Practices of Luganda Language Educators in Using Emerging Technologies at the School of Education, Makerere University

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Abstract
The study explored practices of Luganda language educators at the School of Education, Makerere University in using emerging technologies. The study analyzed the practices of Luganda language educators in using emerging technologies; identified the emerging technologies used in Luganda language instruction; and established the factors influencing the practices of Luganda language educators in emerging technologies. The study paradigm was interpretivism with a case design. The study participants were purposively selected Luganda language teacher educators and conveniently sampled students specializing in Luganda Language as one of the teaching subjects. Data were collected using interview guide, focused group discussion guide and observation check list and analyzed using thematic content data analysis technique. Findings revealed that Luganda language educators practiced use of emerging technologies, such as Zoom and Google meet apps, MUELE platform, mails, Telegrams, WhatsApp, laptops, smart phones as well as computers, among others for lectures through sharing learning material with learners, providing feedback, conducting online assessment, and conducting lectures via the online platforms. The study concluded that Luganda teacher educators practiced emerging technologies to teach, send materials, course works, and submission of course works and assessment and grading of learners. Luganda teacher educators practiced emerging technologies through preparation for teaching, selection of Luganda content and teaching aids. The study concluded that the most practiced emerging technologies during Luganda language teaching were the moodle system in form of MUELE, video conferencing, Zoom, and Google meet and WhatsApp, Facebook, and Youtube, among others. The study also concluded that the factors influencing practices of Luganda language teachers were; favorable University policy, availability of electric power, internet connectivity, availability of merging technological tools such as smart mobile phones, pads, laptops and or computers, among others, as well as use of offline platforms, such as distributing class notes via CDs and flash disks for use on online computers. From the study findings, the study recommends that Luganda language educators should adopt, apply and maintain excellent practices with use of the emerging technologies. This could be done through encouragement of online lectures via platforms such as MUELE; they should also continuously upload academic material on online platforms such as Whatsapp, hold academic engagements / sessions via google meet, conduct online assessment and provide feedback to learners online. Such practices will not only improve their skills with emerging technologies, but shall also deepen their knowledge as well as shape a positive attitude and adoption of emerging technologies for effective Luganda language teaching and learning.
Keywords: Practices, Emerging Technologies, Luganda Language Educators

1. Introduction
The challenge of Covid-19 pandemic brought many changes in education and this resulted into closure of educational institutions at all levels including tertiary education sector. Emerging Technologies (ETs) were hence considered essential in sustaining teaching and learning. In Uganda, following the nationwide closure of educational institutions on 18th March 2020, the Ministry of Education and Sports as well as the National Council of Higher Education recommended and encouraged learning to continue remotely. Lessons were conducted using different platforms like radios, televisions, zoom, Whatsapp and Google classroom. However, the sudden transition as met with several challenges among language educators, many of them feigned ignorance of emerging technology practices (Susanty, 2021; Dwivedi, Hughes, Ismagilova, Aarts, Coombs, Crick & Williams, 2021). The transition and adoption meant designing activities adapted to the practice of online learning using different teaching approaches. Despite the adoption of e-learning by many School of Education, Makerere University during and after covic-19 lockdowns, the sudden transition gave Luganda language educators a chance to embrace emerging technologies. This study explored the practices of Luganda language educators at the School of Education, Makerere University in using emerging technologies.

2. Background
World over, emerging technologies has always had an effect on education and the teaching and learning has not

been an exception especially for higher education institutions. Emerging technologies encompass all computerized and auxiliary automated information handling systems design and analysis, conversion of data, computer programming, information storage and retrieval, voice, video, data communications, requisite system controls and simulation to aid learning (Dias & Victor, 2022; Dubé & Wen, 2022).

Historically, the use of emerging technologies in education started way back in the 1950s in Europe, in particular through the World-Wide Web, E-Mail and Forums. The earlier type, based on Computer-based learning (CBL), focused on the interaction between the student and computer drills on one hand and tutorials on the other. Using computer skills, the teacher divides contents into smaller chunks of text augmented with graphics and multimedia presentation. Frequent Multiple Choice questions with immediate feedback are added for self-assessment and guidance, which provides effective ways to impart long life learning to the students (Chen, Lee & Hung, 2022; Cuban, 2022).

