

Law and Humanities Quarterly Reviews

Bipasha, S. R. Integration of Technology-Based Language Teaching (TbLT) with English Language Teaching (ELT) at the Tertiary Level in Bangladesh. *Law and Humanities Quarterly Reviews*, 3(3), 12-26.

ISSN 2827-9735

DOI: 10.31014/ajor.1996.03.03.122

The online version of this article can be found at: https://www.asianinstituteofresearch.org/

Published by:

The Asian Institute of Research

The Law and Humanities Quarterly Reviews is an Open Access publication. It may be read, copied, and distributed free of charge according to the conditions of the Creative Commons Attribution 4.0 International license.

The Asian Institute of Research Law and Humanities Quarterly Reviews is a peer-reviewed International Journal of the Asian Institute of Research. The journal covers scholarly articles in the interdisciplinary fields of law and humanities, including constitutional and administrative law, criminal law, civil law, international law, linguistics, history, literature, performing art, philosophy, religion, visual arts, anthropology, culture, and ethics studies. The Law and Humanities Quarterly Reviews is an Open Access Journal that can be accessed and downloaded online for free. Thus, ensuring high visibility and increase of citations for all research articles published. The journal aims to facilitate scholarly work on recent theoretical and practical aspects of law.





The Asian Institute of Research Law and Humanities Quarterly Reviews

Vol.3, No.3, 2024: 12-26 ISSN 2827-9735

Copyright © The Author(s). All Rights Reserved DOI: 10.31014/aior.1996.03.03.122

Integration of Technology-Based Language Teaching (TbLT) with English Language Teaching (ELT) at the Tertiary Level in Bangladesh

Sharmin Rahman Bipasha¹

¹ Lecturer, Department of English, CCN University of Science & Technology, Comilla. E-mail: bipasha2006ru@gmail.com

Abstract

This study explores whether technology facilitates language learning at the tertiary level in Bangladesh and whether teachers are proficient enough to teach language through technology. This study also unravels the types of technology used by students and the purpose of using technology in English language learning. This study falls under the qualitative-analytical framework in which the following theories have been used to analyze the field data: drive theory of motivation, instinct theory, engagement theory, and the theory of learner autonomy. In this study, three private universities (located in Dhaka city) were chosen to elicit data from both students and teachers following the technique of snowball sampling. Data from teachers had been elicited through open-ended interviews and data from students had been elicited through three Focus Group Discussions. Fifteen teachers had been interviewed and eighteen participants from three different departments participated in three FGD sessions. The analysis of data suggests that the use of technology helps students learn English which confirms the premise of engagement theory in Technology-based Language Teaching (TbLT); in addition, teachers can teach English using simple technological aids. Besides, students use Android applications and randomly chosen websites to learn vocabulary and syntax which are indicative of drive, instinct, and learner autonomy. Analysis of the data also uncovers that teachers need training on using complex technological devices.

Keywords: Technology-Based Language Teaching (TbLT), English Language Teaching (ELT), Digital Technology, Tertiary Education Level in Bangladesh.

1. Introduction

Technology has emerged as a significant component of language instruction and acquisition. In traditional language courses, instructors prioritize the instruction and acquisition of English with few or nonexistent instructional materials (V, 2010). They use widely-used materials such as printed textbooks and workout books. Advanced technology has significantly transformed teaching and learning methods in recent years (V, 2010). Twenty-first-century learning settings prioritize novel learning spaces, necessitating extensive use of technology and robust technological infrastructure. Furthermore, the present cohort of young individuals, often referred to as the next generation, has been raised in an age dominated by digital technology. As a result, kids are becoming progressively skilled and proficient in utilizing technological tools and devices (Tapscott, 1998). If instructors

acquire the necessary technological skills to overcome the gap between different generations' digital literacy, it might lead to a significant change in education. This change would include creating a stimulating and continuous learning experience for both teachers and students (Culp, Honey, and Mandianach, 2003).

Some private institutions in metropolitan regions of Bangladesh may choose to utilize Technology-based Language Teaching (TbLT). Not all colleges may possess the necessary infrastructure for technology-driven language instruction. Even if they have, their instructors may lack the expertise and proficiency in using technology for language education. This research aims to investigate the current infrastructure of institutions in Bangladesh for Technology-based Language Teaching (TbLT). The research will also investigate the instructors' proficiency in using various technologies for language instruction, as well as the specific training methods that might enhance their competence in utilizing information technology.

2. Problem Statement

The field of language teaching and learning has broadened as a result of advancements in technology and increased availability (Meskill and Ranglova, 2000). CALL, or Computer-Assisted Language Learning, has gained popularity for Network-Based Language Teaching (NBLT) or online training. This involves utilizing computers connected via local or global networks (Kern and Warschaver, 2000). The Internet and multimedia provide unique learning experiences and opportunities that are not available in traditional classrooms, enhancing language skills and other forms of intelligence (Ivers, 2009). Nevertheless, educators and administrators must exert significant effort to implement any technological advancements (Timucin, 2006).

Several colleges in Bangladesh possess sufficient technology but lack the capability to effectively employ it. Nevertheless, technology enhances teachers' ability to teach language more effectively (Lai and Kristons, 2006). Therefore, it is essential for teachers to have a comprehensive understanding of the necessary software and logistical support required for language instruction (Akter, 2012). This study investigates the availability of sufficient logistical support for Technology-based Learning and Teaching (TbLT) at Bangladeshi universities, as well as the extent to which academics are able to make use of these resources. Effective management is crucial for ensuring the usefulness of a promising technology (Zhao, 2003, p. 8). The effectiveness of technology depends on how the instructor utilizes it (Jones, 2001, p. 361). This study also investigates the necessary teacher training required to start technology-based language education in Bangladesh.

3. Purpose of the study

To apply digital Bangladesh in education, technology-based language instruction may work. TbLT in Bangladesh requires logistical assistance and other infrastructure from institutions. This research examines Bangladeshi private and public universities' TbLT technology support. Teacher knowledge and engagement are also crucial (Jones, 2001). This research also seeks to determine if Bangladeshi teachers are aware of language teaching technology and what training they need to undertake TbLT.

4. Research Ouestions

The research aimed to find out the answers to the following research questions:

- 1. Does technology facilitate language teaching at the tertiary level of education in Bangladesh?
- 2. Are the teachers proficient enough to teach language through technology?
- 3. Do students use technology? For what purposes and how?
- 4. How technologies are used properly in English language classes?

