

Technology for Interactive Classrooms: Prospects and Barriers

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Dedication

I would like to dedicate this thesis to my beloved parents without whom I am nothing.

Declaration

I, hereby, declare that this dissertation is my original research work, and has not been submitted for any other degree to this or any other university. Wherever contributions of others are included, every effort is made to acknowledge with due reference.

Signature: 

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Abstract

This qualitative study aims at exploring enablers, barriers and prospects of integrating technology in traditional classrooms. The revised curriculum for English at the secondary and higher secondary level although do not specifically provide clear guideline about what should be the nature of using technology in the classroom, it encourages teachers to use in their teaching. In the Education policy technologically advanced learners are considered as a workforce who can work locally and globally and developing this kind of learners is at the forefront of current education system of Bangladesh.

However the real classroom picture is different than what the policy and curriculum aims at. To understand the current this study attempts to explore selected school teachers' classroom practices and their beliefs, opportunities, willingness and barriers of using technology in their classrooms.

There are seven participants from different primary and secondary schools. These teachers their classrooms and the students are the primary sources of data. Based on the analysis some recommendations are made at the end.

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Chapter 1

Introduction

English has become the medium of global communication as about 80% of internet content is in English; 75% of e-mail sent around the world is in English; and 60% of the world's publications are in English (Austin, 2007). Akhter (2012) stated that around 66% of the English language speakers are non native and they are using English actively in various sectors. Thus it is apparent that English has become a very popular medium of communication. In Bangladesh, the practice of English language teaching and learning is a colonial legacy. Apart from the mother tongue, Bangladeshis have been learning English since the British era. Now-a-days learning English has become very important not only for the pedagogic purpose but also for being successful in professional life.

Grammar-Translation Method was the dominant method for teaching English in Bangladesh for a long time. There were criticisms against the grammar-translation method claiming that it fails to develop learners' communicative competence. To address this issue a communicative syllabus is adopted in 2000 with an aim to develop learners' communicative competence. Various research (for example: Alam 2018; Hamid & Baldauf, 2008), academics and popular media in the recent past also criticised the introduction of communicative language teaching stating that it fails to develop students' language skills.

To uplift the overall standard of education at the primary and secondary level many initiatives have been taken by the government and non-government organisations. Among them integrating technology is one of the major initiatives undertaken by the present government. Primary and secondary teachers are given training on ICT, and necessary equipment are provided to schools throughout the country. For example under the English in Action (EIA) project primary and secondary teachers were given training to use technology in their

teaching (EIA, 2010). Teachers were also provided with easy to use technologies such as mobile phone. In the Bangladesh Education Policy (2010) technology is identified as inseparable and essential tools to develop technologically equipped learners.

Although the Government of Bangladesh is dedicated to implement ICT in the education sector, the development is hindered by a number of obstacles. Khan, Hasan & Clement (2012) categorizes the obstacles as external and internal they categorised these as *first order and second order*.

“First order barriers include lack of equipment, unreliability of equipment, lack of technical support and other resource-related issues. Second-order barriers include both school level factors, such as organizational culture and teacher level factors, such as beliefs about teaching and technology and openness to change” (p. 67-68).

They also mentioned factors like lack of resources, lack of vision and future planning, unstable political situation, social and cultural factors, corruption, teachers’ beliefs and attitude towards ICT, lack of knowledge and skill, lack of time. They stated that these are the factors that restrict the implementation of technology in Bangladeshi English language teaching contexts. (p. 68-72).

Although there are quite a number of studies that investigate teaching at the secondary level both large and small scale (For example Al Amin, 2017; Islam 2015; Rasheed 2017) and these studies explore various aspects of secondary education, in contrast to those there is very little studies that investigated implementation of technology aided teaching at the primary and secondary classroom.

It is also worth mentioning here that the job of primary or secondary teachers is not viewed as prestigious compared to many other jobs in Bangladesh. Thus meritorious and highly educated teachers show reluctant to become a primary teacher in Bangladesh.

On the other hand, the developed world put a lot of emphasis on primary and secondary education. Japan, Singapore, Finland and even Malaysia prioritise their primary and secondary education and spent a good amount of money to recruit, prepare and train their teachers. The job of primary and secondary teacher in those countries is seen one of the prestigious jobs. Also a teacher needs to obtain teaching license before becoming a primary or secondary teacher.

This study is attempting to contribute research in primary and secondary level in Bangladesh by exploring the integration of technology at the primary and secondary level. This research seems to be relevant and significant as the present government sees the implementation of technology enhanced learning as one of their priorities.

1.1 Context of the study:

The study is conducted to assess the usage of technology for the purpose of English language teaching in Bangladeshi primary and secondary level education. This research aims to sort out the barriers and prospects of implementing technology for pedagogic purposes.

Though NCTB curriculum for primary and secondary level education does not provide any guidelines for technology-based education, the government of Bangladesh has taken initiative to convert the conventional classrooms into multimedia classrooms. As a part of Digital Bangladesh initiative, the government has already placed in more than 5,500 digital classrooms across the country. Nearly 1 million students are currently enrolled BRAC schools where those contents are accessed on tablet devices (Palak & Islam, 2017). In addition, JAAGO Foundation is conducting online schools from 2011 for underprivileged

children coming from the lower socio-economic background. Now “JAAGO Foundation supports the education of 3000 children across its 12 branches all over Bangladesh” (Jaago Foundation). Even after such initiatives, Bangladeshi primary education sector lacks success in the field of technology-based teaching and learning. Khan, Hasan & Clement (2012) finds a number of factors that obstruct the implementation of technology in the primary schools of Bangladesh.

For my undergraduate thesis I conducted a research solely on the development of JAAGO foundation’s online teaching program. That research focused solely on distance education where the teachers conduct the classes from their office in Rayer Bazar, Dhaka and the classes take places in other districts. They use video conferencing to conduct the classes. Whereas, in current research I focus on the barriers and prospects of integrating technology in primary and secondary schools in Bangladesh. The previous study, a quantitative study only focused on JAAGO online schools where technology is being used as the only medium of instruction. In the previous study the researcher focused on online teaching and learning, in which the role of internet is very necessary. But the current research is about integrating technology in the conventional classrooms where internet is not a prerequisite as videoconferencing is not needed to conduct the classes.

