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An Investigation of ICT Usage in English Second Language Teaching and Learning in Zimbabwean Rural Secondary Schools

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PROTOCOL NUMBER: H22/08/22

A thesis submitted to the Faculty of Humanities, University of the Witwatersrand, in fulfilment of the requirements for the degree of Doctor of Philosophy

Division of Languages, Literacies and Literatures

(School of Education)

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Co-supervisor: Dr Quinta Kemende Wunseh

March 2025

DECLARATION

I, Saziso Mukomana, student number **2291639**, hereby declare that this thesis is my own unaided work. I have done everything in my power to adhere to the rules regarding the University of the Witwatersrand Policy on Research Ethics, and I am completely aware of it. The Ethics Committee at the University of Witwatersrand has granted me a certificate of ethical clearance. Sources used are acknowledged in accordance with the requirements of the University of the Witwatersrand. This thesis has not been submitted to another university for credit toward a degree.

Signature: S Mukomana Date: 8 March 2025

DEDICATION

I dedicate this thesis to my late mother, Evelyn Moyo, as well as to my father, Richard Moyo, for the inspiration they instilled in me since my childhood. This work is a fruit of their effort, which they invested in my academic pursuits. I will be forever grateful to them for their guidance and sacrifices. In addition, I dedicate this work to my sons, Kudzai and Courtly, for their patience and encouragement which I needed to complete this study despite all the hurdles on the way. Mere words cannot thank you enough.

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Lastly, I want to thank everyone who in one way or another, directly or indirectly, contributed to the completion of this work. May the Almighty God richly bless all of you.

ABBREVIATIONS AND ACRONYMS

AfDB	African Development Bank
AIDS	Acquired Immune Deficiency Syndrome
A'LEVEL	Advanced Level
CAI	Computer-assisted instruction
COVID-19	Corona Virus Disease 19
ESL	English Second Language
HIV	Human Immune Virus
ICT	Information and Communication Technology
ICTs	Information and Communication Technologies
M	Mean
MoPSE	Ministry of Primary and Secondary Education
O'LEVEL	Ordinary Level
PCs	Personal computers
RQ	Research Question
SDs	Standard Deviations
SMS	Short Message Service
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICEF	United Nations International Children's Education Fund
ZIMSEC	Zimbabwe School Examination Council
ZIMASSET	Zimbabwe Agenda for Sustainable Socio-Economic Transformation
ZIMSTAT	Zimbabwe Statistics

ABSTRACT

The advancement of a nation and the social development of its citizens depend heavily on the utilisation of technology in education. This study set out to investigate how ICTs are utilised in Zimbabwe's rural secondary schools to teach and learn ESL. The theoretical framework that combined constructivism, behaviourism, and connectivism to research how ICTs are used in classroom instruction contexts served as the foundation for this study. Utilising a research approach of mixed methods, the study gathered information using both quantitative and qualitative methodologies. A research design that was sequential and explanatory was used. The quantitative phase used questionnaires to collect data from 120 learners and 3 ESL teachers. The qualitative phase gathered data through three groups of learners' focus group discussions, three teacher individual semi-structured interviews, and four lesson observations. The results showed that teachers and learners recognised the advantages of ICTs in facilitating better methodological strategies. The findings also showed ICTs as increasing collaboration between teachers and learners while creating better access to necessary information, and promoting ESL classes with the capacity to accommodate learners with varying potential and learning preferences. The findings from the research showed that a variety of challenges, which include lack of ICT skills among instructors, inadequate training, and low teacher confidence, made it difficult for rural secondary schools to effectively employ ICTs to teach ESL. The study recommended that for facilitators and learners to utilise ICTs successfully, more frequent workshops that concentrate on developing ICT skills in line with competency levels are necessary. The study also suggested that teachers should allow themselves to pick up certain technology-related abilities, even from some of their ICT-literate learners. This will assist teachers in becoming more adept and self-assured ICT users.

KEY TERMS: Information and Communication Technology, teaching and learning, secondary schools in rural areas, ESL, learning theories, mixed methods research.

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CHAPTER 1

INTRODUCTION

1.0 OVERVIEW

The Covid-19 pandemic struck Zimbabwe and every other nation on the planet in 2020. Schools suddenly had to shut down. As a result, "there was a need to adopt Information Communication Technologies (ICTs) to make sure that learners still had access to their basic right to education" (Zinyemba, Nhongo, & Zinyemba, 2021, p.223). Computers, digital tools, and software programmes that can access the internet are known as ICTs. These instruments are used to access, collect, manipulate, present, or share information for educational purposes (Touray et al., 2013; Ndlovu, 2016; Nkambule, 2020). With the adoption of ICTs in education, over 4 million learners in Zimbabwe switched from traditional classroom instruction to online learning modes (OCHA, 2020). Similarly, English teachers in Zimbabwe had to change from teaching their learners within physical classrooms to teaching them in online spaces.

In this research, therefore, I set out to find out how secondary school English teachers and learners utilise digital technology in ESL pedagogical environments in secondary schools located in rural areas of Zimbabwe. A second language is another name for a language that a person learns after or in addition to their first language or languages. As an example, learners in rural secondary schools in Zimbabwe learn English after their native languages, Shona, IsiNdebele and many other ethnic languages that exist in the country. In my research, I investigated the teaching of ESL using digital technology to O'level learners in rural Zimbabwean secondary schools. In 2020 when schools were suddenly closed due to the Covid-19 pandemic, O'level learners were preparing to write their exit Zimbabwe School Examination Council (ZIMSEC) final examinations. Thus, they were most affected by the switch to e-learning platforms. The cohort of O'level learners involved in this study would have been using ICTs in ESL learning for at least three to four years. Their adaptability to ICTs would therefore be significantly different to that of those who started using technological tools only in 2020. Given that the high school curriculum in Zimbabwe requires English and that English has remained the dominant official language of instruction (Nhongo,

2013) since colonial times, my study investigates how ESL interaction through ICTs prepares learners for the O'level final examinations in Matabeleland North Province rural secondary schools of Zimbabwe. This study is my attempt to uncover changes in English education in Zimbabwe since the outbreak of Covid-19, with the purpose of investigating the availability of technological tools in secondary schools that are in Bubi district rural areas. Rural areas are parts of Zimbabwe located in the countryside which are underdeveloped, and secondary schools there suffer from restricted resources and poor infrastructure. Additionally, the study investigates how ICTs influence ESL instruction, the advantages of using them in ESL classrooms, the problems that teachers and learners face, and the methods they employ to overcome these problems.

1.1 BACKGROUND TO THE STUDY

After gaining independence in 1980, Zimbabwe needed to implement certain educational reforms to fulfill the demands of its developing economy and educational system under the new dispensation. Following independence, the main reforms that were put in place addressed historical quantitative disparities and improved access to education for black Zimbabweans (Kanyongo, 2005). But as time went on, it became clear that the nation needed to further advance economically, socially, and technologically to keep up with the rapidly changing world and the advent of a fiercely competitive global economy. To move with the technologically changing environment, the government proposed an ICT integration policy through the Ministry of Primary and Secondary Education (MoPSE) in 2001. This policy states that "ICT provides educators with a powerful new tool to enhance the learning opportunities for students and the professional development opportunities for the teachers" (Andrew & Durand, 2001, p.7). According to Isaac (2007), the Zimbabwean government enacted several policies relating to technology use in education, including the Nziramasanga Commission of Inquiry of 1999, which was followed by the 2002 National Science and technology policy. Thereafter, another national ICT policy of 2005 was adopted (Isaac, 2007). All these policies suggest that educational institutions should start using ICTs in their pedagogical activities. ICTs encompass a broad spectrum of technologies and applications utilising various hardware, software, and telecommunications network types (Goodwin, Low, & Ng, 2015). To forge ahead with the campaign for technological use in education, the 2005 ICT policy was implemented in public secondary schools across Zimbabwe.

Using ICTs to enhance instruction across the curriculum became the explicit goal of the education policy. However, even with the reported increase in ICT use in education, research indicates that most regions of the nation still had limited and uneven technology integration and utility in schools by 2015 (Gomba, 2016; World Bank, 2015). This then created a need for the government to review the 2005 national ICT policy. Such a review would also ensure that Zimbabwe did not fall behind in terms of technological development, in contrast to the global community.

As a result of the review, a second ICT policy was adopted in 2016. The 2016 National ICT Policy, like its predecessor, promoted the use of ICT in education, emphasising the improvement of pedagogical methods to ensure high quality instruction throughout the Zimbabwean school curriculum (Government of Zimbabwe, 2015a). However, in all my years of ESL teaching in Matabeleland North, I have noted that disparities and variances in ICT use still exist in the ESL classrooms. This observation is affirmed by local research which indicates that despite more than ten years of ICT reforms and massive expenditure on staff training, computer hardware and software, and appropriate infrastructure, ICTs have not yet been completely incorporated into every subject that is taught in schools, including ESL (Konyana & Konyana, 2013). In most regions of Zimbabwe, the implementation of the 2016 ICT policy is not yet fully realised despite concerted efforts by the government to give the Zimbabwean schools access to computers and other ICT-related tools.

In line with its goal to reform the Zimbabwean educational system, the MoPSE had in 2015 launched a new curriculum which advocated for ICT usage in instruction and studying, a move which was equally in line with contemporary trends in education (Dambudzo & Kasowe, 2016). According to the government, the New Curriculum Framework aimed to instill in learners a sense of identity as Zimbabweans, while simultaneously capacitating them with scientific and technological knowledge for skills development (Government of Zimbabwe, 2015b). Over the years, MoPSE had been revising and updating syllabuses, but since the 1980s, there had not been an intentional curriculum review. The curriculum needed to be continuously evaluated to ensure that it continued to be relevant to the needs of the nation, as society's needs are ever-changing. According to Shittu and Shittu (2014), ICT usage in education fosters the growth of skills that are necessary for social change and sustainable economic development. The establishment of a

curriculum that was in line with both global trends and 21st century norms, as well as one that was representative of the Zimbabwean context, was therefore imperative. The New Curriculum Framework proposed transforming the traditional educational system into one using current technology (MoPSE, 2015). It created the possibility of integrating ICTs even in ESL instruction. It required that ICTs be implemented in teaching fundamental skills in language and communication, which include listening, reading, writing and speaking, in Zimbabwean schools, including rural schools. The abilities to think critically and solve problems are mentioned in the new curriculum blueprint, along with other exit level attributes to be attained by school graduates. This suggests the possibility of ESL learners mastering key English language concepts before graduating (Gupta & Lee, 2015). The New Curriculum Framework thus held out promises for pedagogical innovations in the ESL classroom.

The breakout of the early 2020 Covid-19 pandemic put to the test the ideals of the 2015 New Curriculum Framework as well as those of the 2016 national ICT policy as schools were compelled to shut down and revert to online instruction to allow for the continued education of learners. Velez et al. (2020) observe that the abrupt changes that came about because of Covid-19 forced schools and other learning institutions to think about how they could include ICTs into their language curricula to get learners ready for life in a knowledge-based society. However, these schools were caught unprepared to implement online teaching and learning. Rural secondary schools were especially caught off-guard and had inadequate preparation to make the massive switch from teaching learners in physical classrooms to teaching them online.

In Zimbabwe and many other African nations, English is highly valued in a variety of areas, including education (Trudell, 2016). Moreover, most subjects in the Zimbabwean institutions of learning are taught in English since it is thought to be the primary language of communication (Grabe & Stoller, 2002). Generally, it is only when learners are attending school that they interact in English in rural areas. Prior to schooling, they use mainly their home languages or mother-tongues for communication. This contrasts with some learners (not all) in urban areas who are exposed to English from birth because their parents were educated in English and therefore speak English often. Thus, ESL learners can be defined as those learners for whom English is not a mother-tongue but who learn English as a curricular subject in school (Oyadele & Chikwature,

2016). For these learners, communication at home and in school (outside of the classroom) is dominated by their indigenous languages such as Shona, IsiNdebele, Kalanga, Sesotho and Tonga. As a result of the dominance of the mother-tongue, ESL learners often reach secondary school without having mastered basic skills of communication at primary school level. For ESL learners in rural secondary schools, their use of the English language is often limited to the classroom during English lessons. This then has implications for how ESL teachers use ICTs for ESL instruction and conversely for how ESL learners influence ICT usage in ESL teaching and learning.

1.2 PROBLEM STATEMENT

Arising out of the background information presented in the preceding section is a notable discrepancy between government policies advocating ICT usage in education and actual conditions on the ground hindering ICT usage for educational purposes. While on the one hand, the MoPSE mandates teachers to utilise technology in their pedagogical activities, on the other hand the infrastructure to support such integration are not often in place (Chibaya et al., 2022; Chikanyau, 2022; Government of Zimbabwe, 2018; Maphosa, 2021). In rural secondary schools in particular, ICT infrastructure is often lacking (Chimuriri, 2017; Vurayayi, 2023). In some situations of ESL pedagogy, both teachers and learners may be ill-equipped to make maximum utilisation of ICT tools, inclusive of computers and the internet, since these tools use English as a dominant mode of transmitting information (Dube & Scott, 2016; Ithindi, 2019). In 2020, radio and television broadcasts played a major educational role when the Covid-19 pandemic was at its worst (Maphosa, 2021). The MoPSE worked with UNICEF to broadcast radio and TV lessons across many regions in Zimbabwe (MoPSE, 2020; Munene & Mutsotso, 2019). However, the extent to which this made a difference to ESL instruction in secondary schools located in rural areas, especially in terms of improving the listening, speaking, reading and writing skills of ESL learners, is yet to be assessed. The thrust of this research project, therefore, was to investigate how teachers and their learners were incorporating ICTs in their ESL teaching and learning so as to cope with the challenges brought about by the Covid-19 pandemic. In other words, the research sought to investigate the practices of rural ESL instructors and learners in their utilisation of ICTs in and outside ESL classrooms, as well as the benefits they experienced, the challenges they encountered,

and the strategies they adopted to overcome their challenges. Understanding how teachers and learners utilise ICTs to enhance ESL education remains relevant even during the post Covid-19 era.

1.3 RATIONALE FOR THE STUDY

In my 13 years of teaching O'level ESL in Matabeleland North Province of Zimbabwe, I observed that learners at O'level performed below average in English language examinations. This observation was also noted in a report from ZIMSEC which indicated that ineffective teaching and learning strategies may be blamed for the poor performance of learners (MoPSE, 2017). MoPSE (2017) further noted that candidates attempted and fared poorly in most questions on basic language skills in English language papers. This suggests that O'level learners recorded low results in ESL final examinations because they struggled to comprehend the fundamental linguistic skills of communication. I further noted that most rural secondary school learners communicate in their mother tongue as they interact with teachers and among themselves at school since they have difficulty in communicating or writing in English. To heighten their plight, these learners' upbringing at home does not expose them to communicating in English. Furthermore, the secondary schools which they attend have limited access to ICT tools for ESL instruction, which all become contributory factors to their dominant use of the mother tongue (Oyadele & Chikwature, 2016). Of the few computers that are available in the rural secondary schools, only a few teachers tend to use them, owing to negative attitudes towards the utilisation of ICTs in the instruction of English (Rudhumbu, 2022). These English instructors often lack the requisite skills to use ICTs. During my tenure as an ESL teacher, I also noted that when I used a few of the ICTs that were available in rural secondary schools to provide listening, pronunciation, reading and writing skills, my learners improved in their performance in O'level ESL final examinations. This research was therefore motivated by the need to find out if my experiences and what the literature says were in line with realities on the ground in relation to the teaching of ESL in Zimbabwe's secondary schools located in rural areas. With this research, I also hoped to identify the barriers that ESL teachers and learners faced when utilising ICTs for teaching and learning, as well as to proffer solutions for these encountered difficulties.

Apart from my observations and experiences, the government of Zimbabwe took steps towards initiating the integration of ICTs in educational institutions. Thus, the Nziramasanga Commission of Inquiry of 1999 created the principal documents that informed Zimbabwe's educational system on the necessity of ICT use. In addition to this, the Curriculum Framework for Primary and Secondary Education (2015-2022), the Zimbabwe National Policy for Information and Communication Technology (2016) and the Ministry of Primary and Secondary Education Strategic Plan (2016-2020) are some policies that the Zimbabwean government has adopted to further highlight the value of ICT use in the classroom. These policies aim at equipping learners with the technological know-how that is necessary to allow them to successfully navigate and survive in the global economy (Government of Zimbabwe, 2018; Manhibi, 2019). It is, however, worth noting that these regulations require educational institutions, secondary schools included, to incorporate ICTs into their curriculum. The vision of these policies is for schools "to use ICT as an enabler for education in order to create, promote and sustain the development of a knowledgeable, innovative and creative society which ultimately supports the national agenda of attaining a knowledge-based society" (Dzinotyiwei & Taddesi, 2020, p.7). This research is thus motivated by the necessity to determine the merits and demerits of ICT implementation in language instruction. Furthermore, no study has been conducted to ascertain how teachers use ICTs to convey knowledge to learners in rural schools when teaching ESL, despite the widespread necessity to use ICTs in schools during and after the Covid-19 pandemic phase in Zimbabwe. This study was, therefore, imperative to offer the necessary knowledge about the application of ICTs to ESL instruction and learning in Zimbabwe's rural secondary schools.

1.4 AIMS OF THE STUDY

The main goal of this study was to investigate how ICTs were being incorporated into ESL instruction by rural secondary school teachers in Zimbabwe. It investigated how rural secondary school teachers employed ICTs in teaching ESL, as well as the difficulties and achievements teachers and learners had in incorporating technology into ESL teaching and learning. The research also sought to ascertain how ICTs affected English language learning by O'level learners in rural secondary schools – whether for good or bad or both. According to Matimire (2020), it is important to understand teachers' innovative abilities and competence in facilitating the impartation of

knowledge to learners through the utilisation of technological gadgets during the instruction process in secondary schools. This research thus aimed to have a clear understanding of how rural ESL teachers in secondary schools were utilising technological tools in their ESL teaching and conversely how learners were benefitting or not benefitting from this. Lastly, this study was conducted to identify the constraints faced by ESL teachers and learners when utilising technological tools in ESL classrooms, as well as the adopted strategies teachers and learners used to overcome these challenges.

1.5 RESEARCH OBJECTIVES

For this study's research aims to be achieved, the following research objectives (ROs) were put in place:

RO1. To determine which ICT tools are available in Zimbabwean rural secondary schools for the teaching and learning of ESL.

RO2. To establish how ICTs assist in the teaching and learning of listening, speaking, reading and writing skills in ESL in Zimbabwean rural secondary schools.

RO3. To find out the constraints that teachers and learners experience in using ICTs in the teaching and learning of ESL in Zimbabwean rural secondary schools.

RO4. To ascertain strategies that teachers and learners use to overcome the challenges they face in using ICTs in the teaching and learning of ESL in Zimbabwean rural secondary schools.

1.6 RESEARCH QUESTIONS

This study needed to be directed by a series of research questions (RQs) to accomplish the objectives set out above. The following are the four guiding research questions that were created:

RQ1. Which ICT tools are available in Zimbabwean rural secondary schools for the teaching and learning of ESL?

RQ2. How do ICTs assist in the teaching and learning of listening, speaking, reading and writing skills in ESL in Zimbabwean rural secondary schools?

RQ3. What are the constraints that teachers and learners experience in using ICTs in the teaching and learning of ESL in Zimbabwean rural secondary schools?

RQ4. How do teachers and learners overcome the challenges they face in the use of ICTs in the teaching and learning of ESL in Zimbabwean rural secondary schools?

I utilised these questions to try to determine whether and how ESL was taught and learned using ICTs such as computers, laptops, smartphones overhead projectors, the internet and tablets in Zimbabwean secondary schools located in rural areas. As previously stated, there are challenges associated with using ICTs in education in rural settings. The four questions therefore assisted me to collect relevant data to determine which ICTs were utilised specifically in ESL instruction and learning, the benefits of their usage for learners and teachers, the challenges in using them, and finally the efforts by teachers and learners in overcoming these challenges.

The study was guided toward its precise goals by both the RQs and ROs, which reduced the possibility of the project going off course. It must be emphasised that while the classroom is the primary location where ESL teaching and learning happens, the very idea of using ICTs in ESL education displaces the centrality of the physical classroom and projects the notion that ESL instruction can occur outside of the classroom. Therefore, the four research objectives and questions outlined above were intended to allow an investigation of ICT utilisation in ESL instruction and learning in and beyond the classroom.

1.7 SIGNIFICANCE OF THE STUDY

This study investigated how ICTs were used in Zimbabwe's rural secondary schools to teach and learn ESL in the post Covid-19 era. For educators, legislators, scholars, and researchers who have a particular interest in the application of contemporary technology in ESL instruction, the research is important in assisting them understand how ICTs are being used, misused or underused. The importance of this study lies in its efforts to show how teachers in the Bubi District of Matabeleland

North Province were using technology in ESL instruction and dealing with the challenges that come with it. Although the findings are not generalisable, they would be of significance to teachers in other rural and semi-urban secondary schools in Zimbabwe and the world at large whose circumstances of teaching ESL are similar. In addition, the study highlights some effective methods that could assist ESL instructors in developing strategies to increase their own efficiency when utilising ICTs in the classroom. The study also sparks critical reflection on inadequate ICT integration in ESL learning. Although there has been a lot that has been published about ICT use in education, very few publications are available specifically on ICT usage in ESL learning and teaching in Zimbabwe's rural secondary schools. This research expands on the scanty available body of knowledge on ICT integration in education post Covid-19, offers new ideas around teacher practice, and highlights some gaps for further research on the topic.

Further research studies may develop from the study's findings, which education decision-makers may use. The MoPSE will get to understand the actual challenges and opportunities faced by rural schools in teaching using ICTs, and this may begin to shed some light on the disparity between the ideals of the existing ICT policies as well as the New Curriculum Framework, which were sent to the schools in the years 2005 and 2015, respectively, and the actual realities of teachers and learners in rural locations. The research provides insights on how learners can maximise ICTs in their ESL learning to improve in their education. It also points to the need for professional teachers to receive skills development on how to utilise technology in class instructions. Teacher training colleges will also gain from the findings of this study as they would take a leaf on the need to train teachers on ICT skills for their effective implementation.

1.8 DELIMITATION OF THE STUDY

Boundaries had to be set for the goals of this research to be achieved. These boundaries are the parametres that determine what information to include and what information not to include in a study (Manhibi, 2019). Thus, the research focused only on three secondary schools located in Zimbabwe's Matabeleland North Province, specifically in the rural areas of Bubi District. The primary stakeholders in this study were ESL teachers and learners who were at the core of ESL instructional and learning activities in Zimbabwe's rural secondary schools. The research aimed

to streamline the investigation to make it more feasible and responsive to the objectives stated earlier in this chapter under section 1.5. In this regard, it excluded school principals and other school officials whose views would not be relevant to understanding ICT utilisation in ESL teaching and learning. Although this study explores ICT usage in ESL learning in and beyond the physical classroom, it does not include parents and guardians since their usage of ICT tools would not have a direct impact on how learners and teachers engage these tools in ESL learning and teaching. On the whole, the decision to limit the study's participants to ESL learners and teachers ensured that all data collected would be relevant to answering the research questions of the study.

1.9 CLARIFICATION OF TERMS

This study makes use of certain key terms, and these have to be defined to avoid any misinterpretation. For instance, the terms teacher and instructor are used interchangeably throughout this study to refer to someone who teaches learners in an ESL context. The definitions of four of the key terms are provided below.

1.9.1. Information and Communication Technologies (ICTs)

Technologies related to information and communication are various sets of technological tools and materials utilised for information creation, communication, dissemination, storage and management, as posited by the United Nations Educational, Scientific, and Cultural Organisation (UNESCO, 2020). The technologies that are included in this definition are computers, the internet, live streaming technology such as websites and blogs, as well as emails. In addition, ICTs are devices that teachers and learners use to communicate, share, save, and manage information. Examples of these devices are digital projectors, digital cameras, cellphones, interactive whiteboards, and personal computers (PCs). These ICTs enable learners to obtain information necessary for their learning.

1.9.2 English as a second language (ESL)

ESL learners is the traditional reference for learners who are not native speakers of English but who are learning or utilising the English language in an English-speaking context. Griffiths (2013)

explains ESL to mean specialised methods of teaching languages intended for those with a first language which is their mother tongue, which they learn and speak at home. ESL becomes a language that they learn at a later stage upon going to school. Notably, ESL instruction comprises curriculum models and teaching methodologies created specifically to teach non-native English speakers academic English language skills in the areas of speaking, listening, reading, and writing.

1.9.3 The New Curriculum Framework for Primary and Secondary Schools in Zimbabwe

The New Curriculum Framework for Primary and Secondary Education 2015–2022 defines a curriculum framework as a systematic outline of prior set goals that state what is supposed to be learned by learners for them to become knowledgeable in various disciplines or subject content (Government of Zimbabwe, 2015b). It includes the primary directing elements that support the coherence and regularity of the scheduled educational actions, such as the compilation of learning objectives, the adherence to ethical morals that support what learners learn, and learning evaluation procedures in various curriculum subjects.

By outlining shared goals and objectives of the educational system as well as the unique characteristics of various educational levels, the Zimbabwe New Curriculum Framework creates the platform for open communication between local communities, parents, and schools. Moreover, the curriculum offers direction to educational institutions and administrators regarding the planning, administration and assessment of their programmes. Structured around teaching and learning from pre-primary to high school education, the New Curriculum Framework outlines learners' intended subjects and expected code of conduct and what they should accomplish after going through formal and non-formal learning environments. The New Curriculum Framework, as it applied to this study, highlighted ESL as one of the subjects offered in Zimbabwe's rural secondary schools.

1.9.4 Rural secondary schools

There are two levels of secondary education in Zimbabwe: upper secondary and lower secondary (ZIMSTAT, 2021). The Ordinary Level Certificate is the culmination of the four-year lower secondary school cycle, which consists of Forms 1 to 4. Ordinary level or O'level classes is another name for Forms 3 and 4 classes. The Form 3 equivalent in South Africa is Grade 10 while Form 4 can be equated to Grade 11. Learners have two alternatives after completing their four years of lower secondary schooling: they can enroll in upper secondary level education (Forms 5 to 6) for an additional two years of secondary education which will give them an Advanced Level Certificate (A'levels), or they can enroll in tertiary education institutions that do not require A'levels as a prerequisite for admission, such as teacher colleges and polytechnic colleges. Regarding qualification equivalence, Zimbabwe employs Form 6 as the final secondary school departure qualification that leads learners to post-secondary education, but South Africa recognises Grade 12 as the final high school grade, or matriculation.

A secondary school is classified as a rural secondary school if it is not part of major metropolitan schools. Because Zimbabwe's rural areas are distant and underdeveloped, many of its secondary schools are similarly underdeveloped and impoverished. The following traits of rural secondary schools are listed by Seroto (2004): a dearth of infrastructural resources, packed classrooms, and rural poverty. These factors pose a particular combination of challenges for learners attending rural schools to receive quality education (Gomba, 2016). The most basic facilities for instruction and learning are absent from these remote secondary schools. There is a poor transport network to the rural schools because the majority of the roads leading there are in a dilapidated conditions. It is difficult for the rural schools to run as effective, efficient and safe learning environments. Since most rural learners have low socio-economic backgrounds, this inevitably contributes to the lack of access to education of high quality in secondary schools found in rural locations.

1.10 OVERVIEW OF THE STUDY'S THEORETICAL FRAMEWORK

The theories that make up the theoretical framework for this study are behaviourism, constructivism, and connectivism. These theories are discussed in detail in Chapter 3, but it is important to provide an overview of them in this chapter since they frame how the data analysis

was conducted. These theories were thought to be the most appropriate for this study because they shed light on how teachers view the usage of ICTs in ESL classrooms.

According to Ozola and Purviņš (2013), behaviourism traces its roots to Skinner's work and presumes that learning results from intended behaviour, while ignoring mental processes. Skinner (1904–1990) operated under the premise that human behaviour is governed by physiological reactions to outside stimuli, and that responses may be modified by employing incentives and penalties to promote desired behaviour and deter undesirable conduct (Zhou & Brown, 2015). To elaborate on this idea, Ally (2011) describes behaviourists' presumption that learning any behaviour is dependent on the stimuli in the classroom and how learners react to it. It follows, therefore, that behaviourists believe that learning a language is a habit that involves making mistakes until the appropriate behaviours are created (Ozola & Purviņš, 2013). This is why more learning opportunities while using ICTs account for the mistakes children are likely to make when learning a second language. Behaviourism is, however, criticised for having an inadequate explanation of human learning which thus restricts the potential for learning to straightforward stimulus-response relationships of the external environments. This has consequently given room to the creation of theories like constructivism.

Constructivism is a theory which sums learning to be the process by which learners actively create new knowledge from their past experiences. Its foundations are found in the learning theories of Piaget (1972) and Vygotsky (1978). Koohang et al. (2009) state that in constructivism, learners use a combination of their own prior knowledge, their own experiences, and their actions to show understanding and create meaning. Stated differently, the integration of recently obtained data with pre-existing knowledge results in a more comprehensive understanding. The outcome is that the learner's knowledge is not pre-determined, as learning assessment is based on implicit rather than explicit quantitative criteria, which makes it more subjective. (Duke et al., 2013). Constructivist philosophy believes that every learner is different. This is to say that every learner is unique in some manner and has a propensity to perceive the world in various ways since different learners' minds include numerous worlds. Thus, teachers should take this into account and provide learners the freedom to experiment with and use their information-processing skills to develop personalised

knowledge that they find more understandable. Applying the fundamental ideas of constructivism through using online learning in the classroom, therefore, might help learners to do this (Phiri & Mbobola, 2018). Constructivism uses e-learning as a tool to stimulate learners' interest and help them understand how to learn. They are, then, prompted to think critically and analytically, which leads to new knowledge discovery (Kharade & Thakkar, 2012).

Unlike behaviourism and constructivism, which place learning at the center of the learner's cognitive growth, connectivism as a learning theory emphasises the incorporation of ICTs in instruction, thus challenging the prior established learning theories. Connectivism holds that knowledge is socially created and that learning takes place within several networks, with the learner playing a critical role in the process of producing new knowledge (Siemens, 2005). In other words, from a connectivist perspective, learning is the process of creating and navigating a network of connections through which knowledge is dispersed. In addition, learners no longer possess the necessary experience and learning capacity to function alone; instead, they become competent through the establishment of networks (Siemens, 2005). This is to say that the core of connectivism is the concept of connection and belonging to a network. Thus, connectivism theory represents a paradigm shift away from conventional theories of learning toward an innovative approach to learning via online means and methods, databases, and networks on various virtual learning environments. Moreover, it encourages the utilisation of technological tools in the teaching of ESL. A detailed discussion of how these three learning theories make use of technology is provided in Chapter 3.

1.11 OVERVIEW OF THE STUDY'S RESEARCH METHODOLOGY

The research methodology serves as a summary of the steps used to conduct a research study, including all the activities and processes that were involved. It encompasses the overarching idea or philosophy that directs one's investigation (Dawson, 2009). Research paradigm or philosophy, research method, research design, sampling and ethical considerations are among the topics covered in the research methodology (Creswell, 2014; Mohajan, 2018). Chapter 4 of this thesis will go into detail on each of these. For now, it suffices to provide only a summary of these details.

In this study, I decided to use pragmatism as the philosophical framework to examine and explain the phenomena under investigation because some of the more established philosophical frameworks like positivism and interpretivism did not clearly suit the study. The pragmatist paradigm governs and supports both quantitative and qualitative research approaches. This made it possible for me to evaluate the utilisation of technological tools in ESL instruction and learning in rural secondary schools. To blend qualitative and quantitative methodologies, the study adopted a mixed methods research approach (Onwuegbuzie & Leech, 2007; Terrell, 2012). The drawbacks of employing a single research method can be addressed by using a mixed methods research approach (Creswell, 2012). According to Onwuegbuzie and Leech (2007), qualitative and quantitative approaches must be used to offset each other's shortcomings and offer additional solutions to research problems. I chose to use a mixed methods approach in this study because it allowed me to collect data using several instruments, and it made it possible for the study strategy to weigh the benefits and drawbacks of the two employed research approaches. The explanatory sequential design was used in this investigation in which the quantitative portion of the research was conducted before the qualitative phase, as a result of the mixed methods research approach that was selected.

The research's population of interest consisted of 720 O'level learners and 24 ESL teachers from 18 rural secondary schools in the Bubi District of Zimbabwe's Matabeleland North Province. Out of the 18 secondary schools, three rural schools were chosen using a purposive sampling approach. From the three selected schools, a sample of three O'level ESL teachers (one male and two females) was included in the investigation as these were the only ESL O'level teachers available. Each of the schools selected had an ESL O'level class consisting of 40 learners, which meant that 120 learners (57 males and 63 females) made up the sample of learners for this study. The phases of data collection, both quantitative and qualitative, were arranged sequentially, and each type of data was examined independently.

In the quantitative stage, questionnaires were given to three English teachers and 120 O'level learners from the three selected schools to provide a basic overview of the ICT resources that these instructors and learners were using to teach and study ESL in rural secondary schools. In the qualitative phase, data was generated using focus group discussions, observations and interviews. I used the face-to-face interview approach with the three teachers and each participant was interviewed individually. Data was collected through focus group discussions from 30 O'level learners (10 learners from each of the three selected rural secondary schools), while observations of four ESL lessons provided data on what actually happens in the classroom when teachers utilise ICTs for teaching and learning purposes.

The two phases had separate data analysis procedures. Data from the quantitative phase was analysed using techniques from descriptive statistics found in SPSS version 23. My ability to compute means and standard deviations was aided by this software, which demonstrated the extent to which ICTs were being used in Zimbabwe's rural secondary schools for the instruction and study of ESL. The data from the qualitative phase were analysed using thematic content analysis (interviews and focus group discussions) and descriptive analysis (classroom observations). The goal of analysing data was to extract useful information from unprocessed data.

Interview recordings were regularly played shortly after the interviews in order to convert the data into text. Codes were assigned to the data after several readings of the transcripts. The codes were then used to create categories or themes that spoke directly to the study's objectives. The study adhered to all ethical norms as shall be shown in Chapter 4.

1.12 ORGANISATION OF THE THESIS

There are eight chapters in this thesis. Chapter 1 contains the study's introduction. The chapter's main objective is to identify the research problem, aims, objectives, and significance of the study. It takes the context into consideration in constructing the research questions that guide the study. I provided a justification for my motivation to do this research as well.

An evaluation of existing literature and an analysis of the variables influencing the integration of technological tools in ESL instruction constitute the main topics of Chapter 2. The chapter also discusses attitudes among instructors and learners towards the utilisation of ICTs in ESL secondary school instructional activities.