5. Significance of the Study

Since TbLT is new in Bangladesh, there is little research. Thus, this work may expand Bangladeshi TbLT literature and theories. This research will also advise universities on TbLT use at the tertiary level if they want it. Additionally, teachers and administrators will learn why and what sort of technology training is beneficial. Since

TBLT is new in Bangladesh, there would be few studies on it. This research will examine Dhaka universities. Universities outside Dhaka may be different.

6. Limitation

The study deals with only three private universities in Dhaka. I could not collect a large amount of data. I interviewed each teacher only for fifteen minutes. There were some vague responses, I insinuated some responses from the context of the interview since the participants made some vague comments.

7. Literature review

People can hardly function without contemporary technology. Computers and other contemporary amenities dominate education in industrialized nations, and Bangladesh is following suit (Akter; 2012). However, Bangladesh may encounter obstacles like a shortage of equipment, skilled instructors, and so on when implementing technology-enhanced education. This study examines technology-based language instruction in Bangladesh. This chapter analyzes technology-based language instruction using contemporary and prior studies.

Technology-based language instruction uses computers, mobile phones, tablets, websites, and social media to teach language skills. Other terms like CALL and TELL include using computers and multimedia in language schools. Patel (2013) defines technology in second and foreign language education as multimedia and the internet. All technologies that improve English language learning are used in TbLT.

Technology has pros and cons. CALL has benefits, according to Lee (2000). He believes network-based learning may improve experience learning, motivation, individualization, interaction, and global knowledge if properly applied. It boosts student performance and gives realistic study resources. It introduces pupils to intercultural multidisciplinary learning by providing independence from a single source. Modern technology has made computer-assisted language teaching (CALT) an attractive alternative to conventional instruction (Ehsani and Knodt, 1998, p.54). Lai and Kristonis (2006) say computer and language programs may provide students with greater freedom than conventional language lessons. In their discussion of the pros and cons of Computer Assisted Language Learning (CALL) programs, Lai and Kritsonis (2006) note that while computer technology is new, it has some drawbacks that must be considered to benefit students. They also say computers can't manage unanticipated difficulties or answer students' inquiries as instructors can. They also emphasize student and instructor computer competence before using technology in second language instruction. In addressing benefits, they say computer technologies reduce stress, improve language abilities, alter learning attitudes, and motivate pupils.

Some research investigated what abilities and knowledge are needed to utilize technology in schools. Culp, Honey, and Mandinach (2005) found that embracing technology requires a deep grasp of change. The writers argue that technology is altering our lives and that technology must be included in schooling. In poor nations like Bangladesh, most students cannot afford computers. Technological innovation is rapidly improving education and learning, but nations with solid infrastructures, socio-economic situations, government expenditures in education, teacher training, etc. gain the most. Roblyer (2003) in Lai and Kritsonis (2006) state that computer technology has no advantages for non-technical pupils.

The conventional and technology-based learning systems vary. Andersson (2008) observed considerable disparities between conventional and e-Learning. She notes that distant learners feel alienated and leave the course because they feel alone. Bangladeshi pupils lack confidence in their abilities and lack the bravery to take on their own studies. Students believe they won't learn enough by themselves. This emphasizes the need to teach pupils how to choose appropriate resources for independent learning. Student flexibility is very vital in distance learning. For exams, broadcasts, and other support services, they require flexible hours.

Rahaman (2015, pp. 482-483) discovered just 11 1995–2013 Bangladeshi technology and language learning papers in his English Language Education Research anthology. For instance, Ivy (2011) examined language classroom technology uses. The author suggested using the internet, office software for handouts, workbooks, multimedia presentations, and email to teach language. MALL, iPhone, mobile, and mp3/mp4 players may be utilized for language education in addition to CALL. Other language-learning technologies include electronic whiteboards and web 2.0. Interactive blogs may teach reading and writing. The author noted Bangladeshi technological challenges. These include lack of technical skills, poor internet, hefty technology installation costs, and frequent power outages.

Bashir and Rahman (2007–2011) examined instructors' and students' views on multimedia in English language schools. The authors advised universities to add multimedia and computers in classrooms. Multimedia training for instructors is also needed. Islam (2010) cited online EFL course issues. Online English language courses in Bangladesh and Malaysia cannot teach "correct pronunciation," according to the author. Online EFL courses emphasize engagement over language correctness. Online assessment system reliability and validity are poor, according to the author. In particular, proxy students may take online exams. Nasrin (2012) addressed the efficacy of internet-based second-language instruction. Online contact in language courses allows casual language acquisition, according to the author. The authors also list two other benefits of online communication for foreign language instruction, citing Kern (1995). First, social media conversations make students more active language learners by asking questions about text interpretation. 2. Teachers advise, counsel, and facilitate.

Jahan and Rahman (2009) examined tertiary students' and instructors' views on using IT in English language instruction. In their survey, most instructors said IT can help them enhance their teaching style and is good for language instruction. According to the report, pupils who utilize IT do better, and most instructors recommend it. Students were also enthusiastic about IT. Most students said they like tech-heavy lessons and believe it may help them learn English. Most pupils learn using computers and the Internet.

People with similar interests form social networks on social networking platforms (Blatner and Fiori, 2009). They think Facebook may be an effective learning tool since it lets people explore different interaction patterns. They call Facebook a community builder. The Groups app lets students and instructors exchange ideas and viewpoints, and debate topics remotely throughout a course. It keeps them linked and lets them exchange course-related audio and video. They say Facebook may help pupils acquire socio-pragmatic competency by promoting learner autonomy and comfort zones. Some research found Facebook effective for language instruction. Shams (2014) said Facebook worked well for tertiary English teaching. Students at IUB (Independent University, Bangladesh) were enthusiastic about her study. Students were split into experimental and control groups. The control group received only classroom instruction, whereas the experimental group received lessons, tasks, and assistance files. Contests were named and winners received rewards for their performances. The study was important because students were asked to post their real-life feelings on Facebook in English and the researcher corrected their mistakes and gave them constructive feedback. This helped students participate and motivated them through peer interaction and comments. She discovered pupils were fixing their mistakes and aiding others. The control group performed nearly twice as well as the experimental group on the semester's final exam.

All learning and teaching in e-learning are done via network and electronic devices (Patra et al., 2010). Akbar believes e-learning can address student demand for higher education and better learning resources, assuring excellent output. Bangladeshi students are new to e-learning (Akber, 2005). Local authorities in Bangladesh are yet to adopt e-learning services, according to Akber (2005). He says that e-learning in Bangladesh needs advanced technology and a user-friendly environment. Andersson (2008) finds that developing-country pupils are habituated to authoritarian classrooms. E-learning courses will be difficult to start. Akbar (2005) states that economic, technical, and social factors are transforming education. Higher education demand is rising in developed and emerging nations. Bangladesh uses conventional learning methods, hence computer-assisted learning is restricted. National strategy, connection, accreditation, acceptance, and quality of learning materials are concerns for computer-assisted learning systems.