The use of emerging technologies in language teaching can also be traced way back in 1950's with popular designs of Skinners' work which led to "programmed instruction" focusing on the formulation of behavioral objectives, breaking instructional content into small units and rewarding correct responses early and often (Calandra, De Lorenzis, Cannavò & Lamberti, 2022). Advocating a mastery approach to teaching based on his taxonomy of intellectual behaviors, Bloom endorsed instructional techniques that varied both instruction and time according to learner requirements Bloom (1956) Models based on these designs were usually referred to as computer-based training" (CBT), Computer-aided instruction or computer-assisted instruction (CAI) in the 1970s through the 1990s Skinner (1958).

However, critics such as Postman (2019) have argued that a curriculum with computer skills at its core teaches a "technocratic" belief system, making all education into an uncritical type of vocational training. Rather than developing the more generic skills of reading, writing, and critical inquiry, the prominent use of computer skills by lecturers how to manipulate the technology to elicit the desired response in a non-collaborative, non-rational manner (Watson, 2018).

Language online teaching platforms owe much to technology development in the 20th century. For instance, in language learning, Computer Assisted Language Learning (CALL); an umbrella term for a multitude of processes and activities that use ICT for teaching and learning of languages was adopted (Graciun, 2019). The use of CALL has evolved with the period 1960-1970 being dominated by technologies that required repetitive exercises, drills, and practices, mainly designed to learn grammar rules and develop vocabulary. The second period, termed as communicative CALL (1970-2000) was characterized or based on the premise that students could effectively learn with the help of technology, using the language in various situations, watching videos, with native speakers. The current period is the integrative (CALL) which is based on the development of the internet and hypermedia in which one develops speaking, listening, reading, and writing skills, through video and audio streaming interactive graphical content, virtual reality (VR), and augmented reality (AR) technologies.

Since then, computer-assisted language learning synonymously termed computer-assisted instruction (CAI), technology-enhanced language learning (TELL), has expanded and evolved at a remarkable rate (Thouesny & Bradley, 2011). Computer-assisted language learning promotes language learning as it assesses learners' language and allows the collection of data for all kinds of instruction in the language. Mayoka and Kyeyune (2012) showed that since 2000, many universities in Uganda had tried to adopt online learning. However, it was Makerere University - the biggest and oldest University in the country which was the first to start e-learning using the blackboard platform.

Makerere University ICT policy calls for promoting ubiquitous and equitable access to ICT resources for students and staff to the network through the establishment of network infrastructure in work areas of students, staff, and administrators (Makerere University ICT Policy, 2010). Arising from this, Makerere University has integrated ICTS in all its major areas of teaching, learning, administration, and research (Makerere University, 2020) which later evolved into the new system called MUELE (Makerere University Electronic Learning Environment) based on the moodle platform. Other universities such as Nkozi and Makerere University Business School followed suit. This advent to online learning was pioneered by Nettel Africa which introduced the practices environment for web-based learning (KEWL) system which targeted students pursuing a postgraduate program in ICT policy and regulation.

The article draws mainly from the KAP model developed in 1950's by Cleland (Rav-marathe, Wan & Marathe, 2016). Practices in the model is referred to as the continued use of a skill on a regular basis. Attitude refers to the likelihood of embracing or rejecting an emerging technology. Skill refers to the competence, mastery and success with which one carries out a given activity, such as practicing a given innovation. Basing on the three tenents of this model, this current study assumes that through practices acquisition of emerging technologies, Luganda teacher trainees would be trained better using these emerging techniques. However, this theory is applied more in the health sector differing from what is prevailing in teacher education. Further it does not directly deal with technological components. This gap was filled by integrating TPACK Model developed by Shulman (1986).

TPACK model assumes that effective teaching requires a special type of practices, pedagogical content practices (TPACK) that represents the blending of content and pedagogy into the understanding of how particular topics problems and issues are organized, represented, and adapted to diverse abilities of learners and represented for instruction. Similarly, Wang (2016) confirmed that TPACK Model positions teachers to be skillful and demonstrate the ability to integrate technology within the constructs of content and pedagogical domains.

According to Arkurful and Abaidoo (2014), online learning means the use of information and communication technologies to enable the access of online sharing and teaching resources. Emerging online E-learning platform refers to software including services to assist teachers in the management of the course (Ovadoud, Chkouri, Nejjari & Kadiri, 2016). In this study, emerging technologies covered the moodle system with emphasis on MUELE, and zoom as the university subscribed to these two. Digital competence is defined by McGarr and McDonagh (2021) as skills, practices and attitudes required for people to successfully use computer technologies.

