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ICT in Language Learning: Teaching and Learning of the Mother Tongue Siswati

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ABSTRACT

The major role played by ICT in improving literacy in language learning lies in its ability to foster the four C's: communication, creativity, collaboration and critical thinking that together build up language. Though the mother tongue siSwati is lagging behind in terms of embracing technology and is still not infused as the language of technology, ICT has got facilities; tools, applications and software that can be used to effectively teach the mother tongue siSwati. The use of ICT to teach language is highly recommended for its flexibility of use according to context. By virtue of being a national language spoken by a majority of Emaswati the mother tongue siSwati is a vehicle for national development, therefore require use of ICT as a device that is popular in society. This paper suggests; the radio, television, film, e-mail, blogs, the overhead projector, You-Tube, language laboratories, the library and collaborative platforms (Video-conferencing, Google classrooms, Zoom webinar, Skype, Moodle, Voice audio and What's Ap) as ICT facilities that can be used to teach the mother tongue siSwati.

Keywords: *literacy, ICT, mother tongue, four C's*

INTRODUCTION

Globalization, digitization and modernization have introduced a major shift with the aims, purpose, goals and objectives of education. The 21st century is an era of new literacies and competences; these are 21st century learning and innovation skills that sustain the learner and are applicable at the workplace, college and life in general. To develop the 21st century skills with the learner, teaching and learning of subject content must embed the use of Information Communication Technologies(ICT).

In the past, proficiency in the 3Rs; the ability to read, write and count was enough as determinants of literacy. Contrary, the 21st century is an era of new literacies; the ability to read, write and count is accompanied with the ability to find, manage and use information from a variety of sources, backgrounds and fields; the effective use of ICT. Besides making learning more practical, the use of ICT in education is much recommended for its ability to improve learners' retentive memory, cognitive thinking processes and creative abilities(Mc Nutty, 2017; Joynes, Rossignoli, & Amonoo-Kuofi, 2019)thus, calls for a change in education and practice; mainstreaming of ICT into teaching

and learning for all subjects. According to Fullan and Miles (2016) change demands reculturing and restructuring that is accompanied by unlearning old beliefs and practices, a shift from the familiar to the new and from old competency to new competency. The worse part of change is the demand for extra resources with regards to training, provision of new material, designing of new structures and a shift in time allocation (Fullan &Miles. 2016). researcher believes that change requires a shift even with role allocation as well. Therefore, there is need to develop solutions to the demands brought by change. Though the change brought by the need for integrating ICT into teaching and learning is too complex considering the complex nature of the school curriculum, this paper seeks to provide information on some of the ICT facilities that can be used to teach the mother tongue, siSwati.

Background of the Paper

Most African countries are multilingual; however, Eswatini is a monolingual country with siSwati spoken by a majority of the population (Mkhonza, 1987). Thus, the siSwati language in Eswatini is a vehicle for national development. However, the lack of an explicit

language policy has resulted in the continuing underdevelopment of the siSwati language. Mkhonza (1987) cites that a language policy in the Kingdom of Eswatini can help define the socio-cultural, political and economic language needs of the Swati society. Also, a language policy can enhance and sustain the mother language, preserve and promote ethnic identity and culture, provide curriculum focus in schools, create awareness of multiculturalism and linguistic diversity as well as enhance growth and awareness of ethnic identity (Hertzler, 1968). Bamgbose (2011, p.3) concurs with the idea of the need for a clear language policy by pointing out that "The mere fact that almost all African languages were subjected to colonial rule, colonial languages continue to be perpetuated, even decades after independence and there is a clear dominance of imported languages". Weinstein European (1980)attributes the widespread, development and promotion of European or foreign languages in Africa to Africans' ignorance to promote their languages.

True to the above assertion, Eswatini gained independence in 1968 however, the historical experience of colonialism lends itself to Eswatini adopting the language of the colonial master. The two languages; English and SiSwati are declared as official in the Constitution of the Kingdom of Eswatini. The tough competition brought by the existence of the two languages; siSwati, the mother tongue and English, the colonial language, necessitates the need for the development of a language policy to protect the mother tongue. Although, "English is no longer a passing/failing subject in Eswatini schools" as declared by the Minister for Education and Training, Lady Howard Mabuza in Eswatini News dated January 4, 2020, the status quo accorded English remains the same practically, socially, linguistically, morally, economically and otherwise. The impact of the dominance of English is huge not only with the teacher, the learner and the parent of the Liswati child but is felt countrywide.

