

## **Integration of Educational Technology in EFL Teacher Training of Bangladesh : Views and Prospects**

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**Abstract** : There has been a growing demand for educational technologies (ET) such as Virtual Learning Environments (LMS software) and Web 2.0 tools in educational institutions which prompted the need of new and dynamic teaching approaches in EFL classrooms. Given the Bangladeshi context, it is often found that new teachers find technology tool incorporation too complicated to include into their teaching content and practice due to lack of proper technology orientation in their pre-service training. This paper therefore tries to explore EFL teachers' views and extent of using educational technology tools in language classes. It also brings out some practical ways of integrating technology into pre-service language training programmes of Bangladeshi institutions. The study used mixed method design in exploring the views of 26 student-teachers and 10 trainers on their perceptions and ways of using technology tools for teaching and assessing students. The results indicate that despite having positive attitude and motivation among teachers and trainers, a majority of them are practicing without any formal training on how advanced technology can be used in their classes due to limited technical and institutional support. The paper also brings out the current scenario of teachers' use of different types of technology in classes. Based on the survey results, the study further recommends a number of solutions along with pertinent guidelines to successfully incorporate technology use in language teacher training context of Bangladesh.

### **1. Introduction**

*Computers will not replace teachers. However, teachers who use computers will replace teachers who don't. — Ray Clifford, Defense Language Institute.*

Technology has created significant new challenges in various

professions and practice. More specifically, its influence on teaching and learning is getting prominent at present. In this early part of the 21st century, states Motteram, the range of technologies available for use in language learning and teaching has become very diverse and the ways that they are being used in classrooms all over the world (2013, p. 8). Technology integration nowadays has gone through innovations and transformed our societies that has totally changed the way people think, work and live (Grabe, 2007, p. 2). As such, today's language teachers are facing this inevitable challenge in their working places since the responsibility to inculcate technology based advanced training is upon them. However, Faison (1996, cited in Rogers, 2002, p. 32) remarks technology to be "not central to most teacher preparation programmes as a result it is yet to influence classrooms because "teachers are untrained" (Bitter and Pryer, 1994, p. 3). Much to our knowledge, it seems teachers' responsibilities and roles have started to alter as technology has been replacing the backdrop of traditional classroom since its emergence and thus leaving teachers themselves as key players in "putting information technology in the hands of students by integrating it into the teaching and learning process" (Luke, Moore & Sawyer, 1998, as cited in Durran & Fossam, 2010, p. 210).

It is evident that teachers' attitude and teaching principles are highly influenced by their prior learning experiences. Educational researchers widely recognize the need to better prepare pre-service teachers for the challenges they may face in classrooms since they possess "erroneous and simplistic beliefs" about teaching (Brookhart & Freeman, 1992; Fullan, 1991; Goodlad, 1990 as cited in Deborah & Carolyn, 2000, 3). In this case, their previous learning environment assists them in sharpening their content and pedagogical knowledge. It provides direction for planning their teaching as they tend to employ their prior teaching principles and strategies and often find it hard to adapt new ways as it may rewrite changes in their beliefs, practices and routines (Crookes, 1997, p. 68). As such, it is important to observe and analyze the types of attitudes and perceptions of technological competence are being encouraged by language teacher training programmes.

In the past few years Bangladesh has seen some major technological advancement in its educational contexts; for instance, installing multimedia in primary and higher secondary level classes (i.e. 4,500

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and 23,331 classrooms respectively) (A2i report, 2015, p. 14). The government has established e-learning infrastructure along with 3, 544 computer labs to widen ICT training and education at grassroots level (p. 13). These innovative steps indicate how technology has started replacing the existing systems of learning and teaching. Even though the rate of technology use and degree of its accessibility in the language classroom have increased immensely, most teachers and trainers still tend to use computers and network for “basic purposes” which eventually produce technologically less-efficient teachers in ELT arena (Sutton 2011, p. 1). Even when it comes to integrative assessment and learning, it is often seen that teachers are inadequately prepared to integrate technology in classrooms despite its growing importance and influence on teaching environments. Hence the issues behind this unpreparedness will grow critical in future if not handled today with intensive technology based training as it has now become necessary that teachers change and be trained in terms of technology integration (Kilicgaya & Seferoglu, 2013, p. 25).