In 1976, Luganda language education was introduced and was taught in different units such as at the School of Education, and the institute of languages at Makerere University intended to offer practices and skills to students who wanted to pursue different academic levels such as diplomas and degrees (SoL, 2017). According to Ssentanda, Huddlestone, and Southwood (2016), ever since the introduction of formal education, different trials have been made to develop mother tongue languages in the teaching and learning avenues. Efforts like the institution of the national language policy which emphasizes teaching using local languages were put in place (Muzoora, Terry & Asiimwe, 2014). Also, the use of local languages as other subjects in upper secondary and University level have been put in place (Ssentanda, 2015). This implies that Luganda language teacher instruction has to be perfectly done across the different training institutions. However, it appears that the practices of emerging technologies among Luganda language educators at School of Education had lagged behind for a long time. Or instance, the ideology that Luganda as a native mother tongue does not meet the criteria of being taught via modern emerging technologies such as Zoom and google meet apps has been erroneously held for so long among Luganda language educators, because many Luganda language educators preferred the traditional modes such as face to face interaction with students and physical class discussions. To illustrate this narrow ideology, even seminars annually conducted at School of Education for developing teaching skills for Luganda language educators have consistently remained a physical affair and not embraced the use of emerging technologies. Furthermore, Luganda language teacher trainers are reported as using the face-to-face mode of instruction, which is at times stressful on the side of Luganda educators at this time of the 21st century. Further, Kabugo et al. (2015) showed that although scaffolding had the potential to expand teachers' practices of integrating emerging technologies in language instruction, it is still difficult to enact in a pedagogically sound manner. Looking at the contemporary changes to day, Luganda teacher educators need to help Luganda language trainees to embrace the journey of emerging technologies. However, the limited practice of emerging technologies among many Luganda language educators is remained a matter of concern for this study.

3. Statement of the Problem

Luganda language teacher education is highly essential in the management of teaching and learning of Luganda teacher instruction in Makerere University. With use of emerging technologies, Luganda language teacher training would be made more friendly especially in content selection, teaching materials and aids. This can be effectively implemented when there is exposure to effective practices regarding use of emerging technologies. However, Luganda language teacher educators have not fully embraced the use of emerging online technologies. Complaints like negative attitudes towards use of emerging technologies (Twinamasiko, Nuwagaba, Gwokyalya, Nakityo, Wasswa & Sserunjoji, 2021), lack of required skills to design online courses (Bwire, Bagarukayo&Muyinda, 2020), slow uptake of online teaching technologies (Bada, Aslanzu, Lugemwa, Namataba & Milburga, 2021) were reported. Indeed the Visitation Report, (2017) noted predominancy in the use of traditional mode of instruction at Makerere University. For instance, in the case of Luganda language instruction, teacher educators were reported as not having e-books in the discipline, relying on photocopied and printed materials, do not have the language acclimatized with the new technology systems. Once this problem continues the known beliefs that science and technology together with thinking abilities are promoted using one's local languages would not be fulfilled (Razaei, Darakhshen & Bagherkasemi, 2011). Also, the agenda of promoting local languages as envisaged in national policy documents would be far from reality. Further, the Makerere University ICT policy which calls for effective teacher education with use of emerging technologies would not be achieved.

4. Purpose and Objectives

The main purpose of the study was to establish the practices of Luganda language educators in using emerging

technologies at the School of Education, Makerere University. Specifically, the article;
  a) Analyzed the practices of Luganda language educators in using emerging technologies.
  b) Identified the emerging technologies used in Luganda language instruction.
  c) Established the Factors influencing the practices of Luganda language educators in emerging technologies.

