Teacher Training Program through Distance Education in Bangladesh Open University: The Challenges of Using ICT

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Abstract

Bangladesh Open University is the only public university in the country that imparts education in an open and distance mode. Since the establishment of this university in 1992, it has been providing teacher education and training throughout Bangladesh. Teaching is one of the most challenging professions today in Bangladesh where knowledge is expanding rapidly and modern technologies are attracting teachers to learn how to use these technologies in their teaching. Hence, the demand of teacher training is increasing day by day. Since teacher training program is an important issue in Bangladesh, it could be done through distance education using Information and Communication Technology (ICT). The present study attempts to find out the challenges of using ICT in teacher training program and provides a possible solution to it. A mixed-method approach was adopted by using a questionnaire, observation and semi-structured interviews with the faculty members of BOU. The findings show that, when teacher training program integrates ICT, it encounters a challenging operational environment – curriculum, skilled people, and infrastructures of the university, limitation of time and cost of the program.

Keywords: Information and Communication Technology; Bangladesh Open University; Distance education; teacher training program

Introduction

Information and Communication Technology (ICT) is not a solution for all educational problems in Bangladesh, but it plays an important role in the teaching and learning processes. To effectively use the different types of ICTs, teachers require facilities to apply them through training, timely support and opportunity to experiment. Only then can teachers be informed and developed with confidence in their use of new technologies (Bowes, 2003; Jung, 2005).
Today, teaching is becoming one of the most difficult jobs in nations, where knowledge is rapidly expanding and it is available to both students and teachers at the same time (Perraton, Robinson & Creed, 2001; Jung, 2005). With the introduction of new ideas in learning and teaching, teachers are believed to facilitate learning and make it meaningful to particular learners rather than just to provide knowledge and skills. Modern developments of new technologies have provided new opportunities to teaching professions, but at the same time have placed more demands on teachers to learn how to use these new technologies in their teaching (Robinson & Latchem, 2003; Jung, 2005). These new challenges demand continuous training for the teachers to achieve new ideas, skills and knowledge during the time of their jobs (Carlson & Gadio, 2002). In order to overcome the challenges in the new era, teachers need to update their knowledge and skills as the curriculum and technologies change, and it has become imperative to know the application of information and communication technology tools in educating. However, it is to be remembered that, ICT can promote international collaboration and networking in education and professional development, but it cannot replace a teacher. It can only be used as a supplement tool in teaching learning process, thereby enriching the learning environment. When new technology emerges, teachers in-charge are expected to adopt and use it. But the combination of new technologies in teacher training program in distance education has become a very difficult task in Bangladesh for both pre-service and in-service teacher training. In Bangladesh, Bangladesh Open University (BOU) is the only university which offers teacher training program in distance mode using technology. ICT has become integral part of today’s teaching learning process. ICTs are being used in facilitating information dissemination and communication in all areas of education and training. Bangladesh dreams to become “Digital Bangladesh” and it is only possible by adopting technology in all the sectors of the country including teacher education or teacher training. New technologies provide new opportunities for education and teacher training. If the technologies are used successfully, then the goal of the country will be fulfilled. Hence, it is shown that the use of ICT is not only a matter of new possibilities, but it also brings new challenges towards the success of the program. Hence, the present study has identified the challenges of using ICT in teacher training program through distance education at Bangladesh Open University.

Review of Literature

The delivery system of teaching and learning has changed today with the expansion of technology. Therefore, we must change with it. New technologies open a new avenue for teacher education or teacher training as they enhance learning and teaching facilities. The teachers do not possess adequate knowledge to supplement the view of the students and the main source of knowledge remains limited to textbook. However, the development of ICT changes the epicenter of knowledge because; most of the teachers lack the ICT – based knowledge. If the teachers are trained in using
different types of ICTs and the institutes that ensure ICT oriented infrastructures, the program will be successful in distance education. Following literature review provides a theoretical and a conceptual framework on two different headings-ICT-based teacher training program and Technology based Distance Education.