Considering the context and support, the question lies in how educational technology can be integrated and used tools in language classroom with an idea on how pedagogical knowledge and technical aspects can be effectively combined together to better train the teachers for technological efficiency (Khan, 2014, p. 22- 26). Based on the research problem, this paper explores teachers’ perceptions regarding the idea of technology integration into language teacher preparation programs. The study will also highlight ways of training teachers in integrating Educational Technology during their pre-service training to meet new and emerging needs of today’s language classrooms. Hence, the paper examines the following research questions:

1. What are the perceptions of trainers and pre-service student teachers regarding use and integration of online technology in pre-service training?
2. What are the major yet practical ways of integrating educational technology in pre service training for language teachers?

## 2. Literature Review

### *Educational Technology: A Paradigm Shift*

Salazer defines educational technology to be a response to a variety of learning needs using networked computers, mobile devices and software

(2010, p. 1). It has revolutionized the way education can be delivered and how it can be customized for maximal impact in an online environment (ibid). In the 1990s, teachers began to use technology to assist in teaching the general curriculum. Paul’s ‘The Evolution of American Educational Technology’ (1990) is one of the most extensive historical accounts that generalize technology utilization at that time. Eventually the major educational technology tools that were recognized are- LMS, computer assisted learning programmes, web 2.0 tools, social media platform, RSS etc. which help promote collaborative learning in EFL classroom by supporting the principle of CLT. These tools can be used to restructure and redesign the classroom to produce an environment that promotes the development of higher-order thinking skills (Kurt, 2010 as cited in Costley, 2014, p. 4). Later, with the advancement of web based learning management systems during the mid-90s; digitized textual communication medium was used for internet based learning. Eventually learning management systems started taking the floor by allowing integration of core educational design features (Bates, 1990, p. 6-8). Later in 1995, the first learning management system WebCT which later turned into BlackBoard saw the light. Looking into its more progressive practice later on, use of VLE and web 2.0 tools in assessing and teaching EFL students has brought a dramatic change to the conventional ways of teaching. Educators were urged to incorporate the latest innovative technologies into their classes to improve instructional delivery and add relevance for students (Roach, Johnston, and Hair 1994 as cited in Krentler, 2005, p. 1).

Although the definitions and theories behind educational technology integration have been evolving for the past thirty years, teachers’ utilization of technology, however, has changed very little (Hativa & Lesgold, 1996, p. 134). Because, many pre-service and in-service teachers “have had little, if any, experience with integrated technology classrooms they typically have few models to build their own visions of technology classroom” (Beichner 1993; Kerr, 1996 as cited in Willis 1997, p. 1). Hence, effective integration is achieved when students are able to select tools to help them obtain information in timely manner, analyze and synthesize information, and present it professionally along with a full recognition of the indispensable role of a “technologically expert teacher” who can effectively support the language learning experience” (ISTE, 2015; ACTFL, 2012).

*Recent Developments in Educational Technology*

Theorizers have been exploring the issue of emerging educational technologies and their impact on language teaching for years (Spector, 2013, p.1). In developing countries like Bhutan, Nepal, Bangladesh, policy makers, researchers are trying to bring education reform. Countries have been investing considerably in terms of money, expertise, resources and research to integrate technology in education as smoothly as possible so that the classroom environment is made more conducive for enhanced teaching and learning (Jhuree, 2005, p. 1). In investigating about the challenges of implementing educational technologies in teaching and training sector, experts found digital media literacy to be one of the crucial factors behind it. Spector therefore argues digital literacy to be a 'multi-faceted skill' that includes the skills, abilities and attitudes towards creating and using digital media (p.13).

