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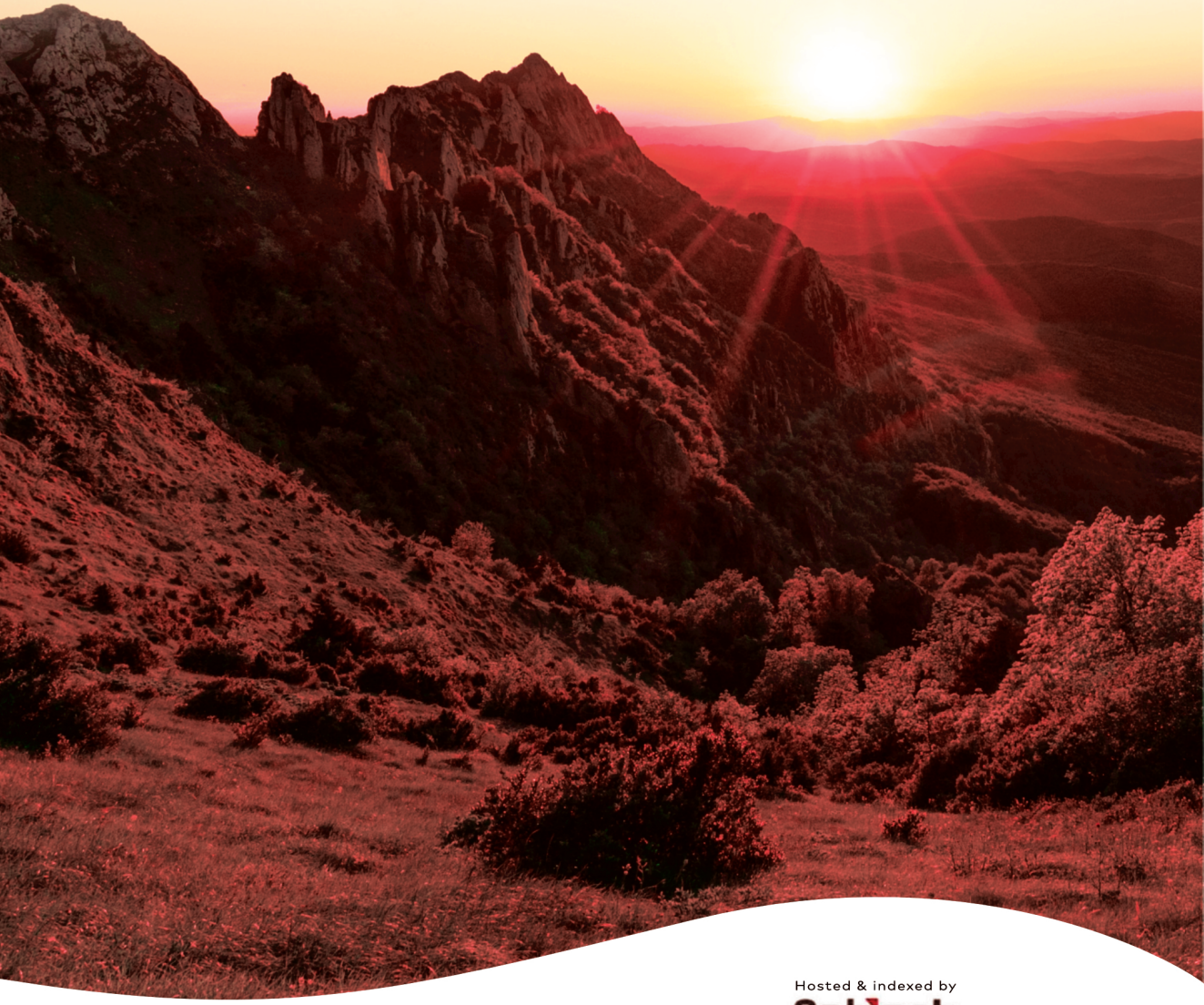

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# Evaluating the impact of digital learning on primary school: Teachers' engagement in teaching English as a Second Language.

