Assessment on the Integration of Internet Technology in Teaching and Learning English in Higher Learning Institutions: An Experience from Morogoro Universities

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ABSTRACT

This case study assesses the integration of Internet technology in teaching and learning English. Data for the study was collected through interviews with teachers, Focus Group Discussions (FGD) with students and observations. The deliberately selected sample size consisted of 6 lecturers who were competent in English and communication skills and 24 students studying English and communication skills. The collected data was analysed using thematic analysis to identify and describe the major concepts of the study. The findings revealed that; integrating Internet technology into teaching and learning encountered many challenges that included poor infrastructure, insufficiency of ICT knowledge, a shortage of Internet facilities and insufficient funds. Lecturers and students need to use their time to work with the Internet in their workplaces. This study also shows that the internet, as an information tool should be used effectively to enhance understanding and achieve daily academic goals. The data was analysed and discussed by using thematic analysis and came up with comprehensive information which in one way or another enabled readers and stakeholders to further their knowledge on internet integration into teaching and learning English.

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INTRODUCTION

Technology according to Vazri (2017) means, things or applications that can solve a problem such as in work, business, communication, etc. With regard to teaching and learning, Vazri said that it is a tool or a device that helps a teacher in the way of instruction. Moreover, Davies et al (2013) mentioned that technology is synonymous with computer equipment, software, and other electronic devices. Selvarani and Vavidoo (2013) posited that when we think about technology, the first teaching aid that appears in our vision is a computer. Technology must be integrated with the teaching and learning process to foster the understanding of the students in various courses including the English language.

Technology integration means that, using computers effectively and efficiently in general content areas to allow students to learn how to apply computer skills in meaningful ways (Dockstader, 1999). According to Davies et al (2013), technology integration means having and using the equipment in the classroom. Integration is incorporating technology in a manner that enhances student learning, also defined technology integration as the effective implementation of educational technology to accomplish intended learning outcomes. Moreover, Arifah (2014) established that technology should be part of the classroom utility like other teaching tools or aids, and it can be an essential combination with additional teaching resources.

Increasingly, there has been rapid development and adoption of new technologies in different parts of the hemisphere (Pradana et al., 2022) in the classroom although there persist gaps in the way new technologies are adopted particularly in the least developed countries (LDCs) such as Bangladesh, Bhutan, Burkina Faso, Liberia, Madagascar, Malawi, Mozambique, Nepal, Rwanda, Senegal, Tanzania and Uganda (Utoikamanu, 2018). Technology has turned into one essential aspect of society that helps students to understand the bigger picture of the world and not just stay confined to what schools and teachers teach them within their classrooms (Pun, 2013).

Technology has become an important aspect of life for people and in the educational environment as a result of globalization (Ahmani, 2019). Innovative tools are now available to teachers which can help them improve their teaching. Technology is providing a great deal of support to the teaching and learning process, especially for English teachers. In addition, technology provides many options for making teaching more exciting and productive with positive changes.

A common instruction for English language teaching and learning some years back was based on learning lists of vocabulary, grammatical exercises, comprehension, essay writing and the like. The learning objectives of the course were focused on the mastery of language structures rather than communicative language. The language was not viewed from a communication or use, but rather on the learners’ exposure to the mechanics of language. Language was learned about; it was not essentially used for anything. Teachers had to book computer labs or language labs to go with their learners and allow them to use computers (Ahmadi, 2017).

Nowadays, internet technology is attaining enormous popularity in second and foreign-language teaching, and many educators and learners are embracing it (Lu, 2006). Technology has been incorporated into the classroom substantially and academically in Western countries. Especially, computers are seen and used as tools to complete certain tasks or to communicate. The integration of Internet technology into education brought a new face to the world by noting a rapid change in terms of development in various aspects, like health, infrastructure, and education. In present education, internet technology is seen to be an effective means of assisting the process of
teaching and learning in the digital era that is becoming a global trend (Zhang & Yu, 2021).

According to Wilson-Strydom et al. (2005), the adoption and integration of technologies is a challenging and complex process for schools, particularly where there is limited previous experience in the use of ICTs to support teaching and learning. They further maintain that at many schools that have access to ICTs, the focus has tended to be on learning about ICTs rather than learning with or through the use of ICTs. Rooney (2003) asserts that, around the world, various academic practices used to explore blended learning, have shown its effectiveness and challenges. The Saudi Ministry of Higher Education encouraged the use of information technology (IT) for teaching and learning among its faculties and students (Reem & Salah, 2010).