A number of large-scale studies (e.g., Barron, Kemker, Harmes, & Kalaydjian, 2003) have verified that teacher technology use has increased in classrooms across the nation, undoubtedly because of increased levels of access and skills. Educational technology can enrich the process of teaching and allow pre-service teachers a chance to utilize classroom material in a meaningful way as it is visually stimulating and entertaining (Pedras and Horton, 1996, p. 4-6). However, they also found that compared to use of technology for numerous low-level tasks (i.e. word processing, Internet research), higher level uses are still very much in the minority. The reasons are quite easy to point out however a little difficult to implement given the institutional constraints especially teacher training of the different contexts including Bangladesh.

*Studies on Perceptions of Teachers related to Technology Integration*

Teachers' attitudes or concerns have a significant influence on the use of computers in the classroom (Ertmer et al 1999, as cited in Egbert et al 2002, p. 108). Critical factors affecting successful integration of technology into the classroom are associated with teachers themselves, such as teachers' perceptions and attitude (Kim 2002, as cited in Mollaei & Riasati, 2012 p. 13). In the same vein, Kanaya et al. (2005) maintained that teachers' perceptions of the value of the training are increased if relevant skills and knowledge are introduced while training (p.313). Collis et al (1996) also contends that the teacher

builds "the eventual success or lack of success of any computers-in-education initiative". Earlier, Cox et al (1999, as cited in Bingimlas, 2009 p. 236) carried out a study examining the factors relating to the uptake of ICT in teaching. The results showed that the teachers who are already regular users of ICT have confidence in utilizing web technology, perceive it to be useful for their personal work and for their teaching and planning to extend their use further in the future.

*Technology Integration in Training*

Previous studies indicate (for example, Andrew, 2007; Gray, Thomas, & Lewis, 2010; Hermans, Tondeur, van Braak, & Valcke, 2008; Koehler & Mishra, 2009) that increasing the amount of technology in the classroom was not sufficient to change teachers' technology practices without a shift in the teachers' pedagogical practices. To investigate it, Rowand (2000) carried out another study based on a National Center for Education Statistics (NCES, 2000), found that 39% of teachers indicated that they used computers or the Internet to create instructional materials, 34% for administrative record keeping, less than 10% reported to access model lesson plans or to access research and best practices. Kalogiannakis (2004) also explains, "in order that ICT be effectively integrated into curricular and other activities a commitment by teacher training institutions is needed worldwide" (p.345). Side by side, Kalogiannakis further illustrates, "consistent systems of support, training, infrastructure, and personnel should be identified" to approach towards educational technology training (p. 347). Demetriadis et al. (2003) in his study also asserts, "training efforts are generally welcomed by teachers but consistent support and extensive orientation is necessary in order for them to consider themselves able to integrate ICT in their teaching methodologies (p. 35). Therefore, teachers need to organize and design their teaching materials with a major focus of learner centered learning (p. 346). Because, not only does educational technology, more specifically, online teaching tools offer rich multimedia environments and instruments, but new instruments give a shape to many teaching activities (Baron & Bruillard, 2007 as cited in Kubayashi, 2008, p. 37).

*Language Teacher Training Programs in Bangladeshi Context*

Roblyer (1993, cited in Ertmer 1999, p.110) agrees with Collin's (1996 as cited in Hoffman, 1996, p.47) idea that numerous barriers can block

integration efforts; these fears range from personal fears from technical and logical issues. In Bangladesh, despite noticeable access to technology in almost all spheres of teaching environments now, the scenario of teachers' pre-service programme is yet to embrace the changes in terms of their needs and syllabus. Teachers of universities are inadequately trained to adopt current changes in science and technology (Perspective Plan of Bangladesh, 2012, p. 11). According to National ICT Policy 2009, Bangladesh's ICT sector is facing a steady growth of approximately 20% per year. As per the plan, the government's primary goal is "inclusion of ICT in education and research to expand the scope and knowledge of ICT throughout the country". However, the plan does not mention any clear step towards full-fledged teacher training programmes on technology use though it has a substantial plan regarding curriculum based computer labs for educational institutions (Perspective Plan of Bangladesh, 2012, p. 13). On the other side of the picture it has been found that the majority of teacher educators/trainers are still not fully equipped with online learning and teaching and use of advanced tools and learning management software like BlackBoard, Moodle and other web technologies while teaching and assessing students. In a survey conducted by Access to Information (a2i), it was seen that more than 50% teachers have little to no professional training in technology use (Strategic Priorities of Digital Bangladesh, 2010, p.44). As a matter of fact, technologically less proficient teachers of training institutions usually go for traditional teaching and assessing rather than employing an advanced version of technology tool.