Chapter 3 outlines the theoretical framework that underpins the examination of the data obtained in this study. As mentioned earlier, behaviourism, constructivism, and connectivism are the guiding theories of my research.

Chapter 4 of the thesis presents the research methods for the study. This chapter explains the study's population, sample selection methods, and research design. This chapter also includes a discussion of the procedures and instruments used for data collection. An elaborate explanation of the data analysis methods is also provided. Lastly, the chapter addresses the ethical aspects of the study.

The quantitative data that was collected through the use of the questionnaire is presented and analysed in Chapter 5.

Teacher interviews, learner focus groups, and lesson observations provided qualitative data, which are presented and analysed in Chapter 6.

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The study's findings from both phases of the research are then interpreted in Chapter 7, considering the theoretical framework mentioned in Chapter 3 and including relevant literature that was presented in Chapter 2.

Chapter 8 presents the study's conclusions and recommendations by re-stating its key findings and offering suggestions for additional research.

1.13 CHAPTER SUMMARY

As mentioned in the introductory parts of this chapter, this study investigates how ICTs are employed to teach and learn ESL in rural secondary schools in Zimbabwe. This chapter has given the contextual location of the study as well as identified the research problem that prompted the investigation. It also outlined the research goals, questions and objectives of the study and offered justifications for them. It has also stated the study's importance. In addition, the chapter gave the study's boundaries, defined several important words and expressions, and gave a description of how the thesis chapters are organised. The next chapter presents the literature review.

CHAPTER 2

LITERATURE REVIEW

2.0. INTRODUCTION

The previous chapter provided an outline of this study's goals regarding the use of ICTs in ESL education in Zimbabwe's rural secondary schools. Four research questions serve as the direction for this project. Finding out what technological resources are accessible for ESL instruction at secondary schools in rural locations is the focus of the first research question. The second research question is based on establishing how ICTs influence ESL instruction of key language skills in Zimbabwe's remote secondary schools. The third research question is about identifying the challenges that instructors and learners go through in utilising technological tools in ESL instruction and studying. Lastly, the fourth research question is on ascertaining the mechanisms that instructors and learners employ to get past the challenges they encounter when utilising technological tools in ESL classrooms. Relevant literature on the utilisation of ICTs in education is now discussed in this chapter.

On a broad scale, I learned from the literature review that numerous studies have been done on the important role that ICT tools play in secondary school instruction. For example, Assar, Amrani & Watson (2010) carried out their study in Paris and the aim of the study was to bring researchers together to talk about, share and exchange ideas about the ICT usage in education in developing nations. A study conducted in Zimbabwe by Dambudzo and Kasowe (2016) examined the relationship between successful organisational commitment in Zimbabwean secondary schools and the utilisation of ICTs in educational settings. The qualitative investigation discovered that secondary schools in Zimbabwe were using different forms of ICTs, such as computers, projectors and smartphones, to teach different subjects, but the resources were inadequate. A study conducted by Modisaotsile (2012) in South Africa revealed that the government was failing to give teachers the developmental skills they needed to use basic technology in the classroom, and schools were lacking in basic technology supplies.

Research has also been carried out on the effects of the usage of technological tools, such as computers, laptops and projectors, on the instructional activities of key language skills in ESL learning environments of Zimbabwe (Ndebele, 2018; Tirivangana, 2019). The researchers concluded that computers assisted the learners in improving their writing skills in ESL learning. This study sought to investigate whether these ICTs in rural secondary schools are also beneficial to the O' level ESL learners. Other research carried out in Zimbabwe and South Africa by Shumba and Dondofema (2018) and Herselman and Botha (2014), respectively, have concentrated on the constraints that instructors and learners experience in utilising technological tools to execute ESL instruction in general. In addition, studies in Singapore have focused on tactics which teachers and their learners employ to counteract the hurdles they encounter as they interact while utilising technological gadgets (Qin & Shuo, 2011). Furthermore, research on the integration of ICT in Zimbabwe has focused on factors like perceived capabilities and opportunities, as well as obstacles and challenges associated with ICT integration at various institutional levels (Konyana & Konyana, 2013; Mandina, 2015; Musarurwa, 2018). It is noted that none of the above cited research has looked at the constraints of using technological tools specifically in ESL instruction in Zimbabwean secondary schools in rural locations. A research on ICT integration in ESL teaching and learning in rural secondary schools in Zimbabwe is required since there is a void in the literature in this field of study. ICT use and its various obstacles are examined in the context of teaching and learning in this overview of the literature.

2.1 THE CONCEPTUALISATION OF TECHNOLOGICAL TOOLS IN DEFINING ICTS AND INFLUENCING POLICIES

Since this study investigates ICT utilisation in ESL instruction and learning in Zimbabwean rural secondary schools, it is important to define what technological tools are. Technological tools are described by UNESCO World Communication Report (2017) as being those tools that have the potential of allowing for the generation and conveyance of communication information linkages from one place to the other (Blurton, 1999). According to Jayanthi (2016), the United Nations Development Programme (UNDP) defined ICTs as devices like hardware and software computers, radios, TVs, phones, satellite and wireless technology, and the internet. All these technological gadgets can be used for ESL instruction. Using the definitions of ICTs by UNESCO (2017) and

Jayanthi (2016), I have come to a working definition of ICTs to mean all technological tools that are within reach and that can be used in schools to allow instructors and learners to interact in ESL environments. The technological tools all have valuable roles they play in the transfer, storage or use of information in achieving set educational tasks (Dlamini & Nkambule, 2019; Ndlovu, 2018). Furthermore, these digital resources build our "networked world," a large worldwide infrastructure comprising interconnected phone services, radio, television, the internet, and standard computer hardware (Maphosa, 2021). Put in another way, technological tools assist those using them to be able to perform a variety of tasks (Department of Education, 2004). ICTs are tools that support teachers and learners in their educational endeavours by offering subject knowledge, real resources, and current information, while also promoting confidence-building (Ndlovu, 2018). Technological tools are employed in practically every aspect of life, including teaching and learning. They have grown to be significant problem solvers in classrooms by supporting the instruction and study of languages.

The utilisation of technological gadgets in pedagogical settings springs from behaviourist tenets which hold the view that technological tools play a crucial part in ensuring the delivery of the subject content and allowing for testing if learning has occurred (Ertmer & Newby, 1993; Moll, 2020). In Zimbabwe, the ability of ICTs to enhance education has a direct bearing on the formulation of policies and the allocation of government funds for ICT resources in schools. According to the Zimbabwe National ICT Policy (2016), ICTs must be carefully chosen and included in the administration and planning of education. The adoption of the Zimbabwe National ICT Policy (2016) is in line with the UN 2030 agenda which promotes enduring growth and the utilisation of ICTs in education (UNESCO, 2017). By signing the 2015 Qingdao Declaration, the Zimbabwean government committed to achieving the Sustainable Development Goals by 2030. This puts the country on record as being in alignment with the international expectations on the utilisation of technological gadgets in educational institutions. In South Africa, the e-education white paper is a policy statement created by the Department of Education that aims to transform instructional activities via the use of technological tools in the classroom (Department of Education, 2004). This e-education policy of integrating technology into the instructional process is the first by the South African government's Department of Education, and it functions as a framework for the implementation of instructional, political and strategic components of the

country's education policy (Blignaut & Howie, 2009; Dlamini & Nkambule, 2019). Similarly, the implementation of the Zimbabwe National ICT Policy (2016) promotes the use of technological tools in learning environments, which in turn leads to a possibility of contemporary instructional activities that foster collaborative, learner and inquiry based oriented learning between instructors and their learners. With all these ICT policies highlighting the need to integrate technological tools in education by different countries, this study deemed it necessary to investigate how technological tools are being utilised in English language instruction, to determine if there is a disjuncture between ICT policies and its practical implementation in secondary schools.

2.2 THE UTILISATION OF TECHNOLOGICAL TOOLS IN ENGLISH LANGUAGE INSTRUCTION

The introduction of the utilisation of technological tools in English language instruction generally (not specifically ESL) has brought about the promise of revolutionising and improving the classroom experience for teachers and learners. The existing literature offers an abundance of positive views about the utilisation of ICTs in English language instruction. For example, the use of ICTs in digital spheres is said to create fresh, cutting-edge teaching approaches that increase learning possibilities and get learners ready for future employment (Ndlovu & Moll, 2016; Sipilä, 2014). In addition, ICTs can enhance English language learning since they allow learning to occur anytime, and in any place, under the guidance of teachers as they create knowledge anywhere instead of being limited to physically enclosed learning locations (Chetty, 2014; Moll, 2021). Such flexibility is ensured by the technological utilisation that allows for the less costly sharing of knowledge among individuals in different geographical locations (Kozma, 2010). Thus, instructors and learners are better placed to interact.

Laakkonen and Taalas (2015) argue that globalisation and technological advancements have influenced the how, why, and when of using language. Penfield et al. (2016) note that using ICTs improves the calibre of academic programmes in higher education. Furthermore, multimedia technology makes a significant contribution to language instruction due to its ability to significantly increase learners' language skills, as evident in the study by Jose and Raja (2011) on techniques in techno-pedagogy that support proficiency in English. Technology, according to

Karabulut (2013), improves the language of learners because it provides them with fresh teaching opportunities and access to a variety of language resources, like online interactions with native speakers. Golonka et al. (2014) discovered that chat programs improve language quantity and quality in English language learning, suggesting that language production is boosted when learners utilise ICTs. The study examined the effects of ICTs on language learning in urban schools in Yemen.

Jose (2015) notes that the effective utilisation of ICTs is likely to impact English language instruction, particularly in developing nations. Plonsky and Ziegler (2016) validated this premise in their study conducted in Hawaii on the Computer Assisted Language Learning and Service Level Agreement interface by demonstrating that learners who engaged in computer-based L2 instruction outperformed learners who just participated in traditional educational situations. This example shows that technology can benefit English language teaching and learning in certain ways, which then makes it necessary to investigate and determine how different ICTs are being used to improve language instruction in other contexts. Because of its many advantages for teaching and learning, ICTs are now widely used in schools to teach English (Toland et al., 2014). One such advantage of using ICTs in language learning is its ability to improve learners' communication skills (Dube & Scott, 2016; Ndlovu & Moll, 2016).

The idea that social contact between instructors and learners, as well as between learners, is crucial for the growth of communicative abilities throughout language learning is supported by literature on the use of ICTs for language acquisition (Brandl, 2005; Morris, 2020). Similarly, ICT tools such as Moodle can be used for evaluation and feedback, online content creation, and collaborative learning (Jose, 2015). Since Moodle can be used as a platform for conversation and debates with learners, it emphasises collaboration and engagement. Jose (2015) describes how Moodle accommodates various learning preferences allowing the more reserved learners to actively participate in chat rooms, discussion boards and blogs, thus enhancing their writing and communication abilities through interaction with more outgoing learners.

While there is a wealth of research on how learners perceive ICT use in general, there is not enough on how they specifically understand the 'how' of utilising ICTs in the learning of ESL (Carvalho et al., 2011; Dlamini, 2018). Liu (2013) conducted interviews with English second language learners enrolled in grammar and reading courses in China who showed signs that they did not have the technological expertise in utilising ICTs to get their perspectives on the subject. Although these learners found that ICTs were a vital resource that helped them improve their reading and grammatical comprehension in English, as well as helped them learn about other facets of the language, they were not always clued up as to how to use the resources (Liu, 2013). In contrast, most learners appreciated utilising the Moodle online platform for their English language course overall, according to the findings of a research conducted in 2015 by Alhothli on the effectiveness of Moodle as an e-learning tool for learners in an English language institute (Alhothli, 2015). One disadvantage, though, was that learners thought Moodle was an odd way to study because they were accustomed to a more hands-on, in-person setting (Alhothli, 2015). From these examples, it is evident that while the positive value of utilising technological tools in English language instruction is dominant in the literature, some negative experiences have also been noted.

2.3 UTILISING ICTS IN AND OUT OF THE CLASSROOM AND THE DIFFERENT OPTIONS FOR USE

The widespread usage of ICTs in society is a trend that is speeding up changes in people's lives and in society, making ICTs essential for day-to-day human existence. This is reportedly linked to the idea that ICTs will help both technologically advanced and developing nations, in as far as social and economic growth is concerned (Assar, Amrani & Watson, 2010; Matli & Ngoepe, 2020). Most developing nations are pressing for the enforcement of ICT-related activities in a variety of social sectors (Grabe & Grabe, 2007), and for the use of ICTs as a method of learning transfer in the education sector (Ghavifekr et al., 2014). According to Barrera and Linden (2009), the incorporation of technology in educational settings has spurred the development of several educational technologies aimed at transforming the way that knowledge is imparted to learners. Technological resources, virtual instruction, computer-based and internet-based learning material sharing, and real-time information access are some examples of technologies that may be used in the language classroom.

In South African secondary schools located in rural areas, basic ICT education is widely acknowledged as a major development objective (Modisaotsile, 2012) and plays a significant role in community social activities. For this basic ICT education to become possible, instructors and all involved in assisting learners in accessing educational settings are also expected to be competent in ICT usage (Kim & Roth, 2011; Ngcobo & Tikly, 2010). Many efforts are being implemented to support schools to improve. These include efforts by school authorities to have internet connections so that their schools use technology oriented pedagogical activities. Internet access also makes it possible for educators to receive training on efficient ICT usage to support education in developing nations. Education scholars now firmly believe that ICTs should yield positive results in pedagogical processes because of these activities.

Conversely, difficulties which educational institutions encounter in incorporating ICTs into their operations may also influence how learners are taught about ICT (Johnson et al., 2006). On this note, several scholars have observed that having access to technological tools will not always mean that learners would successfully acquire information and skills necessary for the 21st century (Bahati, 2010). According to Sharma (2014), there are significant disparities in marginalised groups that put those people who are exposed to such environments at a persistent disadvantage in their social and developmental outcomes. According to UNESCO (2010), learners in rural Zimbabwe are the ones who are most affected by this type of marginalisation. However, secondary school teachers can also create rich and collaborative learning environments by implementing technology in their classrooms to promote best practices (Musarurwa, 2018). This enhances learning transfer, accommodates a range of learning preferences, and helps learners achieve deep knowledge and long-term memory. In addition to addressing higher order thinking, which promotes equity in education, it also integrates real-world issues and meaningful assessments. An ICT-equipped classroom is a technologically advanced collaboration space. The aim of utilising ICTs in ESL instruction is never to supplant the job of the teacher, but instead to streamline instruction and allow today's learners to benefit from technology.

According to Ozerbas and Erdogan (2015), utilising technology in the classroom aims to raise learners' achievement. This learners' achievement may be possible if technological tools, such as the internet, computers and smartphones, are availed for use by both instructors and those being

instructed. The internet and the ease with which it provides access to online knowledge resources are arguably the two biggest benefits of ICT in education. The internet utilises communication protocols as a global interconnecting network system that provides services to billions of people worldwide. A variety of websites which serve different sectors of the economy are connected by different networking technologies which make up a network of networks. Information stored in one computer can be interlinked to that in another computer using the internet. Linked publications which are a collection of the Web are also transferred through the internet. The following are four features of the WWW that were singled out and summarised by Kuiper et al. (2005) as contributing to educational values: (1) a broad scope of current publications that provide specific and general data; (2) provision of information to learners who create and use the data; (3) a hypertext structure that enables the linking of text, opinions, and ideas; and (4) audio recordings.

In the ICT-driven classroom, learners can collaborate with scientists and obtain genuine data by using the internet (Mistler-Jackson & Songer, 2000). This supports learners in expanding their writing as well as verbal, auditory and learning skills. In addition, the internet gives learners access to language games that enable them to understand grammatical concepts (Chambers & Yunus, 2017). Furthermore, since email and computer games may be utilised to connect people in different locations, teachers and learners no longer need to be in the same location at the same time (Burston, 2011). As a result, learners can collaborate with peers and scientists out of school and also become academically connected (McFarlane & Sakellariou, 2002).

Apart from the use of language games through the internet as discussed above, ESL instructors can also use the Short Message Service (SMS) in the delivery of content to learners. Bouhnic and Deshen (2014) note how SMSs may become handy as an instructional instrument in several subjects, including ESL. According to the same authors, SMSs allow instructors to ask learners questions and even make allowance for learner-to-learner interactive activities, thus contributing to fruitful educational classrooms (Bouhnic & Deshen, 2014). Through SMSs, instructors are afforded the leeway to give support and encouragement to those they are instructing as well as timeous feedback, which leads to tangible educational gains (Burston, 2011).

Utilising WhatsApp technology in conjunction with SMS availability could enhance ESL instruction. WhatsApp, a smartphone software for instant messaging, is described by Bouhnic and Deshen (2014) as having several features, including text messages, accompanying photos, audio files, video files, and links to websites. Group or individual communication is made possible through using WhatsApp. This means that learning environments can take advantage of this technology. Riyanto (2013) asserts that WhatsApp can be utilised for academic purposes, in addition to socialising. Many learners use this messaging software daily and are familiar with it. When teachers use this technology in their classrooms, they connect with learners via a messaging app that they use daily. Instructors would not waste time imparting application usage skills to learners since learners are already familiar with the resource. This system works well because it is not isolated from the daily lives of learners. Bouhnic and Deshen (2014) assert that WhatsApp conversation groups can foster a social atmosphere and social interactions that involve discussion and debate, which provide learners with a chance to learn.

Keskin and Metcalf (2011) point out that because mobile devices are portable, they are widely used and easily available and there is potential for them to enhance learning. According to Fattah (2015), mobile devices' accessibility and mobility have made using them in educational contexts appealing. Additionally, this scholar asserts that the social network provided by mobile phones has opened new avenues for communication and cooperation between educators and learners (Fattah, 2015). Learning groups can be formed using the group chat function of the WhatsApp platform. The following were identified by Bouhnic and Deshen (2014, p.223) as "the purposes of WhatsApp class groups:

- Developing dialogue
- A platform for education
- Interacting with learners
- Encouraging the communal environment
- Facilitating more rapid and ongoing communication with learners
- Assignments can be given to learners outside school hours so teachers can stay in contact with them out of the classroom and

- It is possible to develop and send learners audio and video lessons, which improve learning because the learners can listen to a lesson multiple times."

According to other studies, WhatsApp can foster the growth of friendly, cooperative, and collective communities of practice by facilitating communication among users (Gachago et al., 2015). Originally developed as a communication tool for mobile devices, WhatsApp has developed into a formidable educational resource that fosters connection and may increase learner engagement in class (Andujar, 2016; Chinembiri, 2020). Learner discussions occurring through WhatsApp groups provide participant communication, upkeep of the social environment, learner sharing, and a platform for education (Bouhnik & Deshen, 2014; Gachago et al., 2015).

According to Rambe and Chipunza (2013), WhatsApp leads to a significant level of participation among learners who feel that WhatsApp provides an atmosphere free from restrictions, allowing them to express themselves. Learners studying in secondary schools in South Africa gained a great deal from WhatsApp during the Covid-19 period (Chinembiri, 2020). One of the most popular communication apps globally (Ahad & Lim, 2014) and in South Africa (Bere & Rambe, 2016) is WhatsApp. Because it is an instant messaging service, messages are sent immediately. Consequently, WhatsApp can be utilised in the classroom for conversations and the exchange of materials relevant to a subject (Ahad & Lim, 2014). Additionally, WhatsApp enables learners to exchange material in a variety of formats, express thoughts, and communicate with each other and their teachers at any time and from any location (Aburezeq & Ishtaiwa, 2013). WhatsApp promotes immediateness and connectedness in the e-learning, formal blended learning, and informal learning domains (Gachago et al., 2015). It is possible to create and implement insightful learning procedures outside of the classroom with the use of WhatsApp (Gachago et al., 2015).

Notwithstanding the advantages, WhatsApp presents certain drawbacks, including increased workload, learning diversion, reduced attention, addiction, and exposure to deceptive or unlawful messages (Aburezeq & Ishtaiwa, 2013; Ahad & Lim, 2014). Furthermore, studies have indicated that WhatsApp has a detrimental impact on learners' academic achievement (Gan et al., 2015).

These drawbacks suggest that WhatsApp should be used with judiciousness and a great deal of monitoring.

On the whole, this subsection has illustrated that through using technological tools in and out of the classroom, ESL teachers become more available to deliver lessons and learners can learn on the go.

2.4 BENEFITS OF UTILISING ICTS IN ENGLISH SECOND LANGUAGE TEACHING

Technological tools have the potential to be reliable instruments that, when used properly, can expand formal and informal educational possibilities to underprivileged rural secondary school learners, thus increasing access to education (Tinio, 2003). ICTs have grown to be one of the fundamental components of contemporary society. In many nations, acquiring ICT skills and knowing how to use them is an integral part of the core curriculum, along with key language skills which include reading, writing and numeracy (Adu & Olatundun, 2013). This provides numerous advantages for ESL learners. According to Brush et al. (2008), those who receive instruction use technological tools as instruments for problem-solving and topic discovery in ESL. These tools allow learners to solve challenges when they are learning ESL. ICTs make ESL learning more approachable and help learners comprehend subject matter while involving them in the use of these tools (Fu, 2013). Furthermore, learners are given the opportunity to engage in the purposeful application of ICT devices like PCs because they can access, choose, interpret and save information to create new knowledge in learning ESL (Castro Sánchez & Alemán, 2011).

One of the benefits of utilising technological tools in ESL learning environments in industrialised nations such as the US and UK is that it enables instructors and those being instructed to work collaboratively despite being in different locations (Koc, 2005). A teleconferencing session in which learners from different parts of the globe collaborate to learn, share, and create knowledge without physically being in the same classroom is a good example of the value of technology in the procedures of instruction (Koc, 2005). Facilitators and learners can communicate easily and conveniently in these teleconferencing classrooms (Fu, 2013). It must nevertheless be noted that several other elements that may either facilitate or impede the process of integrating ICTs in

schools will also have an impact on how well this kind of learning process goes. Despite this, it is crucial to remember that integrating technology into the classroom offers the extra benefit of flexibility and helps learners comprehend the teachers' instructions more fully (Coman et al., 2020). The utilisation of technological tools in ESL instruction also saves instructors time as they can access online virtual lesson plans that can be improvised for use in a variety of contexts to reduce excessive paperwork in pedagogy (Constantinides, 2015).

According to Fu (2013), the utilisation of technological tools has made the teaching and learning process less reliant on printed materials. In other words, technological tools such as the internet can assist learners with information concerning ESL learning that can be accessed through audio and video clips as well as visual presentations. Multimedia should be considered while trying to give learners a high-quality education. Coman et al. (2020) also posit the view that abstract and new concepts can be learnt if learning comes by way of seeing and speaking. Constructive approaches associated with the utilisation of technological tools come into play in ESL instruction when learners are assisted to achieve more through their engagement in higher order level tasks and concepts. This also exposes the learners to critical thinking abilities throughout the procedure.

It is emphasized here that the incorporation of ICTs in the ESL classroom gives learners countless opportunities to interact with English and get firsthand experience with the language in authentic, practical contexts (Kramsch & Thorne, 2002). Such platforms include learners using chat for exchange of ideas while gaining important skills such as speaking and writing skills (Cheng, 2012; Dalton, 2011). Moreover, the utilisation of ICTs extends learners' zeal to learn because of its multimedia provisions, which are inclusive of audios, visual aids and videos (Altiner, 2011). The ever-increasing use of multimedia technology, which also includes animations, attracts and captures learners' attention, thus elevating their interest in learning. This allows learners an opportunity to create knowledge, as well as increase their understanding of ESL. Through using technological tools, ESL learners can become involved in research work, and through conducting these research projects they can cultivate a culture of managing their information and becoming more independent learners (Altiner, 2011). Furthermore, learners' use of technological tools fosters and strengthens their communication skills, skills that are greatly of use in today's global

network. ICT usage in education makes learning more enjoyable as it allows for interactive pedagogical activities and flexible interaction amongst learners through a variety of software and hardware tools (Dalton, 2011).

The utilisation of technological tools in the ESL educational space has not only helped learners but teachers as well who, according to Dave (2019), have seen ICT usage igniting the shift from the traditional means of teaching to newer contemporary avenues of teaching. The adoption of technological tools into pedagogy has yielded better and more advanced ways of interacting with learning content, through enabling digital learning in today's classrooms (Dave, 2019). Nchunge et al. (2012), in their study in the Thika District in Kenya, presented the idea that the incorporation of ICTs in ESL instruction has a multiplicity of merits as these tools improve learners' attitudes towards learning and enhances the efficiency of learning processes, thus contributing to improvements in learners' academic performance. The same authors further note that multimedia computer software that combines text, sound, and colourful animations have the potential to assist learners conceptualise complex topics that would otherwise not be easily grasped without utilising technology (Nchunge et al., 2012). These benefits on utilising technological tools in the ESL classroom, nonetheless, do not spare teachers and learners from experiencing setbacks in using them.

2.5 CHALLENGES OF USING ICTS IN ENGLISH SECOND LANGUAGE INSTRUCTION

ESL instruction involves pedagogical tasks that might be complex and encircled by limitations on the use of ICTs. It then becomes crucial to identify and acknowledge a few of these constraints and challenges that occur with teaching ESL with ICTs. While scholars and educators have highlighted a variety of obstacles and limitations that come through the utilisation of technological tools in educational institutions, I have employed Mikre's (2011) recommended categories of challenges for the purposes of this study. These categories are challenges related to technology use, challenges for learners, and challenges for teachers (Mikre, 2011).

2.5.1 Technological challenges of using ICTs in English second language teaching

Hardware and software limitations when utilising ICTs for ESL instruction are referred to as technological hurdles. A major barrier to the application of technology in learning environments, according to Larson (2015), is a lack of hardware. According to Hodgkinson-Williams et al.'s (2007) study on high schools in the Eastern Cape Province, South Africa, the most frequently mentioned hardware limitation in these institutions was a shortage of computers. In a different South African research, Wilson-Strydom et al. (2005) also discovered lack of computers as being the most often cited reason given by teachers for not incorporating technology into their courses. Apart from this lack of computers in the schools, Mikre (2011) posits that schools face the challenges of having poor infrastructure which does not allow for the proper accommodation of technological tools. Khan et al. (2012) also investigated obstacles to the utilisation of technological tools in Bangladeshi schools and found that infrastructural challenges, as well as shortage of technological resources in the nation, had an impact on ESL teaching. Yang (2015) refers to the presence of mud houses with no electricity in South Africa's Eastern Cape Province when talking about the limitations of technological resources in ESL instruction. In other words, power outages, minimum or no supplies of electricity, and dysfunctional telephone lines often hinder the use of ICTs in ESL classrooms. Loadshedding and power shortage in the most marginalised places in South Africa have been singled out as the most outstanding causes of the lack of availability to technological resources (Larson, 2015). Nkhwalume (2013) conducted a study titled "The Challenges of Integrating ICTs into the English Curricula in the SADC Regions: The Case of Botswana" in which the goal was to pinpoint the difficulties that ESL teachers encountered in using ICTs in the classroom and at school. The teachers mentioned various difficulties, but three main ones that were raised are: not having access to computers, not having enough time to practice phonetics, and not having the assistance of the administration in using the ICT tools (Nkhwalume, 2013). Similarly, in Namibia, "uneven access to electricity and high unit costs for rolling out ICT infrastructure in a vast geographic area remain a challenge"; in addition, "the availability and access to telecommunication services especially in rural areas remains a challenge" (Namibian Ministry of Economic Planning, 2017, p.41). The direct consequence of electricity challenges is inadequate access to the internet. In a study conducted by Salehi and Salehi (2012), obstacles to the fruitful utilisation of ICTs in ESL classes include having no access to internet as well as inadequate technical assistance in schools.

The internet has unique limitations, including high data costs, slow speeds, and inadequate network coverage or connectivity infrastructure, all of which have a significant impact on how useful or accessible it can be for teaching (Padayachee, 2017). These internet challenges have been noted in remote South African schools that have limited connections to the internet due to the presence of low tele-density of sometimes below 5% (Brandt, 2006). Insufficient bandwidth, which quantifies data that can be transferred over a particular connection in a predetermined length of time, is intimately linked to the expense of internet connections (Hodgkinson-Williams et al., 2007). In addition to the limited internet connection in schools, Padayachee (2017) points out that schools will continue to face constraints due to high data prices unless there is a reduction in the cost of internet access in many schools, by way of government subsidies, or unless cheaper data bundles are availed on the market. This exorbitant cost of data may result in an increase, rather than a decrease, in the digital divide. Sadly, most schools are struggling to afford connectivity costs associated with possessing reliable and fast internet connections covering all learners' technological needs (Padayachee, 2017).

Internet use in schools may also be affected by environmental factors. According to research by Herselman and Botha (2014) in the Eastern Cape Province of South Africa, remote schools face major obstacles that significantly dwarf the utilisation of technological tools in the instructional environment. These obstacles include low structure buildings in rural schools that are in bad condition to be used as computer classrooms (Herselman & Botha, 2014). Herselman and Botha (2014) also found that teachers lacked the necessary resources to utilise technological tools in the instructional process. The rural schools in most cases were situated in impoverished areas, which made it difficult for them to obtain additional funding for infrastructure expansion (Herselman & Botha, 2014). Not only were there not enough hardware technologies, such as computers and software systems for teaching ESL, but most of the rural schools lacked teachers who possessed the necessary ICT expertise to instruct learners (Herselman & Botha, 2014). Today, the majority of rural schools are situated in underdeveloped, difficult-to-access locations without adequate roads or communication infrastructure, which also makes it challenging to provide them with the resources and supportive infrastructure required to enhance educational services for the teaching of ESL.

In addition to poor infrastructure and limited technological resources, the utilisation of technological tools in ESL instruction is hindered by the high expenses involved in maintaining ICT gadgets. Mandoga et al. (2013) point out that the high expense of buying and maintaining computers is one of the problems that Zimbabwean schools face in integrating technological tools in the instructional process. While some schools in Matabeleland North have a good number of computers, others have only a few, and these are often only used for technical graphics and computer science subjects. The barriers to ICT usage in ESL instruction are also learner related.

2.5.2 Learner-related constraints in the usage of ICT tools in ESL teaching

According to teachers' reports, one of the challenges of using technological tools in instruction is the learners' lack of knowledge of the necessary technological skills, which deters them from accessing ICT resources (Blignaut & Howie, 2009). Padaychee (2017) reports that learners are not only technologically illiterate but also lack access to tablets and smartphones. This creates problems for learners when they try to follow instructions that are given by teachers, instructions requiring them to use ICT gadgets. Consequently, it becomes difficult for teachers to facilitate learning in ICT contexts, and they end up failing to support learners in gaining certain technical abilities (Castro Sánchez & Alemán, 2011). When learners are technologically illiterate in an ESL lesson, their attention on what is being discussed tends to be reduced.

Another challenge has to do with learners' focus, or lack thereof. Research by Mikre (2011) indicates that technological tools may divert learners' attention from core curricular content to other uneducational sites that learners may find while learning ESL. Mikre (2011) also argues that the general behaviour of most learners is that of resorting to technology for leisure activities, which consequently leads them to have reduced time for engaging in meaningful study activities. With the abundance of social media networks today, learners may spend less time engaging with information pertinent to their school subjects. When they are studying using ICT tools, they may quickly switch to other distracting channels which have nothing much to do with curriculum content. Other limitations of using technological tools in ESL teaching include limited chances of using oral skills and reduced practice on handwriting skills (Mikre, 2011). Apart from the learners'

related challenges in using technological tools, instructors also have their share of constraints in carrying out their duties in a technologically oriented ESL classroom.

2.5.3 Teacher-related challenges in the utilisation of ICT in ESL teaching

Several academics who are specialists in teaching ESL have noted that while ICTs have the potential to improve instructional processes, certain obstacles may need to be overcome in the developing world before this objective can be fully realised (Khan et al., 2012; Nenge et al., 2012). For example, a study by Tshabalala et al. (2014) discovered that English language instructors at a South African rural school encountered a variety of difficulties, which included a lack of resources, adding to their already difficult situation of having insufficient ICT knowledge and inadequate competence in carrying out ESL activities in the classroom. Musingarabwi (2017), in a study in Zimbabwe on the use of technological tools by teachers in English instruction in tertiary education, also highlights lack of technical skills and training in ICT usage as being a notable factor deterring instructors from the effective utilisation of technological gadgets. Beggs (2000) looked at the causes of teachers' lack of confidence and their demotivation when it comes to using ICTs and determined that inadequate training was the primary contributing cause of reduced use of ICTs by teachers. They also argued that this is the key reason why teachers are hesitant to deploy ICT apps in language classrooms (Beggs, 2000).

Concurrent with the inadequate training of teachers in utilising technological tools in teaching ESL in high schools is the lack of technical assistance on how the teachers should utilise the ICT gadgets in the classroom. In their study in South Africa, Hodgkinson-Williams et al. (2007) noted the absence of adequate technical assistance offered to teachers on how to use hardware and software technologies. This means that the utilisation of technological tools to enhance instruction is not feasible when one is operating alone, especially if untrained. Teachers require those who are proficient in the utilisation of technological tools to assist them and the learners in the classroom to make the most effective use of the tools (Dzansi &Amedzo, 2014).

Noteworthy is the fact that some teachers may not be ready to utilise technological tools in their instructional activities and that many of them may not be using technological gadgets to teach their classes (Draper et al., 2008). Some research, such as Bingimlas (2009), hypothesize that teachers'

‘fear of failure’ results from their fear of utilising ICTs in ESL instruction procedures. Lin and Chen (2014), upon studying factors that deter the adoption of technological tools in teaching, identified that instructors fall short in confidence on how to prepare and deliver learning content while using technological tools. Confidence is an important determinant of whether computers will or will not be integrated into teaching. It, however, remains paramount to note that the confidence of using technological tools in instruction will only grow if their use is done on a continuous basis since constant access and frequent use of computers is pivotal in exposing teachers and learners to technological gadgets so that they become enabled to practice and in turn become more familiar with their operations.

While technology adoption in schools is necessary, there are still important considerations to make regarding the issues that limit its usage in ESL instruction, as detailed in the previous two subsections. Over and above these, educational settings and the attitudes of teachers regarding ICTs may pose additional challenges. Msila (2015) claims that teachers’ hesitation to use technological tools in the classroom is mostly caused by their concern that they may not be able to maintain control over the goals and course of the lessons they deliver and that they may fail to meet the several other requirements established by the schools through utilisation of technology. According to Bingimlas (2009), studies on the utilisation of ICTs in the instructional environment have shown that teachers display a reluctant attitude towards change, which has proven to be a major obstacle in the incorporation of ICTs in classrooms. Teachers who are accustomed to conventional methodologies of giving instruction to learners are hesitant to embrace any other approach of delivering content to learners because they feel that it may have unfavourable repercussions on their work. One other reason for instructors’ reluctance to utilise ICTs in executing their lessons is their concern about appearing less knowledgeable when utilising technology in front of learners who may be more tech-savvy than they are (Chigona & Chigona, 2010). Mikre (2011) concurs that some teachers may view technology favourably but refrain from utilising it in the classroom because of poor self-efficacy, which is essentially the belief that one is not skilled to teach with ICTs.