The inversion of ICT is a current development with communication means that can be described as socio-cultural, intellectual and educational therefore, must have its roots in the language of the Emaswati community. The imperative role of language as a means to enhance communication makes language learning inseparable with Information Communication Technologies (ICT). Though the country has won one of the political battles

faced by the mother tongue siSwati, that of being offered as an optional subject in the school curriculum, as announced by the senior inspector for siSwati during a prelude to the mother tongue day for 2020; "All schools in the Kingdom are offering siSwati and all learners are learning siSwati; some as a first and some as a second language." (C. Mohammed, personal communication, February 20, 2020). The issue of infusing the mother tongue siSwati as a language of ICT sounds a more technical one.

Besides being taught as a subject in Eswatini siSwati is a medium of communication in both public and education sector (Mevers, Malambe, Nkosi & Sibanda, 2008). Therefore, siSwati plays a major social role, that of enabling Emaswati to fulfill their individual potentials and to contribute to the economic, political and social transformation of themselves, others, the nation or the country at large. "Without language a social thing or abstract idea are practically impossible" Trudgill 1986 as cited in (Magwa & Mutasa, 2007, p.62). Thus, language whether native, foreign, indigenous is a key instrument of communication. Bamgbose (2011) cites that besides communication, language is important to other parts of national life like participatory democracy, access to justice and information on health.

In the Eswatini education system, the mother tongue siSwati is taught as a compulsory subject and as a medium of instruction in literacy programs and from the 1st four grades of schooling after which English is expected to take over (Ministry of Education and Training (MoET) in (Eswatini Education and Training Sector Policy, 2018).

ICT in education has been embedded automatically by virtue of the broader aim; which is to equip learners with skills, knowledge, competencies, values and attitudes applicable to the society. On the other hand, Language is an important tool through which knowledge. skills and values for development of individuals, communities and countries is disseminated (Adegbija, 1994). ICT plays a major role in enhancing or improving literacy in language learning. Besides enhancing language learning, ICT has a greater ability to equip learners with other skills competencies necessary for education in the 21st century like the 4C skills of communication, collaboration, critical thinking and creativity

(Lewin & Mc Nicol, 2015; McNutty, 2018; Joynes et al., 2019).

The Partnership for 21st Century Skills (2006) revolutionary that trends communication led to the emergency of ICT, thus making human beings tech-savvy. It is for this reason therefore, that in the fourth industrial revolution, language competency; reading, speaking, writing and listening (the ability to communicate) are measured alongside use of ICT platforms. The observation made is that, although the language of ICT is English, Emaswati children are tech-savvy. Therefore, to offer education that is to the best interest of the child (Child Protection and Welfare Act. 2012) teachers should make effort to create a more friendly, effective and conducive learning environment through embracing ICT devices. Additionally, ICT has become a device that relations. people maintain social Therefore, ICT may also be used to offer opportunities for individual and collaborative exercises, allow learners to easily draw on authentic resources that promote inter-cultural understanding and interact with virtual peers in real non-fabricated contexts and etc. (Rhalmi, 2017).

The reality that ICT applications are designed in English has made the use of ICT in the mother tongue siSwati classrooms to be slow, yet Alkamel & Chouthaiwale, (2018) state that the creative use of ICT in language teaching has the potential to enhance communication skills and other sub-skills. In lobbying for the development of the siSwati language Mkhonta (2017) submitted that to ensure teachers' development of higher order thinking skills in the siSwati language, siSwati must be infused in all aspects of life "kusita kutsi bothishela baceces he emakhono lashukumisa ingcondvo lulwimi alukhacekwe etingonini letehlukene tekuphila" (Mkhonta, 2017, p. 7 March 21-23). Bamgbose (2011) complained that the delayed process of infusing African languages into ICT applications has turned ICT into a digital divide. The researcher in this paper views ICT as a digital provider of the knowledge, skills, attitudes, values and ethics to be learnt in the siSwati subject.