My last study lacks details investigation and exploration of the barriers and enablers of integrating technology in the schools that follow national curriculum as that was only restricted to JAAGO foundation. This study is set to fill that void exploring the phenomena in qualitative way.

Chapter 2

Research Methodology

2.1 Introduction:

The purpose of this chapter is to provide the readers with an insight about the methodologies employed to conduct this research. This research seeks to understand the role of technology as an effective teaching aid. It also aims to identify barriers and enablers of using technology at the primary and secondary level in Bangladesh. The central research questions that guide the research are-

1. What are the barriers and enablers of using technology at the primary and secondary level in Bangladesh?
2. To what extent the integration of technology will enhance the more interactive and fruitful teaching?

This study focuses solely on the English language teaching in Bangladeshi primary and secondary schools. Thus I approached teachers who are either primary or secondary teachers. Some of the schools have both primary and secondary section and same teacher sometimes teaches in both primary and secondary sections. Thus I opted for exploring implementation of technology at the primary and secondary level instead of focusing on only one level. Another factor was gaining access and teachers willingness to participate in the study. The interview is conducted to extract information from the teachers' point of view. Initially I designed interview questions to ask the participants with an aim to explore the present scenario of the use of technology, opportunities and barriers of implementing technology. However, during the actual interview I experienced that the questions cannot accommodate the complexity of the current situation. As a result, I had to ask follow-up questions based on their responses. The teachers share their view as language teachers, their view about English as a language,

their experiences regarding the obstacles they face while teaching, what are the prospects of integrating technology in the classroom.

2.2 Data collection:

Data were collected through interviews with teachers, students, principals, observing classes, observing the existing technological equipment available in the schools, and critically examining the policy and other related documents. For the teachers interview I prepared a set of questions but during the interview the question was not limited to only those questions. Whenever I feel I need extra information I asked for further clarification. There are no close ended objective type questions or survey component. The researcher tried to extract the insiders' perspective following an inductive way of researching. Therefore, the research is qualitative in nature. There are a lot of subjective data and stories found from the participants' responses and those data and case studies assume a dynamic reality of the target context.

This study aims to derive the problems or barriers in implementing technology in the current curriculum as well as finding the future prospects of such pedagogy. This project is a primary research that relies on interview responses and case studies. Participants' responses serve as data and the stories told by them gradually shape the final analysis. There is no statistical or cross-sectional analysis in this project, rather the researcher looks for subjective information which are very close to the data. He accumulates the data and stories to portray the bigger picture of the current situation in the target context.

As I started interviewing the teachers, I realised that the issues are more complex than I anticipated. When I encountered various issues during my primary exploration I had to extend the questions and sometimes I had to collect information via various forms such as teaching materials, artefacts, students' works. None of the interviews could be done at once; the researcher has to collect the responses he gets initially. Afterwards, when I organised the

data, sometimes I felt that the responses were not enough, and need further information. In such cases I had to either call them or ask the questions via email or Facebook messenger. I had to extend the interviews even after the main interview was done for a clear understanding of the events, issues or stories that pave the way to answers to the central research questions.

2.3 Participants:

The participants are from different districts of Dhaka division. Seven teachers and their students are the primary participants. All of them are English teachers teaching in different schools. Majority of the participants do not want to disclose their credentials as this project will be available online in BRAC University Institutional Repository.

Some of the participants do not even want their interviews to be recorded. In that case I had to take notes instead of recording. After taking the interviews, while gathering and analyzing the data, I often felt the need for further queries. In that case I had to phone them, or had to contact them via email or Facebook messenger.

The following table shows information related to the participants—

No.	Name	Age	Gender	Years of Experience	Academic Background
1	Kushal	24	Male	3 years	B.A. in English
2	Farzana	27	Female	1 year	M.A. in English
3	Mou	28	Female	9 years	M.A. in English
4	Shreya	25	Female	2 years	M.Ed.
5	Sanjida	27	Female	2 years	B.A. in English
6	Jui	28	Female	4 years	M.Ed.
7	Shanto	28	Male	1 year	M.A. in English

2.4 Instruments:

I primarily designed fifteen open ended questions for the participants. When I started taking interviews, it appeared that I needed to ask more follow-up questions to explore the phenomena in details. I intended to record the interviews, but I could not record all of them because some of the participants did not want their responses to be recorded.

2.5 Data Collection Procedure:

The interview was the main way of data collection. I followed ‘five process steps in qualitative data collection’ suggested by John W. Creswell in his book *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (2012, p. 205). Creswell suggested five interrelated steps in the process of qualitative data collection. The following steps describe how the researcher collected data-

Following Creswell’s instruction I purposefully selected the participants who are in a position to answer my questions, who is willing to participate voluntarily. Before the interview I obtained their permission. After getting permission I took their interviews following the open ended questions I designed.

I had a plan to record all the interviews using a voice recorder or a mobile phone, but not all the participants agreed to record their interviews. In that case I had to take notes and in some cases I had to call or contact the interviewees several times via Facebook or email after the actual interview.

2.6 Data Analysis Procedure:

In this research data collection and data analysis happened concurrently. To analyze the data I followed Creswell’s guidelines from the same book mentioned in the previous section. In chapter eight in his book he describes six steps of analyzing and interpreting the data (2012, p. 237-238). Keeping his guidelines at the core of analysis process, the researcher follows the following steps-

I first look at the individual cases or the detailed data and then gradually generates general codes and themes. These general coded and themes carry particular aspects closely related to the central phenomenon.

After generating the themes the researcher starts analyzing the data. While analyzing the diverse database, I sometimes feel the need to talk to the interviewees for further clarification and to fill the information gaps. I works going back and forth from collecting data to analyzing; and from analyzing to previously collected data. This is a simultaneous process which is deliberately done to refine the major ideas that shape the analysis that eventually provides the answer to the central research questions.

I play the audio taped interviews and carefully listen to them using a headphone. At the same time I write down the important points. I listen to the interviews again and again to get a clear understanding about the target context of the research.

Creswell argues “qualitative research is “interpretive” research, in which you make a personal assessment as to a description that fits the situation or themes that capture the major categories of information” (2012, p. 238). So, the researcher brings his own perspective to the analysis. In addition, Dey; Miles & Huberman argues “there is no single, accepted approach to analyzing qualitative data, although several guidelines exist for this process” (cited in Creswell, 2012, p.238). Therefore, I looked for different types of evidences to come to a conclusion.