The integration of information and communication technologies (ICTs) into teaching and learning has risen on the South African education agenda, particularly with the release of the White Paper on e-Education in 2003 (Wilson-Strydom et al., 2005).

Tanzania is also affected by the adoption and use of technology in teaching and learning at higher learning institutions. In 1985, a policy on technology was established. Even though the demand for a critical mass of human resources workforce and well-trained people increased, the government decided to integrate technology into educational matters in 2000 to meet 21st-century goals. Therefore, the Ministry of Education and Vocational Training from that time changed and became the Ministry of Education, Science and Technology. So many universities in Tanzania reviewed their curricula and programs and integrated education with the use of technological tools such as computers; smartphones (mobile phones), projectors and other tools to enhance education way smoothly.

Moreover, technological programs like the Internet in e-learning and other programs took place to facilitate the process of teaching and learning (Davies & West, 2013). Since its inception in 2005, the Muslim University of Morogoro used Internet technology in teaching and learning. In 2012, the Moodle system, Star, Aris and Saris as the software employed by higher learning institutions and thus were introduced to simplify academic issues such as online access to examination results and course work processing. The lecturers now have access to the examination system that manages and keeps the records of the academic progress of the students.

Research Objectives and Questions

- The main objective of the study was to assess the integration of Internet technology in teaching and learning English in higher education institutions. And its specific objective was to identify challenges encountered by both lecturers and students in integrating Internet technology during teaching and learning English.

- The research question under the specific objective was; what challenges are facing lecturers and students in integrating internet technology during teaching and learning English?

METHODOLOGIES.

Research Approach and Design

This study was guided by qualitative approach and case study design so as to obtain a full understanding of selected participants who yielded the information that the research needed to achieve. This was useful for the lecturers who teach the English language and students who are learning the English language. Moreover, the research design determined the challenges encountered by both lecturers and students in integrating Internet technology during teaching and learning processes.

Population of the study, location, collection tools and analysis.

The study used twenty-four (24) university students and six (6) lecturers who learn and teach English and communication skills consecutively selected from three universities which were Muslim University of Morogoro, Jordan University College and Sokoine University of Agriculture. These universities were selected due
to their potential thus the first two are private and the last one is government. All these universities are found in Morogoro municipality. Also, the study used three data collection tools which were (a) Interviews for lecturers (b) Focus Group Discussion for students and (c) Observation which was used by the researcher. Thematic was also used to analyze data obtained from the field.

DATA PRESENTATION AND DISCUSSION OF FINDINGS.

The data of the present study were then presented, analysed and discussed by considering the aforementioned objective which was to identify challenges encountered by both lecturers and students in integrating internet technology while teaching and learning English. So, in order to achieve this objective the researcher carried out interviews with lecturers, focused group discussion with students as well as observation and came up with the following responses as follows;

Poor Infrastructure

The first challenge that was pointed out by respondents was the poor infrastructure of the internet in universities. In some of the universities, there is lack of wireless internet connection on campuses. The interview done with "JUL1 evidenced that poor infrastructure is still a challenge when it comes to internet accessibility. This was as JUL1 quoted saying “…at our university internet infrastructure is not that much sufficient when compared to the number of students we have today. The number of students is increasing day after day, yet the internet infrastructure is still the same…”

The interview with "SUL2 was also evidenced that, internet infrastructure when compared to the number of students at the university is still a challenge. This was as quoted below;

…although our university is trying whatever it can in making sure that the majority of the students and staff have access to internet, yet the internet infrastructure is not sufficient when compared to the number of internet users at the university. You know nowadays with the introduction of these smartphones; the number of internet users has grown very rapidly…. (SUL2)

Also, the interview with "MUL2 also evidenced that poor infrastructure is still a challenge when it comes to the teaching and learning of English in our universities. This was as quoted below:

…actually, the number of internet users is growing every day. In that matter, the accessibility of the internet by the majority is still a challenge in our universities. Still, the available infrastructure does not support the needs of the majority. Both the accessibility and the speed of the internet itself at the university is still a challenge…. (MUL2)