5. Related Literature

5.1 Practices of language educators in using emerging technologies

Mofareh (2019) studied the practice of technology in English language teaching and a review of documents revealed that contemporary English language teachers are actively practicing a range of technological aids designed to facilitate optimum teaching delivery. These technologies are used in the instruction process in virtually organized classrooms, thus enabling students in different areas to access teaching and learning facilities even outside the institution settling. However, this study was based on a review of the literature while this current study will be empirical with online study findings. Wilson (2014) studied the impact of emerging technologies on teacher education among teacher-trainers. With the use of quantitative and quantitative methods, findings revealed several teachers-trainees and their educators were applying technologies for academic and non-academic activities. Academic activities included e-instruction referring them to resources in their diverse learning areas, doing, exams and feedback using online means. This study did not focus on language instruction. Despite this fact, it was on teachers-trainers as this study was on Luganda language Educators-trainees.

Hamid (2015) investigated understanding students' perceptions of the benefits of online social networking for teaching and learning. Using the thematic data analysis method, results revealed that social technologies allow interaction between students and their lecturers and between students and fellow students. However, this study did not use KAP theory as was the case with this current study. TAM greatly predicted the use of e-books, recorded lectures and specific learning aids. Alternatively, this earlier reviewed study was a desktop review of literature while this current study was an empirical study with field findings.

Herro et al. (2021) studied teacher educators' practices towards technology Education technology practices. Results revealed that the technology practices of teachers were weak. This presupposes that with weak practices, University teachers' educators may not carry out the core instructional functions as may be deemed relevant. Meanwhile, Wepner, Zcomek and Tao (2003) studied three teachers' educator's perspectives on shifting responsibilities of infusing technology into the curriculum. With the use of post-technological surveys, results revealed that emerging technologies have shifted the way they plan for instructing, shifted the actual instruction and graduate supervision. Finally, there was also a shift in the way educators monitor students' progress with technology infusion. Such practices may in one way or another other have been infused into Luganda teacher instruction. Besides, there was no empirical study to ascertain this proof which this current study did.

Gunter (2001) analyzed whether using emerging technologies and teaching strategies to restructure the undergraduate technology course for pre-service teachers made a difference. Findings acquired revealed that redesigned technological courses and the knowledge of emerging technologies allowed instruction to be done effectively. The use of the traditional methods of instruction was no longer relevant as all teaching activities like lecture planning, lecture materials, and actual instruction were effectively done using electronic technologies.

Calik (2013) studied internet-assisted technologies for English language teaching in Turkish Universities. Using descriptive statistics, frequencies and percentages results revealed that although EFL teachers / Educators utilize the Internet densely and with positive perception in their teaching, the quality of utilization was not the best. Many were identified as recording lecturers sending materials, and assessing and grading English learners electronically. However, all these practices had issues which may also have been similar to the case of these practices adoption among Luganda teachers and Educators in the School of Education Makerere University.

Preffer et al. (2013) studied the use of technology by normal technology educators. Descriptive results frequencies and percentages revealed that teacher Educators' practices as regarding the use of emerging technologies were at 87.9% for information distribution, 98.3% for email communication, practice facilitation at 53.2% and distance education at 20.9%. This meant that to a great extent emerging technologies were mused frequently during instructional processes in the University. However, this study was qualitatively done while this current study was qualitatively done. Celentin (2007) in an analysis of online Education interaction and knowledge building among foreign language teachers revealed that participation in the instruction of language was regular. Also in this study, the tutor according to evidence sent fewer messages to students.

Mulumba (2016) studied enhancing the reading culture among language education graduate students through emerging technologies. With the use of the voki language learning tool results revealed that the introduction of a Voki in the teaching-learning process led to improved student engagement with content-motivated interaction among students and subsequently stimulated their interest in reading. However, this current study was based on a community of practice not on the Leoki learning approach. Rosman et al. (2013) analyzed the potential of video games in learning Bahasa Malayu vocabulary among International University students in

Malaysia. With the use of case and experimental studies reviewed articles findings showed that video games have the potential of effective teaching aids that enable students in language learning.

5.2 Emerging technologies used in language teaching
Theoretically, Hazarika (2017) showed that among the tools of online English language learning include websites, electronic dictionaries, computer-assisted language learning programs, presentation software, various chatting, and email messaging programs, listening CD players, numerous youtube, video clips, virtual conferences, language enhancing 3D virtual world programs, course management software web CT, mobile-assisted language learning (MALL) and so on. Multimedia technology and its application to English language teaching have provided another powerful and effective tool for language and learning. Slightly differing from the earlier studies, Moreira, Henriques, Goulao, and Barros (2017) suggested that online language instruction may occur better using moodle 2.0 platform, whereas Baker, Wang, Ma, Renmin, and Zheng (2018) studied the effectiveness of an online language learning platform in China and revealed that the adaptive platform to language teaching was found to lead to better and faster language learning than the non-adaptive platform. The adaptive platform caters to or offers the premise of adaptation to individual learner differences better and efficient language learning.