Teacher training essentially concerns knowledge of the topic to be taught and of methodology for teaching it (Head and Taylor, 1997). However, teacher training can narrowly be differentiated from teacher development, as the former is a compulsory, short term, one-off, competency based component of teacher education, and the latter a voluntary, long term, ongoing, holistic component. Teacher training is skill, technique and knowledge based which can be a means to get a job. On the other hand, teacher development is awareness based, aiming towards personal growth and the development of attitudes, insights that can be a means to stay interested in one’s job. It is essential to see training and development as two complementary components of a full rounded teacher education (Head & Taylor, 1997). According to Hoque and Khan (2001) “Teacher training is related to the needs of the course and aims at transmission of knowledge and skills. In other words, it is concerned with knowledge of the topic to be taught. Teacher training program (in service and pre service) are courses which focus on classroom skills and techniques and have a fixed agenda (e.g. the training will cover units of teaching and learning) and are related to outcomes. Richards (1998) puts forward the distinction between in-service program (teacher training) and pre-service program (teacher education) with the terms ‘macro’ and ‘micro’ as approaches to teacher preparation. By ‘micro’ he means techniques – what teachers actually do that is directly observable and quantifiable (amount of teacher talk, questioning techniques, types of classroom tasks and the like). By ‘macro’ he means a ‘holistic’ approach that is focused on ‘the total context of classroom teaching and learning in an attempt to understand how the interaction between and among teachers, learners and classroom tasks affect learning. In other words, a macro approach is concerned with a teacher’s ability to make judgments and inferences to explore the relationship between different types of activities and their effect on learning. It is both exploratory and generative. He further suggests that the teacher should be familiar with both kinds of approaches. Hoque & khan (2001) identify two components of teacher training: theory of teaching and teaching practice. They claim that the theory of teaching includes mainly study of the methods and principles of teaching (i.e. how and on the basis of what good teaching can be given). This part of the training usually takes place at a training institute, where the trainees work with the trainer. The teaching practice, on the other hand, takes place in a school where the trainee teacher applies, i.e. practices, the teaching methods and skills. But the inclusion of ICT in the teacher training program can bring a qualitative change in distance education. Shukla (2008) points out that ‘Integrating ICT in teacher training program is a necessity and not a luxury. ICT involves the use of different types of hardware and software systems; for creating, storing, retrieving,
processing, communication, diffusing, assessing and sharing of useful information for decision making in an optimised and organised way for eventual success of an institution. He also mentions that ICT is a tool for presentation and communication, bringing teacher, students and trainee teachers on a common bench for effective exchange of views, presentation of ideas and feedback. Thus, technology is not just machines and assemblies, but an extension of human abilities, competencies and skills in using machines to get information by overcoming barriers of time, space, expenses and efforts. It helps the teacher to learn by exploring more and more opportunities through various exposures of ICTs which open new avenues for teacher training program in distance education.

