

## **The Impact of ICT Accessibility in English Language Teaching Methods on B.Ed Third Year Students**

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### **Abstract**

This study aimed at investigating the impact of ICT accessibility in English language teaching methods on B.Ed Third Year students. ICTs equip students with powerful ways to describe, think independently, reason, and solve the problems. When ICTs are used appropriately, they have the potential to enhance students' achievement and assist them in meeting learning objectives. Using modern computers, digital media, and other computer-related technologies can capture and hold students' attention. They can also provide many unique, effective, and powerful opportunities for teaching and learning. The nature of the research is called a qualitative approach. This study is a single case study by using the semi-structured interview and focus group discussion. The main study was executed with eight participants. Participants were selected from Yangon University of Education. The collected data was examined in depth to identify the potential theme. It was found that the impact of ICT accessibility was in positive ways and negative ways.

**Keywords:** ICTs, ICT accessibility, Method, English language teaching methods

### **Introduction**

An educational institution or a university performs a significant function of providing learning experiences to lead their students from the darkness of ignorance to the light of knowledge. The 21<sup>st</sup> Century is the Information Technology (IT) age. In this age, education is the lifelong learning process. To be effective in the lifelong education, ICTs should be integrated into the classroom. ICT integration into the classroom is the combination of all technology parts, such as hardware and software, together with each subject-related area of curriculum to enhance learning. It is also using technology to meet the curriculum standards and learner outcomes of each lesson, unit, or activity. With the onset and proliferation

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of Information and Communication Technology (ICT), there is a growing demand that it is included in school education. Teacher Education has been structured to equip pre-service teachers with competence to use ICTs for their own professional development. Throughout the history of education, various ICT tools have been used in the teaching-learning process to make it more effective. This study aimed to investigate the impact of ICT accessibility in English language teaching methods on B.Ed Third Year students.

In recent years, the use of ICT tools has increasingly become a common feature of the classroom. If ICT tools are to be integrated successfully into the classroom instruction, teacher educators must be able to exhibit successful ICT use in pre-service course. The use of ICTs by students necessarily depends on the ability of teachers to integrate these ICTs into their teaching. ICT tools support the current pedagogical shift in education toward the constructivist paradigm. They can also help students to achieve overall improvement in motivation and improve test scores. In progressing from teacher-centered instruction to student-centered instruction, teachers need to make the shift from the role of their authorities to the providers of student support. Teachers can create and support active environment using ICTs to address the diverse needs of learners. Hartoyo (2008, cited in Prinzessinnadia, 2013) asserted that English language teaching has been shaped by the search for the "one best method" of teaching the language. Regardless of whether the focus of instruction has been reading, the grammatical rules and vocabulary of the target language (e.g. Grammar Translation Method), speaking (how to communicate the target language such as Direct Method, Audio-Lingual Method, the Silent Way, Suggestopedia, Community Language, Communicative Approach), or other issues (e.g. the Total Physical Response Method), the attempts of the teaching profession have been shaped by a desire to find a better way of teaching than the existing method. Some experts and practitioners strongly support the utilization of ICTs in language teaching methods that can improve the quality of understanding and mastery of the language studied (Hartoyo, 2010, cited in Prinzessinnadia, 2013).

### **Purposes of the Study**

The main purpose is to investigate the impact of ICT accessibility in approaching English language teaching methods on B.Ed Third Year students.

The specific purposes of the study are:

1. To study the impact of ICTs on students' learning, academic performance, and communication
2. To explore into the tackling ability and accessible ways of students on ICTs
3. To give suggestions for the improvement of ICT accessibility on language teaching situation according to the results of study.

### **Research Questions**

The research questions of this study are as follows:

1. How do ICTs have the impact on students' learning, academic performance, and communication?
2. How do students deal with ICTs?
3. How do students perceive the impact of ICTs in approaching English language teaching methods?

### **Scope of the Study**

This study is geographically restricted to Yangon Region. Participants in the study are eight pre-service teachers who are studying in B.Ed third year, first semester, at Yangon University of Education within the academic year 2017-2018. Participants are selected by using purposive sampling method. Although there are a lot of personnel that can interview about ICTs impact on students in approaching English language teaching methods such as rectors, professors, lecturers, and tutors, this study is restricted to the students who are pre-service teachers.