5.3 Factors influencing the practices of language educators in using emerging technologies
Tapacio (2018) studied exploring the use of the online educational platform in teaching writing among ESL students and revealed that a lack of autonomous learning habits can be a hindrance to online-based instruction. This study was carried out in a world different from that of Uganda where the current study was carried out. In another empirical analysis, Woodcock, Sisco and Eddy (2015) studied the learning experience of teachers using online synchronous environments and revealed that many teachers are unwilling to participate in the pedagogical shift to e-learning. The conservative nature of these teachers may in one way or another negatively limit the application on online platforms.

In addition, Dowring and Dyment (2013) investigated educators' readiness, preparation and perceptions of preparing pre-science teachers in a fully online environment. Based on quantitative results, findings revealed that the majority of the teacher educators reported lacking confidence and competence in the technological skills required to teach online. However, this current study was qualitatively done. Further, Emelogi et al. (2021) investigated awareness, proficiency and challenges in the use of emerging technologies by ESL University lecturers in a post-covid-19 era with the use of qualitative and quantitative descriptive data. The findings revealed that there were significant differences between male and female English language lecturer's proficiency level in the use of emerging technologies for teaching in the post covid era. However, these challenges and studies were in other contexts other than Luganda language teachers at School of Education Makerere University, which left a research gap that the current study had to fill.

6. Methodology
The study participants were Luganda language teacher educators and students specializing in Luganda Language as one the teaching subject. Purposive sampling was adopted for Luganda language educators / HODs and Convenience random sampling for students doing Luganda respectively. Data were collected using interview guide, focused group discussion guide and observation check list. Data were analyzed using thematic content data analysis technique.

7. Results
The findings are on these issues
   a)   Practices of Luganda language educators in using emerging technologies
   b)   Emerging technologies used in Luganda language instruction.
   c)   Factors influencing the practices of Luganda language educators in emerging technologies.

7.1 Practices of Luganda language educators in using emerging technologies
Luganda language educators revealed a multiplicity of practices they do with emerging technologies. Such practices included things like recording lecture notes, supplying lecture notes and course works via MUELLE platform, holding lectures via online platforms such as Zoom and Google meetings, among others.
Lecturer F from School of Education on the same question showed that,
> *All activities of instructing Luganda among teacher trainees like lesson planning, trials, giving prior information and research are done using these emerging technologies, such as giving out course content / notes via MUELE. I no longer go to libraries physically, but I only have to use the online library through my computer or smartphone to acquire all materials I need during instruction. With these emerging technologies, I can effectively plan, access materials and organize them using emerging*

technologies.

This finding reveals that all learning practices from preparation, selection of learning experiences, actual instruction can be done with use of these emerging technologies.

A Luganda teacher educator E revealed that,

> *When teaching culture, a video may be played to show the activities and processes that occur in respect of the traditional value of marriage. I do modelling when teaching Luganda language to teacher trainees. This is done by bringing live examples and showing them how these experiences are interpreted in society. In so doing, learners are modeled to respect this important cultural ritual. This teacher educator also noted that trainees synchronize and watch missed lectures and create several online learning channels.*

This finding suggested that there are practices like recording lectures, retrieving them, watching these lectures via video platforms or listening to them in audio format, to promote effective teaching of Luganda language among teacher trainees.

In addition, teacher educators used emerging technologies for assessment as explained by lecturer G from School of Education,

> *Even student evaluations are conducted using these emerging technologies. Emerging technologies are used to prepare for assessments and conduct actual assessments of learners. Similarly, feedback becomes easy when students students learn online.*

In addition to assessment, majority responded that they used emerging technologies for group identity and fashion, as in one participant was quoted stating thus;

> *In most cases, we use the emerging technologies, such as Whatsapp, to show our friends and students, that we are not left behind but we are moving forward with the world. Even the language we use is similar to the ones used in the ICT kinds of communication.*

The above findings in general indicate that preparation for teaching, selection of Luganda content, teaching aids, assessment, grading and feedback are all practices which are done using emerging technologies.