Research reveals that efforts are made to break communication barriers in the use of African languages in ICT applications; the University of Pretoria in South Africa has already translated computer technology into African languages (Bamgbose, 2011). On the same note, the

University of Stellenbosch has installed an automatic translation between interlocutors speaking different languages. Nigeria has as well infused Hausa and Yoruba into their Google Search engines (Bamgbose, 2011). Current developments are news on the Eastern Cape in South Africa which has taken the first initiative of allowing learners to write in Afrikaans, their mother tongue, thus bringing hope to the soon infusion of Afrikaans in ICT platforms (Eswatini Radio, News 12 September, 2020).

Policies

The imperative role of language as a means to enhance communication makes language inseparable Information learning with Communication Technologies (ICT). ICT is a 21st century skill and classroom resource that is born from the concept of Education for (ESD). Sustainable Development The Sustainable Development Goal (SDG) No. 4 is a global commitment for all countries to ensure inclusive and equitable quality educational opportunities for all based on three pillars; the social. cultural and economic aspects. Specifically, SDG 4.7 is focused on Global Citizenship Education (GCED) which dictates "by 2030 education should transformative by building knowledge, skills, values and attitudes that learners need to be able to contribute to a more inclusive, just and peaceful world" (UNESCO; 2018, p.3). The Kingdom of Eswatini being an affiliate not only of ESD but Southern African Development Community (SADC) and ICT Summit Decisions adopted the notion of ICT integration. She formulated the National Development Strategy for Vision 2022 (NDS) with the vision of quality life in all dimensions. According to the Eswatini Country Report on ICT (2007) the target was that by 2022 the Kingdom will be in the top 10% of the medium human development countries founded on Sustainable Economic Development (Isaacs, 2007,p.4). It was after the NDS that the Eswatini Computer Education Trust (CET) was set with the objective of extending computer literacy and vocational ICT training for every child. CET in collaboration with School Net Africa installed computer laboratories accommodating 20 - PC computers in high schools, supplied each school with 20-PC computers, guarantees their maintenance, and provided technical support for ICT. The target was that at least by 2013 all schools have computers (Madzima, Dube & Mashwama, 2013). CET moved further to provide professional pre-service and in-service teacher training for all secondary school teachers. Lastly, CET facilitated the development of necessary pedagogical materials(Isaacs (2007).

Not only that, the MoET through the Education and Training Sector Policy (EDSEC) 2018 postulates that "ICT plays an important role in the development of 21st century skills in the Kingdom of Eswatini. Teaching and learning content shall be progressively digitized and ICT shall be introduced in all schools" (MoET, 2018, p. 26). The MoET in its agenda for ICT in education and training also committed itself to facilitating enabling environments for use of ICT in all education and training establishments by digitization of information relating to curricula, mobile learning, e-learning, assessment and e-governance(MoET, 2018). Originally, ICT lends itself to three uses; as a subject, a skill and a tool (Joynes et al., 2019). In the Kingdom of Eswatini it is offered as a compulsory subject for all learners at all levels as a teaching tool and skill to be mainstreamed into teaching and learning for all levels and subjects. In the senior secondary school curriculum, it is listed as technological awareness and applications.

Though teaching and learning is going digital, Sharma and Barrette (2007) suggested that the use of ICT in language learning should adopt the blended learning language course approach that combines face-to-face classroom and online learning. The reality is that ICT has come to complement, not to compete with the teacher's role. Thus, to ensure efficiency, relevance and appropriate use of ICT Sharma and Barrette (2007) suggest that there should be clear and well-defined roles for the teacher, ICT tool and the learner as well. Teachers must explain and simplify instructions to enhance students' comprehension skills and modify their teaching strategies to embed ICT. Additionally, teachers should understand that being tech-heavy and savvy means the ability to adapt, to be flexible and willing to be selective, improvise and contextualize the array of ICT resources readily available at the learners' disposal based on their needs and capabilities. Thus, embedding ICT in the teaching and learning of the mother tongue siSwati require teachers to adopt the "No Child Left Behind" rule. Whether the learner is foreign or native, from rural or urban, from an affording or less-affording background; is a high, middle or low achiever, deserve opportunity and access to ICT in learning. Thus, the study argues that not only teaching and learning of the mother tongue siSwati as a first language requires the use of ICT, siSwati as a second language as well.