### **Definition of the Key Terms**

**ICTs:** Information and communication technologies are defined as a "diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information." These technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony, etc (Tinio, 2003).

**ICT accessibility:** ICT tools and resources can be used by a wide range of people.

**Method:** Method is an overall plan for the orderly presentation of the subject matter, and all of which are based upon the selected approach (Richards & Renandya, 2005).

**English language teaching methods:** Audio-lingualism, Communicative Approach, Task-based Learning, Grammar-translation Method, Suggestopedia, etc.

## **Review of Related Literature**

### **Behaviorism and ICTs**

Behaviorism is the theory that describes that learning is due to an observable change in behavior. In the behavioral theory, the learners observe and practice the information and then receive reinforcement through praise. Behaviorism harnesses the concept of reinforcing desired behaviors and punishing the undesired behavior. Behaviorists define learning as nothing more than the acquisition of new behavior. By using these information and communication technologies, students are immersed in a behaviorist learning environment. They can play an online game and get a result quickly to determine if they are correct or not (Aneta, 2012).

### **Cognitivism and ICTs**

Cognitivism views the learning process as an internal and active mental process, which develops within a learner, increased mental capacity and skills in order to learn better. One assumption of cognitivism is that an existing knowledge structure must be presented in order to compare and process new information for learning. This existing knowledge structure is referred to as schema. Schema is activated and utilized for the benefit of learning when a learner is made aware of his background knowledge and exposed to strategies to 'bridge' from pre-requisite skills to learning objectives (Blanton, 1998, cited in Gregory, 2003). Some great examples of cognitivism in educational technology can be found in online games and reinforcement activities, such as sorting games, puzzles, and flashcards. These games will often present prior knowledge schema in a different method and learn the new information in order to continue (Singh, 2011).

### **Constructivism and ICTs**

The core premise of constructivism is that students actively construct their own knowledge to make sense of the world. Constructivists

believe that students should learn to solve complex problems they will face in real life. It gives new status to the student as an active constructor within the learning environment instead of being a passive recipient of knowledge from the teacher (Brooks, 1993, cited in Corry, 1996). The integration of ICTs into a constructivist classroom allows for individualized learning. Online activities provide students with unlimited access to information for creativity and development. This challenges students to be self-motivated, interactive, and committed to critical thinking.

### **ICTs and Education**

People are different from one another, and the objectives of teaching and learning are too diverse to teach with technology. Thus, educators need to concentrate on learning how to use ICTs in context, or matching to the needs and abilities of learners and to the objectives of instruction. Using ICTs in various combinations can enrich existing educational models and lead to the creation of new approaches to teaching and learning. When used appropriately, ICTs have the potential to enhance students' achievement and assist them in meeting learning objectives. Digital media and other computer-related technologies can capture and hold students' attention. They also can provide skill-building practice, real-world problem solving, discovery learning, interactive learning, and linking learners to a multitude of instructional resources. Thus, ICTs can provide unique, effective, and powerful opportunities for many different types of instruction and learning (Shelly, Cashman, Gunter & Gunter, 2006).

Information and communication technologies (ICTs), which include radio and television, as well as newer digital technologies such as computer and the Internet, have been touted as potentially powerful enabling tools for educational change and reform. When used appropriately, different ICTs make teaching and learning into an engaging, active process connected to real life (Tinio, 2003).

According to MOE (2005), the Ministry of Education has set itself the goal that every child leaving school should be familiar with the computer and scientifically literate. So, a refresher course on English Language Teaching Methodology for school teachers has been conducted in the form of e-learning. An online instructor course for school teachers on responsibilities and rights of citizens, particularly women, has also been conducted by the Myanmar Women's Affairs Federation using the network of learning centers. As an endeavor to enhance learning opportunities that

transcend the limitations of place and time, e-Education was launched in Myanmar on 1 January 2001. By harnessing information and communication technologies, learning opportunities are being widened for citizens to become a learning society able to face the challenges posed by the Knowledge Age. The objectives of initiating e-Education in Myanmar are outlined below:

- To create an academic environment that is endowed with dynamic knowledge and utilizing contemporary technology
- To realize the transformation of the working force into a learning force
- To transform Myanmar into a knowledge dominated society
- To strive for Myanmar society to become a lifelong learning society
- To raise Myanmar education to international standard.