Focused group discussions with students also showed that internet infrastructure is still a challenge in our universities. This was as quoted below:

…internet infrastructure is still a challenge at our university. The number of the students is higher compared to the infrastructure of the internet available at the university. This is due to the fact that internet if available is in only some parts of the university. So, when you need the internet you must go in a certain area…. (JUG)

A researcher also observed personally for some hours and witnessed that, some students had concentrated in a certain place busy with their mobile phones and when he asked one of them said that they were using the internet, and that was in that place where they could access the internet much better. In that matter, we have seen that the challenge number one facing both lecturers and students is the poor infrastructure of the internet in our universities. In this matter the study found that; many universities in Tanzania didn't connect to the Internet in their classes, thus making it difficult for some lecturers who teach English subjects to use the internet directly. This finding is supported by the study done by The Organization for Economic Co-operation and Development (OECD, 2015) on an international investigation into the impact of heavy investments in technology. They found that moderate use of computers in the classroom tended to assist learning outcomes but also discovered some
negative effects of heavy use of computers. Also, a study done by Nyakito et al., (2021) on ICT integration in T/L shows that Improper ICT infrastructure may result in frustration and discouragement among lecturers when the internet or electricity is intermittent, or the computers are obsolete and too slow. This implies that the availability of poor infrastructure leads to the uselessness of technology like the Internet in the classrooms and hinders educational improvement in many universities, as indicated in the above studies.

**Regular Power Cut-off**

Another challenge that was pointed out that encounters lecturers and students is regular power cut-offs. Several times you find that the power supply is cutting off, and in that case, access to the internet becomes impossible. The interview with MUL2 evidenced that regular power cut-off affects internet accessibility. This was as quoted below:

…power cut-offs several times do affect the accessibility of the internet both to us but also to students as well. You find that someone is planning to use the internet in looking for a certain material in the internet and then you find that the internet is not accessible. This is really a challenge to us in this university and other universities as well…. (MUL2)

The interview with JUL2 also was evidenced the same, with power cut-off several times being a challenge affecting both lecturers and students. This was quoted from JUL2 saying “…power cut off is really a problem, and this does not only affect us as lecturers but also affects students more often…”

The interview with SUL1 also showed similar findings that regular power cut-offs do affect the teaching of English in higher learning institutions. This was as SUL1 quoted saying “…in fact, regular power cut off is a challenge at our university. This is not only affecting us as lecturers but also affect students as well…”

The focused group discussion with SUG also pointed out that, regular power cut-off is a challenge that affects students in the whole process of learning at the university. This was as quoted from SUGb saying “…you know the number of standby generators at our university is not sufficient when compared to the number of students in this university. So, whenever there is power cut off it becomes a challenge to many of us…”

Moreover, the study found that, in many Tanzania universities, power cut-offs became a normal issue no one regarded that, thus in one way or another educational purpose became unreached in an acceptable way. The mentioned problem is encountered by English lecturers during their teaching process and makes them fail to implement the use of Internet technology directly in the classroom. The study done by Begum (2018) on the use of technology stated that; “the use of audio-visual teaching and learning materials can help to remove learners’ boredom and increase their attention rates in language learning”. The situation indicates that, once a teacher uses such kind of technology can facilitate learning to take place more effectively but sometimes cutting off electricity becomes a problem. Thus, the lectures when approached mentioned cutting off electricity as a big hindrance to the implementation of direct internet in the classes.

**Insufficient ICT Knowledge to Facilitators**

Insufficient ICT knowledge to facilitators was another challenge that was pointed out during the interview and focused group discussion that was carried out. It was found that some facilitators do not have sufficient ICT knowledge on how to integrate technology in teaching and learning English. Many lecturers are too busy in their specialization dealings, and they don't think about other issues like modern technologies, thus finding themselves out of ICT knowledge even in classrooms. The interview conducted with SUL2 pointed out that, ICT knowledge to facilitators is a challenge. This was as SUL2 said; “…Teachers are more knowledgeable in their specialization but are less aware of technological issues. In that matter, they do not take much time in learning
how to integrate technology in the teaching of English in higher learning institutions…”

Another interview done with MUL1 also showed that knowledge of ICT is still a challenge to some facilitators when it comes to the teaching of English at higher learning institutions. This was as quoted below:

…the teaching of English one must observe the components of language skills which are listening, speaking, reading and writing. So, to some facilitators, there is a challenge on how to integrate technology in dealing with these four components of language skills… (MUL1)

Also, the interview with JUL1 evidenced that, the integration of technology in the teaching and learning of English in higher learning institutions is still a challenge to some facilitators. This was as JUL1 said; “…when teaching English there are some key points that must be given much attention, now you find that some facilitators lack knowledge on how to present these key points using technology…”

It was also observed that some lecturers were not using technology in the process of teaching English. This could be due to the reason that some might not be aware of how to integrate technology into the teaching and learning process. Thus, this is evidence of the insufficient ICT knowledge to some facilitators. With regard to the above explanation, the study found that; many teachers are too busy in their specialization dealings, and they don’t think about other issues like modern technologies, thus finding themselves out of ICT knowledge even in classrooms. Respondents from SUL commented that; “Teachers are more knowledgeable in their specialization but are less aware of technological issues”. A study done by Dudeney (2007) explains the Internet for teachers who have not worked with ICT before, as a challenge. The study implies that poor understanding of the use of information and communication technology at the university level resulting the usefulness of the Internet in the teaching process. Also, the study is supported by Yidana (2007) who found that most of the teacher-educators in two Ghanaian universities lacked knowledge and skills in ICT integration and internet use in particular in teaching and learning. The study above indicates how insufficient knowledge leads to the challenges of Internet technology integration in many Tanzanian universities.

**Shortage of Internet Facilities**

Shortage of internet facilities was also another challenge that was pointed out. When comparing the number of students at universities in relation to the internet facilities available you find that still internet facilities available do not match the number of university students. The focused group discussion with SUG pointed out that internet facilities available are not sufficient for the number of students. This was as quoted below:

…the number of internet facilities is smaller when compared to the number of university students. As a result, either the accessibility of the internet is very low due to insufficient internet facilities or lack of accessing the internet totally in some areas of the university… (SUG)

The focused group discussion with MUG also pointed out that internet facilities are not sufficient. This was as MUG quoted.

“…the number of computers connected to the internet at the university is smaller when compared to the number of university students. This results in a challenge for those who need the internet to access different materials…”

The focused group discussion with JUG also pointed out that the shortage of internet facilities is a challenge that affects both lecturers and students in the process of teaching and learning of English. This was as JUG pointed out; “…of course, that is obvious, universities are growing day by day. The enrolment rate is higher compared to the number of internet facilities available. For that matter, the teaching and learning of English becomes a challenge in our university…”

The interview performed with MUL2 was also evidenced that, the shortage of internet facilities at the university is a challenge to both students and lecturers. This was as quoted below:
…starting with students, there are some students who do not own laptops and for that matter, they depend on university computers when in need of accessing the internet. No, the number of university computers connected to the internet when compared to the number of students in need you find that there is a challenge in the accessibility of internet by majority of the students. On the other hand, accessibility of the internet even by lecturers is also a challenge because internet facilities are still fewer compared to the demand… (MUL2)

The analysis has shown that; in many universities in Tanzania, learning facilities like computers connected with the internet are very limited compared with the number of students enrolled per year in University, thus leading many students to reduce the regularity of visiting the free university internet. Respondents from SUG1 have commented that; "In our university internet was allocated and commanded according to the students’ number but computers remaining the same compared with increasing number of students enrolled per year". A study done by Muhammad and Belai (2010) on the utilization of the Internet by English language teachers supported that by showing how teachers and students are not using the Internet because of time factors and accessibility of facilities issues. So, the shortage of internet facilities has become challenging in most of Tanzanian universities.

**Insufficient ICT Knowledge to Learners**

Insufficient ICT knowledge to learners was also another challenge that was pointed out. Many students at the university do not have sufficient ICT knowledge; as a result, it becomes difficult for them to integrate technology into their learning. The interview with JUG pointed out that insufficient ICT knowledge to learners is a challenge. This was as JUG pointed out; “…many of us are not very good at using computers to search different materials on the internet. Lack of ICT knowledge by many of us results in a challenge when in need of searching different materials on the internet…”

It was also observed that many students owned mobile phones instead of laptops. This could be due to either lack of knowledge on how to use computers. Thus, they see no need to purchase computers. The interview with JUL2 also evidenced that learners have insufficient knowledge on ICT. This was as JUL2 said; “…many students have poor background of ICT when they were in secondary schools and for that matter they lack basics of ICT knowledge…”