Madzima et al. (2013) posit that though there are various challenges, ICT remains a mother tool that enhances teaching and learning in the 21st century. Secretary General for UNESCO, Eswatini, Hazel Zungu submitted that education should be delivered in a language that is familiar to the child. "Bantfwanaabafundze ngetilwimi labativako esikolweni" (Zungu, 2017, p. 7 March 21-23). In a political statement former Macmillan Managing Director advised that teaching and learning must go digital because publishing companies have gone digital as well. Simelane (2017) emphasized that publishing companies have already adopted blended learning, therefore there is need to infuse the siSwati language into technological devices like cellphones and computers. "Letinye tindlela tekutfutfukisa lulwimikutsi bantfwana balutfole melula kubomahlalekhikhini nakubongcondvomshini" (Simelane, 2017, p. 7 March 21 – 23). To clarify further, Simelane explained that oral literature can be taught; be delivered, read and listened to via the audiovisual ICT facility "indzaba sevinga fundywa nobe icocwe kutfwetjulwe loko kungene kungcondvomshini" (Simelane, 2017, p. 7 March 21-23).

Besides formulating policies with all efforts exhausted, the Kingdom of Eswatini invented Ministry for Information Communication Technology, designed posts for Inspectors of ICT responsible for monitoring the implementation and evaluation of ICT in education. To further strengthen EmaSwatis' Vision 2022 agenda on ICT, the Eswatini government built the Royal Science and Park (RSTP)"Songcondvondvo Technology wemaswati" also referred to as the hub for ICT which was officially opened in the year 2018 with the major objective of laying foundation for the development of knowledge economy. Its goal is to facilitate the development of science, technology innovation through research and development (Times of Eswatini online, 11 August 2018). It is divided into Biotechnology Park and Innovative Park. To strengthen network coverage required for using ICT software, the government of Eswatini collaborated with Eswatini Post and Telecommunications (EPTC), Mobile Telephone Network (MTN) and Eswatini Mobile Services in extending network services all over the country to ensure equal

access for all Emaswati. Additionally, research by Madzima et al. (2013) reported that almost every secondary school has been electrified though a few had internet connection during that time.

The lockdown is bringing a glimmer of hope on the use of ICT in the Kingdom of Eswatini because the Kingdom has embarked on online learning. In Eswatini, online learning began in the month of April 2020 up to today and lessons are running on the radio, television, newspapers and online. Recent developments are that of government's collaboration with different education stakeholders and organizations including UNICEF. Macmillan, and Media Houses to deliver lessons to all grades from Monday the 8th of February 2021 to date as means to back-up the continuing emergency need for online education during the lock down. Imisebe Publishing and Printing Company have also launched SLAM poetry competitions on the mother tongue siSwati online entitled "Ndlondlobala Ngelulwimi Lwemdzabu" beginning on the 10th of February 2021 to 28th February 2021. The competitions serve as a giant platform and avenue for the use of ICT to promote the mother tongue siSwati as contestants are to recite a poem online. Additionally, the researchers have observed and listened to audio-visuals of poems recited in the mother tongue siSwati in You-Tube. The above efforts give hope that Emaswati will not repeat the same mistake of restricting the role and usage of their language by failing to develop it which finally gave way to dominance of European languages.

ICT has communication devices, applications and software that help learners communicate, create, design, store, transmit, interpret and manipulate information (Erbern, Ban Castaneda, 2009; Rhalmi, 2017; McNutty, 2017; Al-kamel & Chouthaiwale, 2018). Erbern et al. (2009) classify the services offered by ICT according to their functions as; e-creation tools, e- communication tools, reading and writing e-tools, listening/speaking facilitative facilitative e- tools and e-assessment tools. Therefore, teaching language using ICT allows for development of skills and language learning in a learner-centered, dynamic, flexible and engaging environment for all learners (Al-kamel & Chouthaiwale, 2018).

