good teachers is providing teachers training. In this study, one of the trainings called subject based science training is discussed and this study investigated the current situation of subject based training in Bangladesh and this study also tried to learn about the classroom implementation of the training knowledge and its effectiveness. So for developing the competent teachers Subject-based Science training should be strengthened. What this study found out that the current status of subject based training on science subjects is not good enough. There are several problems regarding this training. This study informs that subject based training started by the PEDP-1. Then PTI continued this training. The main objective of this training is to build better content knowledge that many primary school teachers lack. But, the number of PTI is much fewer than the number of teachers; therefore, PTIs cannot accommodate many teachers at a time. There is a tight schedule for the training and trainers do not get enough time to train all the trainees properly. The days fixed for subject based training are not enough for teachers to get a good amount of training. They have almost no time to practice what they learn. So quality of the subject based training should be improved revising the training modules and so on. There are not enough trainers in PTIs or URCs and for that existing trainers find it difficult to train all these teachers. PTI instructors and URC officials do not have the access to quality teaching aid. The scarcity of teaching aids sometimes hampers the training process as traditional lecture method is not always very helpful, especially in the matter of practical science lessons.

Trainers have to stick to a teaching method that they often time discourage. So the trainer's numbers need to be increased. This is a summary of the current condition of subject based science training in Bangladesh. Then comes another question that is also asked and investigated in this study. The issue is the

implementation of the subject based science training in classroom. What this study found out is that teachers can not apply the training they got in subject based training on science. There are various reasons to that. One reason is the excessive number of students in classrooms. The student density and student to teacher ratio is not quite suitable for applying the subject based training. As often the teachers learn about demonstration and other ways of effective science teaching method, they find it difficult to apply the knowledge in an overcrowded classroom. There are also some problems with classroom management also as it is very difficult to handle massive number of students. Another important issue is that is a big impediment to applying the training in classroom is scarcity of tools. Teachers often do not get access to various tools that would help them to a great extent. These are the problems with implementation.

XV. Recommendations

There are several recommendations that can be presented for improving or solving the problems mentioned above. The recommendations are given below.

- ❖ The number of PTIs can be increased. That would enable trainers to train more teachers in a short period of time.
- ❖ The number of trainers can be increased both in PTIs and URCs which may improve the situation.
- ❖ PTIs and URCs should be provided enough tools and classrooms so that more trainees can be accommodated and trained.
- ❖ Policy makers should think about training the new teachers as quickly as possible and initiate refresher training so that teachers can update their knowledge and be more effective.
- ❖ Policy makers should also start training on the subject that a teacher has interest in. This would help teachers be more effective in those subjects as they are already motivated and interested in those subjects.
- ❖ The duration of the training should be lengthened as trainees do not get enough time to do their desired amount of training in short period of time.
- ❖ The use of existing tools and resources in subject based training should be increased.
- ❖ For better implementation in classrooms, student density should be decreased. This will also help with the classroom management.
- ❖ Teachers should be provided with tools and teaching aids so that they can apply their content knowledge properly.
- ❖ Teachers are reluctant in the matter of training which a barrier for training. More research can be done about their lack of motivation.
- ❖ More research can be done on the implementation of the subject based training in the classroom.

References:

- [1]. Bangladesh Shiksha Commission. (1974). Bangladesh Shiksha Commission Report. Dhaka: Bangladesh Shiksha Commission. a study on primary school teachers training in bangladesh. (n.d.). Retrieved 2018, from assignment point: <http://www.assignmentpoint.com/arts/english/study-primary-school-teachers-training-bangladesh.html>
- [2]. Boudersa, N. (2016). The Importance of Teachers' Training and Professional Development Programs in the Algerian Educational Context: Toward Informed and Effective Teaching Practices. MINISTERE DE L'ENSEIGNEMENT SUPERIEUR ET DE LA RECHERCHE SCIENTIFIQUE, 7.
- [3]. Boudersa, N. (2016). The Importance of Teachers Training and professional Programs in Algerian Educational Context: Toward Informed and Effective Education Process. MINISTERE DE L'ENSEIGNEMENT SUPERIEUR ET DE LA RECHERCHE SCIENTIFIQUE, 10.
- [4]. Education, N. A. (2009). Study on the Impact of Subject-Based Training (held at URC) to Enhance the Quality of Teaching Learning at Primary School, VOLUME I: REPORT, National Academy for Primary Education (NAPE). Mymensingh: NAPE.
- [5]. Linköping University. (n.d.). Retrieved from <https://liu.se/en/research-area/subject-based-teaching-and-learning>
- [6]. OCED. (1998). Staying Ahead In-service Training and Teacher Professional Development: In-service Training and Teacher Professional Development. OCED Publishing.
- [7]. OCED. (2012). Teachers' Pedagogical Knowledge and the Teaching Profession: Background Report and project Objectives. OCED publishing.
- [8]. PSC, Ebtedayee exams begin. (2017, November 19). Retrieved from Dhaka Tribune: <https://www.dhakatribune.com/bangladesh/education/2017/11/19/psc-ebtedayee-exams-begin>
- [9]. R.A, L. (2006). Learning Science and Science of Learning

- [10]. Bangladesh Shikkha Commission. (1974). Bangladesh Shikkha Commission Report. Dhaka: Bangladesh Shikkha Commission. A study on primary school teachers training in Bangladesh. (n.d.). Retrieved 2018, from assingment point: <http://www.assignmentpoint.com/arts/english/study-primary-school-teachers-training-bangladesh.html>