2.7 Ethical Consideration:

After deciding on focus of the study, the participants and the instruments, the researcher seeks for ethical approval to conduct the study. Following issues were taken into account while generating the guidelines-

Not all the participants wanted their names to be mentioned in the research paper. So, the researcher makes sure that their anonymity and confidentiality is maintained. To do that I use pseudonyms for the participants and schools.

Before taking the interviews, I explained the research aim to the participants orally. Data collection process starts after the participants give their consent to take part in the study. The researcher also clarify that they will not be given any incentives, their participation in the study is completely voluntary. They are also assured that they can withdraw themselves at any time from the research.

The researcher also makes sure by taking maximum care so that the participants feel comfortable enough to share their experiences and personal information. I also choose a suitable time according to the participants' preference to take the interviews so that it does not hamper their daily teaching schedule.

2.9 Obstacles:

There are several obstacles I faced during data collection. The most mentionable obstacle I faced is getting a window of time from the interviewees to take the interviews. There are seven participants for this research. To take interviews from all of them was a time consuming process. Another obstacle I faced is convincing the interviewees to record their responses. Not all of them agreed to record their responses. So, I had to take extensive notes while taking the interviews. As a result, it took more time than I anticipated to conduct the interviews.

Chapter 3

Literature Review

3.1 Introduction:

The intention of this study is to explore Bangladeshi school English teachers' practices of using technology and the obstacles to use technology in their teaching. In order to meet the objectives of this study, the history of English language teaching in Bangladesh, clear understanding of variety of issues related to second language teaching and learning in Bangladeshi context, and socio-cultural issues related to English language teaching and learning as a second language are necessary. Except from the history and socio-cultural issues there is a range of other factors that have become a matter of concern in Bangladeshi classrooms. The factors include issues such as, use of technology for pedagogic purposes, its development stages, challenges faced by the English language teaching learning community and support provided by the National Curriculum and Textbook Board authority.

3.2 Educational technology in today's world:

The use of technology in education is increasing gradually all over the world. Many factors can be identified as responsible for this increasing need. Development in Computer technology, internet and various other technological innovation are increasing day by day in different levels including teaching in the university, secondary, primary and vocational education (Goldin, & Katz, 2018; Laurillard, 2002; Tyner, 2014;).

According to Thomas, Reinders and Warschauer (2013), "in 1996, an estimated 36 million people had access to the internet, instructors and learners used a dial-up connection and video was typically only available on CD-ROMs via a desktop computer in a dedicated computer lab" (p. 2). According to Internet World Stats 2012, "the Web is 24/7 and 'always-on' and streaming video and digital content can be delivered to portable laptops, netbooks, media tablets and smartphones in real-time. Although technologies have changed in the intervening

period and 36 million has grown to approximately 2.2 billion internet users worldwide” (cited in Thomas, Reinders and Warschauer, 2013, p. 2). After that computer and all other peripheral technologies have gone through a lot of transformation and advancements.

Ken Beatty talks about a range of CALL applications in his book *Teaching and Researching Computer-Assisted Language Learning*. He mentions CALL applications like, word processing, games, literature, corpus linguistics, computer-mediated communication, WWW resources, adapting other materials for CALL, personal digital assistants (PDAs) and mobile telephone technology (2010, p. 58-81). Chinnery (2006) and Zhao (2005) also confirms the use of technology including PDAs and multimedia cellular phones, MP3 players, DVD players etc. due to their popularity (cited in Tai, 2011, p. 3-4). mooc.org offers Massive Open Online Courses (MOOCs). These are free online courses available for anyone to enroll. MOOCs provide a flexible and affordable way to learn new skills, advance learners’ career and deliver quality educational experiences at scale (“mooc.org”).

Tai (2011) argues that “the adoption of technology in language learning has advanced from Computer Assisted Language Learning (CALL) to Mobile Assisted Language Learning (MALL) (p. 3). Traxler (2007) used the term ‘mobile learning’ and noticed both sizably and frequently growing numbers of dedicated conferences, seminar and workshops internationally. He mentions conferences like MLEARN, International Workshop on Mobile and Wireless Technologies in Education (WMTE), The National Workshop and Tutorial on Handheld Computers in Universities and Colleges, conferences run by The International Association for Development of the Information Society (IADIS), Association for Learning Technology conference (ALT-C) etc. which are being run from 2002 solely in the field of increasingly popular mobile learning technologies (p. 11).

There are many advantages of using mobile or smartphones for learning English. Muhammed (2014) points out by saying “the advantages could be the possibility to download certain English applications and programs that may help learners to improve their language skills, their language systems like grammar and vocabulary and increase their awareness of such international tests such as TOEFL and IELTS” (p. 104). Now-a-days mostly all popular mobile operating platforms like Android (by Google) and IOS (by Apple Inc.) offers thousands of free and paid language learning applications in their store. Kahoot! is one of the most popular applications available for both the platforms. It is a game-based learning platform where series of multiple choice questions can be made with pictures, videos and diagrams in jumbled up order (“What is Kahoot!,” 2017). Tech giant Google came up with their first online learning application named Google Classroom. App description section in google play tells that it “is a free service for schools, non-profits, and anyone with a personal Google account. Classroom makes it easy for learners and instructors to connect—inside and outside of schools. Classroom saves time and paper, and makes it easy to create classes, distribute assignments, communicate, and stay organized (“Google Classroom”).

3.3 Twenty first century teaching skills and technology:

Now-a-days, teacher’s workplace has changed a lot from what it was fifteen to twenty years ago. Ivy (2010) says “teachers now not only need pedagogical knowledge but also an elementary understanding of the workings of computers, use word processing program, understand the concept of a file and storage media, use a web browser effectively, know how to make powerpoint slides and on goes the list” (p. 206-207). Levy (2001) and Pederson (1987) argue that comparative studies between conventional teaching and technology assisted teaching “have been criticized from another point of view: lack of clarity in the definition, description and control of relevant variables by the researchers” (as cited in Lim & Shen, 2006, p. 213). However, Lim and Shen (2006) say “educators are increasingly concerned to

integrate human and computer capabilities as efficiently as possible” (p. 213). Studies done decades ago outside of Bangladesh inform that computers and technology have been in this field for a long time. Gardner and Miller (1999) argue that with the rapid growth of technology, computer has become an influential part in the field of language teaching. Jones (2001) argues language teaching can hardly be done without the assistance of computer technology at present situation.