Mobile phones are used to teach and learn languages. Some research found mobile phones to be an effective, engaging, and entertaining language learning and teaching tool. Begum (2011) argues that internet-connected mobile phones provide several EFL classroom opportunities. She suggested mobile phone use. These include downloading e-books, software, and dictionaries, utilizing online word meaning dictionaries, and using audio resources to improve reading, speaking, pronunciation, and listening. Bangladesh has MALL (Mobile Based Language Learning) potential, she said. In a case study at the Department of English, 100 undergraduates were taught prepositions using mobile phones. The weekly exam and materials were provided by SMS. Students took the exam on their phones and professors gave SMS comments. The 45-minute exam included 20 multiple-choice questions and took 2 hours to complete. The majority of pupils took the exam, excluding 5% of female students, who found cell phones bothersome.

Her research reveals important variables.

Multimedia is difficult to utilize during class due to frequent load shedding. The classroom remains non-interactive. Since their English is poor and they make errors, pupils seldom engage in class. Because they seldom use English outside of class. Mobile phones connect students to classmates, professors, and parents. Not using mobile phones to study English. Half of the pupils use their phones for games and not the Internet or audio recorders for English instruction. She listed several reasons why mobile phones aren't used for studying. Interviewing instructors revealed that kids are not allowed to bring phones to class. Students are allegedly hooked to gaming and SMS during class. Cell phone ringing distracts pupils and may lead to cheating. The researcher examines technological details. NOKIA-1100, a small-screened phone, was utilized. To avoid exceeding 160 characters, instructors have to limit class duration. Therefore, it's costly and uncomfortable for instructors since lesson preparation requires more attention and control. The author offered possible remedies in the recommendations. Any mobile phone provider may assist the institution save SMS costs and sending administrative information via SMS. She also proposes changing our perspectives on using mobile phones for teaching. Cell phones may motivate students, and classroom technology encourages creativity. The author advises including MALL in the curriculum and syllabus and that the institution gives financial assistance for mobile phone integration in language education.

Despite the recent emphasis, teacher training remains a concern in Bangladesh. Primary, upper secondary, and postsecondary teachers get no pre-service training (Rahman, 1998). Sultana (2005) found that just 36% of private university lecturers are trained. Teachers in Bangladesh seldom obtain subject-specific training, therefore they use outmoded approaches in the classroom (Khan, 2005, p. 119). The current training syllabuses concentrate more on theoretical teaching methods, therefore trainees cannot use their knowledge in the classroom (Rahman, 1998). BRAC, an NGO, is doing PACE (Post Primary and Continued Education) to educate secondary English teachers and teacher trainers alongside local professionals. Begum (2011) revealed that lecturers are not trained to construct m-learning activities at Jahangirnagar University. She believes instructors can easily manage classrooms if they are trained to utilize mobile phones in language classes. She said the government should educate teachers to use the technology to teach.

Walsh, Power, and Keynes (2011) examined how EIA (English in Action) is helping Bangladesh flourish. The initiative uses mobile phones for teacher training. Their program promotes the PM's 'Digital Bangladesh' and 'Vision 2021' policies. This idea gives teachers audio and video-loaded phones with rechargeable speakers. EIA helps instructors learn and use technology for growth. The authors say EIA is developing a teacher development program with local and national issues and national teacher training institutions to ensure sustained teacher development.

Khan (2014) says the TPCK (Technology Pedagogy Content Knowledge) approach may help Bangladeshi trainers, policymakers, instructors, and educators. This paradigm defines Content (C) as topic knowledge, technological (T) as contemporary technological equipment, and P (Pedagogy) as teaching methods and procedures. Khan presents a three-phase teacher training strategy for Bangladeshi ICT instruction. These stages are Pre-service, In-service, and Ongoing. In the first phase, trainee instructors will learn pedagogy and ICT-supported teaching techniques. The second phase will enroll serving instructors in enhanced training programs for growth. Third phase discusses continuous formal or informal teacher training depending on requirements.

The author also says that Bangladesh requires enough trainers and resources and must prepare prospective trainers to execute TPCK efficiently.

8. Research Methodology

This section covers this research's theory and methodologies. This study uses research design, theoretical framework, sample, setting, equipment, data collecting, analysis, and difficulties. The two main research approaches are qualitative and quantitative. Qualitative research was developed by field anthropologists and sociologists to study human behavior in its natural context, without affecting the subjects' behavior (Seliger and Shohamy, 1989, p. 119). Qualitative researchers ask people about their perspectives. According to Denzin and Lincoln (2005, p. 3), qualitative research places the observer in the world. It makes the world visible via interpretative, tangible processes. Such activities change the world. They create field notes, interviews, discussions, images, videos, and self-memos from the globe. Qualitative research is interpretative and naturalistic. Qualitative researchers investigate natural occurrences in their natural environments to understand them via the meanings individuals assign to them.

9. Research Design

This research is qualitative-analytical. Focus group discussions and interviews were employed to obtain data. We interviewed 15 lecturers from three private institutions. Formal and informal interviews were conducted with instructors. After obtaining authorization from the designated institutions, the instructors were questioned at their scheduled time. Research questions guided data collection and analysis. I did semi-structured in-person interviews. Semi-structured interviews are excellent when the researcher only has one opportunity to interview someone. They indicate that the researcher is in charge of what he wants from an interview but allows both the interviewer and responder to explore fresh leads.

FGD allows qualitative researchers to interview several respondents systematically and concurrently (Babbie, 2011), and its use of social interaction sets it apart from other qualitative research methods. There were six individuals per FGD in this research.

10. Sampling, Data Collection, and Data Analysis Procedure

The research collected data from three Dhaka-based private institutions. English language instructors were interviewed for this research. Fifteen instructors were interviewed and three FGDs had six pupils each. Snowball sampling was my method. When working with a small population, Bernard (2006, p. 193) recommends snowball sampling to establish an extensive sample frame. After completing his sample frame, the researcher may randomly interview individuals. According to Cohen (2007, p. 113), snowball sampling researchers find a few people with the desired traits. The researcher must next contact important informants.