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## ABSTRACT

This study examines the effectiveness of virtual teaching and learning of English as a Second Language (ESL) in selected urban schools in Gweru, Zimbabwe. Teaching ESL requires mastering verbal and nonverbal communication while maintaining student engagement. Essential skills such as pronunciation, vocabulary, grammar, reading, and writing must be effectively imparted. The COVID-19 pandemic necessitated the adoption of virtual teaching globally, including in Zimbabwe. School closures prompted the creation of virtual learning environments, collapsing traditional classroom boundaries. This research highlights challenges faced by teachers, including inadequate resources (e.g., devices and internet access), insufficient infrastructure, and limited support from learners and parents. Teachers also lacked technological training and expertise, hindering effective virtual teaching. Addressing these challenges would enhance teacher-learner interactions, promote autonomous learning, and broaden learners' educational experiences. A mixed-methods approach was employed, combining qualitative and quantitative methods. Data collection included numerical data, interviews, and questionnaires to explore teachers' and learners' experiences comprehensively. The study is contextualised within Toffler's (1980) Waves Theory, which emphasizes the need to adapt, relearn, and unlearn in response to global challenges. The theory underscores the importance of embracing new tools and platforms to facilitate autonomous learning, enabling primary school learners to develop critical skills and address individual learning needs through tailored approaches.

**Key Words:** classroom, education, English as a Second Language (ESL), pandemic, virtual learning, virtual teaching.



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## Introduction

The study investigates the challenges and opportunities of teaching English as a Second Language (ESL) in urban schools via virtual platforms, particularly during disasters such as the recent global COVID-19 pandemic. Gweru, located in the Midlands Province of Zimbabwe and centrally positioned within the country, was selected as a case study. This location was convenient for the researchers, who are based in the city, making it feasible to conduct the research while minimising costs.

The adoption of virtual teaching and learning has been a developing concept for some time, though limited resources have posed a significant challenge to its widespread implementation. As Zimbabwe becomes increasingly technological and complex, the role of Information and Communication Technology (ICT) as a crucial tool for education has become more evident. ICTs now permeates society, integrating telecommunications, computing, and related technologies, and has assumed greater importance in the education sector. This shift became particularly clear during the COVID-19 pandemic, which posed a substantial threat to traditional teaching and learning practices. Numerous studies highlight the global adoption of computers in education; Nafiz (2010) asserts that educational systems worldwide face mounting pressure to incorporate technology to meet 21st-century challenges.

ESL is distinct within the virtual learning context, as language acquisition relies heavily on interactive elements, including non-verbal cues and active engagement. Non-verbal cues play an essential role in clarifying the teacher's expressions, aiding comprehension in ESL learning. However, virtual teaching of ESL presents several challenges, such as connectivity issues, where poor internet can cause delays in audio and video transmission (Alshammari et al., 2018). Additionally, both teachers and students may find it difficult to navigate virtual platforms (Lopez et al., 2020) and may lack essential ICT equipment, such as laptops, iPads, and mobile phones (Hashemi et al., 2019). There are also limitations in interpreting non-verbal cues and facial expressions without active engagement, which can hinder the effectiveness of virtual ESL instruction (Sanchez et al., 2017).

## Background

Various studies have shown that ICTs are used widely in educational settings worldwide (Nafiz, 2010). Educational systems globally face increasing pressure to integrate technology to equip learners with essential 21st-century skills. The technological revolution has introduced new demands across all sectors, significantly impacting education (UNESCO, 2011). Schools are gradually adopting relevant technologies, but this process is hindered by numerous factors. Research highlights several barriers to integrating technology in education, including infrastructure development, necessary skill acquisition, resistance to change, lack of a clear implementation roadmap, and insufficient preparation for teachers (Searson, Laferrière & Nikolow, 2011).

Technological advancements throughout the 20th century have had profound social and economic effects. While each wave of innovation has required adjustments from teachers and pupils, what perhaps differentiates earlier technological changes from contemporary realities is the current emphasis on educational applications (Merriam & Brockett, 1997; Serdyukov, 2017). Among these, the Internet and the World Wide Web have the most extensive educational applications, though various other technologies also enhance learning. Teachers and learners face challenges in how best to leverage these technologies without diminishing the quality of the learning experience (Field, 1997; Johnson, 2016). In today's fast-paced, technology-driven world, teachers and students must learn new ways of performing tasks, often needing to reskill or change careers throughout their lives.