Because the notion of ESD that gave birth to the demand for ICT also embraces inclusivity in education, ICT is regarded as efficient in that its

facilities are rich in applications and devices that allow teachers to embrace diverse learning styles and abilities; visual, audio, linguistic, special, kinesthetic etc. UNESCO (2015b) and McNutty (2018) refer to these applications as the visual, audio and action-oriented learning and game mechanics. In the teaching of the mother tongue siSwati these features can be used by teachers to assign learners tasks that will make them see, hear, touch, think, create and explore information. Thus, ICT has the potential to enhance creativity and innovation in the mother tongue siSwati classroom. Though the applications are wired in English, it does not mean that ICT should be a sleeping giant in the mother tonguesi Swati classroom. There are applications that can be used to enhance teaching and learning of the mother tongue, siSwati.

ICT Tools that can Best be used to Teach the Mother Tongue Siswati

ICT refers to technologies that provide access to information through telecommunications (Rhalmi, 2017). ICT has got tools that enhance or help learners acquire the key components taught in the siSwati subject: Language, Literature and Culture and further develop 21st century skills much demanded for the learner beyond competency in the four language skills; reading, writing, speaking and listening the siSwati language. The study views that ICT facilities; tools, devices and applications that can be used to enhance teaching and learning of the mother tongue siSwati include; the radio, television, cellular or mobile phones, computer, e-mail, films, blogs, Wikis, overhead projectors, YouTube, language laboratories, libraries, and so on.

The Radio and Television

The radio and television update learners on current affairs. Both the radio and television provide an audio for learners to listen to the siSwati language. The radio sharpens the learners' listening skill and provokes imagination and further strengthens pronunciation and reading skill. Added with television are the visual images or simulations that evoke the sense of reality as learners hear the siSwati language and see the gestures and the speaker, thus increasing student motivation, improve language proficiency and help learners relate emotional states. The use of television and radio improves the learners' linguistic and emotional expressions (Al-kamel Chouthaiwale, 2018).

Films

Films can be used to showcase actions, skills and incidents, thus helping learners visualize language in action (Al-kamel & Chouthaiwale, 2018). Moreover, films develop all the four communicative skills. Not only engaging the senses in a powerful way, films also allow students' insight into the lives of different characters, how their perspective differs and how they handle certain situations. Films further extend thinking skills like comparing and contrasting, analyzing, constructing support or error analysis. Films also allow learners to record their own events and stories in siSwati which enhances their siSwati vocabulary, language and creative abilities.

E-mails

E-mails are a replacement for letter writing; a means of communication between the teacher and the learner and amongst the learners themselves. Al-kamel and Chouthaiwale (2018) cite that their use improve learners' information organizing skills, expressions, use of precise vocabulary and etc.

Blogs

Blogs allow learners room to interact amongst each other. They can write, record and listen to blog posts by others and design student-made blogs, wikis and podcasts in siSwati. The above platforms enhance learning beyond lower order language learning to creative ability levels, thus can be used by teachers to demonstrate evidence of language learning. Blogs further encourage collaborative learning and critical reflection and ensure that siSwati teachers share resources with students (Chouthaiwale, 2018).

The Overhead Projector

The overhead projector replaces the chalk and teacher talk, it uses images, diagrams and notes that help improve learners' multi-tasking skills (Al-kamel & Chouthaiwale, 2018). Learners read, observe and relate pictures/images to the content whilst at the same time listening to the teacher and writing down their own notes, thus integrating the four siSwati language skills simultaneously. This tool ensures that a teacher teaches with a range of mediums such as laptop thus blended learning becomes much easier.

You-Tube

You-Tube consistsof downloaded videos that can enhance teaching and learning of siSwati. Learners can read and answer downloaded videos, listen to and record their own students-made videos in the siSwati language. Thus, You-Tube can be used to improve learners' listening, pronunciation, vocabulary, grammar, writing, critical thinking and creativity skills in the siSwati language. You-tube further creates an e-learning community as everyone has a voice thus promotes online discussions (Chouthaiwale, 2018).

Language Laboratories

The pressure on language learning and ICT necessitates the need for language laboratories. These are innovative storehouses with readily available ICT facilities for reading, recording, speaking, listening and writing facilities (Alkamel & Chouthaiwale, 2018).

The Library

The library is quite different from the laboratory in that it is a storehouse for accessing electronic and print reading material that expose learners to reading, research, selecting information and organization skills in the siSwati language. It is important that the use of ICT considers access and equity as key in teaching and learning, therefore, libraries are to be used to close the digital divide that ICT is bringing along as they afford learners equal access to ICT devices, thus saving schools, parents and guardians valuable money to be spent on ICT resources(Adebayo, Ahmed & Adeniran, 2018).