On the other hand, there are some shortcomings of using technology. Ivy says “there may be a washback effect due to the expectations imposed by some teachers’ workplace”. She cites Allan who discusses the technological overload on teachers by saying “This circumstance is exacerbated by the absence of a comprehensive training scheme, lack of practice time, and deficiencies in educational technology support, staffing and planning. Instructors are often left to their own devices, and are expected to identify technology skill deficiencies, as well as troubleshoot hardware and software problems” (2010, p. 207).

3.4 Technology and curriculum in Bangladesh:

The curriculum for primary and secondary education in Bangladesh have been revised in the light of the National Education Policy, 2010, which emphasizes learning English for communicating locally and globally (NCTB, 2017). So, it can be easily assumed that the schools are prescribed to follow the national curriculum. One of the major problems with this curriculum is that this does not include any guideline for technology based instruction. On the other hand, for the last two decades the emphasis put on English language learning by the political parties in power initiated several projects like English Language Teaching Improvement Project and English in Action program (Jamil, 2015, p. 18).

One of the aim of the present Bangladesh Education Policy (2010) is to develop workforce who will be technologically sound citizen and who can use technology in every walks of life. The present government puts lots of emphasis on developing infrastructure so that the

citizens get opportunity to develop themselves technologically. It is also seen as developing this human capital who can work globally. To execute this education policy the curriculum at the primary and secondary level has been revised. The technology is seen as imperative to develop this workforce. Trainings are provided to the teachers so that they can use technology in their teaching. A subject called ICT is introduced in the secondary level and it is made compulsory for the all stream students (NCTB 2012). In case of English teaching teachers are encouraged to use materials from the web resources.

3.5 Technology aided teaching in Bangladesh:

Sheikh Hasina, prime minister of Bangladesh said “Getting tech-based education to every corner of the country is a high priority of the government. Digital content contains lessons for all of us; it makes us all into teachers and we all become students”. On 14 February, 2016 she “launched interactive lessons for Grade 1-3, a joint initiative by the Government of Bangladesh, BRAC and Save the Children in response to the success of content previously developed by BRAC for Grade 6-10”.

As per the continuation of the development project, from mid-2016, interactive lessons for Grade 1-10 (primary, junior and secondary education) has been made online to be accessible on any device. As a part of Digital Bangladesh initiative, the government has already placed in more than 5,500 digital classrooms across the country. Nearly 1 million students are currently enrolled BRAC schools where those contents are accessed on tablet devices. (Palak & Islam, 2017).

The researcher refers to his own study titled “Online Language Teaching and Learning: Present condition and Future Prospects in Bangladeshi Primary Education System” and shows how computer applications are being used in Jaago Online Schools. He could explore the range of applications the online language teachers use to conduct distance education. He extracts information regarding social network preference from teachers, students and

education experts employed in Jaago Online School. Ten teachers, hundred students and three education experts participated in the survey. The figures (figure 1.1, figure 1.2, figure 1.3) in the following page show the data.

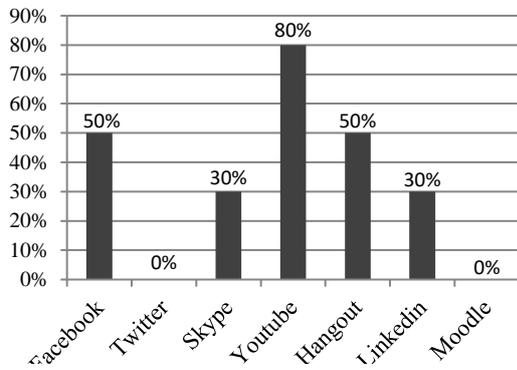


Figure 1.1: Teachers' preference of social networks for educational purpose

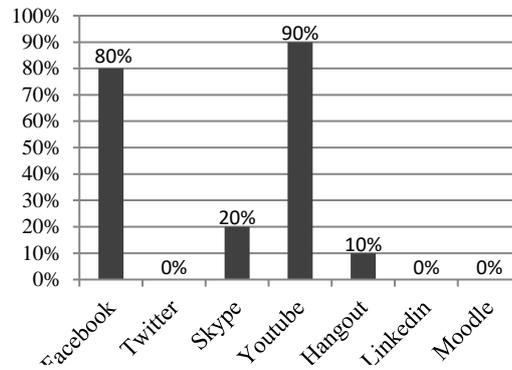


Figure 1.1: Students' preference of social networks for educational purpose

(Sarkar, 2016, p.32)

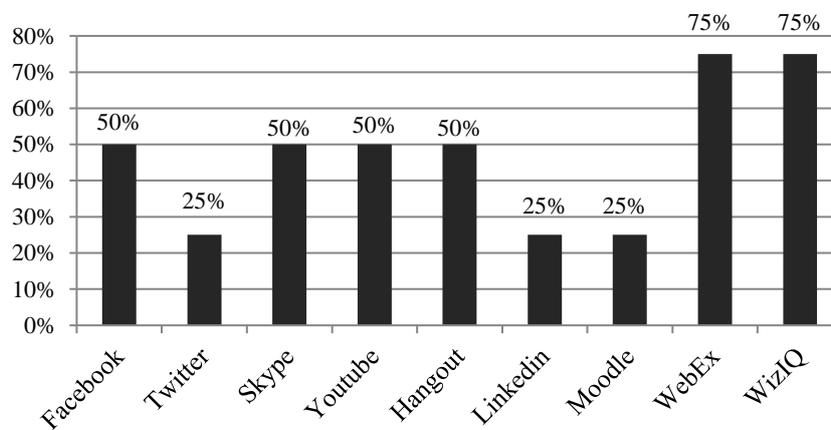


Figure 1.3: Education experts' preference of social networks for educational purpose

(Sarkar, 2016, p.34)

In Bangladesh, more than 80 percent people use a mobile phone and one in every three people are online (Palak & Islam, 2017). According to the Global Digital Report, since 2017 the volume of internet users has jumped by 29% making nearly half of the population of Bangladesh internet users (Mallick, 2018). Back in 2008, Bangladesh Open University was

the only university in Bangladesh that offered a number of distance and open learning programs” (Sultan, Islam & Mahmud, 2008). Islam & Numan (2013) also informs that “Open and Distance Learning (ODL) is an alternative way to educate those aspirant learners. Bangladesh Open University (BOU) is the only public university which offered education through ODL system”.