Previous research indicates both positive and negative effects of virtual learning on English as a Second Language (ESL) education. For instance, Albrecht and Huang (2018) explored how online platforms for ESL learners increased accessibility for students from diverse backgrounds, especially those who lived in remote areas or had busy schedules. The flexibility of virtual learning allowed students to engage in language learning at their own pace, improving their self-regulation and independent learning skills. Furthermore, Lee and Kim's (2020) study showed that virtual learning environments enabled tailored language learning experiences. Through the use of adaptive technologies, ESL learners could receive personalized content that matched their individual proficiency levels, enhancing their engagement and motivation to learn. In addition, Johnson and Patel (2019) reiterates that multimedia tools such as interactive videos, podcasts, and virtual classrooms increased student

engagement. In their study, ESL learners showed greater interest in using these tools to practice speaking, listening, and writing skills, which led to improved language acquisition outcomes compared to traditional methods. McDonald and Tran (2021) also highlighted the positive impact of collaborative online platforms in promoting peer-to-peer interaction. Virtual platforms that allowed students to work together on projects or participate in discussion forums helped them practice English in real-life, contextually rich situations, leading to better communication skills and cultural awareness.

Positive impacts also include enhanced accessibility, as virtual platforms can be used anywhere, even in remote areas (Chapelle, 2003). Key findings by Li et al. (2020) suggest that fostering learner agency requires autonomy, self-regulation, and self-scents to manage their learning with teachers as facilitators, thus strengthening language skills. Another study on Second Language Acquisition in virtual environments (2022) found improvements in vocabulary and grammar, though it stressed the need for blended learning, as social contact is vital for developing pronunciation and fluency. Virtual platforms support language practice through interactive grammar exercises and audio-video resources. However, there are negative aspects, such as reduced face-to-face interaction. ESL learners missed the non-verbal cues such as body language and tone of voice that are often crucial for language comprehension and acquisition. The absence of these cues in virtual learning environments made it harder for students to fully engage and practice conversational skills (Smith & Wang 2020).

Virtual learning platforms could hinder the development of speaking and pronunciation skills. Martinez and Zhang (2021) argue that although online tools provided text-based exercises, many learners found it difficult to practice speaking in a virtual setting. Limited opportunities for live speaking practice and feedback from instructors were identified as major drawbacks, affecting language fluency. In addition, the study by Wright and Andrews (2018) highlighted that many ESL teachers were not adequately trained in online teaching methods, which impacted the quality of instruction. Teachers struggled with managing virtual classrooms, providing meaningful feedback, and maintaining student engagement. This lack of training led to inconsistent outcomes in ESL learning when compared to traditional, in-person settings. Virtual learning has been found to be limiting opportunities for spontaneous communication, and potentially leading to an over-reliance on technology, which can undermine essential interpersonal skills for language learning. Given

these challenges, this study explores the effectiveness of virtual ESL teaching methods in Gweru (Zimbabwe), focusing on infrastructure limitations, teacher preparedness, and student engagement.

Zimbabwe has responded to the global trend toward ICT adoption. Technological advancements have become a powerful force across various life facets, with recent wireless networking developments raising hopes for sustainable development, especially in rural communities (Rugara, 2013). In this context, Zimbabwean schools have integrated computers into their curriculum. The Nziramasanga Commission of Inquiry (1999) recommended a dual-pathway system where all schools offer practical subjects like Computer Studies. The increasing adoption of technology has led to a paradigm shift in education, facilitating flexible, continuous learning that is no longer confined to the classroom. The education sector has adjusted its methods of delivery, learning pace, attendance, and resource availability in response to these technological changes.

The integration of a computer curriculum has been a topic of discussion since 2000, though many schools, especially in rural areas, have struggled to keep up (Konyana & Konyana, 2013). Challenges include unused computers gathering dust due to a lack of training and resources. Bates, Manuel, and Oppenheim (2000) stress the importance of teacher training in ICT use, and Carlson (2002) agrees that human capital is essential. In Zimbabwe, ICT integration in schools has been hampered by unprepared teachers and administrators. Effective technology use requires knowledge and skill; thus, having qualified personnel is crucial for managing technological resources (Aguti & Fraser, 2006).

Many teachers feel intimidated by technology and are comfortable with traditional teaching methods. Effective ICT implementation also depends on the availability of resources, such as hardware, software, and infrastructure, which are more accessible in urban areas than in rural ones (Wamakote, 2010). Studies have shown that educational systems are increasingly pressured to adopt new technologies to prepare learners for the demands of the 21st century (Nafiz, 2010). The rapid evolution of computing has introduced complex algorithms, collectively known as evolutionary computing, based on principles of biological evolution such as natural selection. These techniques are applied widely across industries, with significant developments in evolutionary computation being observed in genetic algorithms (GAs), genetic programming (GP), and

evolutionary algorithms (EAs) (Sen, 2015). EAs include evolutionary strategies (ES) and evolutionary programming (EP), which are modelled after natural evolutionary processes, optimising solutions through iterative generational changes (O'Neill & Ryan, 2003).