Data gathering began by finding three institutions with English departments or English language programs. The second step was contacting university English departments. Third, I scheduled teacher appointments after authorization. They were questioned at the scheduled time and videotaped with their consent. I took notes on student replies in group discussions. The Basic English students were chosen at random.

The data came from interviews and FGDs. Digital voice recorders captured interview and FGD data. I listened to the data many times and chose the pertinent replies to answer my research questions. I studied the theoretical framework to exclude irrelevant replies during data reduction. Interviews and FGDs yielded a lot of data, but I carefully selected pertinent data. I created categories to group comparable interview and FGD results to find broad themes. I detailed and examined popular replies but did not ignore the opposition. I valued good and negative replies equally while assessing data. Finally, the major research questions are addressed and the theory and results are linked. Bernard (2006, p. 452) says data reduction in quantitative and qualitative research helps answer issues.

11. Findings and analysis

Findings from interview sessions

Fifteen university teachers were interviewed from three different universities. All of the teachers were language teachers and they were teaching a Basic English course. Findings from the interview sessions are analyzed below:

Types of technologies available in the classroom

Every teacher interviewed indicated they had technology in their classes. Most instructors have a multimedia projector, audio player, computer, and OHP, and many employ TV/video clips in language sessions. Three instructors reported solely OHP in their classes. Few instructors reported internet access in their classes.

Purpose of using technology

Technology use purposes were answered differently in interviews. Some teachers utilize technology simply for pronunciation, listening, and speaking, leaving the rest to printed materials and whiteboards. Some instructors employ technology for reading, writing, speaking, listening, and pronunciation. One instructor stated he utilizes technology to teach listening and language. He promotes and directly helps students uncover contextual uses of words in diverse situations.

Advantages of using technology

All instructors agreed that technology aids language instruction. It saves time, inspires pupils, and fosters student connection, according to most. One instructor said: "It motivates my students easily. Showing movies instead of lecturing is more appealing. Students pay greater attention in my class". Technology saves time, yet kids need time to absorb certain subjects. One instructor said technology helped her manage time. It saves time and allows students to communicate with the instructor. Students may need extra time to grasp the material." Some teachers stated technology helps them provide pupils with language feedback. It exposes them to their targeted capabilities. One instructor stated she gives kids PowerPoint presentations with subject suggestions. She combines audio and video resources to introduce the four skills and assist students in grasping the context and use of language. Technology in the classroom has the following benefits, according to teachers. Teachers may demonstrate pupils' material examples using movies and PowerPoint. Teachers reported more attentive and interested pupils in language classes. One instructor said, "My students become more attentive and feel interested when I use technology to teach. Technology helps me make classes more engaging and comprehensible.

Some professors noted that technology exposes children to real-life circumstances and native speakers. One instructor noted, "As I play videos, students have an opportunity to listen to native speakers." A teacher remarked that using technology in the classroom exposes children to the real world. Visualize and learn. Technology makes class more relaxing and rejuvenating. One instructor utilizes songs to calm pupils and make the classroom fun, following the concepts of 'Desuggestopedia (Freeman, 2000, p.73)'. Freeman (2000) says songs relax speech muscles and evoke happy feelings.

Techniques of using technology in teaching language skills

Teachers' reactions about how they use technology to educate speaking, listening, reading, and writing varied throughout the interview. One instructor claimed she provides example speeches for speaking and audio snippets for listening. She has pupils take notes from PowerPoint presentations and write their opinions or reflections after seeing a video clip or movie to teach writing. Teachers utilize technology to teach speaking and listening, according to most. For instance, one teacher said, "For listening practice, I use audio clips. For speaking I use both audio and video clips to teach speaking and I choose materials consciously so that students can learn better. I ask students to present a topic and thus they develop their speaking ability. For reading, I give them topics and printed materials".

One teacher responded, "I incorporate technology in listening and speaking classes mainly to play the audio or video clips. For teaching reading and writing I employ technology particularly to discuss broad and multi-layered lessons such as essay writing, paragraph writing, and response paper writing".

Technology-based classroom Vs. Traditional classroom

Every teacher interviewed said technology-based classrooms are superior to conventional ones. None of the teachers believed conventional classrooms were superior to tech-based ones. Responses show that technology aids language acquisition. Technology influences children, therefore one instructor said it's necessary to include it in teaching. Technology provides variety to language classrooms and reduces instructor effort. One instructor noted that technology is eye-catching and encourages pupils to pay attention and listen, as well as observe, hear, and engage in class. Responses show that technology helps pupils avoid boredom and improves teacher-student communication. Some instructors prefer tech-equipped classrooms with whiteboards and markers. One teacher said, "Traditional classes create monotony and there is no variation in materials provided in the traditional classes. Traditional classrooms do not engage all senses of a learner while a multimedia classroom equally engages five senses. Using technology increases the degree of alertness in comparison with traditional printed materials but both traditional and technology materials should be used. Otherwise, only the use of technology will become monotonous".

Disadvantages of using technology

Most instructors indicated they had not seen any drawbacks of employing technology in their classes. Most professors discussed hardware and software failures. Computers may be slow to start and malfunction. One instructor observed, "It kills time when the CD inside the CD ROM does not work." Power outages and equipment malfunctions disrupt class. Some instructors reported no disadvantages, but their colleagues did. Overuse of technology may make lessons less lively, claimed one instructor. One instructor stated he struggles in typical classes and doesn't enjoy writing on the board since his handwriting is unreadable.

Teachers' observation of students' engagement in technologically advanced classes

No instructor said that pupils disliked multimedia classrooms. Teachers say kids pay more attention and enjoy multimedia lessons. One instructor stated technology draws attention and pupils prefer multimedia courses. When presented video snippets in class, pupils feel revitalized and are interested in technology. One instructor claimed his pupils love multimedia lessons depending on the quality of materials, activities, and teacher presentation. Technology helps engage kids and makes them more willing to study helps them learn independently. Some instructors find it hard to tell whether pupils love multimedia classrooms based on their answers to class activities. Student relaxation and learning were reported by one instructor. Three learning styles are visual, aural, and kinesthetic (Pashler, McDaniel, Rohrer, and Bjork, 2009, p. 108-109). One teacher said, "When students are using their Android phone to browse internet to find a meaning they are practically involved with the machine. This process is helpful for kinesthetic learning. Slides and songs help auditory learners learn language. This technology serves all types of learners. Technology brings a change in attitude toward the class and students eagerly wait for the next class. Sometimes they bring materials".