Chapter 4

Participating teachers' view about using technology in their classroom

This chapter is going to discuss the place of technology in education policy and curriculum. Two teachers' account will be presented at the beginning.

Jui's Story:

Jui is an English teacher in a reputed school in Dhaka. She has been teaching there for past two years and ten months. She also taught in another school in 2014. She also taught in some other English medium schools in Dhaka. She argues that almost all the schools have a fixed long syllabus. The teachers are expected to finish that syllabus before the terminal and final examinations. So, the teachers remain under pressure to finish the syllabus within the time frame. She stated that:

I could have included some authentic materials and use technology if I had some more time. Even if I want to use technology in classroom, the authority would not allow me to do so.

She informs that usual class duration is forty to forty five minutes. Whenever a teacher wants to use technology, then he or she requires more time compared to the usual duration of a class. Students are not familiar with this kind of pedagogy, as a result, they need more time to understand and participate in classroom activities. She tried to use technology in class, but the learners get surprised to see the contents and the materials. This happens because the contents or the materials do not resemble the questions in the examinations. The school authority neither set up a computer adaptive testing nor set up a computer assisted learning environment.

She thinks the students need to be familiarized with computer assisted language learning before the schools introduce this kind of pedagogy. Students are very much familiar and

habituated with learning in a conventional classroom where teacher remains at the centre of learning and sole provider of knowledge. The students mostly focus on what the teacher says in class and take those into account as they think those might be important for the examination. Whenever she attempts to teach any kind of lesson using technology the students do not consider her as the authoritative figure, because she will not be the one they will listen to. Instead, they concentrate on the videos, audios or pictures or whatever is used as an authentic material. Whatever is taught in class using technology does not resemble the questions in the examinations. That is why the teachers are not encouraged to use technology. The school authority follows the conventional way of teaching English and for that reason they do not allow their teachers to use technology in classroom.

Jui says that the students tend to follow the teachers who teach higher classes. If someone who teaches class six students and if he or she uses technology and the other teacher who teaches class eight does not use technology in the classroom, students in class six usually think that their teacher is not giving as much effort as the teacher in class eight. They think so because Bangladeshi socio-cultural perspective justifies a teacher according to how much she or he talk in the class and roam around monitoring the students. That also happens because whenever a teacher use technology parents and other stakeholders think that the teacher is just passing the class time while he or she is relaxing letting the students to watch or listen to the multimedia materials. She says most of the parents in Bangladesh also think using computers, mobiles or any kind of multimedia or peripheral devices deviate the students from the lesson focus and ultimately their children will not be able to get good marks in examinations.

Farzana's Story:

Farzana is employed as an English teacher at a reputed school in Dhaka. She talks with the researcher and participates in an interview session. She mentions some drawbacks of current

Bangladeshi curriculum and examination system. She shares everything from her experiences as a teacher. There are some issues solely related to her school, those might not be the same in all schools across Bangladesh.

She informs that though there are listening exercises in the textbooks, the school syllabus lacks such classroom practices. As a result, during high stake examinations the schools fail to arrange effective listening testing. Even though in the board examinations the students are provided with questions designed by NCTB for reading and writing test, the speaking and listening tests are conducted by the school authority. She thinks these listening and speaking tests could be conducted very effectively with the help of technology but, the schools fail to arrange such tests due to lack of technological equipments in their institutes.

When she teaches stories in class if any student does not get the meaning of any word she repeats the word meaning. She also explains that not all the students have the same grasping capability. Sometimes she faces problems with word meaning, some students do not get the meaning even after repeating the word meaning several times. After experiencing such problems she wants to implement technology to visually describe the stories with videos but, she cannot do so because there is no computer available in her classroom. From her experience she says:

Whenever the lesson is provided along with audio-visual materials, it retains in their mind better than using only books and reading the stories out orally. In these kinds of situations authentic materials works best.

The classroom practices Farzana talks about are not prescribed by the school authority, because the school authority only prioritizes students' examination marks. Therefore, she has to follow teaching procedure whatever is important for the students for getting good marks in the examination. She also argues that after joining in this school she finds out that all other

language teachers follow conventional grammar teaching method instead of following NCTB prescribed CLT approach. She says:

In my school learning English occurs in a completely traditional way. After joining in this school I tried to apply CLT approach, but when the authority finds it out they do not allow me to teach using this approach. They ask me to stick to the method the school authority or senior teacher suggest follows because the questions for the examination are designed according to their prescribed method of teaching. Moreover, the school authority does not even allow me to conduct any kind of group or pair work activities in the class.

Farzana's school does not allow her to conduct classes using neither technology nor following CLT even though she finds these helpful for learning purposes. The school authority simply does not allow her because of the examination system and question pattern the authority follows. These factors are very similar to Robertson's teachers' resistance cited in Mumtaz (2000, p. 320-321). He identifies a range of resistances that obstructs teachers to use technology. He mentions about 'Lack of support from the administration' and 'Teachers' perceptions' which resemble Farzana's situation in her school. Lack of support from the school administration does not allow her to implement neither technology nor CLT. Besides, senior teachers' perception about the examination system works as a barrier to implement both of these aspects.

Chapter 5

Benefits of Using Technology

The curriculum for primary and secondary education has been revised in the light of the National Education Policy, 2010, which emphasizes learning English for communicating locally and globally (NCTB, 2017). Therefore, the schools are prescribed to follow the National Curriculum and NCTB prescribed textbooks are followed as these books are provided to students free of cost. Although the curriculum does not specifically state that technology should be used in the classroom, computers and multimedia should be mandatory; there is guideline to use technology where possible. The secondary curriculum (2012) also similarly emphasises the importance of technology in education. Teachers are advised and to some extent training is provided to use technology. Among other initiatives Teachers Portal (n.d) is helping many teachers to download and upload digital content and to use them in their classes. Teachers are also taking part in the training to learn how to make effective digital content. Teachers from primary, secondary and madrasa are getting benefit of this Teachers' Portal. Furthermore, majority of the participants of this study agreed that they are encouraged from the higher authority to use technology in the class where possible. Some of them attended training where the importance of technology is highlighted. Majority of the participants stated that they are in favour of using technology in the classroom and use technology in the classroom.

The teachers who use technology in the classroom strongly admit the benefits of using technology. Mou is one of the participants who believe in the benefit of using technology says that she shows animated videos from YouTube and in most of the cases those are authentic materials. In that case she uses a computer and a projector. From elementary to

school level students learn more when they are taught using technology and students learn more watching videos.