However, Swarts (2008) remarked the need for teachers to be appropriately and adequately trained through pre-service and in-service teacher education programs to teach ICT Literacy. She also pointed out that access to ongoing and appropriate ICT professional development is a prerequisite for all teachers, if they are to improve their confidence and competence in using ICT to meet the needs of all their students. Pelgrum and Law (2003) believe that teacher training, and in particular initial teacher training needs to undergo changes to prepare teachers for the challenges of the information age. Bhatta (2008) considers that effective teacher preparation in ICT-based education requires adequate training in three areas: (a) Information technology literacy; (b) Student-centric interactive teaching; and (c) Integration of ICT-based instruction in student-centric interactive teaching. She further stressed that the most straightforward task is making teachers IT literate, with the greatest challenge lying in the area of ICT integration. Thus, teacher training is often the most critical component of any ICT project. The technology based distance education is a planned learning experience or method of instruction characterized by quasi-permanent separation of the instructor and learner. Within a distance education system, information and communication are exchanged through print or electronic communications media (Keegan, 1980). Distance education is also a broad approach characterized by a high degree of variation. Such variation includes the types of media or technology used (print, radio, computer); the nature of learning (workshop, seminar, degree program, supplement to traditional classroom, levels of support); institutional settings; levels of interactivity support (face-to-face, online, blended, none) and topics addressed (Fillip, 2001). In the context of teacher training, distance learning has more than one aim and audience. It has been used as a pre-service teacher preparation method with teacher-candidates and in-service to fulfill a mandate to upgrade the knowledge, skills, and qualifications of an existing teaching force. Moreover in developed countries distance education, mainly in the form of Web-based education, serves as a vehicle for continuing education, offering enrichment, enhancement to the aspirated teachers but these facilities are not available in Bangladesh. Unlike other forms of training, instruction, and professional development, distance education is inexorably linked to its mode of delivery (Commonwealth of Learning, 2008). Because of the rapid
evolution of delivery modes, distance education experts (Commonwealth of Learning, 2008; Taylor, 1995) often speak of “generations” of distance education models, such as print, multimedia, and Web-based delivery systems. Unfortunately, this term suffers from two weaknesses. First, “generation” implies a linearity and heredity that do not necessarily exist between types of distance education technologies. For example, print and Interactive Radio Instruction (IRI) has been used simultaneously, not merely sequentially, as teacher training media. Nor did print “beget” IRI. Next, the proliferation of new electronic delivery methods, particularly the Internet, and the convergence of different types of media and platforms blur the neat distinctions between generations. For example, a Web-based distance education system may employ print, audio, video, multimedia, and broadcast elements. Distance education approaches, even largely print-based ones, often use other secondary technologies, such as radio and audio, that are at least as powerful, if not more so, for teacher learning than the primary model.

Table 1: Models of Distance Education, (Burns, 2011) with example are provided below:

<table>
<thead>
<tr>
<th>Types of Distance Education</th>
<th>Examples</th>
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<tbody>
<tr>
<td>Correspondence model</td>
<td>Print</td>
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<tr>
<td>Audio-based models</td>
<td>• Broadcast: IRI</td>
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<td></td>
<td>• Narrowcast: IAI (via audio tape or CDs)</td>
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<td></td>
<td>• Two-way radio</td>
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<td></td>
<td>• Audio conferencing and telephone</td>
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<td></td>
<td>• Broadcast radio</td>
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<tr>
<td>Televisual models</td>
<td>• Broadcast television (educational and instructional)</td>
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<tr>
<td></td>
<td>• Video conferencing</td>
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<td></td>
<td>• Video</td>
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<tr>
<td>Computer-based multi-media</td>
<td>• Interactive video (disc and tape)</td>
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<tr>
<td>models</td>
<td>• CD-ROMs</td>
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<td></td>
<td>• Digital videodiscs (DVDs/VCDs)</td>
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<td></td>
<td>• Interactive multimedia</td>
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<td>Web-based models</td>
<td>• Computer-mediated communication</td>
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<tr>
<td></td>
<td>• Internet-based access to World Wide Web resources</td>
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<tr>
<td></td>
<td>• Online courses (e-learning)</td>
</tr>
<tr>
<td></td>
<td>• Online conferences (webcasts and webinars)</td>
</tr>
<tr>
<td></td>
<td>• Virtual classes/schools (cyber schools) and universities</td>
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<tr>
<td>Mobile models</td>
<td>• Hand-held devices</td>
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<tr>
<td></td>
<td>• Portable media players (podcasting)</td>
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<tr>
<td></td>
<td>• Cell phones and smart phones</td>
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<td></td>
<td>• Tablets</td>
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<td>• E-readers</td>
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These models of distance education have been used throughout the world. But BOU mainly depends on correspondence model. The main technologies used for distance education in Bangladesh Open University (BOU) are print, radio, television, audio and video cassettes. Print is the dominant medium. Apart from these, face-to-face session is another important medium used at BOU (BOU, n.d.).

The delivery system of the university is mainly one-way, and back-up largely depends on human interaction. The university has yet to set up a national satellite-based communication network system, which may allow audio and video teleconferencing in selected area although there is already limited internet access and email facilities on the main campus. Since the distance mode was perceived as being single-way communication with less facility for physical interaction for supervised learning towards skills and attitude development, it was felt essential to adopt advanced communication technologies giving adequate opportunities for two-way human interaction to the distance education based teacher training program (Alam & Islam, 2008).