## Objectives

The study was guided by the following objectives which are to:

- *Identify the factors influencing the adoption of virtual teaching and learning.*
- *Explore the impact of virtual approaches on teaching and learning English as a Second Language (ESL).*
- *Examine the challenges associated with virtual teaching and learning of ESL.*
- *Identify strategies for the successful implementation of virtual teaching and learning of ESL.*

## Significance of the Study

This study illuminates the challenges and opportunities of adopting virtual teaching and learning in Zimbabwe. The research raises awareness among stakeholders of the critical need to integrate virtual teaching methodologies within the Zimbabwean education system. Furthermore, the findings are intended to guide policymakers, including legislators and ministries, in developing responsive policies for ICT integration and computer curriculum adoption. The study's findings are anticipated to benefit various groups:

- *Teachers: This study may enhance teachers' understanding of the importance of adopting technology in educational settings. The study demonstrates how virtual teaching methods can modernise education and contribute to effective teaching practices in ESL.*
- *By exploring collaborative strategies, the study may suggest innovative Cluster Schools: approaches for mobilising and equipping cluster schools with the necessary technology. Through a coordinated approach, schools within clusters could be better prepared for virtual teaching and learning initiatives.*
- *Researchers: This study may assist researchers in understanding the challenges related to technology adoption in Zimbabwean primary schools. It could serve as a foundation for further research on virtual learning, attracting support for a virtual curriculum and promoting its benefits in the Zimbabwean educational context.*

## Theoretical Framework

The study adopted the Rogers' Diffusion of Innovations and Toffler's Third Wave Theories. Rogers' Diffusion of Innovations Theory (Rogers, 1962) is a pivotal framework for examining the conditions that influence technology adoption. Rogers identifies five adopter categories: innovators, early adopters, early majority, late majority, and laggards, each with distinct motivations and adoption patterns. Adoption is influenced by factors such as relative advantage, compatibility, complexity, trialability, and observability (Ling & Donner, 2009). While insightful, this theory has been critiqued for its limited consideration of broader social impacts and the lack of a participatory approach in adopting new technologies.

Toffler's Third Wave Theory (1980) contextualises technological advancement within societal transformations. Toffler categorises these changes into three waves: the agricultural revolution, the industrial revolution, and the information revolution, the latter of which relates to our current digital age. This theory provides a broader scope, examining how technological advances reshape society's structures and institutions, such as education, as demonstrated during the COVID-19 pandemic.

## Methodology

This study adopts a qualitative methodology to obtain in-depth insights into the experiences and perspectives of participants. Data was collected through interviews and questionnaires, wherein purposive (Rose et al., 2014) and convenience sampling (Leedy & Ormrod, 2010), were also employed. Unstructured interviews were conducted with 120 learners and 20 teachers, chosen for their expertise in the subject area. This approach allowed for flexibility, enabling researchers to probe deeper into participants' responses and capture both verbal and non-verbal cues. The study administered 120 questionnaires for learners and 20 for teachers. The rigorous approach ensured that the study provided a comprehensive understanding of the factors influencing the adoption and effectiveness of virtual teaching for ESL within the Zimbabwean educational system.

## Findings and Discussion

The researchers focused on the effectiveness of virtual teaching and learning of English as a second language. The data was collected from primary school teachers and learners of primary schools in Gweru urban using questionnaires and interviews. The study attracted a 75% questionnaire response rate. A low response rate of below 40% could have pointed towards sampling bias which could have affected the research outcome (Holbrook et al., 2007).

### *Access to virtual tools and ICT facilities*

Of the respondents, 67% indicated that virtual lessons were not being fully discharged at their school due to lack of resources such as virtual tools and facilities. This is a serious challenge which in the face of technology and societal change there is advocacy for new approaches to education in the 21st century. Toffler (1980) argued that the traditional curriculum is being overtaken by events since it has become inadequate for preparing students for the challenges of the 21st century. Sokoli (2015) claimed that organisations that do not incorporate the use of new technologies in schools cannot seriously claim to prepare students for life in the 21st century. In this view, it can be noted that schools lacked virtual learning, and hence, students were deprived and remained behind in key areas such as access to quality education, digital literacy, teacher training and development, equity and inclusion and preparedness for future challenges.