Kushal another school teacher shares his view about the importance of technology stating that he collects video from You Tube to use in his class and sometimes he collects materials from different websites to use in his class. He not just only relies only on You Tube videos, instead he uses, pictures, animations, songs, movie clips and makes PowerPoint presentations. Shreya, another participant from Dhaka says that she uses various online platform and storage system for an easy access to the lesson materials.

Majority of the participants believe that World Wide Web (www) resources have smoothed the path of language learning. Sanjida thinks that www resources are always helpful for language learning. She says:

Whenever someone uses technology properly and proactively, and tries to improve their language skills it smoothens the way of language learning.

She believes that technology is utilized properly when learners have intrinsic motivation and immense desire to learn.

Another teacher, Mou regarding the benefit of using technology stated that she can read different reading article and download them as well to be used as lesson materials. She also finds it helpful to watch different online presentations on similar topic which helps her in her teaching. Shreya responds in the same like Mou argues. She explains the reason saying:

A person will never have knowledge on everything. The World Wide Web aids to pick any resources both on ground level or complex ideas. Every student likes to use technology in their daily life and when they find the usage of technology in their classroom, they can relate their lesson with their daily life”

She thinks knowledge and information regarding language teaching and learning can always be adapted or adopted from www resources. She also thinks www resources are a useful tool

for the students to navigate through for the purpose of researching and investigating. To do that, learners can use their cell phones to browse internet. In addition, they can download different language learning apps.

Chapter 6

Barriers involved in implementing technology within current curriculum

Although many of the participants spoke about the benefit of using technology in the classroom, a number of teachers stated the barriers and difficulties of using technology in the classroom. For example none of the participants completely agrees that social networking websites play a significant role in language learning. Almost all of the participants doubt whether it distracts from language learning rather than actually helping. For example Sanjida on the harmful effect of using technology stated that:

Learners develop their writing or speaking skill while chatting, but mixing up Bangla with English and getting habituated with using acronyms might hamper their learning.

Shreya says:

Only self-motivated students can get the benefits from such platforms. I personally do not like the facebook culture of typing. This may hamper a student's writing skill as well as their spellings. I have come across scripts with facebook coded language. I feel there are better alternatives such as YouTube videos on language tutorials which can ace a student's language learning abilities.

Kushal informs that most of his students are teenagers, and they do not know the proper use of social networks. He says:

I think for their age, social networking sites would do the opposite rather than helping them. I think the negative effects are more than the positive ones because learners tend to get engaged in personal communication.

Some of the barriers of using technology not only related to teachers and students rather many schools do not have enough required computers and other necessary equipment. For

this research I mainly looked at the schools in Dhaka and these schools and, it seems to me, these schools have better equipment than the schools in rural areas or some other schools in small town. One of the reasons could be government initiative of converting conventional classrooms into digital classrooms does not cover the private schools and most of the private schools in rural area do not have multimedia classrooms. Even though the government takes initiative to turn government school classrooms into multimedia classrooms, still not all the schools across Bangladesh got it yet. Schools in remote places are yet to get these benefits. In this scenario implementing technology along with CLT has been a longer process.

From their experiences participants also share some of the barriers of using technology outside of the capital city. They say that in rural areas some public schools have computers and digital classroom equipments, though sometimes they fails to use those for the lack of well-trained teachers, frequent power cuts, because of lack of resources and a stable internet connection. They also shares their job experiences in other private schools where the authority could not afford a computer and peripheral devices because they had to maintain a marginal tuition fees as most of the students are either form average or poor families.

Chapter 7

Technology and communicative language teaching

This chapter provides an insight about the present condition of CLT and usage of technology in Bangladeshi primary schools. The researcher extracts information from seven interviewees and they share their thoughts, experiences and assume the prospect of CLT and implementation of technology for the teaching and learning of primary schools students.

The researcher introduced Jui in the previous chapter. After sharing her thoughts regarding the influences of high stake examinations she provides the researcher with information regarding prospects and the shortcomings that restrict the practice of CLT as well as implementation of computer assisted classroom.

She informs that lack of well trained teachers has been a serious issue to conduct classes using technology. Most of the schools are reluctant to use technology as the teachers find it hectic to use technology because of their lack of expertise. Besides, except numerous schools in Dhaka, most of them are unable to set up computer assisted classroom. The main reasons have been lack of funding, yearly budget management and policy makers' decision making. She says, usually private schools do not get any funding from the government. The teachers in private schools merely get the chance to enroll in government funded training programs. The private schools also do not arrange such training programs to enable their teachers to be technologically proficient. So, she thinks prospects will be vivid if the government as well as the school authority takes initiative to technologically educate their teachers. To do that, they need more fund for training as well as for infrastructural development from govt. and as well as from school authority.

She also talks about raising awareness among the parents and guardians about learning using technology as it is very new to them. She says most of the guardians think that using technology deviate the students from learning and ultimately hampers their examination score. The guardians are very much concerned with their children's examinations marks. This preconceived notion that they carry, need to be diminished to implement technology in the language classrooms.

In 2014, when Jui taught in another school, she could use technology. She used music tracks, videos especially cartoons as authentic materials. She found her students surprised at the first few classes and they could catch up with the pace of this computer assisted pedagogy. She believes that it is a matter of practice and being habituated with such pedagogy. She says the transition period from conventional pedagogy to computer mediated pedagogy is very crucial as the students might lose motivation. From her experience she says, after using multimedia for a few classes most of the students become very keen to learn using technology. The main barrier has been the availability of computers, peripheral devices and stable internet connection with proper networking. She also mentions that subscriptions to various educational resources should be made available for the teachers so that they can collect materials and use those in class. She argues that one of the aims of introducing CLT in the curriculum is to allow teachers to use various interactive teaching activities in their teaching. Integration of technology in teaching can be very helpful in this regard.

She finds her colleagues very reluctant to use technology and they are very much familiar and habituated with using GTM (Grammar Translation Method) as the mode of instruction, most of her colleagues also do not follow CLT while teaching. They also fear whether they lose their job if they use technology as principals in most of the schools think if teachers use technology they do not give that much effort compared to the teachers who do not use technology.