### **Various Types of ICT Tools and Resources**

**Computer in the Classroom:** Information that helps teaching or encourages interaction can be presented on computers in the form of text or in multimedia formats, which include photographs, videos, animation, speech, and music.

**Multi-media:** Multi-media are the multiple forms of media.

**Information Infrastructure:** Borgman claimed governments, businesses, communities, and individuals can work together to create a global information infrastructure which links "the world's telecommunication and computer networks together" and would enable the transmission of "every conceivable information and communication". Currently, the Internet is the default global information infrastructure" (Wikipedia, 2000).

**Internet:** The internet is a huge network of connected computers, linked across the world (Lewis, 2013).

**Interactive Whiteboards:** It is a touch-sensitive board that is connected to a computer and a projector and displays a computer desktop (Lewis, 2013).

**Blog:** A blog is an electronic journal where readers post their thoughts and ideas (Lewis, 2013).

**Wiki:** A wiki is a tool which allows people to work together on a common webpage (Lewis, 2013).

**Podcast:** A podcast is a digital recording delivered in a format that can be played on computer devices such as a desktop computer, a laptop, or a portable media player (Lewis, 2013).

**Virtual Learning Environments:** Virtual learning environments are software programmes designed to create courses, register students, assign tasks, and monitor progress (Lewis, 2013).

**World Wide Web:** The World Wide Web (www) is the part of the internet where information can be accessed. In the early days, most information was either text or simple images. Today, the web is full of multimedia: audio files, video and animation (Lewis, 2013).

**Electronic Dictionaries:** They can help learners in the area of pronunciation and the inclusion of sound files and audio clips is an exciting key feature (Sharma & Barrett, 2011).

**PowerPoint Presentations:** Students can create slides to support a verbal presentation or simply use the slides as 'pages in a book' (Lewis, 2013).

**Audiobooks:** Audiobooks, sometimes known as books on tape, are professionally recorded, unabridged versions of fiction or nonfiction books (Holum & Gahala, 2001).

**Electronic Books and Online Texts:** Electronic books, also known as e-books, are electronic texts that are presented visually (Holum & Gahala, 2001).

**Electronic Talking Books:** "Computers, especially those equipped with devices that produce artificial speech, may provide an effective means for increasing decoding skills and reading fluency," (Reinking and Bridwell, 1966, cited in Holum & Gahala, 2001). Electronic talking books have been found to support reading instruction by providing background information, extended response actions, play actions, and explanatory notes.

**Overhead Projector:** With specialized equipment, computer-generated material can also be projected onto a screen for easy classroom reference to information that is confined to computer disks (Brown, 2001).

## **Materials and Method**

### **Research Design and Procedure**

The nature of the study is called a qualitative approach. It is a single case study by using semi-structured interview and focus group discussion. The relevant literature was firstly described. In order to get the required data, the instruments were developed. Content validity was determined by expert judges. After preparing the required questions for interviews and focus group discussions, pilot testing was done in the first week of December. During the interview procedures and focus group discussions, audio-recorder and note taking are the means to record the data. The procedure utilized a face to face interaction between the researcher and participant or participants in group. According to the pilot study, the interview questions and focus group discussion questions were modified by repairing the wording and adding the other facts needed to ask. The main study was executed during the second week of December in 2017-2018 Academic Year.

### **Instrument**

The interview was conducted by using 15 semi-structured questions. The interview consists of five components. The focus group discussion was conducted by using 4 semi-structured questions.

### **Population and Sample size**

This study was conducted in Yangon region and purposive sampling method was used. Eight participants were selected from third year, first semester at Yangon University of Education. This study was implemented during 2017- 2018 academic year and it takes about two weeks.

### **Data Analysis**

Qualitative data was collected from the third year students' responses of interview and focus group discussion. The records of the interview and focus group discussion were translated into scripts as important references for encoding. Data analysis is based on categorizing and interpreting the questions of interview and focus group discussion. After collecting the qualitative data, they were thoroughly studied to become familiar and to identify the potential themes. The data collected was examined in depth to provide the detailed descriptions of the responses of participants during the interview and discussion periods. Triangulate

method was used to analyze the data because qualitative research should not rely on any single source of data. Triangulation is the use of multiple methods, data collection strategies, and data sources to get a more complete picture of the topic under study and to cross-check information (Mills & Gay, 2016).