Delving into their real scenario of a few public and private universities and institutes it was found that teacher educators have very recently started involving technology and online resources into their training courses such as, using Skype to provide lectures, encouraging multimedia in learning, taking quizzes online and using internet to teach in class. However, sadly the degree and amount of incorporating technology into courses, or modifying courses according the relative needs were not mentioned by any of the trainers. By evaluating the course syllabus of a government training institution, it was found that the center encourages a single course on Script Writing for e-learning

Content Development alongside existing courses which is inadequate compared to the vast array of technology based courses and resources available. However, among three institutes, one was found conducting a separate technology- integrated course (titled *Use of technology in ELT*) in their master's programme. In spite of having a listed course on technology integration in MA programme, it was found that one of the leading public universities of Dhaka never offered an enlisted course of technology in the past because of its lack of untrained faculty. Hence the researcher, after exploring the programmes, found that training and other institutional support are some of the key aspects that are yet to be investigated effectively.

### 3. Methodology

#### *Design*

A mixed method design (comprising both questionnaire survey and semi-structured interview) was employed to examine the perceptions of teachers and pre-service trainees regarding their knowledge, practice and need for ET integration in language. An evaluation of different teacher training program syllabi was also held to find out recent condition of the programmes.

#### *Sampling*

The target population of this study was language teacher educators and pre-service trainees of Bangladesh. Random sampling was used to select participants for this study from five different public and private training institutions of Dhaka –A total of 26 (10 males and 16 females) student teachers and 10 teacher educators were surveyed. The actual age of the sample varied between 25-45 years with teaching experience ranging from 3 years to 17 years. It is to be noted that during the survey the 26 student-teachers were enrolled in pre-service programmes (Master's) in their respective institutions.

#### *Instruments*

Based on the research questions, two different survey questionnaires were used to explore perceptions of both student-teachers and trainers. The researcher used self-administered questionnaire with

open and close ended sections for trainees to explore their perception and need of technology in language teaching. The questionnaire for teacher trainers was adapted from Quick Teacher Technology Survey (retrieved from <http://www.powerupwhatworks.org>) and focused on teachers' current use, competency and perceptions of technology integration in language teaching and assessment.

*Data Collection*

Both quantitative and qualitative methods were used to find out the data. The course modules were analyzed to see the incorporation of technology in the relevant courses. Also, educators were interviewed regarding their use of LMS, web-based instruction while teaching and assessing. Following the survey, trainers had to face semi-structured interview where their opinions and comments were audio-taped for reliable data analysis.

*Data Analysis*

Five-point Likert scale (Strongly Disagree = 1 to Strongly Agree = 5) was used to gauge the participants' competence, opinions, perceptions and need in both technology literacy and integration into language teaching and learning. The mean and standard deviation of the figures were analyzed. The interview comments were coded and synchronized according to themes and then compared for extensive data analysis.

**4. Findings and Discussions**

Based on Research Question 1: Perceptions of Use and Implementation of Technology in Pre-service Training

Pre-service Teachers Attitudes on Use and Need of Technology in Language Learning

Among the students currently undergoing teacher training, around 75.3% reported that technology is only used for limited purposes in teaching and learning. Approximately, 66% opined for a fusion of advanced technology with the existing course content for better output. Moreover, around 77% student teachers agreed on statement no. 13 (introducing a separate course on use of technology in teaching) which is very much indicative that potential teachers are realizing the urgent need of technology training for better language teaching.