The study found that; many students come from remote areas which don't have any technological services like computers and others also, they don't have any pre-technology knowledge since primary school thus, when they join universities they fail to opt for a suitable site of learning through internet connectivity. So, you may find while browsing the internet there are many interactions of notifications which bring challenges to learners in selecting the best site. Participants from MUG commented that; "Students should concentrate on required materials and abstaining on other social network notifications". This implies that while studying learners are supposed to focus on the intended topic and leave all unrequired materials. This also is supported by the study conducted by Roshan and Muhammad (2007) on integrating e-mobile and model into teaching and learning environments which discovered that students found the tool difficult to use or operate because of computer proficiency. This indicates that ICT knowledge is still a challenge to students in most Tanzanian universities.

**Insufficient Funds**

Another challenge that was pointed out was insufficient funds. Universities lack sufficient funds to purchase internet facilities for their universities. The interview with MUL1 pointed out that lack of funds does affect universities in purchasing sufficient internet facilities for their universities. This was as MUL1 said; “…the budget we have in place is not enough to purchase larger volume of internet facilities which could be sufficient to all students. In that regard, only a small portion of internet facilities is bought by the university…”
The interview with JUL1 also pointed out the shortage of funds as a challenge that affects the integration of Internet technology in teaching and learning of English. This was as JUL1 said; “…shortage of funds affects us so much. We cannot buy sufficient facilities both for students and lecturers as needed. If we could have sufficient funds then the problem could have been solved…”

The interview with SUL2 also pointed out that insufficient funds is a challenge that affects the integration of internet in the teaching and learning of English. This was as SUL2 said; “…the problem is money, if we could have sufficient funds it could help us very much in supplying sufficient number of internet facilities as required…”

Studies have found that; money is a tool for educational development; many students in their universities are mostly motivated in using the internet for browsing materials inside and outside of the campus depending on money from the High Education Students Loans Board (HESLB) but fail to use the internet due to insufficient of money given. This finding supports the study done by Yusi, (2021) who asserted that; low level of economy can make people unreached their oriented goal. The participants of this study also argued that the provided budget underlined by HESLB is for tuition fees, books and stationaries, meals and accommodation and field practicals and fare. They continue saying that; money from HESLB is not enough to purchase bundles for internet browsing because there is no budget allocated.

**CONCLUSION**

The study focuses on technology integration in teaching and learning. It presents significant challenges to universities like poor infrastructure, insufficient ICT knowledge, Insufficient fund, Irregular power cut-offs and shortage of internet facilities. Technology integration facilitated teaching and learning.

**Pedagogical Implications**

The findings of this study revealed that the teaching and learning environments play crucial roles in the application of Internet technology. Teachers are in a position to implement technological tools in the teaching process. Also, students are required to use the internet in the learning process to achieve higher performance in their daily achievements. Lecturers need to provide their learners with plenty of time to apply what they have done in the classroom individually. Also, learners are in a position to use smartphones for academic issues. In this regard, it's most effective for learners to use authentic materials like social media which facilitate the simplicity of learning English with the Internet. The present study opens doors to encourage learners to be committed and actively involved in learning.

**RECOMMENDATIONS**

Based on the study literature, the current study was designed to assess the integration of Internet technology in teaching and learning English by looking at challenges. This study showed that there are several potential factors that need to be studied and explored in this field. Many suggestions and recommendations were provided in order to bring in-depth understanding for researchers to further their studies on the same topic in different places. This research was in Morogoro municipality, specifically in three Universities and the following were the recommendations;

**Policy Makers**

Regarding this study, policymakers are in a position to make changes on every level of education in the country to stimulate development through education by supervising the quality of education in universities and eliminating all hindrances of technology. Also, policymakers are required to improve the use of Internet technologies in teaching and learning specifically in low levels of education like secondary and primary schools.
University Administrators
Apart from the recommendation above, the administrators are in charge of ensuring that the Internet is connected in every class to allow lecturers to integrate the internet into the teaching process effectively. Observations made have shown that many classes in universities have poor infrastructure thus leading to difficulties for lecturers using direct internet while teaching.

REFERENCES