ICT Collaborative Platforms

ICT has collaborative platforms that enhance team-based learning or group tasks. These platforms allow for peer-assisted instruction and learning, help learners learn siSwati from each other, thus enhancing the desire and curiosity to learn. Group/ team-based /peer-assisted learning is a key feature of 21st century education in that learners work together towards achievement of a common goal (McNutty, 2018; Saleh, 2019) which in this case is learning siSwati. Katherine (2019) adds that the 21st century curriculum refutes traditional schools where students would normally sit back and listen to teacher talk. It is a teaching and learning era that advocates for collaborative exercises in which learners engage on meaningful tasks with the aid of computers and technology tools. Collaborative learning in the 21st century is much appreciated for its ability to equip learners integrate the 4C skills communication. critical thinking, collaboration and creativity. The major purpose of learning languageis to communicatewhich is

done through adjusting to different personalities, collaboration and critical thinking.

Additionally, ICT collaborative apps enhance holistic growth and development in the siSwati language because besides content and the four language skills, learners learn the values and attitudes associated with the siSwati language. Values learned from collaborative exercises are described by James Surowieck (as cited in National Education Association (NEA), 2010, p. 19) as "wisdom of the crowds". Lastly, ICT collaborative platforms sharpen learner's inter and intra-personal relationship skills.

Amongst others, ICT services that can be used enhance group growth are: videodistance conferencing, learning, Google classrooms, Zoom webinar, Skype, Moodle, voice recording etc. (Rhalmi, 2017; Al-kamel & Chouthaiwale. 2018: Sekai, 2019). cell/mobile phone has got short messages applications that help learners send information or communicate in the siSwati language. The cell/mobile phone allows learners create group sharing information. platforms for improved version of the cell/mobile phone is the smart-phone that has applications for Google classrooms, Skype, Moodle, WhatsApp and Zoom meetings. The four platforms enhance group or collaborative learning wherelearners learn siSwati together and are responsible not only for their own learning but one another's learning as well.

Table1. Adopter categories

Innovators Early adopters Early majority Late majority Laggards **Providers** Those who don't of Creators of Lobbers (creators of Encouragers of information about guidelines for the awareness on the reviews and bother, worry nor the innovation innovation innovation) comparisons about involve themselves the innovation in the innovation

CONCLUSION

Besides closing the gap between the school and the society there are close ties between ICT and language. Language is dynamic and contextualized, same thing applies to ICT. Language is used according to specific roles and purposes in both formal and informal settings, same thing applies to ICT. Thus, language is a medium for the use of ICT; ICT too is a tool for the use of language.

During, this COVID-19 pandemic era siSwati teachers were able to use technology in their teaching which is an indication that technology use in siSwati teaching and learning is possible. The paper recommends that technological tools that are within reach should be utilized in the

Theoretical Framework

The paper is modelled by Rogers (1996) Diffusion of Innovation theory which focuses on the characteristics of innovations and its adopters. Rogers (1996) defines a change agent as an individual who influences clients' innovators decision in a direction desirable by a change agency. The researcher in this paper is a change agent; lobbying for and exerting influence on the behavior of teachers of the mother tongue siSwati. Also, the researcher embraces the reality that individuals adopt innovations at different time-frames, degrees and levels. Therefore, the expectation is that integrating ICT in the mother tongue siSwati classroom cannot be a complete whole but should come at different stages and angles just as Education for Sustainable Development allows for flexibility of use according to context. Though Rogers (1996) came up with different adopter categories - innovators, early adopters, early majority, late majority, and laggards, the major aim of this paper is not classifying teachers of the mother tongue, siSwati or rather the Kingdom of Eswatini into any of the adopter categories. The aim is to provide information helpful for the integration of ICT in the teaching and learning of the mother tongue siSwati. Table 1 below presents a display of the categories of peoples' adoption of an innovation.

teaching and learning of the mother tongue siSwati because the current generation of learners is tech-savvy. Furthermore, the Eswatini SiSwati Subject Teachers' Association has to ensure maximum use of technology in all its activities in a way to elevate and develop the mother tongue siSwati as dictated by Education for Sustainable Development.

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