Furthermore, in South Africa, Botha (2013) investigated technological tools and school administration and found that the chances for integrating technological tools in schools are largely

influenced by the perceptions, attitudes, beliefs and vision of members of the school administration team. The school administration's negative attitude towards the incorporation of ICTs in learning may also influence the teachers' attitudes and beliefs (Botha, 2013). This investigation was limited to the school administrators and left out room for further research on the limitations of integrating ICTs in teaching ESL by rural secondary school teachers, thus giving me the chance to carry out the study on the use of ICTs in Zimbabwe's rural secondary schools. Once these two sets of stakeholders hold negative attitudes and beliefs toward the utilisation of ICTs in the ESL classroom, the chances are that technology will rarely be used in instruction. As Mikre (2011) notes, instructors' attitudes are central to the degree to which innovative ideas will or will not be successfully implemented.

A mixed methods study carried out by Hadijah (2017) also investigated teacher related barriers to technology integrations in the teaching of the English language and revealed time constraints as being another hurdle that is preventing teachers from doing meaningful lesson presentations using technological tools. This study sought to find out if such constraints prevailed in Zimbabwe rural secondary schools and suggest solutions to alleviate them. The study also used the explanatory sequential research design which was used in this study. The use of explanatory sequential research design by Hadijah (2017) effectively exposed the constraints being experienced by English teachers in teaching ESL. Findings by Gilakjani et al. (2015) equally suggest that insufficiency of time allocated for teaching and learning different subjects is a significant obstacle for ESL instructional classes. The consequence is that learners are not given enough opportunities to independently comprehend the new technology as to make maximum use of it in ESL learning (Bingimlas, 2009).

A summary of the challenges of using ICTs in ESL instruction in schools, as highlighted in the review of the literature, is shown in Table 2.1 below.

Table 2.1: A summary of the challenges of using ICTs in ESL instruction in schools

Categories of challenges of the utilisation of ICTs in ESL instruction	**Description of the challenges**
1. Technology-related challenges	• Hardware and software limitations when using technological tools in ESL instruction. • Inappropriateness of infrastructure for housing technological gadgets. • Inadequate variety of ICTs for use in ESL instruction. • No access to internet and ICT. • Inadequate technical skills in schools. • Insufficient bandwidth disturbs the utilisation of technological tools in ESL instruction. • Lack of teachers who possess the necessary ICT expertise to instruct learners in their learning of ESL. • Inadequate policy frameworks to enforce the use of ICTs in teaching English.
2. Learner-related challenges	• Learners are not always technologically literate to use ICT gadgets in learning ESL. • Lack of access to gadgets such as tablets and smartphones that can be used in ESL learning. • Learners' misuse of technological tools and resorting to leisure time activities and thus having reduced engagement to formal learning study activities. • Learners' having inadequate time to independently conceptualise the ICTs on their own when interacting in ESL classrooms.

	• Copy-pasting of ESL information from internet sources by learners. • Learners' poor internalisation of reading skills which culminates in inaccurate understanding of text content, owing to them being accustomed to just scrolling on the computer instead of them being original compilers of information.
3. Teacher-related challenges	• Lack of technical skills in the utilisation of ICTs in ESL instruction. • The absence of adequate technical skills to use software and hardware for ICTs. • Low confidence levels among instructors in their endeavour to use technology in the instruction of ESL. • Restricted time afforded to teachers to provide meaningful presentations through utilisation of technological tools in ESL instruction. • Negative teacher attitudes and a general reluctance and demotivation towards the adoption of current pedagogical change dynamics. • Low teacher confidence in using technology in teaching English.

Table 2.1 above summarises the challenges of using technological tools in ESL instructional environments. The three categories of challenges are linked to one another since the technological challenges impact both teachers and learners. Nevertheless, these very limitations may, with the right management, be reversed to provide successful integration of ICTs into ESL instruction.

The difficulties shown in Table 2.1 above illustrate the ongoing educational gap, which essentially demands that the educational sector become involved in order to purposefully increase the use of technology in ESL instruction. With all the challenges discussed above, there is a need to find

possible solutions. In the meantime, it is important to look at how the Covid-19 pandemic induced positive changes in the utilisation of technology for educational purposes.

2.6 TECHNOLOGICAL INNOVATIONS INDUCED BY THE COVID-19 PANDEMIC

At the beginning of the year 2020, Covid-19 began to affect most nations worldwide. Schools' ability to operate was restricted during the pandemic's initial wave (United Nations, 2020). Numerous challenges for both teachers and learners were mostly experienced during 2020 to 2022. Remote learning and online instruction were two of the many strategies that schools had to employ to assist their learners, as it was required of schools and other educational institutions to carry on with their job. However, in Zimbabwe, teachers had little to no support from their governments, and there was uncertainty over whether they would be allowed to use traditional methods of instruction in the classroom (Maphosa, 2021). In addition to being always surrounded by misinformation, everyone felt increasingly uneasy and worried about contracting the coronavirus. As a result of this, teachers had to work from home to manage extra family obligations like supporting their own children's distance learning (United Nations, 2020). Techniques for handling the circumstances gradually surfaced with time. During the first wave of the Covid-19 pandemic, ESL teachers in Poland who worked with young learners, for instance, had to make an unexpected shift from in-person instruction to online learning (Murphy, 2020). The Poland ESL teachers reached out to their learners via telephone, email, electronic logbook, or school website (Murphy, 2020). Subsequently, teachers continued to use to their best ability those technological tools that were within reach, and these included personal computers, smartphones, projectors and speakers. In some ways, the online teaching and learning approach for resolving issues, with the integration of technological instruments in ESL training, turned out to be adaptable and interesting. Learners somehow acknowledged that the virtual learning strategy allowed them to have a one-on-one feel than when they physically mingled for learning purposes (Liang & Chen, 2012). In the same way that instructors could keep an eye on their learners' progress from home, learners could revisit curriculum and study materials at their leisure time in their virtual learning environment.

In South Africa, the South African Broadcasting Corporation (SABC) was used to disseminate learning content through integrating remote learning into its programming on SABC2. Presentations were cascaded to learners via audios and through the use television to assist learners

grasp concepts in a quicker way (Munene & Mutsotso, 2021). Learning experiences were enhanced by the use of the TV as it allowed learners to listen and see what was being taught. Thus, they were enabled to acquire ESL skills via ICT platforms. Munene and Mutsotso (2021) underline the value of television in promoting understanding of concepts by learners as it appeals to their audio-visual senses, thus enhancing instructional activities. The television broadcasts in South Africa also had the potential to reach a larger audience, including a rural audience, as well as the advantage of promoting continuous pedagogical engagements throughout the Covid-19 period.

The sudden closure of schools in Zimbabwe that came about in March 2020 disturbed instructional activities in both rural and urban schools. The schools in the remote areas were hit the hardest as the government was overwhelmed and could not afford to supply schools in less privileged communities with requisite instructional materials that were required to facilitate continued and virtual classrooms throughout the Covid-19 shutdown. In a bid to alleviate the worsening inaccessibility of lessons, high school ESL teachers had no choice but to use technological tools to maintain continued learning amongst learners. It is worth noting, nevertheless, that not all learners had access to technology or the necessary skills to learn online, which caused difficulties for the procedures and attempts to support them (Maphosa, 2021).

To meet the challenges of globalisation, improve a nation's economic standing, and inspire and support learners in their learning, it became necessary and desirable to employ technological tools in ESL instruction during Covid-19. Covid-19, as undesirable as it was, has called for improving all electronic infrastructure, using and integrating technology, and guaranteeing that education advances in schools. Irrespective of the relative benefits of traditional education, the Covid-19 pandemic altered the way schools throughout the world provided instruction. Every school in the world has seen a change in how they deliver instruction to better support and sustain lifelong learning through successful adaptation to changes in online learning (Kandri, 2020). In a sense, the Covid-19 pandemic helped teachers to meet their goals for advancing and improving instruction (Kandri, 2020). The pandemic has demonstrated how quickly online instruction is taking over as the preferred and accepted method of instruction. To prevent potential ICT infrastructure collapse, the educational sector must upgrade and increase its bandwidth, data, and ICT tools. Adequate control of these solutions is also required (Zhang, 2020).

Because of its many advantages and rising demand in the educational sector, ICT usage in teaching and learning has proven to be a viable substitute for conventional physical learning (Mishra, 2020). Multimedia interactive live video streaming is available in several forms, all of which are intended to improve teaching and learning. Information can be retrieved and saved on learning management systems (LMSs) like Sakai and Moodle using streaming modalities, which include but are not limited to Microsoft Teams, Zoom, Facebook, and YouTube (Department of Higher Education and Training, 2021). Apart from real-time video streaming, educational and multimedia video content creation applications like Adobe Premier Pro, Doodly, Camtasia Studio, and Purple Mash may generate practical educational media. To use these programmes and what they offer in their teaching, ESL teachers must complete training; such training will equip them to incorporate these video software and content management systems in their teaching (Cullen, 2022). Overall, while the pandemic created a breakdown of traditional teaching methodologies, it also created room for new and innovative teaching methodologies to emerge, and these have stayed in ESL education post-pandemic.

2.7 CHAPTER SUMMARY

This chapter's literature review has demonstrated several ways through which ICTs are used to teach English in secondary schools in Zimbabwe as well as other parts of the world. The literature review also examined ICTs as teaching instruments, including their advantages and disadvantages when applied to the teaching of ESL in the classroom. ICT use in education contains many ideas for different people at different times, which affects the teachers' utilisation of technological tools in teaching environments and the specific approaches they take to engage their learners. What the chapter has shown is that ICT utilisation in ESL instruction is not an uncomplicated process but rather one nuanced with challenges and benefits simultaneously. The study's theoretical foundation is described in the upcoming chapter.

CHAPTER 3

THEORETICAL FRAMEWORK

3.0 INTRODUCTION

The previous chapter gave a thorough overview of the relevant literature on the use of ICT both domestically and abroad to enhance ICT integration in ESL classrooms. The contradictions and inconsistencies that pique interest in the subject were identified in the literature review. Thus, a theoretical framework based on the study's phenomena is offered in this chapter. The study aims to analyse the data, not in isolation, but in relation to the established theories and concepts discussed briefly in Chapter 1.

For this study, I employed a theoretical framework that is made up of three learning theories, which are behaviourism by Skinner (1968), constructivism by Vygotsky (1978), and connectivism by Siemens (2006). These theories enhanced the analysis of data by examining the data in terms of the ways in which teachers in Zimbabwe's rural secondary schools utilise technological tools to teach ESL and conversely how learners respond to the ICT-driven pedagogy. The three selected theories complement one another, thus broadening the scope of their application. In other words, constructivism made connectivism necessary, whereas behaviourism was the primary impetus behind the need for constructivism. The theoretical framework has therefore ensured the validity of the study's conclusions.

3.1 BEHAVIOURISM

From the behaviourist perspective, learning is characterised by changes in a child's actions, as deduced in the works of Pavlov (1927) and Skinner (1968). Being one of the most prominent learning theories, the behaviourist learning theory focuses on achieving behavioural outcomes from learners through using a set of measurable and observable learning objectives (Silva, 2018). Skinner believed that human behaviour is based on physiological reactions to external stimuli

(Zhou & Brown, 2015). Effectively, behaviourists assume that learners' responses to classroom inputs determine what behaviour they will learn (Ally, 2011).

For behaviourists, it is essential to create, maintain, and strengthen the relationship between stimulus and response. Behaviourists contend that reinforcement shapes a learner's behaviour from the beginning, when they are a 'clean slate' (Silva, 2018). Instead of actively participating in the discovery of their surroundings, the learner is described as responsive to circumstances in the surrounding environment. The likelihood that a behaviour will be repeated increases with both positive and negative reinforcement. Behaviourists claim that punishment reduces the likelihood of negative behaviour to recur. Furthermore, by using negative reinforcement, incorrect or previously acquired wrong behaviour could be curtailed (Skinner, 1968). Ravenscroft (2003) speaks about conditioning processes, which involve repeated instruction and drills using incentives and penalties to either encourage or deter desired behaviour. In other words, behaviourism sees education as the process of instilling knowledge in a learner's mind through reward and punishment schemes (Al Dahdouh et al., 2015). According to the behaviourist theory, all behaviours are therefore acquired through conditioning that results from interactions with the environment.

Skinner's (1968) operant conditioning is the foundation of behaviourism. With this kind of operant conditioning, if an action is followed by a consequence, the result affects the organism's likelihood of repeating the action in the future. At this moment, the entity is merely moving through its surroundings and carrying out its activities and this is known as 'operating' on the environment (Zhou & Brown, 2015). When the organism is 'functioning' in this way, it encounters a special kind of stimulus called a reinforcing stimulus. This stimulus has the power to mould a learner's behaviour to fit the teacher's wishes, and thus the process of conveying or passing down information to obliging learners is what behaviourists refer to as teaching (Brown, 2006). The behaviourists' learning theory holds an understanding that a teacher's main duty is to teach learners, who in turn view the teacher as their primary authority, subject matter expert, and information source.

In addition, a behaviourist teacher adopts a more commanding and authoritative stance during teaching, and uses strategies which include the use of dispensing, explaining, conveying, and mapping to transfer knowledge to learners (Silva, 2018). The transfer of knowledge to learners is impacted by the learners' environment, and hence behaviourists employ technology composed of carefully structured learning material (Newby et al., 2006). Computer-assisted instruction (CAI), which was created in the 1970s and comprises of tutorials, drill and practice, role-playing, virtual reality, and problem-solving applications, is one kind of structured learning material (Newby et al., 2006). Instructors and learners can utilise a variety of CAI, which helps learners to understand concepts in ESL. Technological tools can be utilised as stimulants to arouse learners' interest and facilitate knowledge acquisition. Dede (2008) agrees with this view, noting that computer-aided instruction can be used in a classroom setting to teach skills related to the subject matter. Similarly, computer-based assessments in the form of examinations and quizzes can be used to evaluate the success or failure of the learning objectives (Mukhari, 2016). A pass or failure serves as positive or negative reinforcement, respectively, for the learner's performance.

3.1.1 Criticism of behaviourism

Despite the hugely positive contributions of behaviourist theory to education, it has received a fair share of criticism. For instance, generalised reinforcers such as stars, points, incentives and praise may be beneficial in educational contexts, but they may also have disadvantages like those of other behaviour control strategies if they are over-used such that learners may not feel their positive effect in trying to control their behaviour (Feldman & McPhee, 2008). Effectively, reinforcers may reduce intrinsic motivation and cause learners to lose interest in learning if they are not given to them when they use ICTs. Similarly, external rewards are seen to have the potential to cause some unexpected behaviour problems in the classroom, such as learner distraction and peer disrespect (Edwards, 2000). However, in the absence of incentives for using ICTs, children's intrinsic drive can be eroded and that can make them disinterested in learning. This situation makes behaviourism a complex theory.

Mukhari (2016) argues that behaviourism is unable to adequately capture the complete range of human learning because it restricts learning to basic stimulus-response interactions, external settings, and other similar behavioural principles. Behaviourist theory has also attracted criticism from Feldman and McPhee (2008) who claim that behaviourism sees the behaviourist teacher as the leader in the classroom while dismissing the learner's participation; yet, these two are unique individuals who both consider real-world events in their learning environments. Due to learners' limited involvement in the learning process, learners may emerge from the process still lacking superior cognitive skills (Feldman & McPhee, 2008). Furthermore, the behaviourist approach inadvertently overlooks the individual differences among learners by presuming that all learners learn in the same way, and yet in reality each learner learns in a unique way from the other (Arghode et al., 2017).

In addition to being criticised for failing to acknowledge the individual differences of learners, behaviourism has been criticised for being 'too prescriptive and pre-structured' (Zhou & Brown, 2015). Furthermore, it has been argued that the predefined learning outcomes ignore learner ideas and opinions as well as alternative forms of teaching (Kanuka, 2011; Van den Berg, 2017). Similarly, Ravenscroft (2003) argues that the theory does not permit assistance to be given when a learner deviates from given tasks since it ignores higher-level conceptual thinking and reasoning, exploration, discussion, and reflection. In contemporary education, feedback to learners during a learning task helps to fill in the gaps in their knowledge or to justify why deviation from the task would be counter-beneficial. Feedback explains to learners what they did or did not do well, as well as how to get better at using and understanding language (Gass et al., 2013).

Additionally, behavioural teaching approaches are criticised for encouraging the adoption of conventional teaching strategies that rely on lecturing learners to fill up knowledge gaps (Zhou & Brown, 2015). To reinforce the stimulus-response or S-R association in behaviourism, learners participate in drill and practice rather than in the development of novel ideas. Furthermore, behaviourism views learning as a solitary process as opposed to a communal one, and because of this, it ignores the necessity of group projects and conversations for learning which are regarded as important for the acquisition of knowledge in other circles. It is, however, worth noting that

behaviourism has sparked the creation of significant pedagogical technologies such as the personalised tutorials and feedback that encourage and reward learning (Van den Berg, 2017). Despite the criticisms raised above, behaviourism is still important and influential in today's instructional settings.

3.1.2 Relevance of behaviourism

Learning is the innate procedure of 'associating' a reaction to a stimulus to generate a new behaviour (Van den Berg, 2017). Thus, behaviourists stress the necessity of 'practice' to enable the newly learned behaviour to become strong enough to be a habit that is executed quickly and efficiently. For example, practice makes perfect when it comes to learning how to operate a computer keyboard. Furthermore, the learning process for learners must be entertaining. If the material being taught is not engaging, learners may lose interest in utilising ICTs for learning as soon as the tools' novelty fades. Learners are thus thrilled when introduced to a computer-equipped classroom and are taught in a way that keeps them interested to maintain their attention.

According to Skinner (1968), educators can enhance their efficacy by adopting the role of behavioural engineers and utilising reinforcement to mould behaviour. For this reason, computer-assisted instructions are designed not just for training but also for learning reinforcement on desirable behaviour. In secondary schools located in rural areas of Zimbabwe, adopting a range of ICT devices for ESL instruction can be advantageous for both teachers and their learners. Learners, for example, may get to understand grammatical rules through using ICTs in writing activities, and this will in turn enable them to construct correct sentences (Chambers & Yums, 2017). Behaviourist teaching is known for its emphasis on practice and practical exercises, which ICT gadgets are excellent for (Chen, 2011). As a result, behaviourism is thought to be appropriate for use with educational technology in online learning environments that offer real-time feedback and standardised information. In a traditional classroom, it is the teacher's obligation to design the stimulus that prompts learners' intended behaviour. Considering that behaviours are flexible, learning is assessed by looking for changes in behaviour. Teachers frequently use threats and punishment to get learners to behave in a certain acceptable way. An online learning platform

avoids the humiliation in front of others that comes with failing an examination or receiving a low mark. Learners only face competition from within themselves.

To keep learners interested and involved in pedagogical technology, the learning content might be presented as games. Fun, engaging and innovative drills and practice sessions can foster the development of new learning habits. Once learners have mastered the simpler requirements, they can then go on to the next level of complexity in a task. The ICT devices serve as tools for initiative and motivation since they provide access to internet content. In the past, the contribution to stimulus creation was limited to the teacher, but now learners can help make the process fun and interactive. Collaboration becomes progress and a punish-and-reward system becomes obsolete.

The discussion that follows focuses on constructivism, which is yet another important learning theory that builds on the ideas of earlier theorists.

3.2. CONSTRUCTIVISM

The constructivism learning theory is characterised by learners actively producing new information by building on their prior experiences. It has its origins in the learning theories of Dewey (1916), Bruner (1990), Piaget (1972), and Vygotsky (1978). According to constructivism, learners can demonstrate comprehension and produce meaning by combining their own prior knowledge, activities, and distinct experiences (Stavredes, 2011). Stated differently, the integration of recently acquired knowledge with pre-existing knowledge results in even more comprehension. Because learning evaluation does not depend on specific quantitative criteria, learner knowledge is not pre-specified, thus making it more subjective (Duke et al., 2013).

Constructivism encourages learners to be actively involved in creating knowledge, both individually and in groups, by drawing on their own experiences, cultural backgrounds, and interpretations. Since individuals bring cultural elements and past experiences to the learning process, the learners are not to be regarded as ‘blank slates,’ as is argued by behaviourism

(Bandura, 2005). According to Stavredes (2011), learning is the procedure of changing people's cognitive models to include new information. Additionally, by interpreting the content in the context of their own experiences, each learner creates their own meaning for it. This suggests that the knowledge that is taught and the knowledge that is acquired by different learners will never be identical.

Constructivism emphasises the importance of building learning from learners' prior knowledge of the world. In a tutorial class, for example, prior knowledge and experiences are drawn upon to build new thoughts and ideas related to the subject matter in ESL. This assertion validates Schunk's (1996) idea that learners acquire knowledge by interpreting their surroundings and creating reality according to their current capacities. According to Beck and Kosnik (2006), teaching and learning are aided by the teacher's knowledge, but the knowledge that learners bring to the classroom is crucial as it aids in the creation of reality. Furthermore, Driscoll (2000) points out that the constructivist theory is based on the notion that learners create knowledge to make sense of their experiences because most learning takes place in social contexts where group members negotiate individual behaviours and understanding.

A learner-centred approach to education is embraced by constructivist epistemologies, which place the learner at the centre of all activities and assign the instructor the position of guide and facilitator (Amineh & Asl, 2015). Because both learners and instructors are constantly given the opportunity to cultivate fresh perspectives and solve problems in the classroom, both parties ultimately gain from the learning process. Constructivism strongly emphasises problem solving, creating novel ways of thinking, and fostering teamwork; thus, it is a theory that provides opportunities for learners to exercise 21st century abilities in communication, sharing of knowledge, critical thinking, and usage of pertinent technology tools that are prevalent in both the workplace and higher education institutions (Ertmer & Newby, 2013).

Constructivism is based on the notion that every individual tends to build their own knowledge via interactions with other people and their surroundings. Constructivist philosophy is predicated on the notions that knowledge is formed via experiences and that learners are involved in their own learning procedures. In the eyes of constructivists, as educational activities take place, each person considers their own knowledge and experiences while incorporating new ideas. Learners, thus, create schemas to organise the knowledge they have learned. According to Shelly et al. (2010), a constructivist teacher assists learners become knowledge builders who are able to identify, explore, and consider both their own and other learners' points of view. Puzzle solving is something that constructivist teachers excel at. Altuna and Lareki (2015) state that the teachers' ability to establish a stimulating learning environment in the classroom best characterises their job in practice. This suggests that if a teacher wants to bring out the best in every learner, they must recognise that each learner has a distinct way of learning and work best to develop a strategy that will meet that learner's individual needs.

Constructivists place more emphasis on learning than on instruction, highlighting the need for a well-rounded education. Constructivism views learner-centred learning settings as a key enabler to effective facilitation of instruction and learning. In a virtual learning setup, learners get better at talking, discussing, and sharing knowledge, according to Rae et al. (2006). The instructor assists the learners in studying the subject that is judged relevant, given the wealth of information that is readily available online. According to constructivists, using ICTs for good instruction and learning tends to boost teachers' confidence and assertiveness as well as their capacity to draw in and hold on to learners' attention (Cavas et al., 2009). This is so because many learners are becoming more and more interested in the prospects presented by technology and are technologically savvier than ever before.

Furthermore, constructivist learning is described by Ertmer and Newby (2013) as a change in meaning brought about by the learners' experiences. In this situation, meaning is determined by how each learner interprets their own experience. From a constructivist perspective, human learning is generated and reconstructed via experiences. Learners are urged to actively participate in the creation of new information by drawing on their past experiences and knowledge. To this

end, building concepts and making decisions are the tasks of every learner (Brandon & All, 2010). Activity engagements for them lead to the creation of knowledge. Through their unique experiences and worldviews, learners become enabled to interpret their environment and give it meaning. Problems, uncertainties, and disputes lead to the acquisition of new knowledge, which necessitates the acceptance of the responsibility to solve those arising challenges. Sharing experiences with other learners through conversation also creates avenues for further acquisition of knowledge. Because constructivist theory integrates interaction and meaning attribution through experiences, it consequently improves the way that ICTs are used in the processes of instruction and learning.

Rather than only imparting knowledge to learners, constructivist teachers encourage the creation of knowledge by their learners and support learner-centred inquiry approaches (Dagar & Yadav, 2016). Instructors also acknowledge that learning becomes easier on the part of learners through the utilisation of technology, which is a great transition from the conventional teacher-centred approach to the more modern learner-centred approach. Dagar and Yadav (2016) argue that by utilising technological tools, instructors tend to adopt new roles to improve their teaching methods, by involving learners in the process of creating new knowledge. In using ICTs to facilitate information flow, constructivist instructors move away from being authoritarian persons and behaving like their learners' only source of knowledge to becoming facilitators of information interchange (Montrieux et al., 2015). Montrieux et al. (2015) posit that constructivist educators also think that digital didactics, which include using ICTs to convey content, are necessary. They further contend that with the aid of technological tools, educators are better placed to prepare learners for the rapidly evolving 21st century world (Montrieux et al., 2015).

Several benefits come from the utilisation of digital tools. Of these benefits, learning in constructivist classrooms is centred on the questions and interests of the learners. The utilisation of technological tools permits teachers to continue with their direct teaching while also facilitating cooperative conversation, group activities, and interactive experiences amongst their learners. Learners create new understandings and build upon what they already know based on the lessons that are presented. In addition, the constructivist approach permits negotiation and dialogue, which

are also essential elements of effective learning. Through using constructivist teaching methods, learners can develop into critical thinkers, problem solvers, and knowledge constructors (Ertmer & Newby, 2013). To provide meaning to what they want their learners to learn, instructors consider learners' prior knowledge as well as their preferred methods of learning. Since the constructivist teacher is one of the providers of information, it is then their responsibility to judiciously facilitate the learning process (Dagar & Yadav, 2016). Dema and Moeller (2012) emphasise that learning with technological tools requires interaction with the tools to create meaning. They further note that for this to be possible, the instructors and learners using the technological tools need to have some problem-solving skills (Dema & Moeller, 2012).

The constructivist ideology, which emphasises that learners should build their own knowledge, is relevant to this research on the utilisation of technological tools in ESL educational settings in rural secondary schools in Zimbabwe, because ICT-literate learners and instructors will become more creative by producing valuable information and activities through using ICTs in ESL classrooms.

3.2.1 Criticism of constructivism

Among the common criticisms of constructivism is the type of learning it encourages. Constructivist tactics frequently lead to a trial-and-error approach to performance in the real world since they are inefficient (Feldman & McPhee, 2008). This theory is further limited by the possibility that, even as learners learn from each other, the instructor may lose control and have learners want to do what they feel they need to do while she/he has instructed them otherwise. There may also be less time for instruction, which could lead to a decrease in the amount of material that is covered, while learners may also enact some form of resistance to technology-oriented teaching and learning strategies (Huxham, 2005).

Academics like Siemens (2006) have identified several flaws in constructivism theory. Siemens (2006), the propounder of connectivism theory, challenges constructivist and behaviourist theories for their underlying assumptions about internal learning. The author asserts that although the

constructivist perspective regards learning as a socially performed activity, it is unfeasible to elucidate the way learning transpires within an organisational context (Siemens, 2006). Siemens (2006) further emphasises that the learning theories of the 21st century have not sufficiently addressed the demands of learners. It has been said that constructivist theory is more of an ideology of knowing than a philosophy of learning (Feldman & McPhee, 2008). Furthermore, constructivism, according to Brown (2006), is a theory that prioritises knowledge over learning. Brown (2006) also concurs with the claims that constructivism is a paradigm that places more emphasis on knowledge than on learning; he believes that the constructivist theory does not necessarily offer new contributions of knowledge to the body of already existing knowledge but rather that it merely incorporates well-known concepts from previous theories, even so without describing the learning process.

3.2.2 Relevance of constructivism

Despite the criticisms outlined above, constructivism is still relevant today. It holds the notion that education is a social process, which implies that communication and collaboration are crucial. Constructivism, particularly social constructivism, fosters etiquette and social skills in addition to helping learners become more self-assured and considerate of others (Vygotsky, 1978). The theory states that knowledge is produced through observation, reflection, and interaction with peers, teachers and technology, among other contextual influences (Dagar & Yadav, 2016). Constructivism depends on evaluation that considers learner viewpoints, effort and observation, in addition to test results (Dhindsa & Emran, 2006). Constructivism also demands an end to standardised testing and grading. Rather, evaluation is integrated into the learning process to enable students to evaluate their knowledge more fully (Rust, O'Donovan & Price, 2005). Through problem-based learning, cooperative learning, experiential learning, mind mapping, spoken conversations, practical activities, and inquiry-based learning, learners can participate in constructivist assessment in ESL settings (Hussain & Sultan, 2010). For these reasons, constructivism remains a useful theory in ESL teaching and research.

3.3 CONNECTIVISM

Connectivism is an educational approach that emphasises the role social media and ICT play in the learning procedure. Siemens (2006) characterises connectivism as a paradigm that sees learning as a socialisation process and a network phenomenon impacted by technology. Goldie (2016) states that the core idea of connectivism is that information is activated, and learning happens when students engage with and belong to a learning community. The learning community, as defined by the connectivist model, is a node that arises from the connecting points on a network and can include any type of knowledge source, such as libraries, websites, journals, databases, and organisations. According to Siemens (2006), a network is made up of linkages that connect people, organisations, domains, concepts or communities with similar tenets (Bell, 2010). Social networking, which involves creating and sharing information with users of a social network, can be accomplished through ICT implementation. Similarly, educational networking, which involves connecting learners in a learning network, can be made possible via ICT implementation. Either a small localised network or a huge worldwide one may be available to learners for this purpose (Goldie, 2016).

Essentially, connectivism is a philosophy of learning in which learners create connections between materials in order to expand their existing knowledge, based on knowledge that exists outside of them (Siemens, 2006). Learning happens in different situations, such as workplaces, personal networks, and communities of practice (Conole, 2013; Siemens, 2006). Learners build their own learning networks through the connections they establish, and it is these linked webs that allow them to access updated knowledge as it becomes available. Rwodzi et al. (2020) affirm the use of digital connection platforms for the teaching and learning of ESL. According to Siemens (2006), the widespread use of new mobile technological gadgets has sparked discussions and investigations into how the technological tools may enhance education and the gaining of knowledge to promote business, industry, and other social endeavours.

Summarily, and based on the work of Siemens (2006), connectivism is:

- A field where knowledge and learning are based on a plurality of viewpoints.
- The method of establishing connections between specialised nodes or data sources.

- Knowledge that could be present in non-human devices.
- A situation where knowing more is essential than what is understood now.
- The act of fostering and preserving relationships to promote learning.
- The capacity to see links between ideas.
- A procedure with the aim of preserving correct and up-to-date knowledge.
- A process of learning where judgments are made based on evolving information, and a case of knowing that what is considered right one day may not be seen as such on the next.

According to the aforementioned tenets, connectivism recognises the intricacy, evolution, and dynamic character of learning networks, in addition to the part technology plays in both the development of new learning networks and the support of old networks. Simply put, connectivism is a theory that focalises network ideas (Siemens, 2005). Like the function of the instructor in constructivist learning settings, the instructor in these learning networks facilitates learning rather than undertakes lecturing. By using the tools that teachers make available to them, learners establish links to various information sources and validate their understanding (Kop & Hill, 2008). In addition, these facilitators support the growth of communities, the establishment of online learning ecologies, the increase in learning objectives, and the placement of learners in environments that promote the construction of networks (Minocha, 2009). In support of the facilitator's role, Conole and Alevizou (2010) state that the facilitator's job is to amplify, aggregate, curate, model and filter information to influence and shape networks. In addition, the facilitator needs to consider the learners' experiences to identify the factors that encourage participation and permit the utilisation of the resources that are available to them.

The primary goal of connectivism theory is to comprehend how social interactions among nodes in a high-tech learning environment can be used to facilitate effective learning. Siemens (2006) claims that connectivism views socialisation and technology as two factors that impact education as a network phenomenon. On the same argument, Dunaway (2011) states that connectivism endorses the importance of networked information resources for learning. The author goes on to posit that connectivism acknowledges the significance of information technology in helping learners learn from a variety of sources to possess skills necessary to evaluate the relationships between those sources in a dynamic information network (Dunaway, 2011). Goldie (2016) argues

that technology now handles a lot of the duties that learners used to perform all by themselves, such as storing and retrieving information; as a result, humans and machines will hold different types of information. While Siemens (2006) states that connectivism aims to provide learners with the abilities they need to succeed in the digital and networked world, I would like to believe that connectivism has a greater impact on the development of new pedagogies, where the learner has more agency than the instructor does. This suggests that research is necessary to ascertain how teachers can apply connectivist principles to (re)design and create learning environments that are technologically up to date and appropriately matched to the proficiency levels of learners in ESL classrooms and particularly the ESL classrooms in rural secondary schools.

Connectivism sees ICT tools as networking agents in ESL instruction and learning. ICTs are said to have the ability to give network members a place to share information as early as new content is acquired. In this study, connectivism is significant since it gives learners greater learning power while also enabling teachers and learners to collaborate. In addition, through connectivism, ESL teaching professionals build their networks by exchanging ideas and engaging with their surroundings to obtain a more profound comprehension of the subjects they instruct. Learners may also be enabled to access a dynamic, interconnected and rich tapestry of resources brought about by technology, community members, and knowledgeable individuals (Downes, 2006).

Engaging in network activities leads to the establishment, deletion, or modification of the connections' strength (Dunaway, 2011). Connectivism suggests that information can be handled and stored in 'non-human appliances' since contact creates these network activities both within and outside of individuals' brains (Siemens, 2006). According to connectivist perspectives, interactions formed through networking activities provide information rather than knowledge, which is conceptualised in the traditional sense. Siemens (2006) contends that learners can better handle the rapidly expanding body of understanding through assigning logic, sense-making, and filtering to networks of technology, allowing for creativity. This is supported by Bell (2011) who claims that connectivism is viewed as a theory that inspires instructors to use creativity in their instruction. Put another way, people's behaviour and methods of operation are altered by the usage of ICT technologies. The types of skills and tasks that learners need to master to succeed in the digital age are clarified by connectivism. For Bell (2011), connectivism should not be viewed

merely as a theory but as a reality that alters how learning takes place in a classroom setting that has been enhanced by technology.