7.2 Emerging technologies used in Luganda language instruction

Among the emerging technologies, the moodle system was ranked number one in form of MUELE, video conferencing, Zoom, and Google meet and whatsapp, among others. Participant "F" from CHUSS emphatically stated that,

> *In Makerere, we use the MUELE system of instruction. This platform was recommended by Makerere University as a mode of instruction that should be used by all academic staff in the University. It is this platform that even Luganda teacher educators have been using throughout the beginning of Covid-19; Lecturers upload and create course activities and materials which include course files, discussion* forums, quizzes, assignments, course information and updates, among others.

This finding suggested that the MUELE online system of instruction is highly emphasized and utilized by Luganda teacher educators in the instruction process. Whereas another participant "D" stated that the MUELE is the one which is used by Luganda teacher educators. This MUELE has allowed the use of zoom during the teaching-learning process. Students with smartphones and computers can effectively participate even at home and in taxis. This system has made learning easier as it is not limited by geographical scope and other limitations.

Results on this question revealed that with the use of emerging technologies, Luganda teacher Education is effectively done, without complications and rigidities as it used to be before their adoption. One of the participants explained, These emerging technologies have greatly contributed towards efficiency and effectiveness in the teaching of the Luganda language.

This finding implied that the use of MUELE by Luganda teacher educators is highly encouraged and adopted at School of Education Makerere University.

Other emerging technologies mentioned included Whatsapp, Facebook, and Youtube, among others. On this, these findings were in agreement with those of teacher trainees who almost agreed that MUELE and Zoom are the main emerging technologies used in Luganda online instruction. These emerging technologies are used as part of the moodle system of online technologies. In this focused group discussion, all participants concurred that currently with the emergence of covid-19, MUELE was preferred as a mode of instruction and all Luganda lecturers had to teach using this strategy.

Other emerging technologies identified in the focused group discussion included Google meet, Mail, Telegrams and Whatsapp. These emerging technologies were considered as also essential in language instruction. For instance, the use of emails allows students to forward assignments study materials, and reference materials among the areas where technologies are highly utilized in the instruction process in the instruction of Luganda language.

Educator C on this item said as follows;

> *Emerging technologies are used during the instruction process. This is commonly done in the MUELE*

> *platform where we deliver academic notes to students. Students admired the system and normally share the content.*

The above findings on emerging technologies used calls for total practice and self-training. Each emerging technology attracts learning and training between Luganda teacher educators and Luganda teacher trainees.

7.3 Factors influencing the practices of Luganda language educators in using emerging technologies

Findings showed that favorable University policy, power availability, availability of equipment/gadgets, and the provision of distance learning, were the factors influencing the use of emerging technologies.

Favourable university policy position on the effective implementation of these emerging technologies. These policies introduced the new era of digitalization and this has changed the nature of teaching in the university. Teacher educator E from CHUSS on this subject revealed that,

> *The availability of a favourable ICT policy in the University gave fertile ground for educators to fully adapt ICT practices in the instruction process. With this policy which was established way back in 2010, Makerere University came up with an online teaching and learning platform called MUELE. This MUELE meant that free mobile network/ wireless was a must. It enhanced and eased instruction using digital technologies on the side of teacher educators and students doing Luganda.*

This finding suggested that the availability of an online platform derived from the University ICT policy was a strong factor responsible for academic staff ICT practices.

Still in the same question, participant F said that,

> The availability of gadgets like computers, smartphones, supportive devices like electricity, electricity sockets, Ipads, and modem, among others was among the gadgets that make the use of emerging technologies either possible or impossible on the side of Luganda teacher educators. At least each Luganda teacher educator was happy that the University had provided these gadgets to these educators.

Despite access to emerging technologies and importance in Luganda language instruction, the students indicated the need for people to observe the ICT etiquette like disrupting a public activity with a phone call is unethical as noted in a focus discussion text below:

> *Emerging technology users especially phone users have to observe etiquettes for using the gadgets. A person who disrupts a gathering with a loud ringing tone or voice call is uninformed. Using a gadget should not inconvenience others.*

Further, on the same question, teacher educator A from School of Education stated that,

> *The use of emerging technologies in instruction is possible given the age of Luganda teacher educators. Many of them are youths and have smartphones or computers. This was an opportunity to allow us to teach better using emerging technologies.*

This finding implied the demographic factors of the age of participants. For instance, their youthful age highly determines the effective use of emerging technologies during online education.