While the researcher looks for the prospects of implementing technology in the classrooms he finds a variety of responses from the interviewees. Their responses show that some of them are very keen to use technology but they cannot. There are people who do not use technology at all; there are also some people who actually use technology as regular practice. Kushal, a teacher from rural area of Tangail, says that he teaches in a school which was established by his father. He uses technology as a regular classroom practice. Though he uses technology on a regular basis, other schools in his area merely encourage the teachers to use technology, rather in some schools the authority do not let teachers to use technology at all. When he was is about using technology into the same curriculum, he says:

I think the combination of current curriculum (CLT) and technology would be effective for the language learning community if that could be practically implemented in the Bangladeshi primary and secondary schools. The goal of learning a language has always been to be able to communicate, if someone does not communicate in the class then there is a little or no chance of learning a language that can be used in real life situations.

He believes that learning isolated language structure do not help learners to build up linguistic competence. When he was asked for his standpoint whether there is a prospect or not for the Bangladeshi primary and secondary level education to implement technology based pedagogy, his answer was straight yes. He is very optimistic and he ensures the researcher that he has been using technology in class for a long time. He also says that students become better language users when technology is used compared to conventional method. He also confirms that following the principles of CLT works best along with computer assisted teaching.

There are other participants who also share their view regarding the future prospect of CLT along with technology mediated English language classrooms. Farzana, a teacher from a reputed school in Dhaka, spend a considerable amount of time with the researchers answering his questions. She says:

CLT practice is not practically possible in large classroom setting whereas can be very effective in small classroom setting. I would prefer eclectic method using teacher's intuition.

When she was asked with a follow-up question whether using multimedia classrooms can be beneficial for a large classroom or not, she says the same. She informs that In Bangladesh, in most of the contexts classrooms at secondary schools are always full of students. In her school she only gets thirty minutes for one class. She does not think that is adequate. She mentions that sometimes it takes five to ten minutes to turn on the computer and projector to get started. She also admits that she is not that much technologically literate, she occasionally uses Gmail and Facebook for her personal puposes. For official and pedagogic purposes she uses Microsoft Word, Microsoft PowerPoint, browses internet and often plays videos from YouTube. If she faces any problems with turning on the devices she cannot do that by herself. In that situation she has to call the technician, and eventually it kills valuable class time. She also admits that there are numerous other teachers who are not also that much proficient in using technology. Even though the school has technologically challenged teachers, the school authority merely arrange or organize any kind of training programs for them. Lack of funding has been a significant issue in implementing technology based classroom, she says. She informs that the school authority is planning to include some new technologies for higher class students. As she teaches class one student, the fees for class one students are less than

other classes. Therefore, the authority wants to invest from where they can get back most of their investments.

Mumtaz (2000) mentions numerous factors that prevent teachers from using technology. She mentions 'Lack of teaching experience with ICT', 'Lack of on-site support for teachers using technology' and 'Lack of computer availability' (p. 320). From Jui, Kushal and Farzana's responses it becomes clearer that factors mentioned by Mumtaz (2000) are responsible for restricting teachers to use technology in class.

Chapter 8

Discussions

This chapter holds critical discussions of the preceding chapters that talk about the collected data from the interviewees. It also talks about my own evaluation and recommendations. Based on the results and interpretation I have also made some recommendation and direction for further research.

7.1 Technology and Current Curriculum:

As the researcher have mentioned in chapter 4, the current NCTB curriculum does not provide any guideline for using technology. The researcher has also found out that none of the teachers stick to a particular method or approach while teaching, but the current curriculum prescribes to use communicative approach. Therefore, it is very clear that there is an inconsistency between the teachers' practices and prescribed national curriculum. Not only Mou, other interviewees such as, Kushal, Farzana, Jui and Shanto also feels that if they are provided with multimedia devices to conduct every class and if there is a curriculum that has clear guideline for implementing those, it will be convenient not only for them but also for all the primary schools teachers across Bangladesh.

Farzana argues thatshe does not have that much expertise handling computers and other peripheral devices. Her school authority does not also allow her to use technology on a daily basis. Besides, she also informs that her school has only few computers and those are merely used for teaching learning purposes. The researcher anticipates that the reason behind of not letting the teachers use computers is teachers' lack of expertise and the authority's resistance to organization change in the pedagogy. In addition, due to the teachers' lack of expertise the authority fears if the teachers might fail to finish the syllabus in time if they use newly

adopted pedagogy. Therefore, the researcher feels that the current curriculum should be revised and some guidelines of using technology should be included.

The participants do not think using social networking websites for the pedagogic purpose is a good idea. All of them think it distracts rather than helping for the teaching process. In this kind of situation the researcher feels the need to enrich platforms like Shikkhok Batayon (শিক্ষকবাতায়ন). In addition, more platforms like this can be introduced not only by the government but also by the school authority. If there are enough platforms like this and if they are enriched with teaching materials then it will be a great help for the teachers who are in of suitable materials. The teachers argue that they can use World Wide Web (www) resources if they are provided with computers. They believe that World Wide Web (www) resources have smoothened the path of technology based language teaching. If the teaching platforms like Shikkhok Batayon (শিক্ষকবাতায়ন) can be enriched, or there are more platforms like this, then it will be a great help for the teachers and also for the learners.

7.2 Discussing the Barriers:

The researcher has already pointed out some barriers of implementing technology in the primary and secondary schools of Bangladesh. Apart from those there are some other barriers. Mou mentions that large classroom with a large number of students is a barrier to implement computer assisted classroom. She also mentions incidents from her students to give an idea about the testing situations when there are a large number of students in the queue. They could have designed a test using computers if there is enough number of computers to conduct the testing. Even if the teachers want to use computers to conduct the testing, there should be at least some computers so that the students can share each PCs. Disappointingly, in most cases the computers are not in the classroom. Mou also mentions that in her school the computer is in the library where the library class is held. Farzana also

says that she is not allowed to use computers even if she wants to. If there are enough number of computers and if the students can be divided into more sections, conducting classes and testing them would be easier. But in that case it will require more teachers and more classrooms to accommodate the students. Researcher also finds it out that the not all the schools are in financial need. Therefore, they can build one computer lab to accommodate as many students they have in each sections. And there can be three or four teachers to facilitate and monitor them in the class. Therefore training the teachers is the first priority to be fulfilled. Referencing to Farzana, who does not have enough training as she mentions, it can be said that implementing technology also requires well trained teachers who can conduct the classes effortlessly. In addition, teachers' payment has been an issue in implementing technology in classrooms. Mou talks about teachers' payment. She informs that most of the teachers are not well paid. If their payment can be increased then they will have higher motivation.