3.3.1 Criticism of connectivism

Connectivism has been criticised for attempting to supersede its predecessors: the behaviourist and constructivist theories of learning (Bell, 2011). Bell (2011) argues that while the constructivist and behaviourist theories remained inadequate to explain learning that takes place in technological and organisational contexts, failed to acknowledge the intrapersonal perspective on learning, and failed to add to the evaluations of what constitutes a knowledge-rich environment, connectivism did little to remedy these knowledge gaps. Significantly, Siemens (2006), in proposing connectivism as a counter theory to behaviourism and constructivism, had acknowledged that the qualities and contexts of knowledge that exist today are not supported by organisational structures, but rather contends that these structures have evolved to facilitate the implementation of the theory of connectivism. As a result, he suggested that organisations get ready to adapt to their locations and organisational structures to make room for the application of technology in the classroom.

Siemens' view above points to inherent limitations in connectivist theory, which were elaborated on by other theorists. On their part, Verhagen (2006) sees connectivism more as being a curriculum and pedagogy than a theory, since it emphasises the skills and knowledge that individuals must acquire to learn. Moreover, according to Verhagen (2006), connectivism is not a novel theory because it does not include any original concepts that are not already present in former theories of learning. Long before connectivism explained learning, the social constructivism of Vygotsky (1978), which looked at the relationship between internal and exterior knowledge, was in existence. This suggests that connectivism had novelty more in name than in actual theoretical content.

Lastly, the connectivist theory seemingly states that if all learners have access to the technology required for interaction, communication, and knowledge sharing in a classroom context, then knowledge is distributed among all networks. This assumption, however, is at odds with the conditions observed in most learning contexts, including the rural secondary schools and

environments under investigation in this study, where a shortage of technological tools is a prevalent problem.

3.3.2 Relevance of connectivism

While connectivism has faced criticism as a learning theory, there are valid arguments in favour of viewing it as a significant theory of learning. Connectivism as a theory is placed at the pedagogical level. First and foremost, it draws its strength from the use of online exercises, even though it may have appropriated some aspects from past theories of learning. From a connectivist perspective, learners are both designers and re-creators of their own education, especially considering the always-evolving technology learning approaches to which they are exposed. To help them realise positive outcomes, teachers can only provide guidance and support by verifying learners' knowledge and critically involving them in the course material, whether they are serving as facilitators in in-person classrooms or facilitators in virtual classrooms (Kop, 2008). In line with constructivism, connectivism also describes how learning can happen through social interaction. As such, even in the absence of certain significant observations, logical justifications, and supporting evidence, it may be considered that connectivism is a learning theory. Connectivism does also explore how to effectively incorporate ever-evolving technology into teaching and learning which makes it a theory of the moment.

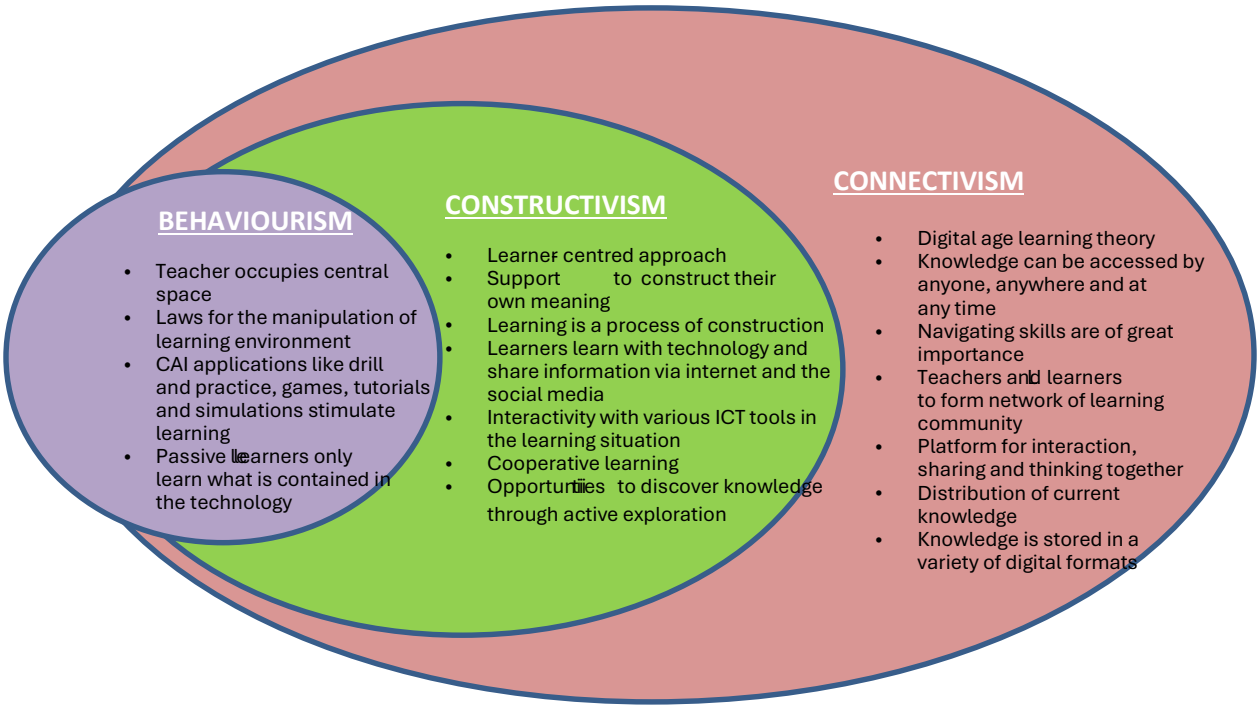
Siemens' connectivist theory then becomes relevant in this research since it illuminates the ways that technology has radically changed people's approaches to knowledge and different methods of acquiring knowledge. The connectivist theory moved the focus of learning from an individual's acquisition of information to the concept that knowledge is acquired by being shared through networks. Put differently, information is kept on the internet and is accessible to anybody with internet and information network access. The immense quantity of knowledge that exists on the internet cannot be stored or accessed by one person, but networks of people may share various knowledge bytes with one another, expanding and diversifying those knowledge bases to suit various learning needs in ESL classes. This has far-reaching effects on how information and knowledge are or can be understood, which in turn influences how important knowledge is in connection to the variety of networks via which it is shared, assimilated and transmitted.

Connectivism in this study is the learning theory of the digital era, influencing both teaching and learning, since ICTs allow all members of a network to have access to social media for networking and knowledge sharing, with the result that learning is capitalised. Real-time knowledge exchange and acquisition are enabled through the establishment of networks and nodes by educators and learners. This is where connectivism fits into this research. From the perspective of education, instructors engage and exchange information with colleagues to deepen their understanding of the teaching of ESL and to obtain suggestions on how to enhance the utilisation of technological tools in their ESL lessons. These characteristics, which are the fundamental ideas that define connectivism as a learning theory, are worth considering in ESL classrooms. Of recognition is the idea that, in the current digital era, the learner is the focal point of the educational process and actively participates in obtaining and utilising the many online knowledge sources. Thus, it is fitting to characterise today's learners as the 'do-it-yourself' learners (Nussbaum-Beach & Hall, 2011). According to Dunaway (2011), one of the tenets of connectivism is the learners' ability to choose between trustworthy sources of information and those that are not, as they sieve through the abundance of data accessible online; such a sieving process activates their higher order thinking abilities. Connectivism was thus found a suitable theory for this research in which learners' use of ICTs in ESL learning may open them up to a vast body information online and it is important to understand how they navigate that.

3.4 THE INTERCONNECTION OF BEHAVIOURISM, CONSTRUCTIVISM AND CONNECTIVISM

As this chapter's introduction stated, the study makes use of a theoretical framework that combines behaviourism, constructivism, and connectivism theories. These theories offer valuable perspectives on the application of ICTs in ESL education in Zimbabwe's rural secondary schools. All three learning theories can be applied to understand the impact of using technological resources in ESL instruction (Ertmer & Newby, 2013). It has been argued that behaviourism led to the birth of constructivism and that the development of connectivism was influenced by the shortfalls of both behaviourism and constructivism (Wang, 2011). Thus, the interdependence shared by the three theories makes them fit as a workable theoretical framework for this study. Illustrated in Figure 3.1 below is the interdependence of the theories.

Figure 3.1: The interconnection of behaviourism, constructivism and connectivism (Mukhari, 2016, p.56)



It is clear from Figure 3.1 above that behaviourism, constructivism and connectivism are interrelated theories of learning. Rather than taking the place of the earlier learning theory, each of the theories builds upon the previous. Moreover, each of the theories includes the need to integrate technological tools into instruction. From the connectivist theory, as illustrated in Figure 3.1, learners in a learner-autonomous classroom conduct their own self-directed searches for information and can share resources or knowledge with others from any location. These learners can create spontaneous study groups using technological tools, and this level of autonomy motivates them to collaborate. Such a process of collaboration helps learners to expand their own knowledge.

Figure 3.1 makes it visually evident that constructivism was influenced by behaviourism and that connectivism developed after constructivism. Despite the order in which the three theories were

created, the most recent theory of learning is not always the best but rather all three theories have a role to play in ESL instruction. By ordering the theories in a chronological fashion in my study, I do not in any way imply that one learning theory is more significant than the others. Behaviourism and constructivism provide the best explanation for how technological tools impact ESL learning and teaching where the tools are not always accessible in rural schools. Being a theory of learning for the digital era, connectivism in turn explains how learning occurs in an environment where there is more access to technological resources. Thus, all three theories are useful in unpacking how learning occurs in the ESL classroom when technological tools are used for instructional purposes.

Before the advent of technology, learning theories like constructivism and behaviorism were created. However, teaching technologically savvy learners and the current state of technological innovation are putting old theories to the test because their underlying assumptions do not sufficiently meet the demands of the 21st century learning environment (Siemens, 2005). Connectivism lays its foundations on behaviourism and constructivism, and caters for the digital age (Ayanwale et al., 2023; Hendricks, 2019; Siemens 2005). According to Hussein (2020), some classical theories, particularly behaviourism, appear to promote rote learning and portray learners as being passive. Behaviourism is thus contested on the grounds that it is incompatible with the current fourth industrial revolution, since it deprives learners of the chance to acquire survival skills. Additionally, theories like constructivism and cognitivism are essential for fostering 21st century abilities like knowledge creation, teamwork, and critical thinking. However, their fundamental drawback is that they place a strong emphasis on in-person interactions between learners and teachers. All things considered, these drawbacks support Siemens' (2005) argument that conventional theories prioritise in-person instruction while ignoring learning that is recorded and altered by technology. As the world has shifted to technology as a branch of expanding knowledge building, it is clear that these constraints of traditional theories provide a significant worry with regard to access to high-quality education (Hendricks, 2019). According to Milligan (2006), new theories have been developed as a result of technological advancements like the internet, artificial intelligence, robotics, and others. These theories argue that learning can take

place through the manipulation of technology inside networks. Thus, the theory of connectivism is crucial for education in the 21st century.

3.5 CHAPTER SUMMARY

Chapter 3 has presented this research's theoretical framework that comprises three learning theories: behaviourism, constructivism and connectivism. As has been demonstrated, all three theories are useful in assessing ICT utilisation in ESL teaching and learning in Zimbabwean rural secondary schools because all three theories centre technology in the teaching process. While there have been criticisms launched against each theory, in unison their strengths far surpass their shortcomings, and each one remains relevant today. The next chapter presents the study's methodology for research.

CHAPTER 4

RESEARCH METHODOLOGY

4.0 INTRODUCTION

Behaviourism, constructivism and connectivism are the three learning theories that were covered in the previous chapter, and which make up the theoretical framework of this research. I describe in this chapter the methodological approaches used in investigating the incorporation of ICTs into ESL instruction in secondary schools located in rural areas of Zimbabwe. The chapter offers a thorough explanation of the research methods used in the study and shows how the decisions made improved comprehension of the phenomenon being studied. A research methodology, according to Creswell (2014), describes how a researcher will conduct a study to produce accurate, legitimate results that meet the goals and objectives of the investigation. Thus, this chapter offers specifics regarding the research approach used in this study, population, research paradigm, methods for collecting data, and processes for analysing data. It also includes a discussion of the ethical factors that were considered in relation to the data collection and analysis.

4.1 RESEARCH PARADIGM

Kivunja and Kuyini (2017) consider a paradigm as an overall philosophical or ideological position that is based on a set of assumptions about the foundations of the external environment. It thus serves as the presumptive foundation upon which we generate and understand knowledge in a research context. Stated differently, it might be defined as an assemblage of noteworthy anticipations and convictions regarding the way the world is perceived (Newby, 2010). Based on these definitions, a paradigm, in my opinion, is a system of ideas, presumptions, and values that direct a study or research endeavour. It provides guidance to the researcher on what to look for, how to look for it, and how to evaluate the findings. Four important research paradigms will now be discussed below.

4.1.1 Positivism

Bryman (2016) defines positivism as an approach to epistemology that supports the application of natural scientific techniques in the investigation of social reality and other topics. Similarly,

Nudzor (2009) defines positivism as a technique in research in social sciences that uses the natural science study approach to examine social phenomena. According to Scotland (2012), advocates of quantitative research argue that the social or human sciences need to use efficient natural science techniques to support their theories about human behaviour. In other words, they need to provide scientific proof to their claims. Positivism is then about showing undisputed proof of the existence of a phenomenon. From the positivist perspective, true knowledge is only accessible through experimentation and observation (Cohen et al., 2011). Thus, positivists believe that reality exists regardless of whether social researchers have found it or not, and they believe that it is not mediated by our senses (Scotland, 2012). To determine the factors that affect the results, the positivist methodology entails gathering numerical data, analysing it, and elucidating the linkages (Scotland, 2012). In this study, positivism is relevant, but it is not the main research paradigm; rather, it is embedded into the pragmatism paradigm which is the fitting paradigm for my research which adopted a mixed methods approach.

4.1.2 Interpretivism

The interpretivist research paradigm views truth and reality as social constructions rather than as autonomous entities (Bryman, 2016). Researchers use the participants' collective perspective to determine what is true and real. In addition, when it comes to research on social phenomena, the interpretivist theoretical viewpoint is a counter-response to positivist ideas. Interpretivists hold that reality is arbitrary and socially created and is generated by individuals or groups within a specific social and historical context, in contrast to positivists who contend that reality is fixed and objectively appraised (Mackenzie & Knipe, 2016). According to Sale et al. (2002), reality is created throughout the study process and vanishes when the researcher stops paying attention to it. From an interpretivist perspective, there are various realities and truths that are dependent on how people see things. Thus, seeking to comprehend and interpret people's lives, experiences, and meanings connected to specific events, behaviours, or decisions is the goal of interpretivism in research (Nudzor, 2009). From an interpretivist point of view, experts think that every person creates their own worldview from their own experiences and views.

An interpretivist researcher, according to Kivunja and Kuyini (2017), commonly relies on the participants' perspectives on the scenario under study and acknowledges the importance of

participants' backgrounds and experiences for the research. In such a paradigm, researchers use these experiences to interpret the data gathered and to answer the research questions (Thanh & Thanh, 2015). Furthermore, interpretivists are of the view that the application of principles adopted from natural sciences do not make social phenomena understood. Interpretivist research does not aim to identify cause and effect relationships, nor to establish universal truths about the world, but focuses on understanding the social world through the interactions of humans with the world (Thanh & Thanh, 2015).

Additionally, interpretivists believe that immersing oneself in a social phenomenon to gather rich and extensive data is the best method for a researcher to understand the phenomenon (Goldkuhl, 2012). Because of this, researchers should not be divorced from the subject of their investigation; instead, they should collaborate to develop findings that are mutually reinforcing within the framework of the circumstances that inform the research (Krauss, 2005). Interpretivist scholars employ techniques that help researchers to comprehend social events from the viewpoints of individuals rather than using rigorous scientific approaches that yield numerical and measurable data (Creswell, 2009). According to Nudzor (2009) and Scotland (2012), interpretivist methodology focuses on thoroughly examining a limited number of cases using verbal descriptions and explanations that explicitly interpret the meanings and purposes of human acts. For example, a sample is chosen to offer rich information about the topic being studied, not necessarily to reflect the entire population. Key data gathering techniques in interpretivist research that typically produces qualitative data include discourses, open-ended surveys, in-depth and focus group interviews, open-ended observations, text messages, and questionnaires (Scotland, 2012). Understanding of behaviours and actions from the perspectives of various individuals is obtained through the interpretation of this data. The interpretivist paradigm largely dominates qualitative research. Since qualitative research is part of the mixed methods research approach used in this study, interpretivism applies as a research paradigm in this project but it is imbedded into the main paradigm of this research which is pragmatism.

4.1.3 Transformative paradigm

The transformative paradigm, also known as the critical paradigm, proposes both changing and understanding reality, usually with a defined political objective in mind. It begins a new conflict

with positivism and interpretivism by evaluating the two previously discussed paradigms as being excessively technical. The schools of thought that utilise the critical paradigm are critical theory, postmodernism, post-structuralism, feminist theory, postcolonial theory, queer theory, critical race theory, critical ethnography, and critical pedagogy (Mertens, 2016). According to Mertens (2016), the critical/transformative paradigm is distinguished by giving attention to the circumstances and way of life of disadvantaged individuals, such as women and the impoverished. This study does not fall into the category of investigating the lives of marginalised groups and thus the transformative paradigm does not fit it.

4.1.4 Pragmatism

To investigate the utilisation of ICTs in ESL teaching and learning in rural secondary schools in Zimbabwe, this study embraced a pragmatism-driven philosophical worldview. Pragmatism incorporates positivism and interpretivism which were shown earlier to be different from each other (Creswell & Poth, 2016; Creswell & Plano Clark, 2018; Teddlie et al., 2021). As a result, it is deemed the most suitable research paradigm for this study. Pragmatism works well in mixed methods research since it minimises the discrepancies between positivism and interpretivism while maximising the strengths of each paradigm. With pragmatism, a researcher can employ a variety of data collection tools and integrate qualitative and quantitative methodologies. The pragmatist research paradigm allowed me to use both the quantitative and qualitative data analysis processes in this research. According to Shannon-Baker (2016), when academics search for what is significant in data from both a positivist and constructivist perspective, they employ a pragmatist paradigm that blurs the lines between the two.

According to Bryman (2012), pragmatism, like any other research paradigm, offers a philosophical foundation for research that grants individual researchers' freedom to select the methodologies, strategies, and processes that best suit their study's goals and requirements. I, therefore, opted for this paradigm to experience the freedom of non-restriction to using one research approach; it made it feasible for me to extract maximum value from the data gathering procedure to address the research questions I had about the application of ICTs in ESL teaching and learning in Zimbabwe's rural secondary schools. Pragmatists do not believe that the world is an absolute unity. In the same vein, researchers using the mixed methods research approach employ a variety of techniques for

gathering and analysing data, instead of sticking to just one (for example, qualitative or quantitative). The truth is based on what functions now rather than on a distinction between reality existing inside or outside of the mind. According to Creswell and Plano Clark (2018), a pragmatist perspective has it that the truth is derived from consequences. Thus, pragmatist researchers are not bound to adhere to any one paradigm or approach; rather, they are free to select the methodologies or procedures that best suit their requirements and objectives (Creswell & Plano Clark, 2018).

Based on the anticipated outcomes of their desired direction, pragmatist researchers focus on the 'what' and 'how' of their study (Creswell, 2012). Researchers using mixed methods justify why they are blending quantitative and qualitative data in the first place and provide a purpose for doing so (Hitchcock et al., 2022; Johnson & Onwuegbuzie, 2007). According to Teddlie and Tashakkori (2010), pragmatism is regarded as the philosophical belief that offers the foundation for mixed methods approach. My research adopts a mixed method approach, which ultimately results in the choice of data collection techniques that suit this method and the aims to be reached. The pragmatist view permits the combination of techniques to acquire data, for the purpose of the study to be realised. Pragmatism, in its most basic form, focuses on a practical approach to a problem, and several researchers concur that it is closely related to the mixed methods research approach (Bazeley, 2010; Teddlie, & Tashakkori, 2020).

When it comes to technique, the pragmatist approach permits the presence of both objective and subjective points of view (Teddlie & Tashakkori, 2020). Depending on whether participants are taking part in the qualitative or quantitative section of the study, the researcher using mixed methods research may also decide to approach the subject from an objective or subjective standpoint. Brierley (2017) notes that a mixed methods approach, which integrates qualitative and quantitative data to address research issues, allows a researcher to triangulate the results from the various data collection tools used in a study.

4.2 RESEARCH APPROACH

A method of research is defined as the process of gathering, evaluating and interpreting data to comprehend a phenomenon. It is a comprehensive research process that encompasses all stages of the conceptualisation of a project, execution of the methodology, and interpretation of the findings;

it proceeds from developing the research questions to advancing the study's conclusions (Plano Clark & Ivankova, 2016). The three most common types of research approaches are mixed methods, quantitative, and qualitative. Bryman (2016) asserts that the quantitative research approach typically gathers numerical data, and it demonstrates the deductive character of the relationship between theory and investigation. By contrast, finding meaning in the participants' responses is the aim of qualitative research; numerical measurements and other experimental activities are avoided (Bryman, 2016). Qualitative research highlights the social relevance of concepts as seen by the participants and facilitates comprehension of the relationships between variables (Bryman, 2016). A mixed methods approach, on the other hand, is a method that collects and analyses data using both qualitative and quantitative techniques. Plano Clark and Ivankova (2016) define a mixed methods approach as a kind of methodology where researchers blend quantitative and qualitative techniques in specific ways to achieve a study's purpose.

The decision I took to use a mixed methods approach for my study was because this approach gave me the opportunity to gather data from many sources using methods that balanced the benefits and drawbacks of quantitative and qualitative approaches. As mentioned earlier, this study follows the pragmatism paradigm which was chosen because it allows for the combination of research methodologies and enables the selection of the most relevant ways to solve the issue under investigation (Bryman, 2016). In using a mixed methods research approach, I was better positioned to organise my ideas in terms of the sequence in which the quantitative and qualitative elements are used.

After qualitative and quantitative research, mixed methods inquiry is acknowledged as the third primary research strategy. It is situated in the middle of the two opposing camps of positivism and interpretivism to draw from the knowledge of both perspectives and find a workable solution to a variety of intriguing research problems (Fetters, 2020). This third research approach was created as a challenge to the binary traditions of qualitative and quantitative research, according to Teddlie and Tashakkori (2020). Philosophical assumptions are involved, which methodologically govern the course of data collection and analysis. This is in addition to permitting the blending of qualitative and quantitative methodologies in different stages of the research process (Creswell & Plano Clark, 2018). Thus, mixed methods approach is defined as the procedure of gathering,

evaluating, and combining quantitative and qualitative data for a set of studies or a single study. Its central claim is that qualitative and quantitative approaches in combination offer a deeper comprehension of a study's phenomenon than does one methodology by itself (Teddlie & Tashakkori, 2020). Since both methodologies have drawbacks and should be utilised in tandem to offset each other's shortcomings, qualitative and quantitative data are combined to prevent bias (Hitchcock et al., 2022). In addition, mixed techniques are thought to improve a study's validity and trustworthiness (McMillan & Schumacher, 2010).

The rationale behind integrating both research methodologies in this study is the presumption that neither a qualitative nor a quantitative strategy on its own is adequate. From the view of Teddlie and Tashakkori (2020, combining qualitative and quantitative methodologies throughout the information gathering stage facilitates a deeper comprehension of the subject being studied. The truth about the real world is not always found by using a single research approach, which is why this study combined quantitative and qualitative methodologies. The purpose was to gain a more comprehensive understanding and enhance the possibility of delivering accurate responses to the research questions given by the study about the incorporation of ICTs in ESL instruction and learning in secondary schools located in the rural areas of Zimbabwe. Consequently, a variety of information sources were used for a thorough examination of the phenomenon under study (Chaumba, 2012; Ngulube, 2022).

Furthermore, a more effective and sophisticated conclusion is produced when the findings of one method are utilised to inform or explain the findings of another method (Plano Clark & Ivankova, 2016). In this instance, the problem is investigated using both quantitative and qualitative methods, and the findings of each approach are synthesised in the discussion. Certain research findings may occasionally require more explanations from a different methodology (Migiro & Magangi, 2011). Another advantage of combining qualitative and quantitative research is the ease with which triangulation can be achieved. Hitchcock et al. (2022) define triangulation as the application of several methods to investigate a single problem. Hitchcock et al. (2022) further distinguish between within-methods triangulation and between-methods triangulation, stating that combining and using both qualitative and quantitative methodologies to analyse the same phenomenon is known as between-method triangulation or across-method triangulation. By contrast, within-

methods triangulation entails cross-referencing for internal consistency. When using a within-methods form of triangulation, data collection and analysis are carried out using numerous complementing approaches that are all part of the same unique paradigm. When a researcher uses a variety of techniques within the qualitative or quantitative paradigm to boost the internal credibility of the study's findings, this is evident. Fauser (2018) is of the view that in mixed methods research, it is the between-methods triangulation that makes it easier to compare qualitative and quantitative data sets to provide results that are well-validated. A researcher can gain confidence when both forms of triangulation are used as one can even go further to reconcile outcomes where there is divergence, by comparing, for instance, statistical results from a quantitative survey with theme results from qualitative interviews (Plano Clark & Ivankova, 2016).

However, one disadvantage of the mixed methods approach, according to Johnson and Onwuegbuzie (2004), is that it costs more money and takes more time than using a single research technique. Additionally, using both quantitative and qualitative approaches results in contemporaneous data collection, making it difficult for a single researcher to undertake both kinds of research. One further drawback of mixed methods inquiry is that it requires a researcher to possess the knowledge and skills required to comprehend various approaches and be able to combine them suitably (McKim, 2017; McMillan & Schumacher, 2010). In this study, these constraints were considered when developing research questions and assessing the body of literature to determine which mixed methods approach best addressed the research issue being studied.

4.3 RESEARCH DESIGN

A well-planned research design ensures that all its elements complement the study in question. "A vehicle for all the issues involved in planning and implementing a research project, from identifying the results to reporting and publishing results" is how Punch (2013, p.62) describes a research design. This definition makes it obvious that a thorough strategy, including the procedures and techniques involved, is required to show how the research is to be carried out. Similarly, Bless et al. (2006) define the design of a research study as a set of steps to be taken to test a certain hypothesis in a particular situation.

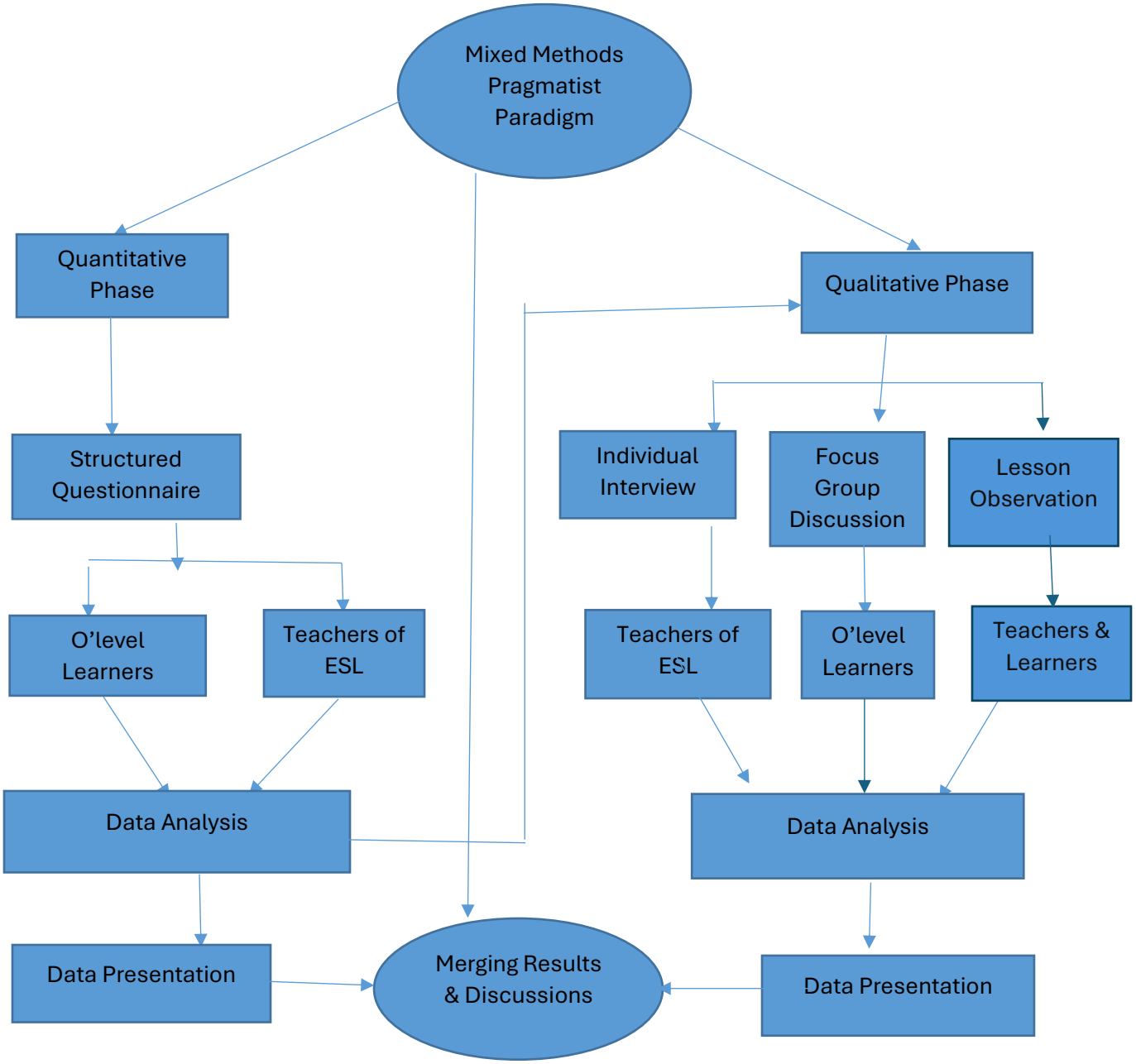
There are four types of research designs in the mixed methods research approach. One of them is the convergent parallel research design, which gathers and evaluates both quantitative and qualitative data simultaneously (Almalki, 2016). The second type is known as the embedded research design. In this research design, one type of data is subordinate to the other (Creswell & Creswell, 2018). The explanatory sequential design is the next kind of research design. It involves gathering and analysing quantitative data initially, followed by the collection and analysis of qualitative data (Creswell & Creswell, 2018). The fourth type, which is the exploratory sequential design, requires gathering and analysing of qualitative data first, then the quantitative data gathering and analysis follows (Creswell & Creswell, 2018). If the researcher believes that the quantitative data will support or validate the qualitative findings, the research will be carried out in this way (Creswell & Creswell, 2018).

This study utilised an explanatory sequential design of inquiry. The two-phase mixed methods design known as explanatory sequential design allows for the incremental gathering of both quantitative and qualitative data over two stages (Teddlie, & Tashakkori, 2020). Prior to gathering and analysing qualitative data, quantitative data must first be collected and analysed (Creswell & Creswell, 2018; Subedi, 2016). In this design, quantitative information may be used to inform sample selection for the ensuing qualitative phase. In order to identify key topics for the gathering of qualitative data, researchers that utilise the explanatory sequential design first gather and analyse quantitative numerical data (Teddlie, & Tashakkori, 2020; Almalki, 2016). The second step of the procedure involves generating and analysing qualitative data to clarify or support the quantitative conclusions from the previous stage. The explanatory sequential mixed methods design ultimately aims to establish connections or linkages between variables and offer justifications for these relationships.

The current study's quantitative and qualitative stages were arranged in a sequential manner, and data collection and analysis procedures were done independently. The quantitative phase, which sought to identify the ICT tools being used by facilitators and learners in ESL instruction in rural secondary schools, focused on producing numerical data. Additionally, it noted the challenges that teachers and learners faced while utilising ICT resources in ESL teaching and learning. Three English teachers (one male and two females) and 120 O'level learners (57 males and 63 females)

were given questionnaires to complete. The purpose of this phase was to give a general overview of the ICTs that were utilised for ESL instructional and learning activities in secondary schools by both instructors and learners. The basis for the subsequent qualitative phase was established by the analysis of the quantitative data. The qualitative stage of the study used interviews, focus group discussions and classroom observations to generate data on how ESL teachers and learners in secondary schools located in rural areas in Zimbabwe utilised ICTs in teaching and learning reading, writing, speaking and listening skills, the challenges they encountered in the process, and the strategies they resorted to as a means of mitigating these challenges. The explanatory sequential design utilised in this mixed methods inquiry is depicted in the procedural diagram below.

Figure 4.1: Flow chat for investigating the use of ICTs in the teaching and learning of ESL in rural secondary schools of Matabeleland North Province, Zimbabwe



The flow chart presented in Figure 4.1 above demonstrates the sequential organisation of the quantitative and qualitative stages of gathering data and the separate analysis of the obtained data.

Both phases sought to answer the four research questions, using numerical data in phase one and qualitative data in phase two.

4.3.1 The quantitative phase

Teachers and learners from secondary schools in rural Bubi District of Zimbabwe's Matabeleland North Province provided the quantitative data, which was gathered using questionnaires. The structured questionnaires were utilised to collect quantitative information from O'level ESL learners and English teachers. To obtain the statistical data for the quantitative phase, I had to think about the population under investigation, the sample, the instruments for gathering data, and the procedures for gathering and analysing data.

4.3.1.1 Population of the study

People with related qualities frequently make up a study's population (Creswell, 2014; Zhou, 2022). McMillan and Schumacher (2010) define population as a collection of illustrations and objects, such as people, things or events, that satisfy specific criteria and are meant to serve as a foundation for extrapolating the research's conclusions. The Bubi District is home to 18 rural secondary schools (*The Sunday News*, 2024) which consist of 720 O'level learners, as well as 24 secondary school English teachers who teach ESL. In this quantitative phase of the study, all O'level learners in the 18 rural secondary schools who were taking ESL, as well as the teachers who were teaching ESL, constituted the population of interest. It is from this population that the sample of participants was derived.

4.3.1.2 Sample size and sampling strategy

McMillan and Schumacher (2010) define a sample as a collection of people or participants from which data are gathered. Either the non-probability sampling or the probability sampling technique can be used to choose the sample. According to Cohen et al. (2011), probability sampling is the procedure for selecting a portion of the population at random in order to provide each element an equal chance of being represented in a sample. Seeking representativeness of the larger population from which results can be extrapolated is the aim of this sampling approach. This sampling approach has four sub-methods: simple random sampling, systematic sampling, stratified sampling and cluster sampling (Teddlie & Tashakkori, 2020; Teddlie & Yu, 2007). While simple random

sampling, stratified sampling and cluster sampling may all make use of a random number table, the systematic sampling technique uses a sample frame only (Teddlie & Tashakkori, 2020; Cohen et al., 2011; Cresswell, 2014). Nevertheless, all four sub-methods are united in their quest for representativeness of the population under study.