Teacher H said that,

> *Using Youtube has allowed my students to compare different learning situations. Luganda language is enjoyed more when expressed in plays as this enables them to reflect and decide accordingly. There are so many questions students pose and reflect on them better.*

This finding suggests that the use of emerging technologies like YouTube allows students to master the Luganda language by making comparisons which allows them to reflect on what they are taught.

Teacher G from School of Education said,

> *To view what is taught on the screen (video conferencing) in a way of team sharing minimises time wastage during Luganda teacher's training. They enjoy lectures by substantiating what is taught through discussions. Some students always retrieve and reflect on what they did not capture in the lectures.*

This finding shows that emerging technologies allow Luganda teacher educators to always create a teamwork learning environment where the recording of what was taught is possible to be in a better position to elaborate more on what was taught.

Teacher E from School of Education emphasised that;

> *Discussing online allows one to understand students' thoughts. Whenever I finish teaching I give them assignments in groups. After discussing in groups we revise together what they have discovered.*

This finding showed that discussing and doing work in groups is a strong factor that supports practices Luganda teacher educators use during the teaching of Luganda teacher trainees. This sharpens students' understanding as they are allowed to debate and deliberate on whatever is taught.

These findings were not far from those acquired from the focused group discussion guide with 3rd year students. Teacher trainees in a FGD recollected that,

> *We have an opportunity to discuss with our Luganda teacher trainers online. Currently, we can connect on online learning platforms without teachers' assistance.*

We are also able to study many things ahead of ourselves. This is because these technologies have a multiplicity of avenues for one to study on their own.

This finding shows that the use of emerging technologies can allow learners to develop an inquisitive mind which sharpens their mind as regards Luganda language values, content, writing styles and syntactical differences.

8. Discussion

Findings revealed practices of sending reading materials via MUELE, surfing, research, teaching, and dissemination of findings among others, were some of the practices showing how Luganda language educators practiced emerging technologies. These findings were in agreement with Mofareh (2019) who revealed that contemporary English language teachers are actively incorporating a range of technological aids designed to facilitate optimum teaching delivery. These technologies are used in the instruction process in virtually organized classrooms, thus enabling students in different areas to access teaching and learning facilities even outside the institution settling. The study findings were in congruence with Wilson (2014) whose findings revealed several teachers-trainees and their educators were applying technologies for academic and non-academic activities. Academic activities included e-instruction referring them to resources in their diverse learning areas, doing, exams and feedback using online means.

The findings which showed that emerging technologies allowed practices like sending emails, and teaching using interactive boards were supported by Richards (2015) who revealed that technology in language teaching has been integrated and has greatly been used in curriculum implementation. Computers and interactive whiteboards are increasingly common in schools worldwide and have helped educators and learners to connect in different areas across the globe. In the same vein as the study findings, Pareja-lora, Calle-Martinez, and Rodriguez-Arancon (2016) revealed that technologies are used in audio-visual translation using technology assistive technology, in designing audio description to improve students' can gauge oral competencies, in computer language testing, assessment and finally applying computational linguistics and languages resources to teaching and learning. These results depicted that emerging technologies are applied in several areas.

The study findings resonated well with Ahmadi (2018) who established that the application of multimedia makes use of print texts films, and the internet to enhance learners' linguistic knowledge. The use of print, film, and the internet gives learners a chance to collect information and offers them different materials for analysis and interpretation of languages and contexts.

The findings of the study which indicated that Luganda teacher educators interact with students, send reading materials, and assess and give students feedback using emerging technologies were in line with Wepner, Zcomek and Tao (2003) who studied three teachers' educator perspectives about shifting responsibilities of infusing technology into the curriculum and revealed that emerging technologies have shifted the way they plan for instructing, shifted the actual instruction and graduate supervision. Finally, there was also a shift in the way educators monitor students' progress with technology infusion. Such practices may in one way or another other have been infused into Luganda teacher instruction. This hence concretizes that emerging technologies allow Luganda teacher educators to do all the instructional activities using these digital services.