Teacher training

Most instructors reported not receiving technological training for language classrooms. A "Journal Club" where instructors discuss their experiences and a week of university training at the conclusion of each semester was mentioned by several teachers. Weekly journal club meetings teach technological usage. Attending department lectures and workshops improves their technical abilities. There were workshops, seminars, and BELTA (Bangladesh English Language Teachers' Association) national and international conferences.

All instructors agreed they need training to utilize technology in language classes. One instructor claimed training depends on how often they utilize it. He stated he doesn't require training for PowerPoint presentations—he understands how to produce them. If instructors employ modern technology, they require training, he says. A language instructor without technical training may struggle to use advanced gadgets like OHPs and multimedia projectors. Teaching using technology needs proper training. Some instructors said seasoned teachers don't need training, and most have strong technical skills. They find it more necessary in

training programs to guarantee instructors can utilize technology thereafter. One instructor claimed technological training is essential for good teaching and learning. Knowing how many ways a teacher can utilize technology to educate properly is crucial. Teachers need training to gain confidence and apply it successfully in the classroom. One teacher said, "I think training is necessary as it helps a lot. Having access to and mastery over technology allows for smarter ways to facilitate learning. It is important to be up to date with new technologies and to know the use those in teaching".

Use of technology by students

Focus group talks show pupils utilize technology for language acquisition. No pupil without technology was discovered. They install dictionaries on Android phones and tablets. They utilize computer dictionaries too. Students must utilize Android phones, tablets, and PCs for school. Most students use dictionaries to define words. Different replies emerged throughout conversations. Most replies show that students utilize technology for academic and communicative goals. One student from the first focus group commented, "I use the dictionary to find unknown word meanings." Especially for unfamiliar phrases in my course materials". Another student's remark clearly suggests academic technology usage. One student said, "While writing assignments I use the dictionary. In the process of making an assignment, I download some related articles and information. If I find any unknown word but that seems useful and important to me that I want to use in writing my assignment, then I look for the meaning of that particular word and its usage".

Focus group research shows that certain departments' curricula devalue perfect English. The first focus group member mentioned in the test script that if they can create formulae, they can do well. They need not explain formulae while answering inquiries. Thus, they care little about linguistic accuracy. Their departmental course lecturers stress equations, tables, signs, chemical reagent names, symbols, figures, and formulae, not words. This may explain their language class inattention. This behavior may be explained by Hull's 1943 drive theory of motivation. Hull (1943) says pupils learn based on biological or psychological need. Since their professors don't need descriptive writing instead of formulae and other technical concerns, they're not motivated to acquire perfect English. Correctly writing formulae, reactions, and equations is their goal. Thus, they are less aware of proper language usage. Discussion also revealed that some students learn answers by searching for word meanings to help them remember them. It seems that pupils develop their own learning strategies and compose test scripts. They self-discover word meanings to remember readily. They must learn word meanings to satisfy their drive to memorize. The drive theory relationship is also evident. One participant from the Architecture department, who can use technology very well, responded, "I used to memorize answers. Before memorizing I look for difficult and unknown or new words in the content. Then I make a list of those words and write down their meanings and try to understand it. It helps me memorize quickly".

Dictionaries are pupils' most frequent language learning technology. Everyone claimed they use dictionaries to learn word definitions. One student from the second focus group admitted to viewing "Shashank Redemption" and not understanding the phrase "redemption." He then searched the internet for its significance. He then downloaded a dictionary on his phone to search up words as needed. Another student from the third focus group claimed he searched for word meanings. The term is "superimposed". He then explored the internet for its definition and use. Students usually just seek for word definitions, not synonyms, antonyms, or use. This supports McDougal's (1908) instinct hypothesis of motivation. When students discovered that 'redemption' and "superimposed" were meaningful to them, they actively sought to understand them. The phrases 'redemption, superimposed' were unfamiliar to two pupils. They felt uncomfortable with these two words. The quickest and simplest approach to uncover the meaning is to ignite their energy. Their focus was on meanings. Not wanting to eliminate their uneasiness, they did not look for such terms in other phrases. They then consciously remembered word meanings. One third focus group student stated she has English to Bengali and Bengali to English dictionaries on her phone and quickly discovers word definitions. If not, she searches Google. This result supports Harmer (2007)'s learner autonomy theory since the student took charge of her education. Only one student used technology for other reasons in three focus groups of 18. This participant searches for word definitions, synonyms, and antonyms to employ in writing. He utilizes the online Oxford dictionary and Wikipedia for specific term or topic information. The student uses Wikipedia to learn more when dictionaries don't work, confirming the drive hypothesis of motivation.

One second focus group member claimed he occasionally browses the internet to study English. He types phrases into Google and checks for accuracy. He also seeks acceptable prepositions when unsure. That the learner learned to compose precise sentences and utilize prepositions supports the instinct idea. Two initial focus group members claimed they require technology for copying and pasting tasks. Otherwise, they utilize little. They occasionally search the internet for preposition use or word definitions with long spellings. This supports the drive theory. They use the internet to obtain relevant material for homework or word definitions. Their urge drives them to browse the internet and gather knowledge.

Use of technology in language classroom by teachers

Focus group talks show that instructors utilize technology to teach language skills. One initial focus group member stated their instructor shows movies and asks us to debate and write reflections. It was intriguing and useful for analyzing and commenting on movies. This validates Shneideman's (1994) engagement hypothesis since students are engaged in a group activity and emphasize collaboration. Sometimes we write incorrectly. Responses show that typical classrooms are boring and that teachers' technology helps. One participant from the first focus group said, "After a number of classes on grammar I feel bored and I lose my interest in the class and I cannot hold my concentration from the beginning to the end of the class. If the teacher shows us movies or video songs then it makes me feel relaxed and I enjoy the learning".

Focus groups report that instructors utilize multimedia projectors for PowerPoint presentations and to display drama, movie, or commentary to teach pronunciation, grammar, and writing. One second focus group member claimed theater or movies break up the monotony of typical sessions. They may acquire neutral pronunciation (non-regional) and pay attention to word spelling subtitles to help them utilize the language outside the classroom. A computer and sound system are in their language classroom, where their instructor utilizes it to teach listening and show videos to develop abilities, according to two students from the second focus group. Third focus group members responded differently. Their instructor uses songs in listening courses, but they don't always grasp the singer's pronunciation. They want their instructor to send words and tunes to their phones over Bluetooth so they may listen outside of class. This supports the drive hypothesis of motivation. Students who don't understand the singer's pronunciation in class want to borrow the song from the instructor to listen to it outside of class to enhance their listening skills. The table below summarizes three FGDs.