Conversely, non-probability sampling comprises the deliberate selection of situations, individuals, places, or events to obtain crucial information that cannot be obtained as successfully from alternative possibilities (Creswell & Poth, 2016; Teddlie & Yu, 2007). Individuals are chosen to participate in the research based on their ability to supply pertinent data (Fetters, 2020). The non-probability sampling method equally has four sub-methods: convenience sampling, judgmental sampling, quota sampling and snowball sampling (Fetters, 2020; Teddlie & Yu, 2007). While each of these sub-methods is distinct from the other, they are all united by the deliberateness involved in the choosing of the research participants.

In the present study, a non-probability sampling approach was employed. A non-probability sampling method was deemed suitable because it is typically used in situations where the study population is heterogenous (Cohen et al., 2011; Cresswell, 2014). Although the population of my study consisted of only rural dwellers, each school had its own dynamics of rurality, as shall be shown in the data analysis in the next chapter. My specific non-probability sampling sub-method was convenience sampling. Convenience sampling is an approach used to select participants for a study based on their ease of accessibility and willingness to participate in the study (Teddlie & Tashakkori, 2020; Teddlie & Yu, 2007). Thus, three rural secondary schools were conveniently selected out of the 18 rural schools in the Bubi District, along with 120 O'level learners taking ESL and three ESL teachers. I selected these schools because I could easily access them since they were shorter distances away from my location, and because the teachers were willing to participate in my study as I had also been a teacher in these areas. Each of the three selected secondary schools had a Form 4 ESL class which consisted of 40 learners. The Form 4 ESL class was conveniently selected because it was the only class doing ESL at O'level in each selected rural secondary school. Selecting a class of 40 learners from each rural secondary school gave a total of 120 learner participants for the quantitative phase. The O'level learners were being taught ESL by a teacher in each of the three secondary schools. The three secondary schools that were selected were situated

in the rural, agricultural areas on the Eastern side of Bubi District in the Zimbabwean province of Matabeleland North. Form 4 secondary schooling is provided by the schools in these areas. More than 700 learners were enrolled in School A, while more than 400 learners were enrolled in Schools B and C each. The distance between School A and School B was 42km, between School B and School C 32km, and between School A and C 25km. School B was located to the North of School A, as was School C. The three secondary schools that were selected were all electrified at the time of the study and used ICTs in teaching their curriculum. A large proportion of the learners came from rural families that did farming for subsistence. The native languages of the learners and staff in all the secondary schools were ChiShona and IsiNdebele. English was spoken as a second language. I collaborated with the three teachers and all 120 O'level learners from the selected schools to gather quantitative data for my project.

4.3.1.3 Structured questionnaires

According to Rowley (2014), a questionnaire is a document that contains several closed-ended and open-ended questions that research participants are asked to answer. Thus, it is a tool that requires written responses from respondents and presents information to them in writing. Furthermore, Rowley (2014) is of the opinion that questionnaires can be used to gather quantitative data regarding facts, views, attitudes, beliefs, and behaviours. Using structured questionnaires for both learners and teachers, I gathered statistical data on the utilisation of ICTs in ESL instruction in rural secondary schools during the quantitative phase of data collecting.

The questionnaire for teachers was distributed to all three teachers on the day of the first meeting with each teacher participant. There were four sections (Sections A–D) on the teacher questionnaire. The teachers' demographic information was the main topic of Section A. It was concerned with the teachers' ages, backgrounds, and total number of years spent teaching. Section B focused on understanding the teachers' conception of using ICTs in teaching ESL. It also sought information on the developmental activities the teachers had engaged in on ICT use in ESL instruction. The benefits of integrating ICTs into ESL instruction in rural secondary schools was the subject of Section C. It was concerned with the advantages of using ICTs in ESL instruction. The difficulties in incorporating ICTs into ESL instruction were the subject of the questionnaire's

concluding Section D. In addition, this section aimed to check if the teachers were aware of every ICT resource in their immediate environment.

On the other hand, the learners' questionnaire was divided into six sections (Sections A–F). In Section A, learners were questioned about their age and gender to gather demographic data. How frequently teachers employed ICTs for ESL instruction was the subject of Section B. The goal of this was to gather additional data about the ICTs that were used in schools for instruction and learning, as well as the resources that were available. In Section C, the usage of ICTs in ESL classes was assessed. The respondents were questioned in Section D about the assistance they were receiving from teachers in implementing ICTs in ESL classes. The ICT tools that learners frequently used to learn ESL were the subject of Section E. The final component in Section F examined how learners perceived the ICT usage in ESL instructional activities. The study's four research questions and objectives were addressed quantitatively by the data gathered from these questionnaires. I made the decision to employ structured questionnaires for the study's quantitative phase based on the large sample size, the ease of administering closed questions to many respondents, and considering their faster completion and analysis as compared to open-ended questionnaires.

4.3.1.4 Quantitative data collection

The questionnaire was designed to be as detailed as possible for each respondent and to be filled in quickly. English language was used in its development as the participants could read and write English. Each questionnaire was given with a covering letter that informed the respondent about the goals of the study and asked for the respondent's help in achieving these goals, by filling out the questionnaire. To encourage more responses, all respondents were assured of their anonymity, confidentiality, and non-traceability prior to filling out the questionnaire (Ngulube, 2022; Cohen et al., 2011).

To maximise the likelihood of receiving a high percentage of responses for this study, I personally administered the questionnaires to the O'level learners and teachers on the same day for each selected school, since the schools were not too far from each other. According to Ngulube (2022), this approach is more effective and desirable for obtaining a high return rate because the

participants have the researcher there to clarify any questions that may be ambiguous, or which may lead to irrelevant responses or omission of certain sections on the questionnaire. Recognising this benefit, I gave the questionnaires to the teachers and learners at each selected rural secondary school and explained the process for filling them out. The questionnaire was filled within thirty minutes by both teachers and learners in each class. To prevent responses from being returned to someone else, I personally collected all 123 completed questionnaires soon after the three teachers and 120 learners had filled them in. This consequently enabled me to analyse the information, as is discussed below.

4.3.1.5 Quantitative data analysis

Mathiyazhagan and Nandan (2010) view the goal of data analysis in research as coming up with answers to research questions and summarising data, so that they are comprehended. To achieve this purpose, I used version 23 of the Statistical Package for the Social Science (SPSS) programme to analyse the collected data. Before the collected data was analysed, a few preparatory measures were taken to facilitate data entry and analysis, thereby ensuring that the SPSS programme was used maximally. First, I went over each completed questionnaire individually to make sure it had been fully completed by each respondent. Subsequently, each questionnaire was coded and numbered, and the data was input into the SPSS programme. Before the analysis began on SPSS, I thoroughly examined the collected data to check for any errors or omissions that could have happened during the data entry procedure. SPSS statistical techniques from descriptive statistics in the SPSS programme were used to analyse the data. These SPSS statistical techniques made it easier for me to deduce means and standard deviations and show how much ICTs were being used for teaching and learning ESL in rural secondary schools in Zimbabwe.

4.3.2 The qualitative phase

A mixed method approach, as earlier stated, was used in this study, with data collected in two sequential phases. The qualitative phase was carried out after the quantitative phase to provide qualitative answers to the study's research questions. Focus group discussions, semi-structured interviews and classroom observations were employed to gather qualitative data in this second phase.

4.3.2.1 Population of the study

The population for this phase was the same as the one that was described in the quantitative phase. The 720 O'level learners studying ESL and the 24 teachers in the 18 secondary schools in the Bubi District of Matabeleland North Province in Zimbabwe were the population of interest in this study.

4.3.2.2 Sampling strategy

Again, convenience sampling was used to identify the study's participants. Convenience sampling can be explained as a non-probability sampling technique in which the units chosen for the sample are the ones that the researcher can access the quickest. I found it convenient to use a certain group of people as participants. According to McMillan and Schumacher (2010), convenience sampling limits the generalisability of the results of the study. However, they add that this does not imply that the results are useless; only that generalisation should be made with caution (McMillan & Schumacher, 2010). I employed convenience sampling in this phase of the study because it enabled me to choose participants who had characteristics that were pertinent to the investigation of how ICTs were used in ESL instruction in rural secondary schools.

Thirty learners (ten learners from each of the three specified rural secondary schools) taking O'level ESL, along with three teachers who were also teaching ESL, made up the convenient sample employed in the qualitative stage of this research. To gain insights into how ICT use influences speaking, listening, reading and writing abilities in ESL teaching situations in secondary schools situated in rural areas in Zimbabwe, I conducted focus group discussions with the 30 learners. These learners were an essential source of information because they were especially selected by the teachers to take part in this qualitative phase, as they were familiar with using ICTs in learning ESL. The three carefully chosen teachers discussed their experiences in using ICTs to teach ESL, as well as the barriers they encountered and how they resolved them. I had one-on-one interviews with each teacher and recorded their answers on audio. I also had four lesson observations of the learners and their teachers while they were engaging in ESL learning and teaching, as this was an equally excellent source of information.

The three ESL teachers were willing to be part of the study since it revolved around their experiences of teaching the ESL subject at O'level, and they were the only ones teaching it in the

three selected rural schools. The instructors were also chosen because they were implementing the decisions made by the MoPSE, by integrating ICTs in their interactions with learners in the ESL classroom. Gaining a deeper understanding of how ICTs were being utilised to teach ESL in rural secondary schools was made possible by the valuable input that was provided by these teachers.

4.3.2.3 Interviews

In qualitative research, interviews are regarded as a primary means of gathering data that helps researchers gain a comprehensive grasp of the issue under study (Anyan, 2013). They make it possible for the interviewer and the interviewee to engage with one another and collaboratively generate the knowledge, interpretations, and stories required to comprehend the subject matter more fully.

Interviews allow both the interviewer and the interviewee to freely interact and to provide explanations or ask clarifications with the purpose of gathering or providing correct information, in contrast to structured questionnaires where a responder provides information in a specifically given way (Cohen et al., 2011). Furthermore, as is the case in this study, the data acquired during the interviews was helpful in elaborating on the themes that emerged from the questionnaires. Three teachers who were teaching ESL in three separate rural secondary schools were selected for individual interviews to find out more about their preparation and use of ICTs to teach English in those settings. Three focus group interviews with learners were carried out to enable me generate information on how the learners perceived and benefited in using ICTs to learn ESL. Each focus group interview had 10 learners selected from each participating class of the participating school.

Finding out what someone thinks or feels about something is the main goal of conducting an interview (Fraenkel et al., 2012). The advantage of conducting interviews is that they provide researchers with access to data that would be impossible to obtain through other means, such as observation and questionnaire. According to Cohen et al. (2011), there are various types of interviews: formal ones where predetermined questions are asked and the responses are documented on a standardised schedule; less formal ones where the interviewer is free to rearrange the questions, change their phrasing, add to, or clarify them; and the completely informal ones where the interviewer may bring up several important topics in a conversational manner. Stated

differently, the nature of interviews might be semi-structured, structured, or unstructured. In the second part of the study, semi-structured interviews were found to be the most suitable and effective of the three interview techniques for answering the research questions. Semi-structured interviews, according to Fox (2009), entail the interviewer or researcher preparing ahead of time the major topics, issues, and questions to be addressed. To probe deeper into the interviewee's responses, the researcher is free to modify the questions, reword them, and ask follow-up questions in this type of interview (Cohen et al., 2011). Therefore, I decided to employ semi-structured interviews for both the learner focus group discussions and the teacher individual interviews since they gave me the chance to properly prepare some questions relating to the research objectives of the study while allowing me room to probe interviewees for elaboration on their viewpoints on the use of ICTs.

4.3.2.4. Conducting the interviews

There are various methods to conduct interviews, such as in-person, over the telephone, via email, or via websites (Bolderston, 2012). I had in-person individual interviews with teachers and in-person focus group interviews with learners on 20 March 2024 for School A, 22 March 2024 for School B, and 24 March 2024 for School C. The interviews with both teachers and learners were carried out in the afternoons after school lessons were done for the day.

The School Heads introduced me to the ESL school teachers when I visited each selected school, and this allowed me to carry out my investigations. After providing an explanation of the interview's objectives, the interview process, and the reasons for the participants' selection, I conducted the teacher interviews in the teachers' offices as this was pre-arranged. I audio-recorded the teachers' interviews and was able to communicate openly with each teacher interviewee. I also took notes about their non-verbal indicators, including body language and facial expressions, as they showed their disapproval or approval of how they used ICTs in teaching ESL. This allowed me to probe further into areas under discussion. The individual interviews for teachers took about 45 minutes for each session.

For the focus group interviews, I arranged with teacher participants on the time and location of the focus group discussions of each school and the teachers assisted me to select a group of ten learners

from their classes. The learners were ready for the focus group interviews soon after I had interviewed their teachers. I conducted the focus group discussions in classrooms that were provided by the schools. All of the focus group interviews took place on the school premises and took about an hour per session. In order to build and maintain a positive relationship with those who participated, I made a point of introducing myself to each group before the interview, explaining the goals of the focus group interview, the interview procedure, and the rationale behind the participants' selection. This gave me the chance to reassure them of their privacy while I asked for their permission to interview them and to record the information they gave on tape. To conduct the interviews, I made use of an interview guide. I also took notes on areas which I wanted to probe further on the utilisation of ICTs in ESL instructional activities in the schools. Every participant expressed their opinions openly using the English language, without fear of making grammatical errors as I had clearly provided room for all the research participants to share their views without any fear. I thanked each participant at the end of the focus group interview for their time and for their contributions to the research.

4.3.2.5 Interview data analysis

The next step was to analyse the data gathered through the individual interviews and focus group discussions. Reducing the number of interviews to a manageable level and creating categories and themes that could be interpreted to offer explanations for the issue being investigated are key components of the data analysis process (Zhou, 2022). The sample size had been carefully selected to provide the necessary data to meet the four research objectives of the study, so I did not need to decrease the number of interviews. Based on the goals of the research, a thematic approach was used to analyse the interview data. A set of techniques for analysing data to identify themes that are crucial to understanding the phenomenon under study is referred to as a thematic analysis approach (Gale et al., 2013; Zhou, 2022). Through a thematic analysis of the contents of the collected data, I identified key themes in the data, their connections to one another, and the extent to which they were addressing the study's research questions. The process of thematic data analysis involves breaking down the data into smaller components, categorising them based on their meanings, and examining their connections (Ibrahim, 2012).

I had to transcribe the tape-recorded focus group discussions and interviews before I could begin the data analysis. Since coding the data is an excellent way to start getting to know the obtained data, it is a crucial step in the data analysis process (Maguire & Delahunt, 2017). Thus, the process of transcribing focus group discussions and interviews helped me pay close attention to the information and to develop a thorough grasp of the major ideas that surfaced throughout the research process.

Following the transcription of the focus group discussions and interview transcripts, I created the first set of codes. Each participant's interview transcript was meticulously read and scrutinised word for word to fully capture the conversation. This process was carried out manually. In a thematic analysis, reading the data several times is the best way to start identifying the connections between the participants' viewpoints and the themes that could emerge from those perspectives (Maguire & Delahunt, 2017). Each interviewee's response underwent unique coding. I underlined important concepts throughout the text with coloured pens and highlighters, and I wrote down the corresponding codes in the page's right margin.

Following the availability of codes for each participant's interview data on each topic, I compared the perspectives of the participants both within and between this study's chosen schools. I then categorised the codes into possible themes with comparable meanings. Each theme was assigned a name that would serve as a representation of the primary concepts that emerged from the data.

4.3.2.6 Observation data collection and analysis

Yin (2012) defines observation as a method intended to concentrate attention on human behaviour, the physical surroundings, or actual occurrences. Thus, it is a methodological procedure to document the items, events, and participants' behavioural patterns in a study without necessarily asking the participants questions or getting in touch with them (Nieuwenhuis, 2016). I avoided prejudice by adhering to ethical principles, even though there were repercussions associated with both overt and covert observer positions. The fear here was that the observed participant's behaviour would change if they knew their actions were being observed and recorded for analysis (Fox, 2017; Giles, 2017). However, I told the participants that I was observing as a non-participant observer, out of ethical considerations.

Observing participants in their classrooms during ESL lessons took place on 18 June 2024 for School A, 19 June 2024 for School B, and 20 June 2024 for School C. I observed two lessons for School A, one in the morning and the other in the afternoon. I could not get the chance to observe two lessons for schools B and C because the observations happened at a time when learners were writing their June public national examinations; as such, I could not disturb their preparations for these critical examinations. In all, I observed four ESL lessons in the three schools but did not take part in the activities that were being carried out.

I introduced myself to the class at the start of each observation, asking learners to feel at ease and free to participate as if I were not there, so as to maximise the validity of the data that I was gathering. I went on to say that I was interested in the innovative ICT instructional activities their teachers were using and that I wanted to take something away from the experience. While this appeared to be effective in most situations, allowing the participants to exhibit their typical behaviour, one teacher expressed dissatisfaction, stating that learners were more reserved and needed encouragement to engage effectively in the ESL lessons.

My observation approach aligns with Kumar's understanding that a researcher who does not participate in the group's activities but instead observes and listens to the goings-on and draws conclusions from them is a non-participant observer (Kumar, 2014). One advantage of the study's use of observation was that it provided accurate and comprehensive information about how ICTs were used for teaching (Bernard et al., 2016). These variables yielded incredibly deep information on individual motivations and behaviours in the ESL classroom. This method's drawback was that every participant knew I was watching them from a distance, and this could have made them self-conscious as not to act naturally.

Data from the lesson observations was analysed using the descriptive analysis approach. Descriptive data analysis is a form of analysis that describes, illustrates, or helpfully summarises data through words and language, providing a detailed account of the gathered information (Wertz, 2014). I chose this form of analysis because it allowed me to describe in detail and interpret

reflectively the information that was collected in each school, thus enabling me to uncover patterns and nuances within the data sets.

4.4 VALIDITY AND RELIABILITY

Validity in research, according to Mathiyazhagan and Nandan (2010), is the extent to which a study measures or investigates what it is supposed to measure or investigate. According to Bernard (2006), the reliability and correctness of research tools, data, and conclusions are referred to as validity. Therefore, accuracy of the measurement is related to validity. Validity demonstrates how a specific test is appropriate in a specific circumstance. The study is valid if the findings confirm the researcher's position, rationale, and forecast (Cohen et al., 2011). Conversely, consistency of a question, or the likelihood of getting comparable responses if the question is asked again, is what is meant by reliability (Mohajan, 2017). Stated differently, a study is considered reliable if it yields consistent and stable results when a researcher conducts multiple studies of the same phenomenon utilising the same research tools and a similar setting (Cohen et al., 2011). Drost (2011) defines reliability as the degree to which measurements may be reproduced by more than one person under various circumstances, on different occasions, and purportedly using different tools that assess the same construct or skill. In other words, the design of the data collecting tools, or research instruments, guarantees the validity of the study's findings and makes it possible to assess the intended construct with precision. This significantly improves the study's validity and reliability, especially if the study is to be repeated by other researchers under the same settings or using different tools to measure the same construct. However, many factors can affect the validity and reliability of a mixed methods research project, which can lead to erroneous and misleading conclusions and findings. These hazards include the researcher's bias, defective equipment, a limited or biased sample, and an inability to connect empirical findings with the generally accepted theory.

For this study, several things were done to ensure reliability and validity. In the individual semi-structured interviews with teachers, I used a few open-ended questions to encourage candid expression of their perspectives. Before starting the interviews, I conducted a pilot test with a small sample of one instructor (for the individual interviews) and a few learners (for the focus group discussions) to ensure that the interview questions were consistent and relevant in terms of content,

and that they allowed participants to respond reflectively. I captured every response that was given on audio recorder while conducting the interviews as this device allowed me to rewind the recordings, stop and take notes along the way, and let the interviewees cross-check their recorded responses to make any necessary edits. To encourage respondents to provide the study with adequate and trustworthy information, I built and maintained a strong rapport with them, as recommended by Fraenkel et al. (2012). Triangulation was another method used to ensure the reliability and validity of the qualitative data in the study. Cohen et al. (2011) define triangulation as the utilisation of two or more data gathering methods in a study to yield results that the researcher is confident in. Thus, for the qualitative phase, I used three different data collection tools – individual interviews, focus group interviews and lesson observations – to ensure that the data collected can comprehensively answer the study's research questions. Triangulation enabled me to eliminate uncertainty about my findings, which was likely to happen if I had used only one instrument for data collection.

4.5 ETHICAL CONSIDERATIONS

Four fundamental concepts underpin ethical considerations in research, according to McMillan and Schumacher (2010), and these are deception, informed consent, privacy and secrecy, and protection from harm. Research ethics, according to Oates et al. (2010), are the moral precepts that direct a study from the beginning to the end and up until the findings are published. When recruiting people for a study, it is imperative to consider their safety and rights (Lazar et al., 2010). In addition to receiving guarantees of privacy regarding their personal data and instructions on how to withdraw from the study if they so choose, individuals should be provided with enough information to allow them to make decisions wisely on how to take part in the study (Lazar et al., 2010). Numerous ethical concerns are addressed by research ethics, which a researcher must consider (Fouka & Mantzorou, 2011; Zhou, 2022). These concerns include confidentiality, anonymity, informed consent, and the right to withdraw.

4.5.1 Confidentiality

Participants' right to privacy in this study was upheld by guarantees of the confidentiality of the data they submitted. In terms of research ethics, confidentiality is defined as limiting access to participant-provided information and ensuring that it is not disclosed to unauthorised parties

(Cohen et al., 2011). Even if a researcher is aware of every individual who has contributed information during data collection, it is unethical for them to reveal this information in any way that could reveal the identity or tracking down of the information provider without that person's consent. Bolderston (2012) highlights that participants have a right to anticipate that their information will be treated in confidence and, if it is disclosed, will not be recognisable as theirs. To protect respondents from any injury or pain that may be caused by a breach of confidentiality during this inquiry, I promised all of them that the information they submitted would be utilised solely for the purpose of the research and that it would not be shared with anybody who is not directly involved in the study. A statement signed by me guaranteeing the privacy of information supplied was presented to each respondent (see Appendices). Throughout the research process, I made sure that the data collected could only be accessed by me by storing it in my password-protected computer. Besides my supervisors, no third party unrelated to the study could access the raw data.

4.5.2 Anonymity

Another ethical concern that must be addressed to safeguard research subjects from any harm either physically, psychologically or emotionally is anonymity. According to Anderson (2009), anonymity in research refers to preventing research participants' identities from being revealed. In a similar vein, anonymity is defined by McMillan and Schumacher (2010) as the state of not disclosing the identities of people or organisations involved in a research project. According to Cohen et al. (2011), this might only be achievable if a researcher uses codes, pseudonyms, and aliases for real identities. In the data collection, I reassured everyone that both their identities and affiliations of their educational institutions would remain private. To keep to this promise, I have used fictitious names and symbols in place of the real names of the schools, teachers and learners when reporting on the research. Thus, neither the questionnaires nor the interviews and observations reveal the identities of the respondents. Where photos have been used in this report to illustrate specific arguments, care has been taken to ensure that no learner or teacher's face is identifiably revealed; cropping, blurring, blotting out and face blocking are some techniques that have been used to maintain the anonymity of the study's participants. Similarly, the identity of the schools has been concealed through word blocking in the permission letters included in the appendices.

4. 5.3 Informed consent

The right of participants to consent to participation in research is protected by the ethical concept of informed consent in research. According to Bolderston (2012), informed consent is the process by which a volunteer agrees to take part in a study after being made aware of the steps, dangers, or benefits connected with it. Halai (2006) states that researchers must provide information to participants beforehand about important aspects of the study, including its purpose, risks and benefits; they must also have in their information letter to participants a clause stating that participation is voluntary. This allows participants to make an informed decision. By doing this, researchers make sure that respondents are not placed in situations where they are at risk of injury due to their participation (Fauka & Mantzorou, 2011).

Giving participants full information about a research project plays a crucial role in building trust between researchers and participants, and this helps to ensure that rich data can be obtained from the participants while minimising the chances of participants refusing to sign the consent form (Cohen et al., 2011). If participants are guaranteed confidentiality and anonymity and are provided with basic information about the research, participation is likely to increase.

The Ministry of Primary and Secondary Education in Zimbabwe gave me authorisation to conduct this research in secondary schools in the Bubi District, and the Wits Ethics Committee (Non-medical) provided me with an ethics clearance before the data collection for this project could begin. In compliance with ethical protocols, I apprised the participants of the character, goals, significance, and intent of my study, as well as their respective roles in it, prior to the data collection process. After receiving a formal letter, each participant completed a consent form or their parents completed assent forms if they were below 18 years of age, attesting to their willingness to engage in the study without fear of intimidation or coercion (see Appendices).

In School A, out of the 40 Form 4 learners, 34 learners aged between 15 and 17 years had their assent forms signed by their parents. Of the remaining 6 learners aged between 17 and 19 years, three were under 18 years and therefore also had their assent forms signed by their parents. The other three learners were above 18 years and thus signed their own consent forms. In total, 37

learners had assent forms signed by their parents in School A, while 3 learners signed consent forms. In School B, out of the 40 learners, 33 learners aged between 15 and 17 years had their assent forms signed by their parents. Of the remaining 7 learners who were aged between 17 and 19 years, four were under 18 years and therefore also had their assent forms signed by their parents. The three learners who were above 18 years signed their own consent forms. In total, 37 learners had assent forms signed by their parents in School B, while three signed consent forms. Lastly, in School C, out of the 40 learners, 35 learners aged between 15 and 17 years had their assent forms signed by their parents. Of the remaining five learners who were aged between 17 and 19 years, three were below 18 years and therefore also had their assent forms signed by their parents. The two learners who were above 18 years signed their own consent forms. In total, 38 learners had assent forms signed by their parents in school C, while two learners signed consent forms.

4.5.4 Right to withdraw

The ability to withdraw from research suggests that participants may decide to discontinue their involvement in the study at any time. According to Melham et al. (2014), everyone who chooses to participate in research has the freedom to stop at any moment and without facing any consequences. Before any data is gathered, researchers have an obligation to inform participants of their freedom to withdraw at any point while the study is underway. Therefore, every research participant in this study was made aware of their option of discontinuing their participation in the research and also informed that the use of any information obtained about them would only be done with their agreement. Participants in this study were told that it was completely a choice for them to participate and that they could choose not to answer any research questions that made them uncomfortable.

4.6 CHAPTER SUMMARY

This chapter's main goal was to provide a detailed overview of the methods used in the study on ICT utilisation for ESL instructional activities in secondary schools located in rural areas in Zimbabwe. As mentioned earlier, the study was carried out in three selected secondary schools located in the Bubi District of Zimbabwe's Matabeleland North Province. The research paradigm, research design, and research approach for this study have all been identified and explained in this chapter. The chapter has also covered the sampling strategies and choice of data collection

instruments for both the quantitative and qualitative phases which constitute the mixed methods approach of this research. In addition, the chapter has demonstrated that although thematic analysis was thought to be useful for analysing data from the qualitative phase, statistical analysis was discovered to be appropriate for assessing the data acquired in the quantitative phase. Issues around validity and reliability have been highlighted. The freedom to withdraw, privacy, anonymity, and informed consent were all crucial elements of the study's ethical compliance and have thus been discussed in this chapter. The presentation and analysis of the gathered data from the questionnaires used in the study's quantitative phase are presented in the upcoming chapter.

CHAPTER 5

DATA PRESENTATION AND ANALYSIS:

QUANTITATIVE PHASE

5.0 INTRODUCTION

Data presentation and analysis related to the data gathered in the quantitative stage of this research are covered in this chapter. As mentioned in Chapter 4, the questionnaires were employed as a means of gathering information about the ICT tools that are available for teaching ESL in Zimbabwe's rural secondary schools. An analysis of the data gathered from the completed questionnaires from all the participating learners and ESL instructors in the three selected schools is presented in this chapter. The findings here will answer the research questions of this research quantitatively and complete the quantitative phase of the analysis. Chapter 6 will answer the same questions qualitatively by presenting the data analysis from the teacher individual interviews, learner focus group interviews, and lesson observations. This division of the data analysis adheres to the sequential explanatory research design of the study, which stipulates that the qualitative data analysis cannot begin until the quantitative data analysis is finished, as explained in Chapter 4. As a reminder, three English teachers and 120 O'level learners from three rural secondary schools code-named School A, School B and School C contributed the quantitative data.

5.1 DATA ANALYSIS OF THE LEARNER QUESTIONNAIRE

The learner questionnaire comprised six sections, and the following data presentation format is determined by these sections. The questionnaire consisted of four choices: strongly disagree, disagree, agree, and strongly agree on a Likert scale. With the data acquired from the questionnaires, standard deviations, means, frequencies, and percentages were calculated. Using SPSS version 23, the responses from the 120 learners from the three selected schools were used to determine each variable's mean and standard deviation. To show the overall trend of learners' behaviours towards the utilisation of ICTs in learning ESL, descriptive statistical techniques were

used to compute the means (M) and standard deviations (SD). The standard deviation allowed me to see the diversity of responses on each question, and the mean was used to indicate a high or low degree of learners' utilisation of ICTs in learning ESL. In other words, a low standard deviation suggested that answer scores were concentrated around the mean, whereas a large standard deviation suggested that response variance was substantial. When a question's standard deviation was 0, it meant that every answer was the same.

The learner questionnaires had to be filled out by the learners in class. Should learner respondents have been allowed to take the questionnaires home, they may have copied one another's responses. When it was time to provide the questionnaires to the learners on the required dates, the three instructors in each of the selected schools helped me to distribute them. In all three classes, the teachers and learners completed the questionnaires in less than thirty minutes. The different sections of the questionnaire for both learners and teachers aimed to collect data to provide answers to the four research questions of this study. As a reminder, the research questions were as follows:

RQ1. Which ICT tools are available in rural secondary schools for the teaching and learning of ESL?

RQ2. How do ICTs assist in the teaching and learning of listening, speaking, reading and writing skills in ESL in Zimbabwean rural secondary schools?

RQ3. What are the constraints that teachers and learners experience in using ICTs in the teaching and learning of ESL in rural secondary schools?

RQ4. How do teachers and learners overcome the challenges they face in the use of ICTS in the teaching and learning of ESL in rural secondary schools?

The data collected to answer these questions is presented and analysed below.

5.1.1 Section A: Learners' biodata

5.1.1.1 Gender distribution of learners

The distribution of gender for the learner participants who filled out the questionnaires in each of the three chosen schools is shown on Table 5.1 below.

Table 5.1: Learners' gender distribution

Gender	Frequency	Percentage
1 (Male)	57	47.5
2 (Female)	63	52.5
Total	120	100.0

According to Table 5.1 above, most of the learners were female. Of the 120 learners that took part in the quantitative phase, 63 (52.5%) were female, while 57 (47.5%) were male. There are several explanations for the higher proportion of female learners as compared to their male counterparts in O'level ESL classes in Zimbabwean rural secondary schools.

One explanation might be that male learners in Form 4 are getting closer to maturity, which increases the likelihood that they would forgo their education in favour of a job. As a result, their share of the overall enrolment will drop. At this stage, there is more pressure on them to work and support their families, according to UNICEF (2002). UNICEF (2002) contends that obstacles such as low family resource levels, poverty, traditional beliefs, and early employment may prevent young people from attending school. It is probable that at this age, male learners choose to pursue work over education due to the low socio-economic standing of their families in rural regions, which accounts for the lower number of male learners at this level.

According to an article published in *The Zimbabwe Chronicle* on 23 May 2022, male learners in Matabeleland frequently drop out of school early to pursue jobs such as gold panning (*The Zimbabwe Chronicle*, 2022). Another factor influencing the decline in the proportion of male learners enrolled in rural schools is the fact that some learners have assumed the role of family

heads because of HIV/AIDS, Covid-19 and other pandemics which have claimed the lives of parents. Since men have historically headed families, this responsibility usually falls on male learners than female learners (UNICEF, 2020). Owing to this situation, male learners are more likely to leave school to go work in order to support their families.

5.1.1.2 Age distribution of learners

The table below shows the age distribution of the 120 O'level learners who completed the questionnaire.

Table 5.2: Learners' age distribution

Age Range	Frequency	Percent
15-17 years	102	85.0
17-19 years	18	15.0
Total	120	100.0

From the data shown in Table 5.2, the bulk of learners from the three chosen schools were in the 15–17 years age range (85%). This is because most learners in Zimbabwe begin school between the ages of six and seven. Ages 17 to 19 years made up the lower number (15%) of the learners. This age group's lower proportion is mostly due to Zimbabwe's progressive education system by which learners progress to the next grade after meeting satisfactory learning outcomes. Owing to socio-economic problems, some of these learners may have repeated certain previous grades, which could be why, by the time they reached O'level, they were older than most of their peers. Socio-economic problems may include child-headed households, adolescent pregnancies, and poverty.

5.1.2 Section B: How often ICTs were used in ESL teaching and learning

The learners rated how often ICTs were being used by learners themselves and by their teachers in ESL instructional activities in secondary schools located in rural areas. The statistical

summation of the frequency with which teachers and learners utilised ICTs for ESL instructional activities is provided by the means and standard deviations found in Table 5.3 below.

Table 5.3: The frequency with which learners used ICTs to acquire ESL

	Minimum	Maximum	Mean (M)	Std. Deviation (SD)
I use a computer as part of my learning process.	1	4	1.56	.81
My teachers use a computer during their classes.	1	4	1.79	.80
My teachers expect me to use a computer as part of my learning process.	1	4	1.49	.78
Virtual learning environments were used during the Covid-19 era.	1	4	2.35	1.17
Overall scores	**1**	**4**	**1.79**	**.89**

Data in Table 5.3 above shows how learners in this study were asked to rate their teachers and themselves in terms of how often they used ICTs for ESL learning. The data shows that despite the high value of SD, all learners agreed that they utilised computers only on very minimal times for learning, as shown by M=1.56 and SD=0.81, and that their teachers occasionally utilised computers in the classroom, giving M=1.79 and SD=0.80. Furthermore, the learners concurred that their instructors hardly ever expected them to use a computer for educational purposes, as evidenced by the mean and standard deviations in Table 5.3 showing M=1.49 and SD=0.78. This implies that learners in these rural secondary schools did not have adequate ICT tools to use in

ESL learning activities. Nonetheless, the learners acknowledged that they had frequently employed ICTs in virtual learning environments throughout the Covid-19 era, which is why M=2.35 and SD=1.17, is as shown in the table above. The statistics on Table 5.3 indicate that there was little use of ICTs by the learners in the ESL classrooms. This could be an indication that the rural secondary schools in question did not have adequate ICT resources to be utilised by learners.