Learning English as a Second language requires learners to acquire new vocabulary and correct grammar. These can be achieved through the use of visual diagrams that can be shared through the use of ICT or the use of video games, quizzes to learn grammar and vocabulary. If there are no facilities it becomes a challenge for both the teacher and the leaner. Online platforms allow storage of notes, revisions and anytime access by learners and parents, they do not also limit on learning time, even slow learners can be accommodated.

Teachers complained about how difficult it was to have access to computers. One teacher went on to say that computers had to be booked in advance, and the teachers would forget to do so, or they could not book them for several periods in a row when they wanted to work on several projects with the students. Johnson (2016) confirmed that the inaccessibility of ICT resources is not always merely due to the non-availability of the hardware and software or other ICT materials within the school. It could be a result of poor organisation of resources, poor quality and hardware, inappropriate software, or lack of personal access for teachers. It is important to note that according to the results obtained from

learners, some pupils had access to either a laptop or a smartphone belonging to their parents or guardians. However, parents did not trust learners to bring the gadgets to school for learning for fear that they might lose the gadgets or misuse them. However, Balanskat et al. (2006) argues that the accessibility of ICT resources does not guarantee its successful integration in teaching, and this is not merely because of the lack of ICT infrastructure but also because of other barriers such as lack of high-quality hardware, suitable educational software, and access to ICT resources. The study further attempted to establish which ICT infrastructure was available in schools. The findings provided evidence that there is hardly any ICT infrastructure available in schools. Most of the interviewed teachers highlighted that they had no ICT infrastructure at their schools which including access to Wi-Fi.

### *Use of virtual tools in ESL teaching and learning*

Education needs to be more adaptive, flexible and responsive to changing needs of society. Learners have to think critically and creatively (Toffler, 1980). The ability to think independently and solve problems is critical for success in the rapidly evolving world. All these can be imparted through virtual teaching and learning of English through assigned lessons, following instructions, procedure, composition writing and grammar stories. Helpful applications can be set to assist learners. However, most respondents (both learners and teachers) claimed that they rarely use virtual tools such as iPads and laptops, but on some occasions, they use cell phones as media in the classroom. This contradicts with the perception suggested by Iding et al., (2004) who claims that the use of computers can help students to become knowledgeable, reduce the amount of direct instruction to those students with particular needs. Peraton and Creed (2002) maintained that radio and television have been widely used as educational tools since the 1920s and the 1950s respectively. A mobile phone has become a powerful ICT if connected to the internet implying that learners have moved in the right direction towards acquiring some virtual tools. However, the study has shown that access to virtual tools is still a huge problem. The majority of students did not have access to various virtual tools whereas a higher proportion had limited access to the mobile phone which could also be used in and outside the classroom. In this regard, teachers and students must adapt to new virtual tools and platforms to facilitate continuous learning.

The cellphone has been identified as the common and easy ICT gadget for teachers and learners. There were varied responses on the use of a mobile phone as a pedagogical tool. There has been an ongoing debate on whether

pupils should be allowed to bring cellphones to class or not (Mfaume, 2019). The evidence from the respondents indicates that both teachers and learners do not utilise their cell phones fully in academia which is a major setback in the teaching and learning of English.

Teachers agreed that the mobile phone is important and very useful in enhancing teaching and learning of English because one can easily access online educational resources if one has data or Wi-Fi connections. It can be used to download teaching and learning material for English lessons such as the main aspects of teaching and learning Engling which are reading, writing, speaking and listening. It was also found to be helpful in learning English vocabulary since there are accessible dictionaries which help with spellings, pronunciation and word meaning. Cowen and Cowen (2008) posit that mobile phones can be used to help students continue their lifelong pursuit of improving their vocabulary independently.

Both teachers and learners could benefit more from using the cell phone in teaching and learning of aspects as pronunciation, grammar and reading. Cell phones allow interactive grammar exercisers, reading and pronunciation practice with personalized instruction which also facilitates increased practice opportunities anytime from anywhere. Moreso, the educational landscape is faced with an ever-changing environment that demands both teachers and learners to remain knowledgeable, adjust their pedagogy in order to adjust and readjust to change being circumstances (Fullan & Langworthy, 2014).