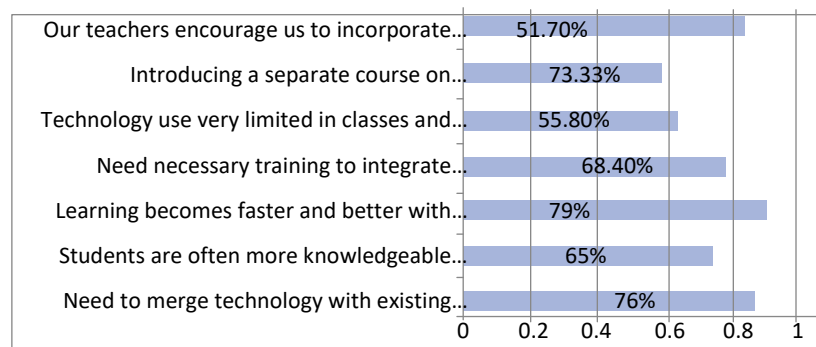


Figure 1: Bar graph showing trainees' perception on usage and need of technology incorporation Based on Research Question 1: Teachers' and pre-service trainees' perceptions

Table 1: Teachers' Perceptions on Their Usage and Competencies in Utilizing Technology Tools for Language Teaching

Statements	M	Average Mean	SD
I can employ technology in student assessment	3.8	3.53	0.65
Technology use makes me feel more confident in classes	4.8		
I use technology in my classes	3.8		
I often do not find enough encouragement to use technology In all my courses	2.9		
I mentor my colleagues in using instructional technology To improve teaching and learning	3.8		
Institutional support in technology use is often not up to the mark	3.7		
I do not get the opportunity to attend workshops on technology	2.8		
Our curriculum doesn't fully support incorporating technology Into training	2.9		
I am very much comfortable handling traditional way of teaching	3.3		

Table 1 highlights teachers' perceptions and knowledge of technology use. It reveals that teacher educators are quite confident with technology (Mean 4.8) and commented on its need their training. However, many of

them (Mean 3.3) hardly utilizes technology-based instruction and assessment in their teaching. Rather, they are reported of being quite comfortable with conventional teaching style of the respective institutions.

Table 2: Opinions and Attitudes on Importance and Integration of Technology

Statements	M	Average Mean	SD
Technology Enhances professional development	2.7	4.08	0.68
Requires software skills which is often time consuming	4.3		
Is beneficial if teachers involve it effectively with teaching content	3.9		
It has changed the way I teach	4.6		
Institutional systems expect us to learn new technologies without formal training	4.0		
There is too much technological advancement taking place without enough support for teachers	3.7		
Using technology helps me in collaborating and realizing curriculum plans	4.7		
Redesigning curricula and syllabi according to learner needs and choosing a suitable model for instructional purpose will be helpful for successful learning	4.8		

The possible reasons could be the lack of needs analysis of learners, insufficient encouragement and lack of opportunities to explore in teaching. Teachers having experience ranging from 3 to 5 years reported of not receiving formal training on educational technology in their pre-service programmes. Interestingly, around 78% of the teachers do not possess a considerable amount of knowledge on using educational technology while teaching. According to them, not many training centers or universities have started employing LMS or other tools to their curricula. As a result, teachers use only emails, or Facebook groups to post materials and lectures. A good number of educators (M 4.8) suggested a separate compulsory course be offered on technology incorporation into language teaching. Teachers were optimistic about using web-based activities to communicate different

skills (e.g. listening, reading, assessing and grading) and provide effective feedback on performances. Overall, nearly 58% teacher educators reported of having a considerable amount of knowledge on technology use in language teaching. However, the opinions on competency and ease in using technology did not match with their frequency (23%) of using and encouraging technology in language classes. They prefer using technology for lecturing and evaluation a few times in a month for courses.

Based on Research Question 2: Realizing Practical Ways of Integrating Technology

Table 3: Obstacles faced in Bangladeshi institutions

Statements	M	Average Mean	SD
Insufficient logistic support and ICT equipment	4.3	3.7	0.82
Not enough opportunities for exploring new technology and software	4.0		
Software is expensive and complicated to use	2.3		
Curriculum not being modified according to learner needs	4.6		
Less opportunity for in-service teacher training	4.6		
Rigorous course timing	3.9		
Lack of positive attitude among experienced teachers	2.7		
Demotivation of students in using technology for academic and professional purposes	3.8		

Table 3 shows the teacher trainers' opinions regarding the constraints they face while using technology in language courses. A major concern for both trainees and instructors is the lack of proper vision and knowledge of institutional authority about recent advancements and needs based research of existing curricula. Majority of the professionals (62.33%) reported to have utilized technology tools after starting teaching for their professional development and respective course needs. Likewise, in this study, trainers also highlighted insufficient opportunities in modifying curriculum and implementing

instructional models and introducing benefits of online tools as some of the major barriers in technology integration.