The learners also indicated on the questionnaires that they did not frequently use computers as a learning aid in ESL activities and that their teachers did not frequently use ICTs in their classes, as is depicted by the overall mean and standard deviation which were M=1.79 and SD=0.89. The inference is that learners in secondary schools situated in these rural areas were not utilising computers to greater degrees when studying ESL. This implies that teachers may have been using traditional methods of teaching which are teacher-centred and are reflective of the behaviourist learning theory. However, this is criticised by the constructivist and connectivist theorists who advocated for learner-centred teaching methods that allow learners to be critical thinkers.

5.1.3 Section C: Evaluations of the importance of using ICTs in ESL teaching and learning

Learners were asked to rate their agreement with given evaluative statements about the utilisation of ICTs in ESL learning. The means and SDs calculated in Table 5.4 below represent learners' understanding of how important it was for them to use ICTs in ESL learning.

Table 5.4: The importance of using ICTs in ESL learning

	Minimum	Maximum	Mean	Std. Deviation
Using a computer for learning is very important to me.	1	4	1.71	.95
Using a tablet for learning is very important to me.	1	4	2.22	1.07
Using a smartphone for learning is very important to me.	1	4	2.37	1.17
Using ICT tools for learning is very important to me.	1	4	1.68	.96
Using a computer for learning makes me happy.	1	4	1.83	1.02
I use ICT tools for learning because I'm very interested in IT.	1	4	2.35	1.16
I save time if I use ICT tools for learning.	1	4	1.76	.978
I can focus on learning more if I use ICT tools.	1	4	2.43	1.11
I can understand the material much more easily if I use ICT tools.	1	4	1.80	.98
I can remember what I've learnt better if I use ICT tools.	1	4	1.74	.85
Information is much more easily available by using ICT tools than by visiting the library.	1	4	1.23	.58
I cannot learn without using ICT tools.	1	4	3.22	.95
ICT tools create a better atmosphere in my classroom.	1	4	2.09	1.03
ICT tools play an important role in my learning process.	1	4	1.91	.93
Overall scores	**1**	**4**	**2,05**	**.98**

From the data presented in Table 5.4 above, the use of a computer for education is something that was highly valued by the learners, as shown by the mean and standard deviations of M=1.71 and SD=0.95. In addition, the respondents recognised how crucial it was for them to use a tablet in their learning, as evidenced by the mean and standard deviations of M=2.22 and SD=1.07. According to the statistics in the same table, the learners also placed a high value on utilising smartphones for learning, as shown by M=2.37 and SD=1.17. They equally valued other ICT tools that can be used for learning, as shown by M=1.68 and SD=0.96. The findings also suggest that learners may concentrate more on learning when they use ICT tools, as indicated by M=2.43 and SD=1.11. The reason why learners utilised ICT tools at times was because they were interested in information technology (IT), as seen when M=2.35 and SD=1.16. The learners also agreed that using ICT tools facilitated easier access to information for them more than in cases when they visited a library, as evidenced by M=1.23 and SD= 0.58. From the statistical analysis, the respondents had similar ratings for the significance of ICT resources for their education and learning of ESL, as indicated by M=1.91 and SD=0.93. Even though these learners in secondary schools located in rural areas claimed not to use ICT resources that much in their learning of ESL, the overall mean in Table 5.4 shows that they did use them occasionally, as indicated by M=2.05 and SD=0.98. This suggests that learners understood the benefits of adopting ICTs to study a language like English. This view is supported by the constructivist and connectivist theories of learning which encourage teachers to utilise ICTs in their instruction to allow learners to network and collaborate in their creation of meanings in learning (Ertmer & Newby, 2013). Furthermore, the use of ICTs improves the language of learners, as indicated by Karabulut (2013). Learners in this study found the usage of ICTs as being crucial in increasing their interest in studying English since, in their opinion, it made material easily accessible and enabled them to be problem-solvers, a quality strongly advocated by the constructivists.

5.1.4 Section D: Assistance provided by teachers for ICT usage in ESL teaching and learning

Learners were asked to score on statements indicating how much they agreed with the statements about how they were being helped to use ICTs for learning ESL. This was done to find out how much teachers in rural secondary schools helped learners to use ICTs in ESL learning environments. Once more, the averages and standard deviations of the learners' response ratings

were calculated to show the degree of agreement with each statement. Table 5.5 below presents the results.

Table 5.5: The help that ESL teachers provided to learners in using ICTs to learn ESL

	Minimum	Maximum	Mean	Std. Deviation
Teachers give us guidance on how to use ICT tools for learning tasks to be completed at home.	1	4	2.78	1.12
Teachers give us guidance on how to use ICT tools for learning.	1	4	2.73	1.08
Teachers support the use of ICT tools for learning.	1	4	2.35	1.11
Teachers should incorporate the use of ICT tools into their teaching.	1	4	1.61	.89
The material covered does not allow for the use of ICT tools in class.	1	4	3.23	1.00
The material covered does not allow for the use of ICT tools at home.	1	4	3.45	1.10
Overall scores	1	4	2.69	1.05

The statistics on Table 5.5 show that learners concurred in saying that teachers educated them on how to use ICT resources for assignments that they completed at home, as depicted by M=2.78 and SD=1.12. The learners also indicated that the teachers supported them to use ICT tools in the

classroom, as shown by M=2.73 and SD= 1.08. Table 5.5 results also show learners' agreement that teachers ought to include ICT tools in their teaching, as seen in M=1.61, and SD=0.89. In addition, the data presented shows that teachers should promote learners' use of these ICT tools for learning, as M=2.35 and SD=1.11. The same table indicates that learners disagreed with the assertion that the material covered in the lessons did not allow for the utilisation of ICT tools in class, as indicated by M=3.23 and SD=1.00, or at home, as evident in M=3.45 and SD= 1.10. Despite this, the learners acknowledged that they did not regularly use ICTs for ESL instruction. This is verified by the overall mean and standard deviation which are M=2.69 and SD=1.05. On the whole, Table 5.5 above suggests learners' agreement that their teachers provided them with direction on how to use ICT tools for learning activities done in class and at home.

5.1.5 Section E: ICT tools frequently used by learners in ESL learning

Learners were asked to rank the frequency with which they used specific ICT tools, to assess their use in the teaching and learning of ESL. Table 5.6 below summarises the results.

Table 5.6: The ICT tools frequently utilised in ESL teaching and learning

	Minimum	Maximum	Mean	Std. Deviation
Database	1	4	1.58	0.92
Blogs	1	4	1.38	0.77
Audio/video chats	1	4	2.01	1.05
E-book	1	4	1.90	1.09
E-libraries	1	4	1.68	1.12
E-mail	1	4	1.60	0.99
E-journal	1	4	1.50	.96
Social media	1	4	2.17	1.24
Internet-browsers	1	4	2.05	1.22
Photo-editing	1	4	1.73	1.17
Search engines	1	4	1.97	1.23
Films/videos	1	4	2.23	1.18
Overall scores	**1**	**4**	**1.82**	**1.07**

Table 5.6 displays the means and standard deviations for the ICT resources that learners frequently used to acquire ESL. The table indicates that learners did not frequently use ICT resources, as the results show M=1.58 and SD= 0.92 for databases, M=1.38 and SD=0.77 for blogs, M=1.90 and SD= 1.09 for e-books, M=1.68 and SD=1.12 for e-libraries, M=1.60 and SD=0.99 for email, M=1.50 and SD=0.96 for e-journals, M=2.17 and SD= 1.24 for social media, M=2.05 and SD=1.22 for internet browsers, M=1.73 and SD=1.17 for photo editing, M=1.97 and SD=1.23 for search engines, and M=2.23 and SD=1.18 for films/videos. The overall scores posit the suggestion that almost none of the ICT tools listed in Table 5.6 were being used, as indicated by M=1.82 and SD =1.07. The lack of these technical tools in the schools may be the reason why learners were not utilising them in their ESL education. MoPSE (2017) noted the scarcity of funding for ICTs in rural secondary schools and asserted that the primary obstacles to ICT integration in these schools were financial constraints and inadequate ICT equipment. The results from the table above confirm the problem of inadequate infrastructure in rural schools to support ICT usage in ESL teaching and

learning. According to my analysis of the data from the learners' questionnaires, relatively few learners in the rural secondary schools in Matabeleland North use ICTs during ESL classes. This affirms the view by Larson (2015) that a major barrier to the application of technology in learning ESL is a lack of ICTs in the classroom.

5.1.6 Section F: Learners' perceptions of ICT usage in ESL teaching and learning

Learners rated their agreement with several claims regarding how they perceived the use of ICTs in ESL instruction for O'level in rural secondary schools. The means and standard deviations of the learners' response ratings are shown on Table 5.7 below.

Table 5.7: Learners' perceptions of ICT usage in ESL teaching and learning

	Minimum	Maximum	Mean	Std. Deviation
The use of ICT helps me study English more.	1	4	1.82	.92
The use of ICT helps me improve my reading skills.	1	4	1.67	.78
The use of ICT helps me improve my writing skills.	1	4	2.03	.95
The use of ICT helps me improve my speaking skills.	1	4	1.89	.97
The use of ICT helps me improve my listening skills.	1	4	1.66	.77
The use of ICT helps me master my grammar competence.	1	4	1.68	.76
The use of ICT helps me to acquire vocabulary better.	1	4	1.58	.77
English learning can be more fun with ICT applications.	1	4	1.33	.64
The use of ICT is a good way for instructors and learners to communicate.	1	4	1.54	.82
Overall Scores	**1**	**4**	**1.64**	**.79**

The mean and standard deviations calculated in Table 5.7 above show how learners felt about ICTs being used in ESL education. Learners' view was that utilising ICTs improved their reading, writing, speaking and listening skills in the learning of ESL. From the mean column, the mean of the learners' perception of using ICTs range from 1.28 to 2.03 points on the Likert scale. The learners' SD of less than 1 demonstrates that they all agreed that utilising ICTs assisted in the improvement of their speaking, listening, reading and writing, which are core language skills. According to the learners' perspectives, they could use ICT language learning resources to boost their writing and reading skills as well as their speaking and listening skills. Similarly, learners believed that the application of ICTs assisted them to harness their grammar competence, vocabulary and communication with teachers, as indicated by the SDs of less than 1 for the different statements. This implies that they could access a variety of reference materials, including grammar books and dictionaries, as well as exercises, applications, and online or offline

programmes, pertaining to language abilities and English language practice, through using ICT tools (see Liu, 2013).

5.2 DATA ANALYSIS OF TEACHERS' QUESTIONNAIRE

This section contains and examines data gathered from the three ESL teachers in the three secondary schools located in rural areas in the Bubi District who responded to the questionnaires.

5.2.1. Section A: Teachers' biodata

5.2.1.1 Gender

Table 5.8 below presents the gender distribution of the teacher respondents.

Table 5.8: Gender distribution of teachers

Gender	Frequency	Percentage
2 (Female)	2	66.7
1 (Male)	1	33.3
Total	3	100

All the three teachers who participated in this research responded to the questionnaire. Data in Table 5.8 above shows that two of the selected teachers were females (66.7%) and one was male (33.3%). In Zimbabwe, female teachers have been fairly represented in secondary schools over the last ten years, and the teaching profession has become more feminine in secondary schools, according to data from the Ministry of Primary and Secondary Education's 2018 Annual Statistical Reports (Davids & Waghid, 2020; Schmude & Jackisch, 2019). In addition, females make up a higher percentage of student teachers enrolled in Zimbabwe's secondary teacher training colleges (Maware, 2013). This could be the reason for the rural secondary schools under investigation having more female ESL teachers than male ones.

5.2.1.2 Age

Table 5.9 below shows the age distribution of the teacher respondents.

Table 5.9: Age distribution of teachers

Age group	Frequency	Percentage
35-40 years	1	33.3
40 years and above	2	66.7
Total	3	100.0

The above table shows that one of the selected teachers was between 35 and 40 years of age (33.3%) while two were 40 or more years of age (66.7%).

5.2.1.3 Teachers' qualifications

Table 5.10 below shows the highest qualifications held by the three teachers.

Table 5.10: Highest qualifications of teachers

Qualification	Frequency	Percentage
Certificate/Diploma in General Education	2	66.7
Master's Degree	1	33.3
Total	3	100.0

Table 5.10 above indicates that the English teachers working in the three participating schools had highest qualifications as follows: two had a diploma in General Education (66.7%) and one had a master's degree (33.3%).

5.2.1.4 Teachers' experience in teaching ESL

The teachers had to indicate on the questionnaire their years of experience in teaching ESL. Table 5.11 below presents the data that was gathered.

Table 5.11: Teachers' experience of teaching ESL

Teaching experience	Frequency	Percentage
11-15 years	1	33.3
16-20 years	1	33.3
More than 20 years	1	33.3
Total	3	100

Table 5.11 above shows the years of experience for the ESL teachers that participated in this study. As the table shows, one teacher had taught ESL for 11-15 years, while another had taught for 16-20 years. The third one had been an ESL teacher for over 20 years.

5.2.2 Section B: Teachers' conceptions of ICT use in ESL teaching

Teachers were asked to score how much they agreed with several statements on how ICTs were utilised in rural secondary schools to teach and learn ESL. Table 5.12 below provides the means and standard deviation summary of the statistical calculations.

Table 5.12: Teachers' conceptions of ICT use in ESL teaching

	Minimum	Maximum	Mean	Std. Deviation
In my view, ICTs are more powerful in teaching than discussion and teaching without the use of ICT.	1	4	1.67	.58
ICTs (referring generally to computers, videos, hardware, software, and networks) increase my knowledge and skills as an English teacher.	1	4	1.00	.00
ICTs are highly needed by teachers in teaching English.	1	4	1.00	.00
ICTs can be used as advanced instructional tools in teaching English to my students.	1	4	1.33	.58
In my view, ICTs can replace the teacher in teaching English.	1	4	3.67	.58
As far as I know, ICTs can be used to effectively manipulate instructional contents and materials.	1	4	1.67	.58
I know that ICTs can spread knowledge and information fast.	1	4	1.67	.58
In my view, ICTs are more effective for teaching and learning than books and other printed materials.	1	4	2.00	1.00
I think ICT use does NOT offer educational/instructional values for students in learning English.	1	4	3.33	.58
I use/have used ICTs for teaching and in daily life.	1	4	2.00	1.00
Overall scores	**1**	**4**	**2,03**	**.50**

Table 5.12 above indicates that nearly all the teachers concurred that using ICTs in the classroom was more effective than using discussion and teaching without them, as reflected by M=1.67 and SD=0.58. The same results were registered on the statement that teachers can use ICTs effectively

in teaching ESL, as seen in M=1.67 and SD=0.58. The statement that ICTs can disseminate knowledge and information quickly also has M=1.67 and SD=0.58, which indicates that the teachers were in full agreement with the statement. The teachers, however, disagreed with the assertion that using ICTs for English language acquisition has no educational or instructional value for learners (M=3.33 and SD=0.58). Data from the questionnaire shows that teachers agreed with the view that ICTs can be utilised as cutting-edge teaching tools and that they can be effectively used to teach ESL in rural secondary schools, as indicated by M=1.33 and SD=0.58. According to overall scores of M=2.03 and SD=0.50, these secondary school teachers did not use ICTs frequently in ESL instructional activities. This is evident in the SD being less than 1. It shows that the response variance of the respondents is not big, and thus ICTs were not being used frequently.

5.2.3 Section C: Benefits of using ICTs in ESL teaching and learning

The assertions on Table 5.13 below regarding the incorporation of ICTs in the ESL instructional activities the teachers used were presented to teachers to rate their level of agreement or disagreement. The table summarises the teachers' views on the advantages of ICT use in ESL instruction.

Table 5.13: The benefits of ICT-enhanced ESL instruction

	Minimum	Maximum	Mean	Std. Deviation
The use of ICT helps my learners to study English more.	1	2	2.00	.000
The use of ICT helps my learners with reading skills.	1	2	2.00	.000
The use of ICT helps my learners with writing skills.	1	2	1.67	.58
The use of ICT helps my learners with speaking skills.	1	3	2.33	.58
The use of ICT helps my learners with listening skills.	1	2	1.67	.58
The use of ICT helps my learners master grammar competence.	1	2	2.00	.00
The use of ICT enables my learners to acquire vocabulary better.	1	2	2.00	.00
English learning can be more fun with ICT applications.	1	2	1.33	.58
The use of ICT (e.g. the Internet) lets me gain access to more updated English materials.	1	2	1.33	.58
Overall scores	**1**	**2**	**1.93**	**.58**

From Table 5.13 above, the means falls in the range of 1.33 and 2.33 on the Likert scale. The teachers have common responses as the SD is less than 1, showing that the response variance was not big. This demonstrates that the teachers agreed that using ICTs in ESL teaching was beneficial in the instruction of the four essential language skills of speaking, listening, reading, and writing. The findings from the teachers are in congruence with those of the learners who indicated that ICTs were a vital resource that helped them improve their reading and grammatical comprehension in English, as well as helped them learn about other facets of the language. This finding supports previous findings outlined in the literature review, such as that by Liu (2013) who found that ICTs improved the performance of learners in the classroom.

5.2.4 Section D: Constraints of using ICTs in ESL teaching and learning

To determine teacher challenges while using ICTs in ESL instruction in rural secondary schools, teachers were questioned about how much they agreed with the assertions on Table 5.14 below. Again, the means and standard deviations of their response scores were computed to indicate the level of agreement for each given statement.

Table 5.14: Constraints of using ICTs in ESL teaching and learning

	Minimum	Maximum	Mean	Std. Deviation
I know that many forms of ICT tools and techniques at school are accessible for use in teaching English.	1	4	3.67	.58
I know how to access the Internet and get some information from it.	1	4	2.00	.00
I have limited time to integrate ICT in my teaching.	1	4	3.00	1.00
I make use of ICTs that relate to English as a second language.	1	4	2.00	.00
Generally speaking, I have enough experience and training on available computers and/or software.	1	4	2.67	.58
I can avoid problems in many areas such as in handwriting and in organizing ideas when I use ICT.	1	4	2.00	1.00
The Internet is easily accessible and available at school.	1	4	3.00	1.00
Instructors and learners can easily communicate in English using ICTs.	1	4	1.33	.58
Overall scores	**1**	**4**	**2.46**	**0.58**

According to Table 5.14, teachers concurred that there were limitations to employing ICTs in rural secondary schools in teaching and studying ESL. First, teachers disagreed with the view that the internet was readily available and accessible at their schools, as verified by M=3.67 and SD=0.58.

Second, teachers agreed that they had limited time to integrate ICTs in their teaching of ESL, as shown by M=3.00 and SD=1.00. Third, teachers disagreed with the view that they had ample experience and training in using ICTs when teaching ESL, where M=2.67 and SD=0.58. This implies that they had minimum experience and training in utilising ICTs. The total scores of M=2.46 and SD=0.58 show that these teachers in rural secondary schools were having challenges in using ICT tools to teach ESL. Since the overall SD is less than 1, it means the teachers agreed that they had challenges in using ICTs in teaching ESL.

5.3 SUMMARY OF THE FINDINGS

This section presents a summary of the findings from the quantitative data analysis. It brings together the findings from both the learners and the teachers' questionnaires.

5.3.1 Conceptions of ICT use in ESL teaching

Data from the teachers' questionnaires indicate that all teachers concurred that using ICTs in the classroom was more effective in teaching ESL than teaching without them. This view concurs with the learners' responses on their questionnaires which agreed that the use of computers and smartphones was important to their learning of ESL. However, the teachers and learners disagreed with the assertion that using ICTs for English language acquisition has no educational or instructional value for learners. On the contrary, data from the questionnaires shows that teachers agreed with the view that ICTs can be utilised as cutting-edge teaching tools and that they can be effectively used to teach ESL in rural secondary schools, just as learners also affirmed the value of using ICTs in learning ESL.

5.3.2 Availability of ICT tools for ESL teaching and learning

The notion that learning is a solitary pursuit is no longer valid with the development of the internet and the free exchange of knowledge across digital platforms. According to Siemens (2005), connectivism offers a learning model that considers the seismic changes in society that have caused learning to cease being an internal, autonomous endeavour. The evidence from the learner questionnaire, which sought information about the availability of ICT tools in ESL instructional activities in secondary schools situated in rural areas in Zimbabwe, reveals that the learners had

very few technological tools to use in learning English. This left little room for learners to discover new skills individually. Similarly, the findings from the teacher questionnaire show that teachers did not use ICT tools frequently in these rural secondary schools because the schools did not have adequate resources.

Findings from both teacher and learner questionnaires also indicate that the accessibility of ICT tools in the teaching of ESL encouraged learner-centred approaches in education. A learner-centred approach is one that promotes independent learning, assessment, synthesis, and creation of knowledge among learners; learning now happens in a different way. Thus, learners create their own information instead of teachers imparting it to them. It is a learning philosophy that constitutes the principles of constructivism as a learning theory (Froyd & Simpson, 2008; Muganga, 2015). As explained in Chapter 3, constructivist learning is the process by which learners create their own meaning of the world by engaging in experiences and thinking back on them (Muganga, 2015; Tinio, 2003). The findings in this chapter reveal that there was limited availability of ICT tools in the secondary schools in rural areas that participated in this study, and this was clearly a barrier to constructivist learning.

5.3.3 Benefits of utilising ICTs in ESL teaching and learning

The information from this chapter's analysis provides evidence that utilising ICT tools to teach ESL to O'level learners in rural secondary schools can benefit both teachers and learners. The findings from questionnaires given to teachers and learners show that integrating ICTs into ESL instruction improves learners' speaking, writing, listening and reading skills. Based on the quantitative data analysis, it was determined that learners could improve their vocabulary through the use of ICTs. Use of ICTs in learning ESL allowed learners to think critically, research and analyse problems independently of their teachers. Put differently, learner-centred approaches that need critical problem-solving teaching methods, which are a hallmark of constructivist and connectivist learning, were thought to be made possible using ICTs.

Teachers recognised that using technology in teaching ESL made learning simpler for learners, which is a good reason to switch from traditional teacher-centred to more contemporary learner-

centred teaching approaches. From the results of the mean and SD scores of both the teachers' and learners' questionnaires in Tables 5.12 and 5.7 respectively, it is evident that ICTs are important in ESL instructional activities. The responses from the learners show that they had the freedom to use the internet to look for ESL material to assist them to understand the taught concepts. By implication, such usage of ICTs in instruction creates a learner-centred approach to the teaching of ESL. In Chapter 3, it was noted that constructivist teachers shift from being authoritarian and act as their learners' exclusive source of knowledge to being facilitators of information exchange by utilising ICTs to support information flow (Montrieux et al., 2015). As evidenced from this study, the constructivist method allows for conversation and negotiation which are crucial components of successful learning in ESL. The literature acknowledges that when learners use ICTs, learning is more efficient, and they comprehend topic ideas as they investigate information and knowledge (Fu, 2013). Furthermore, Glazewski and Hew (2008) point out that when learners use ICT tools to explore topic knowledge, they start employing these tools to solve issues as they learn.

Teachers in this study concurred that ICTs can be employed as innovative teaching methods and that they can be successfully used to teach ESL in rural secondary schools, according to data presented in Tables 5.12 and 5.13. The mean and standard deviation of the learners' questionnaire responses show that the learners believed in using ICT language learning tools to enhance their speaking, listening, writing, and reading abilities. In a similar vein, learners felt that using ICTs could improve their vocabulary, grammar, and ability to communicate with teachers.

5.3.4 Challenges of using ICTs in ESL instruction

The data analysis revealed several obstacles that teachers and learners faced when attempting to utilise ICTs in ESL instruction. Regarding technical-related challenges, it was indicated by both teachers and learners that access to ICT equipment in rural secondary schools was difficult. There was a shortage of tablets, smartphones, smartboards, and personal computers. This finding bolsters the argument made in the literature (Hodgkinson-Williams et al., 2007; Larson, 2015; Padayachee, 2017) that a major barrier to ICT incorporation in ESL instruction was a shortage of hardware. Regarding teacher-related challenges, one challenge that emerged from the teachers' questionnaire is that formal training on the application of ICTs in language education was not frequently

provided to ESL instructors in Zimbabwe; the teachers individually developed themselves and improved their ICT skills occasionally. Finally, the data analysis has demonstrated that a significant obstacle pertaining to learner-related issues is the learners' limited access to ICT equipment. These learners were in distant areas, where access to ICT equipment like computers and cellophanes was limited. This finding is consistent with research by Padaychee (2017) which indicates that learners do not only need training in using ICTs but also need to have access to the technological tools.

5.4 CHAPTER SUMMARY

The data collected during the quantitative stage of this investigation has been presented and analysed in this chapter. The data from the learners' questionnaires was analysed first, followed by that from the teachers' questionnaires. The results from both sets of analysis were presented in tables showing calculations for the mean and standard deviations. The chapter has demonstrated, based on the questionnaire results, that teachers and learners had similar conceptions of ICT usage in ESL education. It has illustrated how the availability of ICT tools supported different learning preferences for learners. It has also summarised findings on the advantages of ICT use in ESL classes as well as the difficulties that instructors and learners encountered. An examination of the study's qualitative data is provided in the upcoming chapter.

CHAPTER 6

DATA PRESENTATION AND ANALYSIS:

QUALITATIVE PHASE

6.0 INTRODUCTION

In this study, I assessed how ICTs are used in ESL instruction in Zimbabwe's rural secondary schools using an explanatory sequential research design. A quantitative analysis of the data collected on the usage of ICTs in ESL learning and instruction in secondary schools located in rural areas of Zimbabwe was presented in Chapter 5. To verify the quantitative findings and comprehensively answer the study's research questions, qualitative data was needed. Three ESL teachers were thus interviewed individually and focus group interviews with 30 learners from the three conveniently selected schools were also held to obtain the qualitative data. In addition, lesson observations were conducted in the ESL classrooms of the three schools. This chapter presents the qualitative data collected and the analysis of it. As in Chapter 5, the data analysis seeks to answer the following four research questions:

> RQ1. Which ICT tools are available in rural secondary schools for the teaching and learning of ESL?
>
> RQ2. How do ICTs assist in the teaching and learning of listening, speaking, reading and writing skills in ESL in Zimbabwean rural secondary schools?
>
> RQ3. What are the constraints that teachers and learners experience in using ICTs in the teaching and learning of ESL in rural secondary schools?
>
> RQ4. How do teachers and learners overcome the challenges they face in the use of ICTS in the teaching and learning of ESL in rural secondary schools?

The qualitative answers to these questions add depth to and extend the quantitative answers that were presented in Chapter 5.

As a reminder, in this qualitative phase of the research project, 30 learners from the selected schools provided the focus group discussion data presented in this chapter. Ten learners were chosen from each one of the three selected schools. These learners were selected from the group of 40 learners that represented each school in the study's quantitative phase. Three English teachers, one from each of the chosen schools, participated in the in-person interviews. Throughout the research, every individual involved was coded and represented by fictional names rather than their real identities, in accordance with ethical guidelines. During focus group discussions, the ten learners from one of the selected rural secondary schools who made up Group A were coded as GA1 to GA10; the ten learners from the second selected rural secondary school who made up Group B were coded as GB1 to GB10; and lastly the ten learners from the third selected rural secondary school who made up Group C were coded as GC1 to GC10. The three teachers from the three rural secondary schools were given the labels TA, TB, and TC to indicate their affiliations to School A, School B and School C, respectively. TA, TB and TC stand for Teacher A, Teacher B and Teacher C, correspondingly.

It is important to emphasise that, as a way of adhering to the qualitative research methodology, I employed the inductive technique to evaluate the data without precluding to a single theme. According to Thomas (2020), inductive analysis refers to techniques where an investigator or assessor employs detailed interpretations of unprocessed data to draw conclusions about ideas, themes, or models. The perspectives and experiences of the participants about the usage of technological tools in ESL teaching and learning in rural secondary schools in Zimbabwe formed the basis for each emerging theme from the data analysis. Themes were created by combining information from focus groups and individual interviews. To preserve the authenticity of the participants' comments, actual words from the conducted interviews were used, with no correction of spelling errors.

6.1 DATA PRESENTATION AND ANALYSIS OF FOCUS GROUP DISCUSSIONS AND INDIVIDUAL INTERVIEWS

In order to do a qualitative thematic analysis, I transcribed responses from participants after listening to the audios that were captured during the in-person interviews with teachers and

learners. From the participants' responses, a number of themes that address the study's research objectives surfaced. These are presented in summary on Table 6.1 below.

Table 6.1: Themes and subthemes from the qualitative data analysis

THEMES
Theme 1: Understanding ICTs available for use in ESL teaching and learning in rural secondary schools • Subtheme 1: Understanding the usage of ICTs from the teachers' perspective • Subtheme 2: Understanding the usage of ICTs from the learners' perspective
Theme 2: Benefits of utilising ICTs in ESL teaching and learning in rural secondary schools • Subtheme 1: ICTs as adaptable tools to improve ESL teaching and learning • Subtheme 2: Using ICTs in the classroom as time-saving tools • Subtheme 3: ICTs as tools that encourage classroom interaction
Theme 3: Challenges of utilising ICTs in ESL teaching and learning in rural secondary schools • Subtheme 1: Lack of reliable electricity supply • Subtheme 2: Wi-Fi and internet connectivity issues • Subtheme 3: ICT policy gaps and weaknesses • Subtheme 4: The shortage of ICT infrastructure • Subtheme 5: Teachers' attitudes toward ICT usage • Subtheme 6: Teachers' inadequate skills to use ICT
Theme 4: Strategies to address the challenges of using ICTs in ESL teaching and learning in rural secondary schools • Subtheme 1: Teachers' sacrifices • Subtheme 2: Teachers' professional development in ICT usage • Subtheme 3: Availability of policies and technical support • Subtheme 4: Need to train learners on the usage of ICT

As shown on Table 6.1 above, four themes emerged from the data analysis, each with a set of subthemes. This thematic breakdown allows for a systematic presentation of the qualitative findings of the investigation. In order for it to be easy to identify which participant is saying what, a code name for each participant is included in brackets at the end of each statement from a participating learner or teacher. For instance, (GA1) indicates that the response is from a learner from Group A of School A. As mentioned above, an inductive approach is taken in the thematic analysis of the data.

6.1.1 Theme 1: Understanding ICTs available for use in ESL teaching and learning in rural secondary schools

This theme is focused on the kinds of technological tools that rural secondary schools have access to for ESL instruction. The types of ICT tools that are accessible in each given rural secondary school will vary, as was indicated in Chapter 2. The digital classroom's interactive whiteboards, projectors, cellphones, tablets, laptops, and televisions are just a few of the numerous tools that make up the all-encompassing integration of educational technologies that is transforming teaching and learning in classrooms (Das, 2019; Msila, 2015). Investigating their availability may assist in identifying the difficulties that learners are having in accessing technological resources in secondary schools that are located in rural areas, even though the schools may not have the same kind of instruments. This theme is divided into two subthemes that focus on understanding the usage of ICTs in ESL instruction in secondary schools in rural areas from the instructors and learners' perspectives.

6.1.1.1 Subtheme 1: Understanding the usage of ICTs from the teachers' perspective

ICT usage is the purposeful, mindful, and consistent utilisation of technological tools by instructors and learners to support and improve every facet of the instructional process. Positive changes in the instructional methods and improved study habits for learners are the results of proper, dependable, and regular usage of ICTs in education. This type of integration, according to Karsenti et al. (2009), recommends that ICTs be consistently used in instructional processes.

The teachers in this study defined ICT usage as the application of contemporary electronic devices to convey knowledge and skills to ESL learners. They stated that in rural secondary schools, this is done in the classroom for assessments and evaluations in classroom research, and for the purposes of illustrating, clarifying, and simplifying subjects. The following is how TA defined the use of ICTs:

> *Utilising ICTs involves taking content and combining it with audio and videos from the ICTs to create a single entity. It also entails being able to grow and effectively use various media to impart your knowledge and subjects. (TA)*

ICT use, according to TB, is the use of computers to help deliver lessons. This was the general agreement on how ICTs were used in the classroom. TB thus said:

> *We now employ technology in both teaching and learning. Integration is the process of combining traditional teaching approaches with the use of ICTs. We still write, but we do so digitally at times, now that we have the smartboards and interactive boards. (TB)*

TC defined the usage of ICTs as using a laptop and television to assist with lesson planning. He stated that all teachers in the school could use a laptop to access the internet.

> *Usage of ICTs is the process of displaying educational content to learners using electronic devices. Learners can also watch a movie from a television screen in literature. (TC)*

It is evident here that although the teachers used different words to voice their understanding of ICT usage, they all understood it as the incorporation of electronic devices or digital media into traditional instruction so as to enhance the learning experience for learners. However, the teachers had varying conceptions of how ICTs ought to be included into the ESL instruction and learning processes, given the differences in their educational backgrounds, settings, and available infrastructure. Their perceptions of ICT integration were largely influenced by the ICT tools that were available in each school. They gave brief explanations of how they understood the integration

of ICTs with respect to the resources they were familiar with and that they saw and used in their own schools. Their comprehension of ICT usage was informed by their social contacts and experiences, which in turn created their perceived reality (Thomas, 2010). The outcomes of the individual interviews also showed that the teachers' ideas of ICT integration include delivering material, integrating various media forms and tools, as well as improving instruction.

ICT integration is crucial for producing and disseminating material during classroom instruction, utilising a range of media, as TA noted in the first comment above. For a holistic teaching experience, ICT tools may be used throughout the lesson preparation and delivery processes and in doing this, combining media and content is necessary. TA's response emphasises this. The lesson can be constructed starting with the planning phase and may continue through to the implementation and final assessment phases. Here, content compatibility across several ICTs is essential. This implies that the material must be in tandem with the technologies and media types being used. For example, information requiring auditory communication and visual content must employ movies, posters and diagrams. Delivery of instruction becomes simpler when ICTs are effectively incorporated into classroom activities during the teaching process. This is because ICT integration is about combining visual, audio and audiovisual elements, which all add to "making it one thing" (TA), to enable information exchange across a variety of communication routes. According to the definition of ICT integration given above, multimedia can be used in the classroom to improve instruction. Through ICT utilisation, instructors can pick various methodologies and instructional media that best suit each of their speaking, reading, listening or writing lessons to achieve better results.