## Challenges of ICT for teaching and learning English as a second language

Teachers interviewed raised a number of challenges. Respondents raised that if ICT is given more preference, it might end up replacing the teacher which might then create problems in teaching and learning. However, Becta (2006) admitted that it was a myth that ICT replaced teachers and schools. ICT supplemented classroom teaching but cannot replace the teacher. Good teachers were the backbone of any educational system. Attiyat et al., (2022) also contend that virtual learning enhances language skills, but social contact remains crucial for second language acquisition. However, this fear might be mitigated if there is blended learning where both physical interaction and virtual learning are adopted. The teachers also revealed that there were instances when virtual tools were viewed as computers and the internet. This may be hindrance to teaching and learning through other old technologies such as the radio which

was owned by the majority. Through the radio learners would be tested their English listening skills which was helpful for those in the rural areas as well.

There were also challenges associated with the use of cellphones in the classroom. Respondents indicated that the educational use of the cellphone was limited since in most cases teachers would chat with friends, attention diverted to other uses other than teaching and learning which include entertainment and socialisation. At the end the learning period, the use of the cellphone as an ICT device would not be fully exploited to advance teaching and learning of English. Again, teachers advised that virtual teaching was not the solution to all educational problems. Furthermore, teachers emphasized that if a wrong application which does not support English course content was used, it would become a barrier to teaching and learning. Nomads (2013) admitted that technology should not be used simply because it is available but because it has to enhance teaching or learning. Different technologies support and promote acquisition of different skills and therefore choice should be dependent on the expected learner outcomes. Tooth (2000 p. 2) claims that technology should be treated as a medium '…a servant not the master….'

In addition to what has been discussed, teachers claimed that virtual teaching hindered the expected educational benefits of ICT in cases where they lack reliable accessible telecommunication infrastructure. Teachers also indicated high cost of equipment and software as well as unreliable network.

### *Strategies that can be adopted*

From the data gathered, most teachers agreed that there is need to effectively blend virtual and face to face instruction to balance the teaching and learning of ESL This would increase learners' vocabulary, interactive listening and reading, increased student engagement, access to quality education and improved teaching methodologies. While virtual learning improves vocabulary and grammar, social contact enhances pronunciation and fluency (Attiyat et al., 2022).

All the teachers who participated in this research advocated for staff development programmes and workshops which train teachers on basic virtual skills. All respondents encouraged schools to engage in fundraising activities to source funds to buy virtual resources such as smart phones and computers. Of the respondents, 70% advocated for the establishment of solar power in schools for effective integration of virtual tools in primary schools. Konyana (2013) admitted that access to technology should be accompanied by knowledge

and skills for its use. In a related study at Makerere University, policymakers recommended training and sensitisation of all users in order to have qualified staff to run and manage the technology and enable effective use of equipment. Couglan (2014) claimed that there was need for a clear vision, policy and plan for ICT integration. Power was a necessity and the ability to network ensured effective and efficient networking.

In response to the foregoing and in reiteration to what has been indicated by students that they do not have adequate computers or ICTs, teachers admitted that access to ICTs by learners was still a major setback, however a lot was being done to address the problem. Acquisition of ICTs especially computers and their accessories were an ongoing activity supported by the government through the Zimbabwe Manpower Development Fund, and the private sector. The teachers also indicated that access to ICTs could be enhanced by creating a central pool of all the available ICTs where access was controlled and not limited to certain groups of users so that equitable use of ICTs relevant stakeholders was achieved.

The study, however, had its limitations in as far as the effectiveness of virtual teaching and learning of English as a second language is concerned. The major limitations being the small sample size of 20 teachers and 120 learners and the fact that the data was only obtained from urban schools in Gweru. In addition, there are long-term consequences of relying on mobile phones or virtual tools in an educational context. For example, there is decreased attention as learners may focus on other activities like playing online games if not monitored. Virtual tools also diminish critical thinking and decrease problem solving skills as some learners may over rely on virtual tools. Furthermore, virtual teaching and learning could further widen the digital divide between urban and rural students since most rural schools are under equipped, yet they are given the same syllabus.

The findings of this study also relate to the broader academic debate. For instance, the challenges faced by teachers in Gweru align with global trends in virtual learning. An example is the issue of connectivity where poor internet may disrupt or delay the learning process (Alshammari et al., 2018). Also, both teachers and learners may struggle with virtual learning platforms (Lopez et al, 2020). ESL learners navigate diverse digital cultures. Virtual teaching prepares ESL students for a globalised, information driven world. Relatedly, the powershift concept (1990) by Toffler explores the redistribution of power in the information age. When applied to the virtual teaching of ESL, the research highlights that

virtual teaching empowers students to take ownership of learning. Teachers become facilitators guiding students through digital resources.