## **Results**

### **The Results of Interview Study**

Interview form was developed with five components; accessibility to ICT tools, time spent on ICTs, impact of ICTs, tackling ability on ICTs, and students' perspectives on ICT integration. The analysis process is four steps: becoming a familiarity with the data (listening), examining the data in depth to provide detailed descriptions of the participants (describing), categorizing and coding pieces of data (classifying), interpreting and synthesizing the organized data into general written conclusions or understandings based on the data (interpreting). Based on the findings, the data were identified under the respective areas.

#### **Theme 1 – Accessibility to ICT Tools**

- ICT tools and resources that students mostly use in learning and studying lessons are phone (88% - 7 out of 8), projector (13% - 1 out of 8), online dictionaries (25% - 2 out of 8), radio (13% - 1 out of 8), recorder (13% - 1 out of 8) and tablet (13% - 1 out of 8).
- As a student, they mostly use ICTs to prepare the lessons (50% - 4 out of 8), to search for something in the classroom (25% - 2 out of 8), in computer room (13% - 1 out of 8), during the lessons (38% - 3 out of 8), to make presentations (25% - 2 out of 8), to do homework and assignments (38% - 3 out of 8), and to communicate with classmates (38% - 3 out of 8).
- ICT tools and resources that their teachers mostly use in the classroom are computer (38% - 3 out of 8), phone (25% - 2 out of 8), tablet (25% - 2 out of 8), laptop (25% - 2 out of 8), projector (63% - 5 out of 8), powerpoint slides (38% - 3 out of 8), bluetooth speaker (38% - 3 out of 8), and sound box (13% - 1 out of 8).

#### **Theme 2 – Time Spent on ICTs**

- Students mostly use ICTs in their school work every day (13% - 1 out of 8), or six times a week (13% - 1 out of 8), or twice a week

(13% - 1 out of 8), or three times a week (38% - 3 out of 8), or five times a month (13% - 1 out of 8), three times a month (13% - 1 out of 8).

- Their teachers mostly use ICTs in their teaching every day (13% - 1 out of 8), or twice a week (25% - 2 out of 8), or three times a week (25% - 2 out of 8), or four times a week (13% - 1 out of 8), or twice a month (25% - 2 out of 8).
- In group work activities, they mostly use ICTs every day (25% - 2 out of 8), or twice a week (38% - 3 out of 8), or five times a week (13% - 1 out of 8), or twice a month (13% - 1 out of 8), or four times a month (13% - 1 out of 8).

### **Theme 3 – Impact of ICTs**

- In the impact of ICTs on their learning, students told that they can know either more information with completeness or unknown information more. ICTs give positive effects. They can search for something easily. They can learn to get fluency in typing. They can print for their lessons, so they get useful materials. They can see something vividly. More learning is occurred. Their skills can be improved. Only one student said that some students might not be interested in ICTs.
- In the impact of ICTs on their academic performance, their scores and achievement are better than before (88% - 7 out of 8). One student said that ICTs made her more interest in learning, and understand the questions easily and happy.
- In the impact of ICTs on their communication with other students, students said that they can make friends, help each other and discuss with them. They can share information and know more data and knowledge from them. They can find unknown materials together. Their work can be in easy form because they can have to search for their shared parts.

### **Theme 4 – Tackling Ability on ICTs**

- Most of the students told that they can tackle ICTs neither good nor bad (75% - 6 out of 8). One student said that their ICTs skills are pretty good. Only one student is in bad tackling skills.

- Almost every student (88% - 7 out of 8) said that the most convenient ICT tool for them to find information is phone and tablet. Only one student said that the computer is the best.
- ICT tools and resources students are in difficulty are computers (50% - 4 out of 8), powerpoint slides (25% - 2 out of 8), internet (13% - 1 out of 8), mouse (13% - 1 out of 8), keyboard (13% - 1 out of 8), laptop (13% - 1 out of 8).