Schifter (2002) mention that the following issues have been noted among teachers for teaching in technology enabled distance education: insufficient training, lack of applicability toward promotion and tenure, lack of release time, insufficient instructional and administrative support, minimal monetary compensation, and an expanded teaching load. Betts (1998) found that the following factors motivated the teachers to participate in technology enabled distance education, (a) Ability to reach new audiences that cannot attend classes on campus; (b) Opportunity to develop new ideas; (c) Personal motivation to use technology; (d) Intellectual challenge; and (e) Overall job satisfaction.

In case of distance learning, the role of teacher shifts from teaching to that of a facilitator or mentor (Clay, 1999). As a result, there is need for lot of communication through the medium of technology. However, not all the teachers are comfortable with the use of technology for communication and hence, may find it a barrier to conducting classes. Often, faculty perceive that additional investment of time and effort in understanding the application of technology in the classroom gives them little or no return in terms of support, recognition, or compensation (Clay, 1999). The success of any institutional distance program depends on the attitudes of teachers, understanding and addressing these issues which concern distance teachers is a significant priority for distance administrators. Galusha (1997) and Clay (1999) mention that it is not only to provide support services, but also to give training to the teachers on how to use the technology as well as the support services effectively during the distance education course. Similarly, they need motivation, administrative support as well as formal and informal recognition along with the stipends and the financial incentives. Bhusna (2006) explores the teacher’s perceptions of technology,
especially with regard to the teaching and learning objectives, appropriateness, flexibility, interactivity, ease of use, etc. in higher learning situations. She has also examined how teachers use a two way audio and one way video teleconferencing technology in relation to their teaching – learning practices. She states that studies have found that majority of the teachers are positively predisposed to the use of teleconferencing for education. In her research, she found that the teachers did not find the technology flexible enough to change their teaching. The teachers reported lack of learner feedback, technical staff not giving free hand to the teachers, lack of positive approach and lack of institutional infrastructures. Hence, providing training, workshops, technical and other forms of institutional support may be important for the successful teacher training program in distance education (Tabata et al, 2008).

**Methodology**

The main purpose of this study is to examine the challenges of using ICT in teacher training program through distance education at Bangladesh Open University. To achieve this purpose, a mixed -method approach is adopted by using a questionnaire, observation and semi- structured interview with school faculty.

In order to get the real picture about the use of ICT and teacher training program, twenty five teachers of three different schools of Bangladesh Open University were selected to answer. Their maximum qualification is PhD holder and a minimum of master degree holder. The study was conducted on a 6-item questionnaire. Among the items, only one part is open-ended and the rest are close-ended parts. All items of the questionnaire are related to ICT and teacher training program at BOU. In order to focus the particular issue, interview was held on the first five items of the questionnaire. There were specific questions before hand at the time of interview, but at the same time, it allowed some explanation in the questions and answers. From the selected questions the researcher generated many other follow-up questions. This helped the researcher to explore detail information on the prevalent problems the university has faced in implementing ICT in teacher training program. It also allowed the interviewees to give free responses. Nine teachers identified as T1, T2, T3 … T9 from three different schools of BOU, who filled out the questionnaire form, were selected for interview. Here T1 is used for identifying first teacher, T2 for second teacher, T3 for third teacher and as such it goes till nine.

The researcher involved in the observation at the tutorial classes of BOU. This observation was done to cross check whether the problems mentioned by the teachers existed or not.
Data Analysis, Results and Discussion