## Conclusion

Basing on the research findings and literature, the researchers found out that virtual teaching and learning of English as a second language in primary schools is to a lesser extent effective. While virtual teaching of ESL in primary schools offers some benefits, the lack of infrastructure, expertise, and support makes it less effective overall in the current context. It has been observed that, there are no resources to successfully implement virtual English teaching and learning in primary schools. Most teachers lacked the expertise in the use of ICT in primary schools.

There is also lack of support from the learners. From the curriculum planners there is lack of clear implementation roadmap which teachers can rely on or stick to. The research explored on how virtual approach benefits teaching and learning of English as a second language. The use of virtual approach facilitates the teacher and learner interaction within and outside the classroom. It helps the learners on using the online tools. Virtual teaching and learning of English encourage learner's own research as pointed out by the learners that, they use their mobile phones to research on what they do not know and what they want to improve on.

Another challenge noted which is associated with virtual teaching and learning of English as a second language.is that technology intimidates teachers, who are more at ease using their established and conventional methods. Virtual teaching might also deepen the digital divide between well-resourced and under-resourced schools by widening the achievement gap where those learners with well-resourced school have more access to devices for practice. For under-resourced schools, teachers and learners may lack basic computer skills and the schools may not be capable of investing in advanced virtual platforms. Under-resourced students may also have limited virtual learning opportunities. These therefore need support through partnership with well-resourced schools (Center for Digital Education 2020).

## Recommendations

The schools through the Ministry of Primary and Secondary Education should continue to educate teachers on the use and importance of technology in primary school teaching and learning of English as a second language. The staff development workshops should be put in place regularly in order to cater for the fast and changing technologies that are taking place. To attain this, The Ministry should provide schools with access to training platforms, while schools should ensure that teachers regularly attend staff development workshops.

The schools should source funds to purchase ICT resources in an effort to successfully implement virtual teaching and learning of English in primary schools. Potential avenues for funding may include partnerships with local businesses or grant applications. The government through the donor community may also chip in and help schools with instillation of solar panels for reliable ICT use. The government may also regulate the price of data bundles. Under resourced schools through the assistance of resourced schools and internet providers such as Econet and TelOne in Zimbabwe can as well embark on digital programs like Ruzivo digital learning to keep pace with the everchanging technologies. Clear respectful communication is the key to build relationships and classroom community. There is also a need to vary the types of lessons thus, through phone calls, video lessons, live chats to ask questions and allowing learners to complete their English work and tasks at their pace and time. Blended teaching and learning approach may also be adopted by teachers to balance both virtual and physical teaching and learning to make English lessons more interactive and engaging.

## References

Albrecht, D., and Huang, S. (2018). The Effectiveness of Online Learning for ESL Students. *Journal of Educational Technology and Practice*, 13(2), 112-128.

Alshammari, K. M., et al. (2018). Virtual learning environments: A review of the literature. *International Journal of Educational Technology in Higher Education, 15*(1). https://doi.org/10.1186/s41239-018-0093-2.

Attiyat, N. M. A. (2022). Covid-19 outbreak state of a questionable dilemma or a learning escape: Second language acquisition within virtual learning and social contact. *Theory and Practice in Language Studies, 12*(6), 1098-1106.

Center for Digital Education. (2020). *Digital equity toolkit: Addressing digital equity in schools*. Center for Digital Education. https://www.centerdigitaled.com/digital-equity-toolkit.

Becta, I. C. T. (2016). Information communication technology advice for teachers. Retrieved from http://www.ictadvice

Chapelle, C. (2003). *English language learning and technology: Lectures on applied linguistics in the age of information and communication technology* (Vol. 7). Amsterdam: John Benjamins Publishing.

Cooper, D., & Schindler, P. (2016). *EBOOK: Research methods*. Retrieved from https://books.google.com

Dambudzo, I. I. (2015). Curriculum issues: Teaching and learning for sustainable development in developing countries—Zimbabwe case study. *Journal of Education and Learning, 4*(3), 15–26.