### **Theme 5 - Students' Perspectives on ICT Integration**

- They told that ICTs should be used to present related materials with powerpoint slides, to display with projector so that they can see easily, to use in individuals or in groups, to use by teachers as role models, to use in connection with computer, projector and sound box. They perceive ICTs are the good one for education. One student said that ICTs should be used when they are necessary. One student said that teachers must use ICTs as teaching aids.
- They said that computer should be resided in individual classroom (38% - 3 out of 8), or libraries (38% - 3 out of 8), or computer rooms (38% - 3 out of 8), or teacher offices (13% - 1 out of 8), or home (38% - 3 out of 8).
- Students said that ICT tools and resources that can provide the most effective and relevant support for professional development are computer (38% - 3 out of 8), powerpoint slides and projector (13% - 1 out of 8), and phone (50% - 4 out of 8).

### **The Result of Focus Group Discussion**

Focus group discussion questions were developed with four components; the barriers in students' accessibility to ICTs, the pros and cons about ICT accessibility in the classroom, reasons of students' preference - ICT harnessing classroom or traditional teaching classroom, and university support and time to use. The students discussed in focus groups with four participants per group and there are two groups during the qualitative study. The analysis process is four steps: becoming a familiarity with the data (listening), examining the data in depth to provide detailed descriptions of the participants (describing), categorizing and coding pieces of data (classifying), interpreting and synthesizing the organized data into general written conclusions or understandings based on the data (interpreting). Based on the findings, the data were identified under the respective areas.

### **Theme 1 – The Barriers in Students' Accessibility to ICTs**

If they have not background information in ICTs, they can be in a little difficulty. There may be a little electricity support. There may be insufficient computer. They are not proficient in ICTs. There are a few ICT tools and resources for them to use. There are a few computer teachers.

### **Theme 2 – The Pros and Cons about ICT Accessibility in the Classroom**

The pros are that they can find information easily and more, they can get more knowledge, they can use as an aid, they can save in time, more teaching-learning process will occur, their ideas and knowledge can be a great amount. The cons are that if they used in carelessly and wastefully, these can give disadvantages for them, that if they use a lot of time, they may waste their precious time and causes eye weakness.

### **Theme 3 – Reasons of Students' Preference ICT Harnessing Classroom or Traditional Teaching Classroom**

They said that they prefer ICT harnessing classroom environment because they can be in self-study, they can learn more in independent way, they can get interest in learning, they can get real life experiences and wide knowledge, and they can gain confident.

### **Theme 4 – Materials that University Administration should Provide and Time to Use**

They said that their university administration should provide laptop, projector, CD ROMs, and wifi connection. They like to use these resources one hour in everyday. Some said that they may use one period about 50 minutes whenever they are free, throughout the school hours.

### **Discussion**

This study was conducted with the aim of investigating the impact of ICT accessibility in English language teaching methods on B.Ed Third Year students. The results of the study answered the research questions. Pandian (2001) pointed out ICTs as a means of helping communication and collaborating with others. In this study, students pointed out that they can

give opinions and work cooperatively together with each other through learning with ICTs. Pandian (2001) also suggested that information technologies can enhance learning and nurture a climate that encourages learning more interesting and action-oriented. According to the result of this study, students got interest in lessons more with ICTs and they could search for information and learning materials through ICTs. This result was consistent with Pandian (2001) who concluded ICTs as a tool to help the access of information from a variety of sources. Moreover, Pandian (2001) stated that students have the chance to learn creatively within context by using technology and information technology is used to help them be more productive, innovative and efficient in their learning process. His result was consistent with this study. Among the various ICT tools and resources, phone is the most convenient for the students to find information easily. The main purpose of this research is to investigate the impact of ICT accessibility in English language teaching methods on B.Ed Third Year students. It was found that the impact of ICT accessibility can be in positive ways and negative ways. According to Eng (2005), there are positive associations between the level of ICT use and pupils' attainment and an academic performance. Therefore, his evidence was also consistent with this research's finding.

### **Conclusion**

The role of and potential for ICTs in the education sector is not an issue separate from educational reform efforts, but rather inextricably intertwined. ICTs are important tools to meet quality improvements of education for all students. This study has reviewed relevant literature that investigates the impacts of ICT interventions on student learning outcomes, academic performance and communication with others. Evaluation is a crucial process to assess how and when to use ICTs to achieve desired outcomes and to what degree perception and reality align. The impact of ICTs on learners' outcomes vary, whether positive, negative, or no impact at all. ICTs can meet the expectations of students to be efficient and effective in their learning. Therefore, teachers should integrate ICT tools and resources to promote students' achievement.

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