Figure 1: ICT-based Curriculum

Curriculum is one of the main aspects of any teacher training program. In order to enhance teaching capacity, ICT plays an important role. When the teachers of BOU were asked whether the curriculum of teacher training program of BOU was ICT-based? Eighty percent (80%) of the teachers answered in negative. They felt that current teacher training curriculum was not appropriate for ICT-based teaching and only twenty percent (20%) teachers confirmed positively.
Bangladesh has the potential in increasing and improving the relevance and quality of education. But it largely depends on the infrastructure related to ICTs. Before introducing any ICT-based program, policymakers and planners consider the availability of the following infrastructure issue- room/building, electricity and telephone, computer/online based learning facility and internet service- these are equally applicable for teacher training program at BOU. The researcher has examined the availability of the above mentioned things through the questionnaire and the data showed that 95% teachers said there were no rooms but 5% teachers said in the affirmative. With regard to the availability of electricity and telephone, 80% of the teachers said in the affirmative and 20% teachers were in the negative. Another important factor in ICT-based teacher training program is computer/online–based learning facility; all the teachers responded that there is no computer/online–based learning facility in BOU. In case of availability of internet service at BOU, 20% teachers were positive and 80% were negative, meaning the present position of this university is not suitable for internet service to run the program successfully.
Figure 3: ICT Capacity Building

Improving the quality of education and training through competencies is a critical issue at BOU. Information and Communication Technology can enhance the quality of education in several ways, by increasing the competencies of teachers, education administrators, tutorial support specialists and content developers. The researcher examined the above mentioned issues at BOU context. Skilled teachers play an important role for making the program successful. But the data showed that 40% teachers were skilled in ICT-based teaching, so they answered in the affirmative and 60% of the teachers were in the negative. Hence, they had no knowledge about ICT-based teaching. Moreover, their skills are very limited for making audio/video program. Besides, leadership plays a key role in ICT integration in education in any institution. Teacher-initiated ICT projects have been undermined by lack of support from above. For ICT-integration programs to be effective and sustainable, the administrators themselves must be competent in the use of the technology; must have a broad understanding of the technical, curricular, administrative, financial and social dimensions of ICT in education. The data showed that 100% teachers were in the negative about the skill of education administration of BOU. So it is difficult to run
the ICT-based teaching and learning program, successfully. Hence, teachers agreed to the above view. Apart from this, tutorial support specialists and content developers are important issues in Bangladesh Open University. At BOU, education is reaching the unreached through audio/video programs and tutorial centers. In this context, tutorial support specialists play important roles for expanding teacher training program at BOU. If they practiced with ICT-oriented teaching, the teacher training program will be successful. The data reveals that there was no ICT-oriented tutors in the tutorial centers and 100% teachers were negative on it. Content development is a critical area in Bangladesh Open University. Most of the faculty members are not aware of developing content effectively based on ICT. In ICT-based teaching-learning there is need to develop original educational content (e.g. radio programs, interactive multimedia learning materials on DVD, CD-ROM or web-based courses etc.), adapt existing content and convert print-based content to digital media. To complete these tasks, content development specialist such as instructional designers, scriptwriters, audio/video production specialists, multimedia course authors and web developers are needed. Bangladesh Open University is rich with audio-video production specialists, but the concept of ICT-based content development is unclear to the teachers and administrations of BOU. As a result, only 20% of the teachers responded in the affirmative and 80% teachers were in the negative to the above item.

Figure 4: ICT-Language Related

![Bar chart showing ICT-Language Related](image)

Bangladesh Open University is the only public university in Bangladesh which provides teacher training to the people from primary to secondary level through distance education and the medium of instruction is almost Bangla. The data showed that 40% teachers were competent and 60% were incompetent in English language.
Poor English language proficiency and lack of confidence to speak in English are the main barriers for most of the teachers of this university. But English is the dominant language in ICT–based teaching (e.g. internet based teaching). An Estimated 80% of online content is in English. A large proportion of the educational software produced in the world market is in English. For developing countries in the Asia-Pacific region especially in Bangladesh where English language proficiency is not high, distinctly outside metropolitan areas, this represents a serious barrier towards the educational benefits of the world web.

**Figure 5: ICT- Cost Effective**

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<th>Cost</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Yes</td>
<td>a</td>
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<td>No</td>
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<table>
<thead>
<tr>
<th>Cost</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>20%</td>
</tr>
<tr>
<td>No</td>
<td>80%</td>
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“Is ICT-based teaching-learning cost effective at BOU? Responding to the above question 80% teachers of BOU answered in the negative, while 20% teachers answered in the affirmative. It means Bangladesh Open University is not in a position to bear the cost of ICT-based teaching – learning. However, the economic condition of the country is not good. This is one of the greatest challenges in ICT-supported teacher training program at BOU.