Discussion issue Responses Use of technology Students use computers, smartphones, and tablets. They browse the internet and by students download applications on their phones. Purpose of using Students use computers to write assignments. Smartphones, tabs, and computers are used technology to download articles and relevant information. Most of the students browse the internet for word meanings and their usage. They browse the internet to improve their language skills and download Android applications and dictionaries on their phones and computers to learn English. 1. Teachers use multimedia projectors to show PowerPoint presentations, movies, and Use of technology by teachers in video materials. 2. Video aids are used by teachers to engage learners and create a relaxed environment language classrooms for learning. After showing a movie or video material teachers ask students to write reflections on those. 3. Technology is also used to remove the monotony of a traditional class. Teachers use audio songs to teach listening. 4. Students were found more interested and engaged in a multimedia classroom. 5. The use of audio-visual aids fosters students' language learning and they get exposure to real-life situations.

Table 1: Responses of the students in FGDs:

12. Discussion on findings

Students are more engaged in multimedia classrooms. Technologically sophisticated classrooms engage students more. Students appear motivated in multimedia classrooms, according to instructors. Technology boosts

motivation, according to world-renowned motivation and language learning researcher Ushioda (2011). This research supports her view. Students say cell phones are effective and interesting. Android apps help children learn word definitions, synonyms, antonyms, and use. Roksana (2011) advocated training instructors in this area, and kids currently use mobile phones extensively. Universities may work with telecommunication firms to educate instructors to deliver suitable device instructions in the classroom and assure success. Students use Android apps to study languages. This research revealed that students use mobile dictionaries to obtain word definitions, synonyms, antonyms, and use. Students feel inspired when they quickly search the internet for word definitions and use. This saves students time and simplifies studying.

This research also shows kids use the Internet for schoolwork. They download study materials for reading and homework. Android phones may now download and read articles. As she studied NOKIA-1100, which can receive 160-character messages and has no internet, Roksana (2011) found that instructors had trouble and time preparing curriculum for pupils owing to the tiny mobile screen size. However, smartphones are now affordable. Most students use smartphones for several reasons. Students using Windows phones can do PowerPoint presentations. Mobile phones with the internet improve language learning a lot. Computer applications assist students write perfect English and fix faults in term papers and assignments. Technology empowers students to study independently. The spell checker on mobile phones shows people accurate spellings and synonyms while composing emails or SMS. They learn new words and meanings independently.

All language instructors utilize technology, according to this survey. Institutions also provide crucial technology. According to the data, most instructors lack formal training, which hinders their technology-based courses. Without technical and theoretical understanding, many instructors struggle to employ new technologies, according to Lee (2000). Findings imply instructors require technology and classroom use training. One instructor said that although teachers know technology well, they require training to use sophisticated technology for teaching. Teachers said it's more vital to test students' technological skills following training. Some instructors are unaware of how many ways technology may improve instruction.

Three aspects determine engagement, according to Schneiderman (1994). The focus is on collaborative endeavors, project-based tasks, and non-academic formats. This research indicated that technology engaged pupils more in class. Pharmacy students in an FGD debated and collected information to write a reflection after seeing a video clip. Audio-visual aids encourage them. They appreciate and take charge of learning. Technology helps teachers encourage kids and promotes a pleasant and refreshed classroom, according to replies. Interviews with instructors demonstrate that showing movies or making pupils listen to audio excerpts or songs exposes them to the target language and real-life circumstances. It lets students see, hear, and participate in class. Professors said pupils are reliant on professors' lectures and bored in conventional classes, and technology has a big impact. Teachers said technology breaks up the monotony of a conventional classroom.

According to Lai and Kritsonis (2006), technology may improve students' language abilities, learning attitudes, self-instruction tactics, and self-confidence via communicative and interactive activities.

Technology in language classrooms has several advantages, according to this research. Technology saves instructors time and lets them show pupils genuine language usage. Teachers' replies reveal technology's drawbacks. Computer issues in the classroom may be distracting. Sometimes projector and CD ROM fail. Other than this, no instructor identified any drawbacks to using technology in language sessions. Teachers said conventional classrooms are harder to manage than digitally equipped ones. Students appreciate multimedia classrooms and are interested in technology, according to instructors. They become independent learners when they decipher words. Tech helps pupils pay attention in class. Multimedia classrooms also make pupils more cooperative, according to one instructor. Some professors found that technology boosts awareness compared to conventional classrooms. Some instructors prefer tech-equipped classrooms with whiteboards and markers.

13. Recommendations

This research examined whether technology aids language instruction in Bangladesh's tertiary education and if instructors are qualified to use it. This research shows that tertiary language professors are tech-savvy. Students also use technology for vocabulary, grammar, pronunciation, speaking, listening, and writing. Based on the results, the following ideas may help implement Technology-based Language Teaching.

According to instructors, they did not get training to handle tech-savvy students and modern classrooms. Some instructors thought they needed reading and writing instruction. They require training in website-based reading and writing instruction. Some instructors are comfortable with basic technologies but struggle with multimedia projectors. Training instructors on advanced technology like multimedia projectors would help them teach better. In her study, Ivy (2011, p. 207) found that: There are no training schemes for language teachers to learn the use of whatever technology there might be. Teachers are expected to know these already or get help from their colleagues.

According to instructors, not all classrooms have internet or multimedia projectors. Language courses need multimedia projectors and the Internet so instructors can help students with videos and web pages. Rahaman (2015) uncovered just 11 technology-language teaching and learning studies from 1995-2013 in his important study on English Language Education research in Bangladesh. The majority of these investigations employed opinion surveys. Some studies were labeled 'expository essay' and not systematic. No research examined how technology can educate grammar, speaking, listening, etc. Each researcher simply stated the relevance of technology in language instruction. Thus, Bangladeshi scholars must use technology to teach writing, reading, pronunciation, and grammar. Technology and language instruction in Bangladesh need extensive case studies and experimentation. Example: Android technology's ability to teach and learn English. Additionally, instructors and students may visit these websites:

Table 2: Useful Websites for Technology-based Language Teaching

| Skills | Websites | Android applications |
|---------------|--|--|
| Grammar | http://www.grammaropolis.com/ https://www.ego4u.com/ http://www.learn-english- today.com/lessons/lessons list.ht ml | https://play.google.com/store/apps/details?id=com.maxlogix.englishgrammar&hl=enhttps://play.google.com/store/apps/details?id=com.testsstore.app.peg0&hl=enhttps://play.google.com/store/apps/details?id=com.gingersoftware.android.keyboard&hl=en |
| Pronunciation | http://www.forvo.com/ http://www.fonetiks.org/ http://busyteacher.org/15081-esl- pronunciation-practice-9-best- online-resources.html | https://play.google.com/store/apps/details?id=com.stud y.english.pronunciation&hl=en http://www.macmillaneducationapps.com/soundspron/ http://emrahakkurt.edublogs.org/mobile/pronounce-it/ |
| Reading | http://emrahakkurt.edublogs.org/ mobile/pronounce-it/ http://linguapress.com/ http://www.colorincolorado.org/ web resources/by topic/teacher resources_adult_ell_instruction / | https://play.google.com/store/apps/details?id=com.jquiz .english_reading&hl=en https://play.google.com/store/apps/details?id=com.a1.q uiz.enreading.free https://play.google.com/store/apps/details?id=com.exa menglish.ielts.reading&hl=en |
| Writing | http://www.time4writing.com/te aching-writing/ http://www.writingfix.com/ http://literacyonline.tki.org.nz/Li | https://play.google.com/store/apps/details?id=com.gxrte ch.SATtutorgrammar&feature=more_from_developer https://play.google.com/store/apps/details?id=com.mac millan.ielts.skillsfree&hl=en |

| | teracy-Online/Teacher- | https://play.google.com/store/apps/details?id=estar.edu. |
|------------|--------------------------------|--|
| | needs/Writing-hub | vn.essayielts&hl=en |
| | | |
| Vocabulary | http://www.vocabulary.com/ | https://play.google.com/store/apps/details?id=com.mag |
| | http://evscicats.com/blog/web- | oosh.gre.quiz.vocabulary&hl=en |
| | tools-for-teachers-vocabulary/ | https://play.google.com/store/apps/details?id=com.appli |
| | http://www.spellingcity.com/ | mobile.powervocab&hl=en |
| | | http://www.spellingcity.com/androidapp.html |

14. Conclusion

Technology greatly impacts English language teaching and learning, according to this research. Authentic materials and a calm learning atmosphere improve language acquisition with technology. It also lets pupils apply English in real life. Students in Bangladesh like tech-filled classrooms. Bangladeshi public and private universities teach in English and employ technology. This qualitative-analytical research shows that Bangladeshi tertiary instructors are skilled in using technology to teach language. Students also used technology to study languages.

According to student interviews, multimedia classrooms offer a great learning environment and break up the monotony of regular classes. Teachers use movies, videos, and audio music to teach language skills, which students appreciate. Android apps and mobile dictionaries help students learn English. They look up word definitions, synonyms, and antonyms, and use them online. They search Google for study materials and Wikipedia for specific information. Students must compose homework and term papers for class. Therefore, students must download publications and gather important knowledge about certain themes. The Internet presents pupils with a wealth of information and learning possibilities. Students type sentences in the search box and verify for accuracy. They use the internet to learn proper prepositions and spellings. Their phones also help them spell correctly.

Interviews with instructors show they use technology in language lessons. Technology makes pupils more attentive, according to professors. Teachers say video and audio samples let pupils hear native speakers and receive real-life experience. Teachers also claimed technology makes teaching more engaging and clear. It helps kids connect lectures to actions. Teachers say tech-enabled classrooms are superior. Teachers save time and manage time using technology. Teachers also said that integrating technology into classrooms is vital since pupils are so impacted by it. The teacher said technology motivates children and helps them study independently. Technology reduces instructors' burden, diversifies language courses, and relieves student boredom. Teachers said that kids are more engaged in a multimedia classroom and that technology helps them learn. Since teachers indicated their lack of competence in teaching reading and writing through technology in the interview and reading and writing appear to be marginalized skills in Technology-based Language Teaching, teachers need training. Further study is needed to determine how technology can teach pronunciation, vocabulary, academic reading, writing, terminologies, and jargon.

Author Contributions: All authors contributed to this research.

Funding: Not applicable.

Conflict of Interest: The authors declare no conflict of interest.

Informed Consent Statement/Ethics Approval: Not applicable.

References

- Akber, M. S. (2005). E-learning in developing countries: Challenges and opportunities Bangladesh perspective. Proceeding of the second International Conference on E-learning . pp. 29- 37. UK: Academic Publishing Limited.
- Akhter, M. (2012). Computer assisted language teaching (CALT) in Bangladesh at tertiary level (Unpublished MA dissertation). East West University, Dhaka, Bangladesh.
- Andersson, A. (2008). Letters from the field: E-learning students change of learning behavior in Sri lanka and Bangladesh. In Williams, R. and Remenyei, D. (Eds). *The Proceeding of the 7th European conference on e-learning*. pp. 29-37. UK: Academic Publishing Limited.
- Babbie, E. (2011). The Basics of Social Research, (5th Edition). WADSWORTH CENGAGE Learning.
- Bashir, A., and Rahman, M. Z. (2007-2011). The use of computers and multimedia in English language teaching classes in Bangladesh: Preliminary observations. *Panini: NSU Studies in Language and Literature*, 5, 133-177.
- Begum, R. (2011). Prospect of Cell Phones as Instructional Tools in the EFL Classroom: A Case Study of Jahangirnagar University, Bangladesh. English Language Teaching, 4(1), 105-115. Retrieved February 7, 2015, from http://www.ccsenet.org/journal/index.php/elt
- Bernard, H. (2006). *Research Methods in Anthropology: Qualitative and Quantitative Approaches* (4th ed., pp. 193-212). Oxford: AltaMira Press.
- Blattner, G. and Fiori, M. (2009). Facebook in language classroom: promises and possibilities .*International journal of instructional technology and distance learning*, 6 (1), 17-28.
- Chinnery, G. M. (2008). You've got some GALL: Google assisted language learning. *Language Learning and Technology*, 12 (1), 3-11.
- Cohen, L., Manion, L., & Morrison, K. (2007). Research methods in education (6th ed.). New York: Routledge.
- Culp, K. M., Honey, M., and Mandianach, E. (2005). *A retrospective on twenty years to education technology Policy* (No. Ed- 01- C0- 0026/ 0017): U. S. Department of Education Technology.
- Denzin, N., & Lincoln, Y. (Eds.). (2005). *Handbook of qualitative research* (3rd ed.). Thousand Oaks, CA: Sage.
- Ehsani, F. and Knodt, E. (1998). Speech technology in computer assisted language learning: Strengths and limitations of a new CALL paradigm. Language and Technology, 2 (1), pp. 54-73.
- Erban, T.,Ban, R. and Castaneda, M. (2009). *Teaching English language learners through technology*. New York: Routledge.
- Harmer, Jeremy. (2007). The practice of English language teaching. Harlow: Pearson Longman.
- Holtman, L. (2009). Using Wikis in the teaching of a short course on history and philosophy of science. *International Journal of Instructional Technology and Distance Learning*, 6 (1), pp. 29-37.
- Hull, C. (1943). Principles of Behavior: An Introduction to Behavior Theory. New York: Appleton-Century-Crofts.
- Irine Ivy, T. (2011). Technology and the Language Teacher. *The Arts Faculty Journal*, (July 2010-June 2011), 206-223.
- Islam, F. S. P. (2010). EFL learning online: A case of South Asia. *The Dhaka University Journal of Linguistics*, 3(5), 137-153.
- Ivers, K. S. (2009). A teacher's Guide to using Technology in the classroom. (2nded.). Westport, CT: Libraries Unlimited.
- Jahan, N., & Rahman, A. (2009). The use of Information Technology (IT) in language teaching & learning. Daffodil International University Journal of Business and Economics, 4(1& 2), 97-105.
- Jones, J. F. (2001). CALL and Responsibilities of Teachers and Administrators. ELT Journal, 55 (4), 360-367.
- Kearsley, G. (1997). The virtual Professor: A personal case study. [http:// home. Sprynet.com/ ^ gkearsley / virtual htm]
- Kern, R. (1995). Restructuring classroom interaction with networked computers: Effects on quantity and characteristics of language production. *The Modern Language Journal*, 79(4), 457–76.
- Kern, R. and Warschauer, M. (2000). Theory and practice of networked-based language teaching. In M. Warschauer and R. Kern. (Eds.), *Networked based Language Teaching: Concepts and Practice* (pp. 1-19). Cambridge: Cambridge University Press.
- Khan, H. R. (2005). Perception of trainee teachers: Implication for effective teaching of English.
- Khan, S. (2014). A model for integrating ICT into teacher training programs in Bangladesh based on TPCK. *International Journal of Education and Development using ICT*, 10(3).
- Lai, C. and Kristonis, W. A. (2006). The advantages and disadvantages of computer technology in second language acquisition. Doctoral Forum, 3 (1).
- Larsen-Freeman, D. 2000. Techniques and Principles in Language Teaching (2nd edn.). Oxford: Oxford University Press.