Two philosophies of teaching and learning which are constructivism and connectivism encourage the utilisation of media devices in instructional environments and one can say that instructors in this study had awareness of this, though they expressed it in different ways. While TB saw the integration of modern digital tools with the conventional teaching approach to be essential to improving teaching processes, ICT integration, according to TA, was the process of fusing several media to provide information that enhances instruction. The reason for this was because writing was now done digitally, even if in some instances it was also still being done manually on

chalkboards. For these teachers, the important thing was to supplement instructional approaches with modern ICT tools. Among other advantages, blended learning approaches extend and deepen classroom conversations, thereby enhancing conventional teaching techniques that depend on a physical pace for in-person communication (Lim, Morris & Kupritz, 2007). However, the teachers' perception of ICT usage, as quoted above, did not read like an understanding of blended learning. Their understanding of ICT usage is problematic as it is not fully about integration but rather about instructors using some ICT resources to 'spice up' conventional teaching methods in their classrooms. This situation was more common in those schools where there was a shortage of ICT resources like laptops, tablets and smartboards for use in ESL classrooms. In this case, ICT usage is less likely to make the class more interactive and less teacher-centred.

6.1.1.2 Subtheme 2: Understanding the usage of ICTs from the learners' perspective

This theme presents the learners' understanding of the usage of ICTs in ESL classes. This understanding was deduced from the focus group discussions. In contrast to the teachers' depiction of ICT integration as a process that is viewed to be related strictly to teachers and classroom instruction, the learners' responses show an awareness of ICT usage as relating to a combination of classroom instruction and learning. The responses below, for example, show learner participants' perceptions of using ICTs in ESL classes.

> *ICT use in ESL lessons means that, in order to understand the material, I must be able to use all of the ICT tools available to me, including computers, tablets, and smartphones. (GA8)*

> *ICT usage is a type of learning that makes us make use of computers, tablets, sound, video, and practice. We students have a lot of practice right now. Compared to the past, when teachers used to imagine how things are done, we now witness things happen through using ICT. (GC3)*

When a teacher uses ICT to teach, such as an interactive board, a laptop, and a multimedia projector, this is ICT use. We students are beginning to use technology, such as cellphones, online whiteboard, tablets, which we use to access answers. (GB1)

As shown above, learner GA8 believed that for learners to understand ESL materials in the classroom, they must use ICT tools. It is crucial to remember that the list of ICTs includes devices like tablets, smartboards and mobile phones, implying that ICT integration involves learners and learning as well as instructors and teaching. This means that the instructor and learners work together to integrate ICTs in the classroom. Every individual contributes significantly to the successful completion of the subject goals and the efficient use of ICT resources in doing so. Learner GA8 emphasised the need of disseminating information across a range of media, although it was not quite clear if all media had to be always used for learning. However, the response demonstrates that effective ICT integration necessitates instructors interacting with a range of ICT tools and permitting learners to utilise those resources for learning throughout instruction. The word "must" in the given reply is important as it implies that learners feel compelled to utilise technological tools in their studies. As mentioned in the literature review, the Zimbabwe National ICT Policy (2016) requires teachers to make use of technological tools in instructional activities, even though not all instructors have ease of access to ICT tools in every learning environment. Not every teacher in every classroom has complete access to ICT resources. Teachers are therefore required to take on new tasks that centre around utilising the ICTs that are available in their classrooms. According to Prakash (2018), the function that teachers perform is being drastically altered by the usage of ICTs in the classroom. Thus, to teach ESL more successfully in the twenty-first century, teachers have to now possess a better conception of technology and its relevance to effective teaching, in addition to possessing subject knowledge. Learners need to also understand how to make meaningful use of technology in their education rather than merely relying on what their instructors do, as pointed out by learner GA8. The learner's view is in agreement with the connectivist theory that advocates for the use of ICTs by learners in the classroom.

According to learner GC3's understanding of ICT usage, learners participate more in class when they have the chance to engage in a variety of activities utilising a variety of technological tools,

inclusive of PCs, videos and tablets. The learner believed that since learners already use these tools outside of classroom, they have the required practical skills to also use them in classroom activities. ICT usage for this learner is therefore about learners bringing their practical ICT skills into the ESL classroom to make "things happen", meaning to facilitate learning. Learner GB1 saw ICT usage when learners participate in the processes that take place in the classroom, and these processes involve both instructors and learners. For this learner, ICT usage in the ESL classroom is not for one party only but for both teachers and learners. According to Dede (2000), if ICTs are properly implemented in the education system, they can help learners to learn better as well as help teachers to improve pedagogy. It is this double-pronged approach in ICT usage that learner GB1 also revealed in their understanding of ICT usage.

In summary, the responses from the learners above imply that they possessed varying viewpoints about the use of ICT in ESL instruction and learning. The data also showed that while some learners defined ICT integration as combining media resources with instructional strategies, others defined it as the act of integrating ICT tools with methodology to facilitate instruction both within and outside of the classroom. These learners shared perspectives on the use of ICTs that went beyond merely having resources available to them. This brings to light the range and complexity of concepts that teachers and learners in ESL classes have regarding ICT integration.

6.1.2 Theme 2: Benefits of utilising ICTs in ESL teaching and learning in rural secondary schools

This theme presents participants' views of the benefits teachers and learners experience in using ICTs in ESL classrooms in rural secondary schools in Zimbabwe. The focus group interviews with learners and the individual interviews with teachers emphasised adaptability, efficiency, engagement and feedback as benefits that come with ICT utilisation in ESL instruction. The greater number of participants believed that ICTs could improve instruction and encourage learner participation in the classroom. Three subthemes were established within this theme, and while each is presented and understood independently, they are explored in relation to one another because they are not isolated from each other. ICT is said by participants to improve learning and

instruction through several methods, including by encouraging engagement, information exchange, and communication in the classroom between instructors and learners. With ICT use, the key speaking, reading, writing and listening language skills can be taught and learnt in a variety of ways, much to the benefit of learners and teachers.

6.1.2.1 Subtheme 1: ICTs as adaptable tools to improve ESL teaching and learning

In the data gathered from the face-to-face individual interviews and focus group discussions conducted with teachers and learners, respectively, at each of the participating schools, participants agreed that incorporating ICTs into ESL instruction has a positive impact on how teachers instruct learners. As reported by the participants, ICTs are flexible instruments that improve the methods of instruction and learning of ESL. The following remarks were made by teachers during the interviews held at their particular schools:

> *ICT improves my teaching since it's no longer simply about standing in front of the class and explaining things to the students. These days, I have a variety of methods for making my lessons more engaging. Since I have access to audio, visual, and audiovisual aids, I can reach a variety of learners. It makes me employ a variety of learning methods. Thus, by itself, it is inclusive. (TA)*

> *ICTs improve my ability to teach because they give me more options for displaying materials to the students. For example, I can show them voice clips, videos, or pictures. The important thing is for them to engage and participate in the class, which is not the case when there aren't many items for them to touch, hear, or analyse. (TB)*

Although the teacher participants discussed flexibility in diverse ways, their experiences with ICT usage highlight a flexibility in teaching that is made possible by the use of ICTs. TA pointed out that one benefit of ICT integration, which is uncommon to conventional teacher-centred teaching techniques without ICT, was the elimination of the need for learners to physically sit in front of a teacher to receive information. From the literature review, Bista (2012) noted that, in a typical classroom, the teacher speaks the most and the learners listen silently. However, because of the

accessibility and use of ICTs, TA is now able to push beyond traditional teaching or outdated teaching methods, which are frequently found in traditional classroom settings.

For this teacher, the inclusion of ICTs such as audio, visual and audiovisual aids in teaching by itself makes the teaching process inclusive of all learners. This is because learners with different learning abilities can gravitate towards each type of teaching aid. Moreover, these ICT aids facilitate learners' acquisition of speaking, writing listening and reading skills in the ESL classroom. For example, the use of audios sharpens learners' listening skills. When teachers ask learners questions that are based on audios they have listened to in class, they are testing and sharpening learners' listening as well as speaking skills since learners have to respond to their teacher's questions orally. When learners watch a movie on television, they develop lots of language skills which include speaking skills and correct pronunciation of English words; their vocabulary and spelling knowledge are also widened. In addition, they learn how to write through transcribing movie content into their own notes. In writing notes, they learn how to structure notes in summary form. This also helps learners learn how to select key issues from the minor ones, which are all crucial writing skills in ESL. Again, by listening to audios and later telling what it is they were listening to, they practise report writing as well as speaking skills. They also learn how to structure sentences, adhering to the correct use of punctuation marks such as question marks, exclamation marks, commas, and full stops.

In the classroom, a variety of instructional strategies have been shown to be more successful than using a single strategy, since ICTs give learners more chances to participate in their learning (Bidabadi et al., 2016). TA suggested that instructors have a duty to fulfil each learner's demands in their classroom, and that integrating ICTs into the classroom allows teachers to do this. ICT utilisation in the classroom creates potential for inclusivity in the classroom, as the teacher noted. Learning preferences vary among learners, and teachers need to take this into account, according to TA who stated that "*with the use of ICTs learners' individual differences are easily accommodated in the learning process"* (TA). This suggests that ICT satisfies the needs of a wide spectrum of learners due to its multimodal properties that facilitate multisensory learning. This claim might have to do with the visual, aural and audio-visual capabilities of ICTs, which suggest

that when a teacher employs a range of teaching aids, no learner will be left out of the learning process. The ability of ICT tools to be inclusive is one of their primary characteristics that makes ICT integration in education appealing and relevant. According to TB's response, inadequate resources impact negatively on classroom activities because they make it difficult for teachers and learners to complete certain tasks successfully, thus causing learners to miss out on important learning opportunities. This is consistent with research by Visser, Juan and Feza (2015) which found that learners' academic performance in schools is significantly impacted by the non-availability of essential school supplies. If enough high-quality resources are made available to schools to guarantee excellent teaching and learning needs and supplemented with other favourable circumstances, such as good teachers and school administration assistance, then ESL instruction would be most beneficial. As evident from the teacher participants in this research, secondary schools that possess a wealth of pertinent ICT resources are better equipped to incorporate ICTs into their curriculum. It is important to remember that resources encompass both human (teachers) and material (hardware) resources. This thus indicates that having qualified teachers or staff is just as essential to the efficient use of ICTs in the educational setting as having access to ICT equipment and facilities.

Data from the learner focus group interviews show that ICTs were utilised in the schools for information processing, information sharing, and information storing, and were seen by the learners as providing ease and flexibility in their schooling lives. The integration of ICTs not only enhances learning but also increases the flexibility of communication channels, facilitating the transition from spoken or written to visual interactions. Because they allow learners to see films and listen to music as they study, ICTs are very flexible teaching tools. In the focus group interviews, the following was said by a learner:

> *ICT has a lot of flexibility and makes life easier. It is quite adaptable because there are films that students can view and the music that students may hear as they study. (GC2)*

As can be seen from the above response, ICTs are incredibly versatile tools since they allow learners to become independent. The idea of flexibility as it pertains to learner GC2's response can be understood as the ease with which one can move between different learning modalities or even

combine different modalities to learn simultaneously. For instance, learners can use different ICT tools to transition from writing to reading or from oral to visual learning modes. Additionally, learners can use a sophisticated array of ICT resources to study difficult subjects through games and simulations. This is an excellent learning benefit because it indicates that learners are free to make a cognitive shift, that is, going from one kind of cognition to another within a learning environment. It implies that learners can use a range of audio-visual materials, like videos, to have a dynamic approach to learning. It also shows the cohesion that exists between the key language skills of reading, listening, speaking and writing as a learner can read, write, speak and listen simultaneously when using ICTs. Majumdar (2015) contends that ICT integration makes it easier for teachers to move from the conventional paradigm of information transmission to an independent, autonomous learning style that encourages initiative, creativity and critical thinking, as is expected in a constructivist or connectivist classroom. This suggests that ICTs are adaptable instruments that enable learners to think critically, independently, and creatively.

The learners in this study felt that using ICT tools would better facilitate their learning. They claimed that when they used ICTs, they worked more quickly. Learner GC4, for example, remarked that ICT raised educational standards and facilitated a speedier, easier living. She added that she spent less time speaking when utilising ICTs. She used the internet to look for assignment answers, for example, and could email them to the teacher from a distance. This is what she said:

> *It assists in the acquisition of information, particularly when we research for assignment answers (i.e. look up material online for use in class and academic projects). When using ICTs, you can complete a lot more work than if you were working without. (GC4)*

On the whole, this subtheme has demonstrated how teachers and learners no longer have the same roles as they used to have in the traditional classroom, because the accessible ICT resources, both in terms of type and combination, have a bearing on the instructional methods and learning preferences that might be employed. As mentioned before, a mix of visual, audio and audio-visual material may necessitate that the instructor and their learners use diverse teaching approaches, which may include explanations, demonstrations, and the use of examples and illustrations in a single class. The National ICT Policy (2016) stated that effective incorporation of ICTs into

instruction may guarantee learners' meaningful connection with information, and this seems to be true of the ESL classroom, as shown by the data. ICTs can improve cognitive abilities like understanding, logic development of thought, creativity, and problem-solving.

6.1.2.2 Subtheme 2: Using ICTs in the classroom as time-saving tools

Results from the teacher interviews indicate that ICTs are useful tools for time management in ESL classes since they help both teachers and learners complete activities more quickly and effectively. This implies that teachers may teach more in less time when they properly use ICTs in the classroom than when they use traditional teaching tools. In a similar vein, learners can study more material and do this more quickly. The following important points about ICT usage and time saving in ESL teaching were made by teacher participants during the interviews:

> *Effectiveness-wise, I no longer spend excessive time creating questions. I store all of my questions in a memory stick or tablet, and I can share them with the learners. This has made task accomplishment quicker. By faster, I mean that before the smartboard came along, you had to spend a lot of time writing, which you would then have to erase when you wrote the exact same thing in another classroom. Now, all of that is gone. (TC)*

> *I believe that ICT has really aided in lesson planning because it now takes practically less than 10 minutes to prepare a lesson since so much materials are available. It is now only a matter of using such resources, as opposed to having to come up with new ideas from scratch. You can actually look up other teachers' sources online and implement the ones you believe will work best for your situation. Thus, planning is made extremely simple and quick by the use of ICTs. (TA)*

> *Actually, using these ICTs reduces the amount of time required to do several teaching tasks. All you have to do is organise. It helps you save time in the classroom and when marking assignments, but careful planning is required. Less time is spent in class, you spend more time interacting with the students, and there is less time needed after because you will be marking less work. Unfortunately, planning takes longer in the beginning, but as it's established, it takes less time. When different ICTs are integrated and used in the*

classroom, it makes it easier to explain topics to students because you can do so with animations, videos. (TB)

As evident above, the teacher participants believed that when ICTs are used effectively for teaching and learning ESL, time is saved. The selection, preparation and use of ICTs to teach a pertinent topic in an appropriate educational setting are all part of proper utilisation. This indicates that the least amount of time is needed to complete tasks in class and that using ICTs to fulfil instruction objectives results in more skilful execution.

According to TC, utilising ICTs in the classroom eliminates the need for the teacher to make and revise notes as frequently as in a conventional classroom with a chalkboard. Technological gadgets allow instructors to create assessment tasks only once, store them on a digital device, and then retrieve and share them with learners at different times, as the teacher's response indicates. This allows teachers to overcome some of the constraints of traditional classroom settings. According to TC's response, ICT usage saves time spent on instruction as well as speeds up learning by enabling learners to complete a varied range of activities in less time. For instance, learners can share and duplicate notes more quickly and accurately while using computers than when utilising manual procedures. This finding agrees with existing literature that suggests that digital content can be easily copied, saving teachers and learners' time writing on the board (Muttappallymyalil et al., 2016). More significantly, though, is that ICT integration has reduced instructional time by doing away with repetitive writing of assignments in the classroom. This has made planning and teaching easier. Majumdar (2015), cited in the literature review, asserts that the primary goal of integrating ICTs into classroom pedagogy is to raise teaching standards. TC's response suggests that integrating ICTs in ESL teaching raises the standards of the teaching. However, it is important to state that while this approach appears to be more beneficial than the traditional approach of using a chalkboard to write notes, distributing notes using ICTs may, on the other hand, restrict learners' capacity to improve their handwriting.

Because of the accessibility of technological tools, teachers now require the least amount of time to design an ESL lesson, according to TA. Based on her response, it appears that teachers do not

need to put much work into lesson planning because ICT has made it simple to acquire and utilise pre-planned lessons on the same subject from internet sources. Although TA views this as a benefit, teachers may not actually save time by using ICTs because they are expected to use it to create innovative lesson plans rather than just duplicating pre-existing material. According to Constantinides (2015), teacher originality and inventiveness are crucial for planning lessons. This is something that TA seems to overlook in her appreciation of ICTs for ESL teaching. A teacher's capacity for creativity is essential to ensure that ESL instruction in the classroom is effective. As a result, TA's assertion that it "*just requires utilising such resources, as opposed to having to generate new ideas from scratch*" raises questions about the teacher's commitment to active teaching and creativity. While ICTs can certainly be appreciated for their time-saving value, the teacher's comment suggests that she is not capable of original thought and is using ICTs merely to reproduce old materials. Because the teacher concerned seems to undermine the rigour necessary for lesson planning to be effective, one can argue that the time-saving value of ICTs in ESL teaching can also have a detrimental impact on the standard of instruction.

Instead of only being tools to help instructors plan courses, ICTs must be viewed as resources that encourage teachers to be more deliberate and imaginative when creating new lessons for learners (Trucano, 2005). Unlike TA, TB underscored the need for meticulous planning as a means to enjoy the benefits of utilising technological tools in ESL instruction. The teacher noted that rigour is required in the early stages of designing a teaching activity using ICT tools and it is time-consuming to get the lesson comprehensive and logically structured. However, after it is well-planned, utilising ICTs to teach classes takes less time and labour. Even after the initial planning, instructors must still devote a significant amount of time to marking learners' assignments, examinations or test scripts. In this regard, TB noted that marking will take less time after the initial planning is completed, and this is where the time-saving aspect of using ICTs comes in.

In the course of the focus group interviews, learner participants also made reference to the time-saving benefits of employing ICTs efficiently for ESL teaching and learning. The findings from the focus group discussions demonstrate that ICT integration in ESL teaching and learning eliminates needless rewriting of the same activities, as the activities can be written once and saved

with ICT tools for use at another time. This minimises the length of time required to finish the various learning tasks in class. The learners said the following:

> *The teacher does not have to write and rewrite notes repeatedly as is the case with using a chalkboard in a traditional classroom. With ICTs teaching notes are prepared once and saved on a digital storage device, and can be retrieved and shared with numerous learners several times, thereby defying some limitations of the old classroom setting and attaining more learning tasks. (GB6)*

> *ICTs as ESL learning tools provide teachers with the opportunity to do more work in less time in the classroom because the availability and use of ICTs eliminate the repetitive process of copying notes on the chalkboard*. (GB9)

> *Use of ICTs is beneficial to both teacher and learners in the classroom because if used correctly, it can help to save time especially when different media are combined to deliver lessons. (GB3)*

The above responses highlight time saving as a benefit associated with ICT use in the ESL classroom. For learner GB6, using ICTs in class enables the teacher to save time on writing notes by hand and rather use the saved time to engage learners on additional learning activities. Similarly, learner GB9 saw the positive in ICT usage as enabling the teacher to do more teaching within the given period of time than is possible in a classroom where the traditional practice of writing notes on the board is dominant. For learner GB3, the utilisation of different technological tools in ESL instruction saves time, which benefits both teachers and learners. From the data collected, it was noted that in an ICT-driven classroom, as opposed to a traditional classroom, lesson planning, course delivery, and concept explanation are all faster and easier.

This subtheme has described the benefit of time saving that utilising technology in the ESL classroom offers, but as pointed out earlier, there is a need to be aware of some possible drawbacks of ICT usage and to develop mitigation techniques.

6.1.2.3 Subtheme 3: ICTs as tools that encourage classroom interaction

The teacher interviews revealed that, in contrast to a typical classroom, ICT integration presents chances for a variety of classroom interactions in the ESL class. The teacher participants felt that rich environments in real time and place are available for information sharing and collaborating and that these are generated in ICT-rich classrooms where a variety of interactions take place. The following are excerpts from the teacher participants' interview transcripts:

> *Because students can now speak with one another, it has improved my teaching. As a result, I now allow my students to contact students from other schools. Therefore, it involves not just classroom engagement but also interaction with students from different schools. The classes are more interactive when you involve the students in what you are teaching. (TB)*

> *In the classroom, there is greater interaction. I believe the learners are now able to understand what you are saying. Something you could demonstrate to them. Learners can interact with a variety of mediums to study material both alone and in groups. (TC)*

> *I can communicate with my students on WhatsApp, which is really beneficial. I am able to spread information since every one of them has a tablet. It's useful to me. Some people learn best when they are visually stimulated, therefore if they are unable to comprehend, they can just Google an image. (TA)*

The proper integration of ICTs in education, according to Noor-ul-Amin (2013), can offer a rich environment and incentive for teaching and learning, both of which are necessary in opening up new opportunities for interaction between instructors and learners. Teachers are advised to utilise a variety of interactional patterns in their lessons because a subject may become uninteresting if there is little or no interaction or if one interaction style is used excessively. TB's response above

indicates a broader take on interactivity. She felt that because digital communication platforms like WhatsApp, YouTube and email were easy to use, inexpensive, and available to learners in secondary schools in rural areas, they helped to foster additional interactive teaching and learning even outside the classroom. The method of engagement addresses relationships inside and beyond educational institutions by enabling learners to communicate knowledge with one another across schools. This substantial engagement, according to Conole and Dyke (2004), is among the affordances of technology integration in education. Due to their easy access to digital resources such as the internet, learners no longer have to rely on their teachers to deliver to them all the information they need in class, according to TB. Additionally, she argued that because ICT enables learners to interact meaningfully with the content being taught in the classroom, it consequently fosters autonomous education. Nowadays, as advocated by connectivism, learners can use blogs, visual applications, e-books, YouTube classes, controlled experiments, and relevant computer applications linked to any subject to acquire useful information and abilities (Bhaskar, 2013). The theory of connectivism comes into play in this instance as learners become connected to one another in sharing knowledge in and beyond the ESL classroom. TB believed her teaching improves when learners engage in more varied interactions both inside and outside of the classroom.

Interestingly, TC mentioned the possibility of tactile and visual engagement as an enabled interaction in the classroom. This implies that learners can use various media tools in the classroom to ‘see’ and ‘touch’ instructional content. Evoking learners’ many senses during lessons fosters learning in more varied ways than standard classroom engagement, which mostly focuses on verbal communication. The teacher’s statement also reaffirms how important ICT is for promoting both solo and group learning, since learners can use a variety of media to study ESL material either individually or collaboratively. This is made feasible by the distinct qualities of different media, which enable learners to employ a certain mode of communication in an interactive setting. For example, learners can connect textually, vocally and visually with one another as well as with learners in different places using their mobile phones. This makes it possible for them to cooperate and exchange knowledge in order to solve ESL learning challenges in the acquisition of their key speaking, reading, writing and listening skills. However, learners may also suffer from this type

of interactivity between and among themselves, particularly if the ICT is not chosen and used with a specific learning goal in mind. In order to guarantee that education is not jeopardised by the timing, location or mode of engagement of learners with ICT resources, learners' interactions with and through ICTs must always be geared toward promoting learning. In other words, for learners to gain from interaction with social contacts, teachers must provide guidance, even on online social media sites like Facebook, Twitter, YouTube, and WhatsApp.

TA emphasised how teacher and learner interactions on WhatsApp may have a big impact on teaching, both within and beyond the classroom. In such learning situations, ICT has essentially improved the instructor-learner interaction both in person and virtually. In this instance, the usage of mobile ICT devices appears to eliminate the obstacles to dialogue between the instructor and the learners that were previously thought to exist in a physical classroom. As a result, teachers can share knowledge with learners at any moment, which improves information distribution outside the classroom. Furthermore, the response from TA highlights the potential for learners to use Google to gain access to a worldwide knowledge platform on the internet. Learners have the option to independently seek for knowledge, and to share it with one another. Young people today are drawn to social media technology and thus academic institutions, including universities, have enthusiastically embraced technology for instructional purposes (Dlamini et al., 2016). Today's learners use Twitter, Facebook, WhatsApp, YouTube, and other social media platforms as learning and teamwork tools. Social media, according to Seaman and Tinti-Kane (2013) and Hunter-Brown (2012), is a legitimate learning tool for learners in the 21st century. In the interviews, TA confirmed the potential advantages of social media platforms for knowledge sharing among learners and between teachers and learners.

Findings from the focus group discussions indicate that the learner participants felt that integrating ICTs into ESL instruction fostered their creativity and problem-solving abilities. Additionally, it spurred them to study. The following was said by a learner:

> *Learners are more motivated and as such they become more creative when they are faced with new learning environments. Also, we are bound to internalise knowledge in a*

disciplined way working together with our classmates. As a result, we can generate knowledge. We will have the skills to handle fast changes in any environment. (GA6)

As evident in this quotation, this learner believed that ICT integration in ESL teaching enables learners to develop the skills necessary in dealing with challenges that arise from a fast-changing learning environment.

The data analysis also revealed that web-based instruction in particular is thought to support self-directed learning and assist learners in acquiring effective learning techniques. Participant learners stated that the final product of their assignments was typically a presentation or report, which called for them to put in a lot of individual work and apply previously learned abilities and information. The participants claimed that because they could do the tasks independently and at their own speed, this gave them more control over their education. Two learners noted the following:

It's more interactive in the classroom and one can see what the teacher is talking about and we are able to engage with various media to study content independently and through working with our classmates. We also explore content from different angles of thinking, from different learning and thinking levels. (GA5)

It makes teaching and learning more interactive because learners can connect with one another through digital communication formats like the YouTube, Facebook, WhatsApp and Twitter handles, which are cheap, easy and accessible to us. (GA3)

From the above responses, it seems that when ICTs are used in ESL instruction, learners can interact and participate freely as they explore information from different sources of the internet and practise writing, speaking, listening and reading skills. It also allows them to work independently and collaboratively. However, the extent to which social media platforms are cheap

and accessible to the learners, as learner GA3 claims, is debatable, considering that these learners come from low socio-economic backgrounds.

In this theme (Theme 2), every response has emphasised how ICT integration helps learners and teachers communicate more, and how it may have a significant impact both within and outside the classroom by giving learners a plethora of chances for a multiplicity of educational activities and interactions. According to the findings, participants believed that ICT promotes a range of interactions in the classroom between teachers, learners and the curriculum. This makes sense because Seimens' (2005) connectivism theory mentioned in Chapter 3 suggests that classroom pedagogy contains a web of links involving the teacher, learners, content, media, and the environment. The availability of varied interaction is listed by Tan (2012) as one of the pedagogical benefits of a constructivist learning environment. It was evident in the discussion on this theme that both learners and teachers engaged in constructivist and connectivist activities through the application of technological tools to ESL instruction and learning.

6.1.3. Theme 3: Challenges of utilising ICTs in ESL teaching and learning in rural secondary schools

This theme addresses the obstacles in the utilisation of ICTs by focusing on problems that may prevent ICTs from being integrated effectively in the classroom. The data analysis revealed problems of poor infrastructure, electricity loadshedding, and unsustained internet connection as hindrances to ICT utilisation in the ESL classroom. The infrastructure in certain rural secondary schools is lacking, and given that ICT requires specialised infrastructure, the participants' comments presented under this theme make sense. Due to some rural areas' continued lack of dependable electricity and weak internet access, there is currently not enough infrastructure for technology usage in rural Zimbabwean ESL classrooms. The focus group discussion findings from learners and one-on-one interviews with teachers are covered in several subsections below.

6.1.3.1 Subtheme 1: Lack of reliable electricity supply

According to teacher participants, the inconsistent power supply to secondary schools in rural areas is a major barrier to the incorporation of ICTs in ESL instruction. In their interviews, the teachers consistently mentioned incessant power cuts as a hindrance to the incorporation of technological tools in ESL classrooms. This is what two of them said:

> *If your reliance on electricity is excessive and you experience occasional power outages, you really need to have a backup plan. Electricity is something you cannot rely on too much if you don't have a backup plan. Otherwise, you will waste time and be unable to complete your teaching tasks. Although it [technology] has many advantages, you should also have backup plans in case something like loadshedding occurs. For example, since last week, we haven't had electricity in this school. (TA)*

> *Since we don't have a backup, loadshedding is one issue that I believe will be a big concern going forward. If the electricity goes out, for example. For instance, it just went off this morning. I'm not sure what happened. These are the drawbacks as well as the benefits of connectivity. In certain situations, students need connectivity in order to engage with the board, and in the majority of cases, I can say that I rely on the internet because the students we have now differ from those we had in the past in that they lack certain skills. (TB)*

The teachers pointed to loadshedding as a primary obstacle to the integration of technological tools in ESL classrooms, and this problem is made worse by a deficiency of standby generators for use in electricity-deprived schools. TA provided an example of a situation that is common in most Zimbabwean rural areas, that their school had gone without electricity for an extended length of time. Similarly, TB spoke about a power outage in their school that same day of the interview. For these teachers, unreliable electricity supply is a major barrier to delivering ICT-integrated lessons. Wright (2014) identified five major obstacles to the adoption of educational technology in Africa, with electric power ranking as the most dominant. The author is adamant that the adoption of educational technology will remain sluggish until electricity is widely accessible, dependable, and reasonably priced (Wright, 2014). TA emphasised that teachers should always have a backup plan

in place for any lesson that involves using electronics in the classroom. She said that by doing this, the negative effects of loadshedding on ICT-based instruction and learning in ESL classrooms could be lessened. Even though she did not create or outline any sort of backup plan, some instructors have devised ways to transition from digital to non-digital boards (like whiteboards), as long as these are accessible, in the event that the electricity goes out at the time of instruction. Furthermore, as a backup power source, several schools have added solar panels or generating plants to supplement the usual electricity provided in their premises.

6.1.3.2 Subtheme 2: Wi-Fi and internet connectivity issues

Closely linked to unreliable electricity supply in rural areas is the issue of unreliable internet connectivity. The poor internet speed caused by inadequate bandwidth capacity in rural secondary schools also poses a hurdle to the smooth application of technology in ESL instructional process. This subtheme discusses the problems around internet access as a key issue that obstructs technology integration. The teachers felt that limited access to Wi-Fi and the internet was a significant issue that affected the incorporation of ICTs in the ESL classroom.

> *If you are organised, there should be nothing that irritates you other than the occasions when our Wi-Fi is unavailable and the smartboard breaks. The issue of weak Wi-Fi connectivity is a great challenge in our school. (TC)*

> *When you arrange a session and assume that your students will use the internet to download information using their tablets or cellphones, yet they don't have access to Wi-Fi, the entire lesson is disrupted. ICT integration becomes difficult in the absence of basic infrastructure, such as connection. You cannot use e-learning effectively if your students are unable to connect. Most times we resort to the traditional teaching methods as a result, as our backup mechanism. (TB)*

> *If I rely mostly on ICT resources for preparation, I become annoyed. If there is no electricity, I am quite irritated. If the learners are trying to download something and the Wi-Fi is unavailable, that will irritate me, but I will quickly go on to something else. (TA)*

As noted above, teacher TC felt that poor connectivity is the primary barrier impeding the seamless integration of ICTs in his school. The fact that he mentioned the school's inadequate internet connectivity implies that almost all instructors in the school were concerned about the absence of dependable internet access in the classroom during classes. According to his response, when there was no internet access during a lesson, teachers became disappointed. This suggests that if access remains inconsistent, teachers will probably ignore the use of the internet in planning their lessons or even in delivering them. Such a course of action will result in the negligible application of ICTs in the classroom, which ultimately will hinder its integration into education.

Teacher TB's response reiterates the sentiments that a well-planned lesson may be thwarted if Wi-Fi is unavailable during the delivery period, or if it does not satisfy the demands of the instructor and learners in terms of access to online materials. If internet is unavailable when learners need to access it for extra materials or to do activities, teachers see this as a primary barrier to the application of ICTs into ESL instruction. All technology-driven learning environments must have internet access as a baseline necessity. However, lessons can also be hampered by learners not being ready to utilise their tablets productively in class, in addition to having poor or non-existent internet access. When learners have uncharged tablets or phones, it might negatively affect their potential to utilise the devices for online activities in the classroom, even when there is internet connectivity. TB's response concurs with that of TC that when internet connectivity is lost during class time, teachers are unable to deliver the lesson that had been scheduled, which may be frustrating. Based on her experience, TB recommended having a backup in case the internet goes off. Her experience has demonstrated that lessons meant to be taught using online videos, simulations, YouTube, and websites can also be completed while using downloaded online materials or other electronic teaching resources that do not require internet connectivity. This type of backup is one that teachers should use, even though she did not state it explicitly.

The teachers' responses suggest that teachers may feel discouraged to integrate ICTs into their lessons due to the unpredictability of Wi-Fi access in the rural secondary schools. Numerous academics have noted in the literature that inadequate internet access is a great hurdle to the

incorporation and application of ICTs in schools, especially in developing nations (Buabeng-Andoh, 2012; Mukhari, 2016; Rahim Sajid, 2013). Muchemwa (2023) notes that online learning is hampered by resource constraints, such as not having a dependable internet connection, experiencing power interruptions, and not having access to gadgets for use. This is particularly true of the rural schools involved in this study, as the teachers from these schools have reported. Inconsistent Wi-Fi access creates in teachers feelings of annoyance and irritation, as teacher TA expresses. Such feelings can move teachers to stop using technology completely in their teaching.

The learners in this study also noted that there were challenges in using ICTs in learning ESL, particularly when trying to access the internet for use in writing assignments given by the teachers. The schools under investigation were situated in rural areas where electricity loadshedding was a frequent occurrence. School C had one Wi-Fi connection hub for practically all of its staff members and learners, and thus the school had very poor internet connection. Below are some comments from the learners.

> *There are issues of slow internet connections, teachers' reluctance due to inadequate computer skills, loadshedding, insufficient devices, and misuse of equipment, allowing us as learners to download other programmes to keep going. (GC2)*

> *Our school is situated in the rural area, the internet is unstable, because all teachers and learners use the school's Wi-Fi which works very slowly. (GC7)*

> *The internet connection is one of the problems I face when trying to use ICT applications. When we have bad weather like wind or rain, we don't have electricity and because of this the internet becomes unavailable for all students and teachers. (GB2)*

From the responses above, the biggest challenge for learners was not having a dependable and quick internet connection. The inability to use the internet was clearly frustrating for the learners. According to learner GC2, the slow internet connection did not exist in isolation to frustrate

learners but was compounded by teachers' poor computer skills, loadshedding, insufficient devices for learners to work with, and misuse of the devices by learners. All these interrelated problems made the integration of technological tools in ESL instruction and learning a difficult task. The statement from GC7 puts rurality at the heart of the problem: because of the school's rural location, the available internet was unstable. In addition, because of the high traffic on the Wi-Fi by teachers and learners, the internet speed tended to be slow. For learner GB2, bad weather was a strong determinant as bad weather caused power outage and that in turn interrupted internet connectivity. On the whole, these learners pointed to a number of interconnected technological issues that made it difficult for ICTs to be used in ESL classes.