Six different teachers make different comments to the only open ended question such as: “Your comments on ICT-based teaching at BOU”. The frequent answers were ‘we are working to introduce ICT-based teaching’; ‘we should introduce ICT-based teaching’; ‘we are hopeful about ICT-based teaching but there are some limitations’; ‘we are working for introducing ICT-based tutoring system at BOU. Within a short
span of time BOU tutoring system will be based on ICT’; we have already virtual classrooms but it is not sufficient for ICT-based teaching at BOU’; we are slowly progressing to that way’.

**Summary of the Interviews and Observations**

The analysis of the interviews and observations of the study can be summarized under five heads, which are *levels of knowledge of curriculum integrating ICT, skills in ICT based teaching, facility of the English language, and cost for implementing ICT in teaching-learning.*

Teachers’ responses in the interview indicated that there were many impediments working against the implementation of ICT in teacher training program. One of them is curriculum. They all agreed that curriculum is an important factor in setting up goals of a program and this is the first attempt to fulfill educational objectives. If it is successfully implemented the result will come out positively. But the result of the study showed that the present BOU teacher training curriculum is not suitable for ICT based teaching and learning. T2 from the School of Education said “only one ICT-based course is offered to the B.Ed. students and the present course only contains the basics of ICTs such as definition/function of computer, e-learning internet etc.

Hence, the curriculum of teacher training syllabus of BOU is not complete for ICT – based teacher training program. Moreover, it does not fulfill the expectation of the trainee teachers. The participants emphasized during the interview the need of teacher training curriculum integrating ICT as the Government of Bangladesh declared the country “Digital Bangladesh”. To fulfill this target BOU authority should take necessary steps immediately.

In response to the *second question* which is related to the infrastructure of the university, almost all the teachers complained about room/ building and computer/online-based teaching and learning to be major challenges to promote ICT-based teaching and learning at BOU. They further said that the use of electricity, telephone, computer and internet is available at BOU main campus were rarely used for ICT based teacher training program. However, the internet and the telephone were not connected with BOU study centers of which, teaching is facilitated. Teachers of BOU used traditional techniques for developing different skills of the trainee-teachers. Therefore, all the teachers of BOU have shown their interest in ICT-based teaching and learning that may advance the program towards the success.

When the teachers were interviewed with the *third question* related to capacity, they said that almost all the teachers were ready to implement ICT-based teaching. They noted that they cannot do all the things related to the program. One of teachers (T5)
said “the program demands skilled teachers, education administrations, tutorial support specialists, content developers and many other things.” And there is no education administration and tutorial support specialist for the same. Moreover, content developers are not enough for the program. They further added that BOU used tutorial classes, print materials, audio/Video tapes and Radio-TV broadcasting of lectures for delivering its programs. It has wide network consisting of 12 Regional Resources Centers (RRCs), 80 Coordinating Offices (COs) and more than 1200 Tutorial Centers (TCs) throughout the country. BOU has a sophisticated media center with the facility of airing (BOU website). But tutorial classes were conducted by hired teachers from different institutions according to the programs (Alam & Islam, 2008) and tutors are not ICT oriented. Even the classrooms are not supported by ICT. They emphasized on their training. Teachers are optimistic to launch the successful teacher training program related to ICT.

The fourth question concerns language issue. The teachers remarked that the dominance of English as a central language in the internet or ICT-based teaching and learning is the most sought-after. At BOU teachers’ competency was not good. Improvement of English was an important issue for making the program successful. They said much training in English was required for faculties, in order to introduce ICT-supported teacher training program at BOU.

The fifth question involves the cost of ICT utilization at BOU. Every teacher admitted at the time of interview that finance is an important factor for ICT based Teaching. Most of the ICT-based programs in Bangladesh depend on donor money. If the donor money is not available or the donor agency does not fund the program, it will be difficult for the university as well for the country to continue the program successfully.