The findings indicated Luganda teacher educators always plan and effectively teach using emerging technologies. This finding was in tandem with Gunter (2001) whose findings acquired revealed that redesigned technological courses and the use of emerging technologies allowed instruction to be done effectively. The use of the traditional methods of instruction was no longer relevant as all teaching activities like lecture planning, lecture materials, and actual instruction were effectively done using electronic technologies.

In less the same vein as the study findings, Calik (2013) revealed that although EFL teachers/ Educators utilize the Internet densely and with positive perception in their teaching, the quality of utilization was not the best. Many were identified as recording lecturers sending materials, and assessing and grading English learners electronically. The study findings resonated well with Preffer et al. (213) who revealed that teacher Educators' practices as regards the use of emerging technologies were at 87.9% for information distribution, 98.3% for email communication, practice facilitation at 53.2% and distance education at 20.9%. This meant that to a great extent emerging technologies were used frequently during instructional processes in the University. The study findings showed that Luganda teacher educators interact effectively with learners using emerging technologies. These findings are in agreement with Celentin (2007) who revealed that participation in the instruction of language was regular.

The findings of the study revealed that current emerging technologies have allowed teaching and learning to occur effectively with the interaction of students and teachers. This finding was in support of Mulumba (2016) whose results revealed that the introduction of a Voki in the teaching-learning process led to improved student engagement with content-motivated interaction among students and subsequently stimulated their interest in reading. In less the same vein as the study findings Rosman et al. (2013) whose findings showed that video games have the potential of effective teaching aids that enable students in a language learning.

The study findings showed that the use of emerging technologies is used in the interactions between Luganda language educators and teacher trainees. This finding did not vary from Hamid (2015) who investigated understanding students' perceptions of the benefits of online social networking for teaching and learning revealed findings that social technologies allow interaction between students and their lecturers and between students and fellow students. Thus, the teaching interactions that used to occur in face-to-face lectures were replaced by those of emerging technologies that are electronic. The study findings were in line with Ali et al. (2013) whose results revealed that the innovations that emerging technologies have brought in teaching and learning include E-learning, e-communication quick access to information, online student registration, reduced burden of keeping hard copies, networking and linking to resourceful persons.

The study findings revealed that emerging technologies are used by Luganda teacher trainees to interact with students during instruction. The findings concurred with Nusuton (2022) who showed that using social media in language learning was perceived positively. Social media was perceived as increasing reading, writing vocabulary, mastery and motivation teach through interaction, communication, and knowledge sharing. However, this study was a review of the Literature while this current study was empirically done. The findings were in the same direction of Kulal Nayak (2020) who investigated perceptions of teachers and students towards online classes in Dakshina Kannada and Udopi Districts revealed that teachers, carry out online instructions / interact with students, and support students learning using online platforms.

The findings of the study which revealed that Luganda teacher educators do a multiplicity of tasks using emerging technologies differed from Herro et al. (2021) results who revealed that the technology practices of teachers were weak. This presupposes that with weak practices, University teachers' educators may not carry out the core instructional functions as may be deemed relevant. From this objective, it was deduced that there are several practices ranging from teaching, sending, reading materials, doing research, sending courses works, and surfing among others using these emerging technologies.

9. Conclusion

The study concluded that Luganda teacher educators used emerging technologies to teach, send materials, course works, and submission of course works and assessment and grading of learners. Luganda teacher educators practiced emerging technologies through preparation for teaching, selection of Luganda content and teaching aids.

The study concluded that the most used emerging technologies during Luganda language teaching were the moodle system in form of MUELE, video conferencing, Zoom, and Google meet and whatsapp, Facebook, and Youtube, among others.

The study also concluded that the factors influencing practices of Luganda language educators were; favorable university ICT policy, availability of electric power, internet connectivity, availability of merging technological tools such as smart mobile phones, pads, laptops and or computers, among others, as well as use of offline platforms, such as distributing class notes via CDs and flash disks for use on online computers.

10. Recommendation

From the study findings, the study recommends that Luganda language educators should adopt, apply and maintain excellent practices with use of the emerging technologies. This could be done through encouragement of online lectures via platforms such as MUELE; they should also continuously upload academic material on online platforms such as Whatsapp, hold academic engagements / sessions via google meet, conduct online assessment and provide feedback to learners online. Such practices will not only improve their skills with emerging technologies, but shall also deepen their knowledge as well as shape a positive attitude and adoption of emerging technologies for effective Luganda language teaching and learning.

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