- Lee, K. W. (2000). English teachers' barriers to the use computer- assisted language learning. The Internet TESL Journal, 6 (12), Retrieved from http://iteslj. Org/ Articles/ Lee- CALL barriers.html.
- Luppicini, R. (2005). A system definition of educational technology in society. *Educational technology and society*, 8 (3), 103-109.
- McDougall, W. (1908). An Introduction to Social Psychology (30th ed., pp. 11-33). London: Methuen Publishing.
- Merton R.K., Fiske M. & Kendall P.L. (1990). *The Focused Interview: A Manual of Problems and Procedures*. In Boateng, W. (2012). Evaluating the Efficacy of Focus Group Discussion (FGD) in Qualitative Social Research. *International Journal of Business and Social Science*, 3(7), 54-54. Retrieved March 17, 2015, from http://www.ijbssnet.com/
- Meskill, C., &Ranglova, K. (2000). Sociocollaborative language learning in Bulgaria. In M. Warschauer R. Kern (Eds.), *Network-based language teaching: Concepts and practice* (pp. 20–40). New York: Cambridge University Press.
- Nasrin, N. (2012). Cultural Communication through social media and the second or foreign language learning. BRAC University Journal, IX(1&2), 57-61.
- Pashler, H., McDaniel, M., Rohrer, D., & Bjork, R. (2008). Learning styles concepts and evidence. *Psychological Science in the Public Interest*, 9(3), 105-119.
- Patel, C. (2013). Use of Multimedia Technology in Teaching and Learning communication skill": An Analysis. *International Journal of Advancements in Research & Technology, Volume 2* (Issue 7), 116-123.
- Patra, C. C., Alam, M. Z. and Sobhan, M. A. (2010). Wimax Network Deployment for ICT Based E-Learning in Bangladesh: Challenges and Recommendation. *International Journal of Information and Telecommunication Engineering*, 1 (1), 39-46.
- Rahaman, A. (2015). Archaeology of research. Dhaka: Muktochinta.
- Rahman, A. (1998). English teaching in Bangladesh: Problems and Prospects. *Journal of the Institute of Modern Language*, 8, 95-101.
- Roblyer, M. (2003). *Integrating Educational Technology into Teaching*. In Lai, C. and Kristonis, W. A. (2006). The advantages and disadvantages of computer technology in second language acquisition. Doctoral Forum, 3 (1).
- Seliger, H., & Shohamy, E. (1989). Second language research methods (pp. 119-133). New York: Oxford University Press.
- Shams, S. (2014). Efficacy of Online Social Networks on Language Teaching: A Bangladeshi Perspective. The IAFOR Journal of Education, 2(2), 117-148. Retrieved March 6, 2015, from http://iafor.org/archives/journals/iafor-education-journal-volume2-issue2.pdf
- Shneideman, B. (1994). Education buy Engagement and Construction: Can Distance Education Be Better than Face-to- Face? [http:// www. hitl. wanslingtonedu/ scivw/ Eve/ distance html].
- Stamford Journal of English, 1 (summer 2005), 119-130.
- Sultana, S. F. (2005). Towards organizing a teacher development movement: Bangladesh perspective. *Stamford Journal of English*, 1, 69-76.
- Tapscott, D. (1998), Growing up digital: The rise of the net generation. New York: McGraw-Hill.
- Timucin, M. (2006). Implementing CALL in EFL Context. ELT Journal, 60 (3), 262-271.
- Ushioda, E. (2013). Motivation matters in mobile language learning: A brief commentary. Language Learning & Technology, 17(3), 1–5. Retrieved from http://llt.msu.edu/issues/october2013/commentary.pdf
- V, A. D. (2010). *Computer Assisted Language Learning Teaching and Testing (CALLTT)*. Germany: LAPLAMBERT Academic Publishing.
- Walsh, C., & Power, T. (2011, November). Going digital on low-cost mobile phones in Bangladesh. In *Proceedings of the Annual International Conference on Education & e-Learning (EeL)*, 7-8 November 2011, Singapore (pp. 151-156).
- Zhao, Y. (2003). Recent developments in technology and language learning: A literature review and meta-analysis. *CALICO Journal*, 21 (1), 7-27.