Table 4: Areas of Improvement/Technical Support (Opportunities)

Statements	M	Average Mean	SD
I need more time to integrate technology into my course content	2.8	3.7	0.5
I need training to fully use technology	4.1		
I need more access to technology tools to integrate into my language teaching	3.2		
More opportunities to collaborate with colleagues on how to incorporate technology in language teaching	3.4		
I should reflect on my teaching and assessment and analyze my students' needs	3.8		
A separate course on educational technology is necessary	4.1		

From table 4, it is evident that majority (M 4.1) of the teachers possesses interest and motivation to learn technology use but lacks proper 'professional training' opportunities and logistic support. As Gautmen states, for improving teaching styles and capabilities we need good teachers and for good teachers, effective training is compulsory (2001 as cited in Saleem & Zamir, 2016, p. 53). Participants suggested for a smooth collaboration among training centers, educators and administrative bodies for a proper implementation of advanced technology into language teacher training. They agreed significantly with the issue of introducing a separate course on technology use only for teaching, evaluating, assessment purposes.

**Findings: Semi-structured interview**

The following section reveals the opinions collected from the respondents (e.g. language trainers) of semi- structured interview regarding use of web technology in teaching and assessing students.

**Interview Question: 1**

*How often do you use computers, online resources or internet in your teaching? What are the ways you adopt while fusing technology in class? Please mention one or two examples.*

Theme: Use of Technology (Response rate– 52%)

Among the selected participants, 52% of them responded that they frequently (3 times or more per week) use various types of web technology in teaching. Majority of them (70%) discussed their way of utilizing computers, YouTube resources and some authentic websites as teaching materials. "I take help from online resources every time I prepare myself for a class" responded a participant with 7 years of teaching experience in pre-service training programs. Some of the common ways of utilizing technology as per the participants' responses include 'uploading study materials', 'conducting video presentations', 'taking quizzes and receiving assignments' and 'initiating student discussion threads online'. However, about 35% of them reacted positively about their use of Moodle (LMS Software) saying their working place 'highly recommends teachers' use of Moodle for classes'. These responses indicate though teachers often utilize technology tools in teaching; they seldom go beyond the ordinary level usage techniques. Yang & Huang (2008) also found that teachers used technology mainly to prepare their teaching activities and were indifferent in utilizing technology in promoting interactive learning environment

**Interview Question: 2**

*How much motivated you feel when it comes to utilizing technology tools while teaching?*

Theme: Motivation Level (Response Rate- 62.4%)

Majority of the participants (62%) were of the opinion that their students are not motivated enough to explore technology tools and resources for the purpose of learning. One participant responded saying 'I discontinued using LMS software Moodle in the middle of my semester after noticing my students' lack of interest'. On the contrary, 40% of them said they do not get enough time and support from their working place to concentrate on technology based classes. Many of them concluded saying they felt less motivated and optimistic because

of ‘relatively less in-service training or workshops’ they attend. It is to be noted that, the researcher asked the participants regarding technology incorporation in their pre-service training to which 75% of them responded negatively saying ‘technology incorporation was rare’ as they do not feel ‘confident and interested’ in using it while teaching. According to Kim teachers’ use of web based lessons were withdrawn, delayed or discontinued because of computer and technology anxiety (2002).

**Interview Question: 3**

*Do you think your department/institution is active enough in providing necessary training and technical support for teachers? As a teacher trainer, how would you consider integrating technology tools in teaching?*

Theme: Logistic Support (Response Rate – 62.22%)

One male participant with a teaching experience of 5 years has described of having less exposure to technology and often only for limited number of purposes. A good majority of the participants responded that they have very ‘poor network connections and less number of computers in workplace’; they consider it as a major reason for themselves and their colleagues behind irregular use of technology tools. 55% participants further concluded saying “It is nearly impossible to maintain virtual contacts and instructions with students if we do not get enough logistic support.” This shows that technical support is still a major issue in many of the institutions which subsequently discourage teachers to utilize technology for assessment.