Ehigie, B. O., & Ehigie, R. I. (2018). Applying qualitative methods in organizations. *The Qualitative Report, 23*(2), 500–520. Retrieved from https://www.academia.edu

Fullan, M., & Langworthy, M. (2004). *A rich seam: How new pedagogies find deep learning*. Retrieved from https://staging-over4pacific.org

Hashemi, M. R., et al. (2019). The impact of technology on language learning. *Journal of Language and Linguistics, 18*(3), 310–325. https://doi.org/10.5455/JLL.171844.

Johnson, L., and Patel, M. (2019). The Role of Technology in Teaching ESL: A Case Study of Multimedia Tools. *TESOL Quarterly*, 53(1), 22-38.

Johnson, R. D. (2016). The role of behavioral modelling in computer skills acquisition: Towards refinement of the model. *Information Systems Research, 27*(4), 815–828. https://pubsonline.informs.org.

Konyana, S., & Konyana, E. G. (2013). Computerization of rural schools in Zimbabwe: Challenges and opportunities for sustainable development. *African Journal of Teacher Education, 3*(2), 99–112.

Lee, C., and Kim, R. (2020)**.** Language Learning in the Digital Age: Benefits of Technology in ESL Education. *International Journal of English Language Teaching*, 8(3), 45-60.

Leedy, P. D., & Ormrod, J. E. (2010). *Practical research: Planning and design.* Pearson Educational International.

Li, G. (2020). Principles for developing learner agency in language learning in a new eduscape with COVID-19. *Language Learning, 5*(1), 30–40.

López, A. M., et al. (2020). Teacher training for virtual learning environments. *Journal of Educational Computing Research, 58*(4), 739–758. https://doi.org/10.2190/EC.58.4.b.

Martinez, E., & Zhang, D. (2021). Challenges in Speaking Skills in Online ESL Classes. *TESOL Journal*, 12(3), 194-211.

McDonald, S., and Tran, J. (2021). Collaborative Online Learning in ESL Classrooms. *Computer-Assisted Language Learning*, 34(5), 420-435.

Meriam, T., Brocket, J., & Serdyukov, I. P. (2017). *Innovation in education: What works, what doesn't, and what to do.* Emerald Group Publishing. Retrieved from https://www.emerald.com

Nafiz, U. (2010). Man in the middle attack detection. *International Journal of Engineering Sciences and Research Technology, 2*(6), 45–50.

National Education Association (NEA). (2020). *Digital equity toolkit.* Retrieved from https://www.nea.org

Nziramasanga, C. T. (1999). *Report of the Presidential Commission of Inquiry into educational and training.* Harare: Government Publications.

Peraton, H., & Creed, C. (2002). *Teacher education guidelines: Using open and distance learning. Technology, curriculum, cost evaluation.* ERIC Database.

Rugara, T. (2013). Wireless revolution and its rural development indications: A case study for Mberengwa East Ward 2, Zimbabwe. *Midlands State University Journal of Development Studies, 5*(2), 87–104.

Sahim-Kiul, A. (2011). EFL teachers' attitudes towards ICT. *Proceedings of the 5th International Computer and Instructional Technologies Symposium,* Fırat University, Elazığ, Turkey.

Sánchez, J. A., et al. (2017). Nonverbal communication in virtual learning environments. *Journal of Educational Technology Development and Exchange, 9*(1), 45–62. https://doi.org/10.18785/jetde.0901.04.

Saunders, A., & Tousey, P. (2009). *Wires for innovation: How information technology is shaping the economy.* Retrieved from https://books.google.com

Searson, M., Laferrière, T., & Nikolov, R. (2011). Barriers to successful implementation of technology integration in educational settings. Retrieved from https://rnikolov.unibit.org

Smith, J., and Wang, L. (2020). Social Presence and Its Impact on Online ESL Education. *Language Learning & Technology*, 24(1), 95-110.

Toffler, A. (1980). *The third wave.* New York: Morrow.

UNESCO. (2011). *ICT competency framework for teachers: The impact of external factors on ICT usage practices.* Paris: UNESCO Publishing.

Virkus, S. (2005). Information, literacy, and learning. Retrieved from https://eprint.rolis.org

Wamakote, L. (2010). Developing the use of ICT to enhance teaching and learning in East African schools: A review of the literature. *Educational Technology Journal, 7*(3), 15–30.

Wright, A., & Andrews, M. (2018). Virtual ESL Instruction: Teacher Readiness and Challenges. *Modern Language Journal*, 102(4), 703-719.