Discussion

It has been observed from the findings of the study that ICT based curriculum, infrastructure of the university, competent teachers including support staff and availability of finance are essential components for ICT-oriented teacher training program in distance education at Bangladesh Open University. Teachers are at the core of attempts to improve and reform the education systems of any country. quality education depends on quality teachers. So, proper training of teachers is central to the success of the program and teachers remain central to the achievement of a quality education process’ (Yates: 2001). Since teachers are the main resources of educational institutions, all possible steps should be taken to upgrade, update and refine their abilities (Farida & Nevin, 1999). In order to produce trained teachers, Bangladesh Open University (BOU) has launched different programs in different fields through three different schools: School of Education: Bachelor of Education (BEd), Certificate
in Education (CEd), and Master of Education (MEd), School of Social Sciences, Humanities and Languages: Bachelor in English Language Teaching (BELT) and School of Agriculture and Rural Development: Bachelor of Agricultural Education (BAgEd). In order to make all the programs successful, teacher should be made aware of the new technology, reinforced by a series of focused ‘try on hands’ workshops designed to provide the teacher with competencies necessary to independently operating equipment and maximally using teaching spaces. Trainee teachers should also experience innovative technology supported learning environments in their teacher training program. There are 12 regional resource centers in BOU but these are not under the computer network. However, it is expected that the situation will soon change as it will become more affordable and more popular. The university will then at some point be obliged to incorporate these technologies in course development delivery and back-up services. (Alam & Islam, 2008).

Conclusion

Teacher training is a remarkable issue in Bangladesh. So, BOU has contributed a lot through distance education using different types of ICTs. Recent research has shown that there are some limitations in teacher training program integrating ICT too. If donor agency comes forward to BOU, the use of ICT can catalyze the paradigmatic shift at all level of BOU including teacher training program. Recently, at BOU, the ICT-based infrastructure was initiated by KOICA to introduce ICT-based teacher training program and we hope to stay in touch with it. As a result, gradually Bangladesh will be able to produce a good number of trained teachers at primary and secondary level.

Recommendations

With latest innovations in computer and communication technology, the world has become a global village where information is readily available and accessible to everyone. BOU is trying to take the full advantage of the modern ICT to facilitate and support its students all over the country. But it has encountered some challenges. In order to overcome these challenges the following recommendations are provided:

1. Teachers should have positive attitude towards the use of ICT in teacher training program. In like manner, they should have a clear idea about teleconferencing, e-learning and online learning and it is mandatory for them to achieve a good command of the English language with proper training in the use of ICT at different levels.

2. In order to have effective implementation of the ICT in teacher training program, it is necessary to organize workshops, seminars and in-service trainings for the teachers. BOU should consider tutors for their training because a large number of
tutors (Hired Teachers) are giving tutorial services to the university in different tutorial centers.

3. BOU has wide network consisting of 12 Regional Resources Centers (RRCs), 80 Coordinating Offices (COs) and more than 1200 Tutorial Centers (TCs) throughout the country. So, all the centers should be connected with main campus to run the program successfully.

4. The university authority should ensure the following things for the students during the time of tutorial classes: pre-recorded Video Programs and Live Programs (Live Streaming) through the use of National TV channel (BTV) as well as Satellite TV Channel (Sansad TV Channel).

5. ICT based ‘Teaching Materials’ should be available for both teacher-trainees of BOU.

6. An appeal to the Government of Bangladesh and the Donor Agency for funding the program is relentlessly pursued to sustain the ICT-based teacher training program in the country.

List of Abbreviation

1. BOU-Bangladesh Open University
2. ICT- Information and Communication Technology
3. DE- Distance Education
4. IRI- Interactive Radio Instruction
5. DVD-Digital Video Disk
6. CD-ROM- Compaq Disk Read Only Memory.

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References


Burns, Mary (2011). Distance Education for Teacher Training: Modes, Models and Methods. Washington DC: Education Development Center, Inc.


Fillip, B. (2001). Distance education in Central America and the Caribbean: Making the most of the region’s experience and tackling challenges and opportunities of the new information and communications technologies. Tokyo, Japan, and Washington, DC: Japan International Cooperation Agency.


Schifter, C. (2002). Perception Differences about Participating in Distance Education. *Online Journal of Distance Learning Administration, 5*(1), Spring.