**Interview Question: 4**

*To what extent do you think that prospective language teachers need to equip themselves with advanced*

*web technology based training for teaching efficacy? Can you suggest any practical way of incorporating technology in pre-service training of Bangladesh?*

Theme: Areas of Improvement (Response Rate- 73%)

Nearly 58% of the respondents think institutions need to train prospective teachers on advanced educational technology use; they should be instructed to ‘design activities based on CALL and TELLE and

online instructional tools”. Moreover, as per the participants’ views, “allowing students to observe and follow experienced and model trainers’ classes” can be a cost-effective and convenient way of training students to teach with web technology. When asked about the future opportunities and possible areas of improvement regarding technology incorporation into pre-service training, a good majority (73%) of them highly recommended a ‘reform in pre-service training curriculum’. Besides, the respondents also suggested the respective authorities opt for a comprehensive plan regarding technical and professional improvement support for fresh teachers.

**Semi-structured Interview Results**

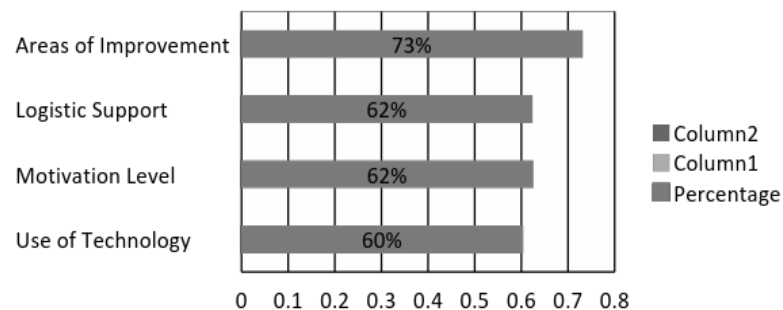


Figure 2: Teachers’ Interview Results (Percentage in Graph)

Based on this interview, it was found that there are four major issues (themes) that participants talked about: their current ways of practicing technology, motivation level of teachers and students, logistic support and areas of improvement. The graph clearly indicates that the institutions are lagging behind in terms of logistics and proper infrastructure – the percentage is 62% compared to current use and opportunities, as trainers opined, which needs to be harnessed for better teaching and learning in this dynamic world of technology incorporation. Many of the participants mentioned the benefits of initiating educational technology based trainings and teaching practicum for ‘prospective students’. Although a good number of

participants talked about the noticeable disinterest in students to adopt technology while learning, a few participants opposed the idea saying, language learning turns out very engaging with regular use of web technology- the syllabus should subsume a separate course on



technology use in classes and the student teachers should be asked to design their lesson plans based on online web tools.

Based on the research questions of this study, the discussion clearly specifies that though a significant number of teachers are currently employing technology in assessing and teaching language students- it is necessary to provide all-inclusive pre- service training to practitioners and prospective teachers to make their use more relevant and expedient to meet the emerging trends of language teaching. Compared to quantitative data, it indicates a clear similarity in terms teachers' perception, usage and further improvement in ET integration.

### 5. Limitations of the study

The study generates the findings of the perceptions of trainers and prospective teachers of Bangladeshi context on ET integration in language teaching to face the advanced spectrum of technology infused learning and teaching. The study aims at finding the preliminary data thus the design is not without flaws. Further research can be conducted on a broader scale by intensively analyzing the existing curricula of Bangladesh and piloting the technology-integration models into core language training programs to see its effectiveness and feasibility. The study can also be further involved into empirical scrutiny.