7.3 Classroom in reality:

All the interviewees believe that using authentic materials for language teaching is a good practice to have. All of them inform that in one way or another they try to use authentic materials to teach the lessons. Their practices include pictures and articles from online newspapers and magazines. They also use videos from YouTube and from anywhere if that is related to their lesson. They also use pictures, audios and movie clips. The participants argue that young teachers are very much keen to use technology in the class, but sometimes due to the lack of suitable infrastructure and lack of technological equipments their beliefs cannot be turned into their practice. The participants also argue that the scenario is worse outside of Dhaka. In sub-districts most of the schools do not have a single multimedia class. In such circumstances the teachers cannot utilize their knowledge with technology even if they want to. As a result, their classroom practices remain limited to conventional teaching.

Mou says that she has a laptop and a smartphone. She can take those with her when he goes to school, but during classes she is not allowed to use those to teach the students. She believes that using technology and even using smartphones do not hamper the teaching learning process if used carefully. She used to teach in another school where she could use her laptop and even her smartphone. Her responses show that in her previous school she saw noticeable improvement among learners. She ensures that using technology helps learners to grasp the target lesson more effectively, but in her current school she cannot use technology on a daily basis.

Farzana tries her best to arrange interactive language classes using technology. She finds out that students become more attentive, curious and enthusiastic whenever she shows them something interesting using technology. She also finds out that most of her students use technology at their home for entertainment. Whenever she manages to use technology in class, the students do not understand that they are being taught, instead they enjoy the class as if they are being entertained. In this way young students can be taught without even letting them that they are being taught. It works best for naughty and demotivated students. Interview responses from other interviewees show that using technology minimizes chaos in class.

Kushal informs that introducing technology based instruction to the students at a very early age helps them to do better in their further education. For this reason he tries to use technology whenever possible. It is mentioned before that Kushal teaches in Tangail. In his districts there are public schools where multimedia equipments are given from the government. He comes to know from some of his colleagues that in those schools there is no internet connection even though the schools have multimedia equipment. Some of the schools are not even under 3G internet coverage. As a result, the teachers in those schools cannot

access the resources from platforms like Shikhhok Batayon (শিক্ষকবাতায়ন). In addition, they cannot even access World Wide Web (www) resources, but most of the interviewees believe that www resources are very helpful for adapting and adopting materials. She also argue that for designing a complete material www resources play a crucial role.

The participants do not stick to a particular method for teaching. They incorporate multiple methods which they say works best for effective learning. Kushal designs interactive language learning games. One of his best choices is ship wreck game. Shanto argues that providing the students with examples before providing them the rule or structure is a good practice to have. That is why whenever he designs a language game he tries to give the learners the examples first; and the while playing the games they develop or get the structure. Usually they design the interactive games by themselves. They incorporate eclectic method to design the games as well as to conduct the classes. Most of the teachers focus more on accuracy rather than fluency. To them, producing grammatically correct utterances are more important than fluency. They believe that fluency will come automatically if they can master the structure. They have that kind of feeling because in Bangladeshi context a teacher is evaluated based on how much marks his or her students get in the examinations. They think emphasizing on accuracy is more important for young learners to do well in higher classes.

The teachers argue that to conduct a computer assisted language class the students can be divided into groups or pairs. They believe that is the students are divided in this way then facilitating and monitoring becomes easier as well as effective for the teachers. In contrary, some participants argue that group or pair activities are suitable for upper level students, but whole class discussion works better for elementary level students. Some of them think that the teachers fail to concentrate on each student's needs respectively in group activity. The researcher mentions earlier that a large classroom with one teacher is common scenario in

Bangladeshi primary schools. In that case, the teacher needs to rely completely on the school authority or the governing body to ensure suitable environment to implement multimedia classroom. Not only establishing a multimedia classroom makes it effective, having enough well trained teachers is also very necessary to establish a computer assisted learning environment.

The researcher has talked about the barriers and prospects of implementing computer assisted classroom environment. He expects researching on developing materials for primary school students. This will bring great benefit for the English language teaching learning community.

Following the discussion I would like make following recommendation.

- The school authorities need to rethink about the inevitability of technology for language learning.
- The teachers can come up with different projects and then present to their authority to convince them to implement computer assisted language learning pedagogy.
- The school authorities can include IT skill requirement in their teacher recruitment advertisements.
- The school authorities can collaborate and then they can talk to NCTB to revise the curriculum and include technology based guideline for technology based language learning.

Chapter 8

Conclusions

This research started with the importance of learning English as a global language. It also talked about the importance of technology to facilitate its learning. This research aims to find out the barriers and prospects of Computer Assisted Language Learning in Bangladeshi primary and secondary schools. As the researcher emerges he finds out several barriers and also some prospects. He has also seen that the government of Bangladesh has shown strong commitment to implement ICT in all the sectors of Bangladesh. As Computer Assisted Language Learning is quite a new concept in Bangladesh, researcher finds a lot of barriers. However, incorporating technology in NCTB curriculum, arranging proper training for the teachers and ensuring proper logistics support can completely change the current scenario.

Summary of the findings:

Barriers:

- Lack of computer and peripheral equipments.
- Lack of teacher training.
- Technology based guideline is not present in the curriculum.
- School authority's resistance to organizational change.
- Large classrooms with so many students.
- Low payment scale of the teachers, especially in private primary schools.
- Lack of internet connection availability in sub-districts.
- Lack of resources.
- Influence of examinations.

Prospects:

- Government is continuously trying to provide the schools with computer and peripheral devices.
- Young teachers are coming forward to implement computer assisted learning environment.
- NGOs like BRAC and JAAGO foundation are promoting computer assisted leaning a lot.
- Government encourage if any initiative is taken to promote such pedagogy.
- Government has increased budget and also increased school teachers' salary.
- Government is also trying to promote the importance of computer technology by creating videos and advertisements.

The researcher expects this research have discussed enablers, barriers and prospects of integrating technology in traditional classrooms. This research gives a rich picture of various factors that affect Bangladeshi teachers. Although the participants are small in number, other teachers can get valuable lessons from them and they can consider in their own teaching. It is also expected that in the future technology will be integrated successfully in many classrooms in Bangladesh.

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