### 6. Further Implications

Based on research questions and hypothesis, the principle aim of this study was to explore the current perceptions and values of trainers and prospective teachers regarding technology integration in pre-service education. It is, therefore quite clear that prospective language teachers are still not getting substantial training on advanced level technology use such as employing LMS software and web based instruction tools (table 2). Compared to novice teachers, the experienced teachers tend to be even less motivated to fuse technology in the classes because they often do not get enough support from the institution both in terms of logistics and motivation. Stallard (1998 as cited in Mollaei & Riasati, 2013, p.7) states that teachers are reluctant to embrace technology because of its potential to shorten learning time for students. Some participants also considered lack of logistic support results as another demotivating

factor (Semi structured interview Question 4). Also, the majority of the responses have a direct or indirect reference (Mean 4.3) towards time management and proper access to both offline and online resources in working places (Table 2). Existing research study findings of (Chin & Hortin 1993; Wang & Chan, 1995) also pose similitudes in terms of identifying major variables -access (logistic support) and time.

The data, moreover clearly shows the prospects, as teachers opined, of fusing technology in language classes (Table 4). The student-teachers also stressed on the need of integrating advanced technology in their pre-service course modules besides existing learning content (Fig 1- percentage: 73% and 76%). Based on the results, some of the major issues to be considered as follows:

- A thorough investigation into learner needs and demands through exit, pre-/ post knowledge surveys
- Initiation of an all-inclusive pre-service training with opportunities for students to prepare on pedagogy and use of various teaching tools
- Extensive opportunities such frequent seminars, model classroom observation, continuous professional development workshops for teachers to adopt advanced web technologies for language classes
- A compulsory course on incorporating technology in language teaching and assessment

Barksdale justly asserts that technology is best learned when it is integrated across curriculum rather than placed in a 'technology ghetto' (1996, cited in Fredrickson, 1998, p. 78). Hence, it is high time that curriculum designers think of a separate course which will be solely based on how ET can be employed into teaching language. Secondly, a useful model of technology infusion can be introduced to teacher educators/trainers through an active workshop or a short course. According to Khan (2014, p. 23) a TPCK model can be insightful for the educators if implemented successfully. Fredrickson (1998, p. 80) and Koehler & Mishra (2006, p. 133) highlighted a number of models comprising "three circles" of pedagogical technological content knowledge of technology integration. Keeping that in mind, initially on TPK (technological-pedagogical knowledge) framework can also be brought into consideration since we need to create 'potential trainers

or resource persons' for training prospective teachers (Khan, 2014, p. 24). Furthermore, teacher educators need to focus extensively on students' practice of technology-rich lesson throughout their teacher preparation programme. In this case it is highly encouraged to increase the allotted time for teaching practicum. Teachers should follow and adapt use of technology in light of modified curriculum so that aspirant teachers see it appropriately and benefit from exposure to more advanced applications (De Pasquale, McNamara & Murphy, 2003, p. 2). More emphasis should be on modifying existing courses, analyzing students' needs through action research, creating opportunities for informal learning and fostering peer collaboration. Lastly, lack of technology equipment (ISTE, 2002; UNESCO, 2002) may lead to less proficient educators in future. It is of crucial importance that the institutions ensure proper logistic support before embarking on for any program or training model. Finally, to "facilitate" (Vu et al., 2016, p.39) technology supported learning environments problem solving skills should be considered in while training teachers. Since teacher professional development program is a "continuous process" (Hopcane, 1994 as cited in Saleem & Zameer, 2016, p. 59) promoting extensive use of educational technology should therefore, be a sound combination of structural, pedagogical and curricular approaches towards EFL teaching (Gulbahar & Guveri, 2008, p. 19)

## 7. Conclusion

Technology use has become ubiquitous in this modern world thus there is no point of overlooking its usefulness in teaching and training. However, only technology use cannot ensure better outcome for prospective teachers; all-encompassing expertise on language pedagogy and practical knowledge is above all. After examining both prospective teachers and trainees of language teaching, the study has revealed several implications for practitioners and curriculum developers on how and in what way technology should be incorporated with training courses in Bangladeshi context. It also demonstrates a view of the current status of ET induced teaching in this context. Hence, preparing future teachers to meet the challenges and expectations of a complex technological field must include knowledge of technology as a tool or resource in professional practice and also as a changing agent in educational settings.

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