6.1.3.3 Subtheme 3: ICT policy gaps and weaknesses

As stated in Chapter 1, the MoPSE has the task of developing policies to direct the execution of government initiatives. Government projects that can benefit from policy advice in their implementation include developments in education, including developments in ICT usage for educational purposes. Nevertheless, this study's findings demonstrate that the MoPSE gave no specific guidelines to help teachers integrate technology into their ESL lessons. TA said the following:

> *We do not have proper guidelines within our schools on how we should make use of ICTs in ESL. The school itself has no ICT policy. (TA)*

This gap in the national policy for ICT is a major challenge to teachers integrating technological instruments into instruction and learning. It gives rise to the notion that schools should be making the decisions on how to employ ICTs in instruction and learning, leaving them free to come up with their own home-based frameworks. Moreover, the Zimbabwean Education Amendment Act (2019) does not explicitly state how ICTs should be implemented in classrooms. There are no explicit policy instructions for ICT adoption in schools that specify how technology should be used for ESL instruction. Not even Zimbabwe's national ICT policy has explicit guidelines on how ICT is to be implemented in practice. The national ICT policy's secondary goal in the field of education is to identify strategies for increasing e-learning and the practical application of e-learning

resources in the whole of Zimbabwe. However, the policy does not go into detail on how this will be put into practice. The schools demand that these rules be domesticated before they can be put into practice. To show how schools may operationalise a national or ministry policy, the policy must be transformed into a school-based policy. This kind of school-based policy was non-existent in TA's school, which suggests that there was no policy direction for incorporating ICTs into the ESL curriculum. The teachers observed that the value of policies was not represented in their own schools because none of the study's participating schools had an ICT learning policy. The teacher participants that were interviewed, however, understood the importance of having a policy to direct their work. The teachers revealed the following:

> *The school ICT policy is necessary within our school as it will provide guidance on how we implement the utilisation of ICTs that are available here. (TB)*

> *Without a school ICT policy, it becomes very difficult to put the learning process into practice. (TC)*

> *Our inability to access information from certain websites and research engines due to inaccessibility of certain passwords and licenses creates challenges. (TA)*

From the teachers' statements above, the absence of a school-based ICT policy indicated a pressing need for change. In addition, the failure of schools to renew licenses for digital texts posed a barrier to teachers using these texts for instructional purposes in ESL classrooms.

Schools' strategic plans are papers that include policy in and about the schools. The strategic plans found in the national ICT policy (2016) articulated aspirational objectives, like e-learning adoption and the need for cutting-edge infrastructure by 2030. Sadly, these were unable to offer any helpful information regarding the implementation of the policy for the adoption of e-learning in

Zimbabwe's rural secondary schools. A well-crafted plan should include SMART (Specific, Measurable, Attainable, Relevant, and Timebound) goals, distinct priorities, primary tasks, implementers, funding, dates for implementation, and a monitoring and assessment method. The MoPSE's not-so-clear approach to advising schools on particular models, or boosters, for the deployment of technology-oriented instruction and learning suggests that a trial-and-error approach was the quickest option for the schools to achieve their ICT utilisation objectives. This study, therefore, argues that school factors like the technical capability of the school, the endowment of resources, and the leadership's attitude toward technology adoption can become important determinants in guiding schools in choosing the appropriate implementation criteria for their ICT usage programme. This study is in favour of technology deployment in ESL instruction and learning but recognises from the data that limitations to such arise from policies themselves.

The participating teachers also expressed concern regarding the absence of foundational research to determine whether utilisation of ICTs in ESL instruction is feasible. They stated that, as important stakeholders and change agents in the educational system, the teachers' perspectives may influence the usage of ICTs in ESL instruction. The consequences of implementing drastic measures, such as introducing ICTs in schools, without having a thorough grasp of the local context, as highlighted by Dlamini and Na'Allah (2015), was highlighted by the data. Contextual issues which include teachers' attitudes and beliefs, their behavioural intentions, and their efficacy are some of the issues that could prevent effective ICT implementation.

Learner participants also voiced concerns that before ICT was introduced and implemented in schools, the government was unable to provide a policy that effectively provided the necessary guidance on how it should be done. They went on to lament that the government did not provide baseline research to understand the types of resources available in schools, the capabilities of instructors, parents and community leaders as key stakeholders, as well as the school surroundings. For instance, the responses below from learner participants show that they expected expert consultation and engagement with teachers prior to the ICT policy implementation initiation.

The introduction of ICT in schools is not being carried out in a positive manner. I believe the MoPSE can do better if they can truly interact with those working in the schools and get their input on how to proceed. As it is, our school has no clear ICT policy. It's difficult to know which rules to follow. Today our teacher needs us to use our cellphones to learn, the next day one is punished for holding a cellphone. (GC5)

There is a need for appropriate discussions and consultations to take place prior to the actual implementation of some of these changes and the better they would be to effect. (GA4)

These learners' responses echo those of the teachers' views that the government did not do enough to prepare teachers and learners to implement ICTs in ESL classrooms. Learner GC5 thought that the deployment of ICTs in schools was inappropriately done since the MoPSE had failed to communicate with the right parties in the many education disciplines that were connected to the school systems as a whole. Likewise, learner GA4 noted that appropriate consultations with people on the ground was necessary for the ICT implementation plan to be effective in schools. The opinions and contributions of people other than legislators and policy makers was crucial in as far as the integration of technological tools in schools was concerned, according to these learners. The learner participants voiced their displeasure with the government's strategy of bringing about significant changes in secondary schools without first soliciting input from the public. Particularly, they were unhappy with the lack of a proper and clear ICT school policy for teachers and parents involved in the implementation stages of ICT use in ESL instruction. Regretfully, teachers were typically left to respond to changes and the difficulties brought about by these changes, rather than being allowed to participate in the creation of new policies or innovations used in schools (Livingston, 2016). As the learners' responses above suggest, teachers were made outsiders to the very processes that required them to be inside participants.

6.1.3.4 Subtheme 4: The shortage of ICT infrastructure

One of the primary hurdles to ICT use in education, according to the literature, is inadequate technology-related infrastructure in rural secondary schools. (Gumedze, 2017; Kanyongo, 2005; Kelentrić, 2013; Konyana & Konyana, 2013; Masango, 2014; Ministry of Information

Communication Technology Postal and Courier Services, 2016; Munyengabe et al., 2017). This study, which examined ESL classes, also discovered that Zimbabwean secondary schools in rural areas lacked a pronounced ICT infrastructure. The teacher participants made the following observations regarding infrastructure:

> *It is difficult for the parents to purchase computers for the school. These are the computers and the supporting systems for the computer labs where they will be located, as the computers won't be safe and secure if the infrastructure isn't sufficient. (TC)*

> *Teaching ICT in schools without ICT infrastructure is like having a white elephant in your room because the government cannot expect teachers to always pull out their meager salary resources to sustain teaching processes. (TB)*

> *We're not sure what they expect us to do in these kinds of situations. Given that schools lack the required infrastructure, how can they introduce e-learning before securing adequate infrastructure? (TA)*

The above observations make it evident that there was a deficiency of facilities, such as computer laboratories, to support ICT activities in the rural secondary schools involved in this study. TC noted that because there was insufficient infrastructure in the form of computer laboratories, donating computers to the school by parents and other community stakeholders would not make sense since the computers would not be safely stored. TB used the idiom of a "white elephant" to convey the preposterousness of delivering ICT-oriented instructional activity without appropriately constructed ICT infrastructure. Lastly, TA rhetorically questioned what the authorities expected teachers to do when they themselves had failed to avail rural teachers with the requisite ICT infrastructure to deliver ICT-inclusive lessons. These comments all point to the reality that infrastructure shortage was an obstacle to ICT implementation in the rural ESL classrooms. This finding gives credibility to the view that a primary barrier to technology integration in schools is lack of ICT infrastructure (Al-Sulaiman, 2010).

Without spacious and well-ventilated structures set up to store technological equipment and to offer a conducive environment that is appropriate for instructing with ICTs, it is unlikely that ICTs will influence ESL education to the required standards set out in policy. An objective that was listed in the ZIMASSET economic vision was that of making Zimbabwe "computer literate by promoting all district education and ICT infrastructure by 2018" (Government of Zimbabwe, 2013, p.8). This remains a dream in the pipeline, as respondents to this study stated that their schools were still lacking the ICT-focused infrastructure outlined in the ZIMASSET national plan for 2013–2018. As was mentioned in the literature review in Chapter 2, the African Development Bank (2013) claims that the World Bank, the International Telecommunication Union (ITU), and the African Development Bank (AfDB) have been funding projects to overcome the ICT infrastructure gaps throughout Africa. The potential impact of these programmes on rural schooling in Zimbabwe remains to be evaluated.

Focus group interviews with learners revealed that, due to their schools' inability to supply them with the necessary ICT equipment and services, they were supporting their ESL learning processes with their own ICT resources. Remarks emphasising this included the following:

> *We have been using our own ICT gadgets. For example, I use my smartphone to get on the internet or Wi-Fi so that I may browse for the material I need to complete my ESL assignments. The fact that we never get to use ICT equipment frequently is a big drawback. (GA8)*

> *I have occasionally utilised my personal laptop. Having many learners relying on very few laptops in the class is a disadvantage for the rest of the class learners. Additionally, since it is a personal laptop, I cannot let each of my classmates handle it because there is no assurance that I will be compensated if something happens to it. (GB4)*

These comments illustrate that the learners understood the advantages of employing ICTs in ESL learning, which is why they made the sacrifice of using their own gadgets for learning purposes.

Since they had to use their own ICT resources to supplement the insufficient ICT resources at their schools, one must question the extent to which the state was placing the burden of ICT usage on learners. The learners highlighted the inadequacy of ICT resources in their schools, and pointed out how the situation made learning difficult for the entire class: while individual learners could use their own devices in class, they could not allow other learners to share in using them because if the devices fell apart, they would incur repairing costs all by themselves. What this means is that learning was not inclusive, as some learners got to benefit from using ICTs since they could afford it while the less privileged were left out. And yet this lack of inclusivity can easily be seen as caused by the learners who did not allow other learners to handle their devices rather than being seen as a problem caused by the government's failure to provide enough ICT resources for the school. While one can appreciate the learners' proactive learning efforts, such a system is not sustainable, and the infrastructure shortage can be said to impede social justice in ESL teaching and learning in Zimbabwean rural secondary schools.

6.1.3.5 Subtheme 5: Teachers' attitudes towards ICT usage

According to the teacher participants, teachers' attitudes toward ICT usage is a critical aspect that can affect the integration of ICTs in schools. This is what they said during the interviews:

> *The mindset of teachers comes into play here, since it will be difficult to truly implement ICT if educators are not comfortable with it and do not support it. Adoption is thus influenced by the teachers' attitudes. (TB)*

> *It is more difficult to change one's mindset than to adopt new technology, in my opinion, especially if one has been teaching for a long time in a particular manner. Therefore, rather than not having the facilities accessible, it is more of a shift in mindset that all of us need most. (TC)*

> *The elderly teachers feel cut off from the usage of ICTs .Undoubtedly, all it takes is change management skills. (TA)*

These statements indicate that teachers who are not inclined to utilising ICTs in the classroom are most likely to have a bad attitude toward technology and will not advocate for its adoption and integration into the ESL classroom. As a result, the general process of integrating ICTs in schools may be negatively impacted by this kind of mentality. Before teachers can include ICTs in their lessons and encourage learners to use it for learning, they personally must first acknowledge and value the advantages of ICTs in ESL education. In turn, teachers will only be able to fully profit from ICTs if they are given the chance to keep up their ICT skills and knowledge through training, conference attendance, and attending other events for the continued improvement of their professional development (Trucano, 2005).

According to the teachers' comments above, a major problem in the path of integrating ICTs into schools is not just teachers' negative attitudes towards modern technology but also their resistance to shifting their mindsets from traditional to modern methods of teaching. This is a complex problem to solve as it is influenced by other related problems, such as inadequate skills development of teachers and infrastructure shortage. Ziphorah (2014) points out that when integrating ICTs in schools, infrastructure provisioning takes precedence over teacher skills development. He thus recommends that before ICT integration is introduced in schools, teachers' capacity building programmes should be given high priority (Ziphorah, 2014). This is crucial, given that teachers' attitudes have a big influence on whether or not ICTs can be accepted and used in the classroom. Similarly, the attitudes of teachers have a big impact on the material they teach and how they teach it. It follows that an educator's ICT pedagogy is a direct reflection of their mindset. As attitudinal growth is a process rather than an event, trying to impart these dynamics in instructors is a tremendous undertaking that is only achievable over a prolonged period of time, especially with veteran instructors who tend to hold on to conventional techniques of instructing.

The teachers' comments above clearly highlight how challenging it is for teachers to shift from their long-standing, traditional methods of instruction to more modern approaches that make use of ICTs. It makes sense that such a significant change would be challenging, which is why some instructors oppose change even when it could ultimately be advantageous. Findings in other

research indicate that teachers with many years of experience are more likely to have this issue than younger teachers with less expertise (Ertmer, 2005; Rogers, 2003). The downside of teachers' resistance to change that involves ICT usage is a lack of alignment of their teaching methods to learners' learning methods. Learners in the 21st century use technology in their everyday lives and want to extend that to the classroom. Goundar (2014) conducted research in New Zealand and discovered that learners there were less engaged in computer science lectures and textbook chapters but were more inclined toward online resources like game sites, Facebook, chatrooms, and YouTube. This holds true too for learners in Zimbabwe, as I have observed in my teaching career. Thus, teachers' refusal to engage ICTs in their teaching inevitably deprives learners of a valuable learning platform. Such misalignment between teachers' traditional instructional mode and learners' modern technology-driven learning mode can create tension and missed opportunities for critical engagement in the ESL classroom. To address this problem, teachers may need to understand their new position as learning facilitators rather than insisting on remaining conventional knowledge broadcasters.

6.1.3.6 Subtheme 6: Teachers' inadequate skills to use ICT

The incapacitation of teachers to employ ICT technologies in ESL instruction was seen by teacher participants as a barrier to the application of ICTs in schools. The teachers raised the argument that instructors who were proficient in using ICTs in the classroom enhanced learner achievement by helping learners perform better. They emphasised how simple it was for them to share knowledge with other instructors and their learners using ICTs. However, they noted that they frequently grew reluctant to employ ICTs in their classrooms when they did not know how to use them. This finding has significant connotations for in-service teachers, who might not feel equipped to use ICTs in their lessons because they were not exposed to this practice during pre-service teacher training. Although TA thought that ICT tools were very helpful in the classroom, she also mentioned that some instructors were uncertain how to make use of them when giving ESL instruction. She declared:

> *In my opinion, it's a really helpful tool. Although technology is incredibly helpful, the one thing that may be lacking for some of us is that we don't know how to use it, particularly*

when we are teaching. We truly don't know how to use these ICT tools for instruction, except a few of them. Thus, we don't feel comfortable using them for that purpose. (TA)

Similarly, TB felt that ICT tools were beneficial and offered instructional value. According to her, the issue facing instructors was that they did not fully utilise technological tools or make the most of the ICT resources available to them. She also believed that because the teachers in her school lacked technological know-how, they were unable to effectively use them in the classroom. Here is what she said:

Our lack of computer skills, plus the fact that the majority of our staff members were not raised around computers, is one of our challenges, in my opinion. As a whole, most teachers consider them to be monsters. We are not properly utilising them to facilitate effective teaching and learning. Apart from that, these are useful tools for us to use. It's possible that you won't need to attend class every day in order to carry out your lessons since they are meant to promote autonomy and independence. (TB)

It is interesting how TB links ICTs to monstrosity. This suggests that for many teachers like herself, ICTs were something dreaded, something that instilled fear and made teachers want to stay away from it completely. Both TB and TA point to teachers' lack of the necessary technological expertise to manipulate technological tools in the classroom as a hindrance to integrating these tools in ESL instruction.

The teachers also felt that they had not been adequately trained in the usage of ICTs and therefore were uneasy while utilising them for instruction, as explained by TA:

Even though MoPSE had provided training, the kind of training has not been consistent, and the seminars were too brief and covered insufficient material. We did not get much training on the pedagogy of using ICT tools. (TA)

In the above statement, TA expressed the necessity for teachers to have adequate time to put their newly learned ICT information and abilities into practice. Teachers like her were afraid of looking incompetent when they used ICTs in front of learners. Thus, she thought they should have extra training to help them get comfortable utilising ICTs during instruction. This sentiment gives credibility to the views of Chigona and Chigona (2010) and Chigona et al. (2014) who state that teachers who lack self-assurance in their skills to use ICTs are unwilling to incorporate them into their lesson plans.

Significantly, learners were conscious of teachers' deficiency of skills to make use of technology in instruction. One of the learners in the focus group interviews remarked:

> *I agree that ICT usage in lessons is an advantage to teaching and learning, but it can be challenging if the teachers do not know how to use it. I have seen teachers who are totally unable to incorporate ICT into their lessons. (GC6)*

This learner's statement suggests sympathy for teachers who were not proficient in the utilisation of ICTs for instruction, as opposed to criticising them. It is probable that instructors' unfavourable opinions of ICT utilisation in ESL instruction stemmed from their infrequent access to continuous assistance as well as their limited training in ICT resource utilisation.

The finding under this theme is that rural schools face the difficulty of inadequate ICT training and support for their teachers. However, providing teachers with ICT training alone may not address the issue of teachers not integrating ICTs into their practice; unless there is ongoing support for these teachers and continuous assessment of how well they are using the skills they have learned, little will change on the ground. Chigona & Chigona (2010) note that among the factors influencing instructors' reluctance to include ICT into instructing and learning are a lack of self-assurance, anxiety, and a fear of appearing ignorant in front of learners who are more proficient in technology than the instructors.

The teacher participants' responses presented above underscore the need for ICT training for instructors, as this will enable them to use technology fearlessly and with confidence. ICT-skilled teachers and technology support staff with the necessary technical support-giving abilities are necessary to facilitate the integration of ICTs in a way that improves teaching and learning (Herselman, 2003; Rae et al., 2006). As Dzansi and Amedzo (2014) note, after computers are installed in classrooms, they require ongoing upkeep. In addition, all schools should have a formal support structure with full-time staff to handle troubleshooting requests (Dzansi & Amedzo, 2017). In the case of Zimbabwe, this structure can be established either inside the educational system or through outsourcing by the MoPSE to companies in the ICT sector. Rwodzi et al. (2020) also point to the need for English teachers in schools with limited resources to enhance their digital literacy abilities in order to meet modern-day demands for online or after-school teaching.

6.1.4 Theme 4: Strategies to address the challenges of using ICTs in ESL teaching and learning in rural secondary schools

Where challenges exist in educational contexts, teachers and learners often exercise their agency in finding ways to overcome them. One of this study's research questions was on how teachers and learners were overcoming the challenges they faced in integrating ICTs into ESL instruction in secondary schools in rural Zimbabwe. Considering the analysis of the teacher interviews and learner focus group discussions, four subthemes are discussed under this theme.

6.1.4.1 Subtheme 1: Teachers' sacrifices

According to individual interviews with teacher participants in this study, teachers often used their own technological resources in ESL instructing and learning procedures, since their schools were unable to supply them with the necessary resources and assistance. The following statements reveal this:

We have been using our own gadgets. For example, I send my pupils their assignments via my smartphone. At times I use my laptop and solar panel to deliver lessons. For some of my students, this is a drawback because they never get to use the ICT equipment. (TC)

I have occasionally utilised my personal laptop. With twenty students, there are only so many activities you can do with a single personal laptop. Additionally, since it is a personal laptop, I cannot give it to each learner. It is not easy doing that. (TB)

The statements above suggest that these teachers knew the benefits of ICT usage in ESL instruction, as they went out of their way and complemented the inadequate technological resources in their schools with their own personal resources. Effectively, the teachers were making a sacrifice by using their personal laptops and energy supplies to teach. Such personal sacrifices seemed to be the only way they could address the insufficient technological tools in their schools. The instructors, however, noted that this was limiting as one laptop could not be shared with many learners. The sacrifice was therefore only a short-lived, instant solution to the greater crisis of tools shortage.

In addition, the teachers expressed concern that it might not be a feasible set up allowing learners to use their technological gadgets because they will inevitably have to pay to keep these gadgets maintained in case of any malfunction. In other words, the cost of maintaining these gadgets remained on the teachers even though they used them for teaching the learners. The following comments attest to this:

Another difficulty is that, even if I find a laptop to use in class, I am always responsible for the cost if it fails. Most instructors are unable to improvise because of these dangers and weaknesses. In my classes, I utilise mostly personal ICT gadgets that I maintain and get serviced when they break because the school does not provide that reparation service. (TB)

When I want to assist students, whose school is unable to purchase ICT devices, it becomes a very difficult decision for me to give the personal ICT gadgets to the learners since, in

the event that it breaks, I become responsible but at times we go beyond and allow learners to use our gadgets under our close supervision to achieve lesson objectives. (TC)

The teachers' comments above show that while they were willing to make personal sacrifices to bring ICTs into their English lessons, they were also incurring personal loss in maintenance costs should their devices break down when handled by learners. In 2017, *Pindula News* (2017) reported teacher trade unions' allegations that the Ministry had hurriedly implemented ICT utilisation without taking resource constraints into account. The labour organisations bolstered their argument by emphasising how the new curriculum implementation was indirectly requiring instructors to utilise their own money because of a lack of resources (*Pindula News*, 2017). It is evident, then, that ICT integration into ESL teaching may remain a token if the education system continues to rely on teachers' sacrifices to bring ICT tools into the classroom.

6.1.4.2 Subtheme 2: Teachers' professional development in ICT usage

It was previously mentioned under Theme 3 that one of the hurdles to the incorporation of technological tools into ESL instruction is the inexperience of teachers in using ICTs for instruction. The teachers in this study had attempted to overcome this difficulty in several ways. In response to questions about how they were using internet sources to advance their professional content knowledge in their subject specialisations, they said that they joined social media groups where they could learn from other teachers and that they used instructional videos on the internet to acquire new teaching techniques.

What's interesting about instructional videos is that they're not only instructive for students, but also for me. I've gained better teaching techniques and the ability to explain concepts in a way that students can grasp. (TA)

I joined the Bubi ESL teachers' WhatsApp group, which is made up of all ESL teachers in the district. I get to learn from other teachers who have more expertise than I do in the subject of teaching ESL, which makes the interactions through this social network effective. In the group, we exchange pertinent information on the course material and even offer

advice to one another on how to teach particular subjects. This has aided in my professional growth and increased my professional growth and assurance as a teacher. (TB)

As shown in the transcript excerpts above, TA mentioned that through the instructional videos she watched, she learned better teaching techniques. Whether these techniques involved ICT techniques is implicit rather than explicit. For TB, being part of a community of ESL teachers in her district enabled her to develop herself professionally. Siemens (2008, p.2) refers to this as connectivity, which is a "network of learning" wherein teachers utilise ICTs to interact with peers in their own school, nearby schools, or foreign nations, sharing and disseminating knowledge about their subject matter and providing clarification on any questions they may have. It is evident here that the teachers were not passive to their plight but were adopting various strategies to mitigate their challenges in ICT usage for ESL instruction.

Significantly, the teachers' efforts were meeting the expectations of their learners as one learner in the focus group interviews said:

In order to effectively integrate ICTs into their teaching and improve students' learning, teacher educators must receive in-service ICT training as well as network with other teachers in other places. (GC8)

The findings here corroborate those of Montrieux et al. (2015) who point out that the availability of infrastructure, the support provided to teachers, and staff professional development all influence how secondary schools will adapt to ICT usage. The advent of new ICTs in the educational field makes it necessary for teachers to engage in continued professional development.

The successful integration of ICTs in rural secondary schools is centred on involving the teachers in ongoing training and getting their feedback. To educate instructors on the pedagogical integration of ICTs, schools are required to host workshops. To enable the unfettered use of technology in all departments for instructional purposes, the study's participant teachers believed

that professional development in ICTs utilisation should be availed to all teachers, not only those working in the ICT department. These ideas are consistent with the opinions expressed by Chabinga (2015) who noted that ICT training should be provided for all instructors in their various areas of specialisation by school administrators, as is required by school policy. Similarly, Bahati (2010) noted that pedagogy and the use of ICTs should be the main focus of teachers' professional development, which must include a variety of activities. This study notes that, in order to guarantee implementation and convenient monitoring, a national policy on the continued improvement and professional growth of teachers regarding the use of technological gadgets in schools is required.

The material provided by the two aforementioned subthemes addresses the study's fourth research question, which asks how instructors and learners in rural secondary schools manage the difficulties they encounter when utilisng ICTs for ESL instruction. Thus far, the data analysis has identified tactics that educators have used to get around some of their obstacles, such as leveraging their own resources for instruction and advancing their professional development through various channels. The data presented earlier under Theme 3, while addressing challenges in ICT usage in ESL teaching and learning, simultaneously highlighted how learners were making efforts to overcome issues like inadequate ICT tools by using their own devices during ESL lessons. For the sake of avoiding repetition, a subtheme has not been created just for that. However, it was noted in the data analysis that beyond just stating what teachers and learners had done to overcome their challenges, they also stated what *could* be done to solve the problems they faced with ICT usage in ESL education. The next two subthemes present two possibilities for overcoming the identified challenges.

6.1.4.3 Subtheme 3: Localising ICT policy in schools

An earlier finding presented in this chapter is that the schools that took part in this study lacked a locally relevant, institution-based ICT policy to encourage the utilisation of ICTs in ESL learning and teaching. As TA mentioned, it was thought to be impossible to support teachers in implementing ICTs in their classrooms without such a policy:

Administrators cannot hold anyone accountable for failing to integrate ICTs since government laws do not state how teacher educators should utilise ICTs during instruction. Therefore, there is nothing compelling about the usage of ICTs. Technology is merely an add-on that the user can adopt as they see fit. (TA)

As shown in this quotation, TA felt that there was no compelling legislation requiring teacher educators to use ICTs in a specified way. This is because the country's ICT strategy had not been translated into the teachers' local context to enable them to use it appropriately and effectively. On her part, TB claimed not to have seen any ICT policy at her school:

I have heard there is a policy, but I haven't seen or touched the document. (TB)

Nsibande (2014) claims that the lack of a national policy in Zimbabwe in addressing science, technology, and innovations has an impact on the growth of the utilisation of ICT in the nation. As shown in Chapter 1 of this study, policies certainly exist; they just do not address the best ways to include ICTs into the curriculum at localised school levels. This means that in order to give some direction on how ICTs may be incorporated into the curriculum, tangible and clear cut school-based ICT policies are required.

6.1.4.4 Subtheme 4: Training learners on the usage of ICTs

From the findings, teacher participants believed that learners had a stake in the ICT usage in ESL instruction in secondary schools in rural areas. In addition to training teachers on how to use ICTs appropriately, learners also needed to be trained on the proper usage of iPads, laptops and software systems to research academic information in the classroom. Here are some of the opinions that teacher participants shared during the interviews:

Since our students don't know how to use ICT devices to search the internet for material related to what they are learning, I believe that there is a need for learners to receive training as well. Their sole knowledge consists of downloading games and music content. (TB)

I believe they can set up classes for students to demonstrate the most effective ways to use computers. Students haven't received enough guidance on ICT devices, which leads to student abuse of the ICT tools. (TC)

I see it as a system, and if any one of its components is ineffective, the system as a whole will suffer. It is for this reason that in addition to learners, teachers also require training. Teaching teachers alone is ineffective. Learners also require instruction on how to use these ICTs for education, or else the entire process will not work. (TA)

All three teachers shared the conviction that learners should have the same training in ICT usage as their teachers. This stemmed from the fact that the majority of learners in their schools did not know how to utilise a tablet to conduct an internet search for information, as the teachers noted. They felt it was appropriate to give the learners enough direction and assistance to accomplish their learning goals and prevent tablet misuse at school. Additionally, the teachers observed that learners lacked the knowledge necessary to organise their computer use for optimal learning outcomes. This suggests that learners were unable to plan their tablet use in a way that would have allowed for efficient learning. Given that the majority of learners in the participating schools had never had the chance to own or use a computer or other similar gadget previously, their behaviour was not unusual.

Because using ICT for education differed greatly from using it for other purposes, learners needed to be trained in ICT usage. Nonetheless, the educators disagreed on how this instruction had to be delivered to learners. While TA felt that ICT integration of technological tools into the classroom was a systemic process with multiple actors and that all of the major participants in the classroom should receive full-spectrum support at the same time, TB supported giving learners independent instruction on the manipulation of technological tools in the classroom. That the teachers saw different possibilities for the training to be accomplished only helps to emphasise the necessity for such training.

Findings from the focus group interviews show that learners agreed with teachers that they too should be involved in the processes of implementation of ICTs in ESL education by receiving guidance on the how of utilising ICTs for educational purposes. Here are some opinions that were expressed by participants in the focus group interviews:

> *I think there is need to train learners too because what I realise with us is that we don't know how to use the tablets to look for the information on the internet concerning what we are learning. The only thing we know is to download games and other social things. We tend to research haphazardly without any technique on how best we can go about the process.* (GA7)

> *I also think there should be training for us, that's for the same reason, like for instance we should know how to use the tablet because now we don't know how to structure the usage of our tablets to gain their maximum educational advantage. (GA3)*

> *I view it as one system. If one part of it is not functioning well then there would be disorder. That's why teachers need to get trained. Students too need training because there is no use training the teachers only, but the learners need it too to use these ICTs effectively, and if they do not train us on how to use ICTs effectively for schooling then there will be a problem in the whole process. (GA1)*

These remarks show that the learners agreed that they should have training on ICT usage for ESL learning, just like their teachers did for ESL instruction. Given the challenges faced by certain novice learners while using tablets for learning, they believed that learners should receive training on the proper use of ICT devices so they could become comfortable with the tools and use them to help their learning. It is evident from the aforementioned extracts that more structured training is necessary for both instructors and learners in today's 21st century schools to execute teaching and learning in the best possible way. Similar research conducted in Canada concluded that

instruction on when and how to utilise technological tools in the classroom should be provided to not only instructors but to learners as well (Mona et al., 2008). The next section will discuss data presentation and analysis for the lesson observations.

6.2 DATA PRESENTATION AND ANALYSIS: LESSON OBSERVATIONS

As stated in Chapter 4, this qualitative phase of the study employed three methods for generating data, which were individual interviews with teachers, focus group discussions with learners, and lesson observations. The information gathered from the classroom observations is presented in this section. Although all three rural secondary schools employed the same curriculum and incorporated ICTs to teach ESL to O'level learners, it is worth noting that the geopolitics of each school led to different ways of application. Thus, I have decided to present the lesson observations for each school separately under this section.

6.2.1 Background to the lesson observations

This research was initially conceived to include lesson observations as part of the data collection tools in the qualitative phase. However, later conversations between me and my supervisors resulted in us feeling that the data would be overwhelming, so we decided to leave out lesson observations and stick to the teacher and learner interviews. After I had analysed the data obtained using these two tools and submitted to my supervisors, we revisited the original plan and realised that the lesson observations were indeed necessary to verify some of the findings that were emerging from the two sets of interviews and to collect data that specifically answered research question two on how ICTs assisted in the teaching and learning of speaking, reading, listening and writing skills in ESL in Zimbabwean rural secondary schools. Thus, we decided again that I return to the schools and conduct classroom lesson observations. This process of decision making, unmaking and remaking is characteristic of qualitative research which, according to Leedy and Ormrod (2019), does not always follow a linear process but rather can be non-linear, depending on the demands of the project.

6.2.3 Challenges to lesson observations

Although Merriam (2002) contends that observation is a most effective method of data gathering for qualitative research studies since it captures the participants' personal experiences with the phenomenon of interest, there are challenges to the procedure. My intention was to observe two ESL lessons in each of the selected rural secondary schools. However, due to the schools' preparations for the public national examinations, most of the lessons had to be postponed to allow candidates to complete the examinations. By means of negotiations, I managed to observe two lessons from School A and one from School B and the other from School C. I feel that the observations, though two short of the intended six, were great avenues to experience first-hand what ICT integration in ESL education in Zimbabwean rural secondary schools involves, entails or requires.

In my experience, establishing my function as the researcher was the most difficult part of the classroom observation. I had to clarify my definition of non-participant observer first. For me, it was a methodical procedure for gathering information that gave me the opportunity to watch the ICT integration process in real action without interfering with the lesson procedures. It was crucial to comprehend the ICT integration process in detail within the natural environment in which it was taking place but without interfering or influencing the process. The lesson observations gave me direct access to the process (Creswell, 2013), and yet I had to frequently remind myself of my non-participant role in the classroom.

6.2.3 The observation procedures

I observed the lessons in the three O'level ESL classes at the three schools as a non-participant observer. Each teacher participant gave me permission to observe each of their classes. According to Creswell (2014), observations are a crucial method of gathering data for qualitative studies since they allow the researcher to witness the event under study at close range. As far as behaviour analysis of participants during the anticipated actual usage of ICTs in teaching ESL is concerned, observation proved to be the most pertinent and trustworthy data collection method. The purpose of non-participant observation, as mentioned in Chapter 4, was to allow me to operate on the same level as the learners, thereby creating a laid-back environment that encouraged sincere self-

expression on the learners' side. Non-participant observation helped me to assess the degree to which ICTs were utilised in those schools and to obtain a thorough understanding about ICT usage in ESL instruction. I took notes during the observations in order to compare findings with the information obtained from the interviews. I used an observation guide to help me decide what specifically to look out for during the lessons at the schools. My observation guide broadly focused on the pedagogical approach of the teachers, the ICT devices they employed in the classroom, and how they applied them to ESL instruction. During the classroom observations, I was also able to annotate the gestures and facial expressions of the teachers and learner participants. While some learners were uncomfortable being on camera, I was still able to take some pictures with their consent, even though I was unable to video record the observations. I succeeded in gathering rich data using the audio recorder, and I constantly referred back to it to double-check information when doing the data analysis.

Although it was challenging to record every word the learners said, particularly in the most interactive classes in the schools, the notes that were recorded clearly show the pedagogies used by the teachers and the responses made by the learners, which offer a wealth of information for assessing how ICTs were being used in teaching and learning ESL. I made notes about the methods in which the instructors delivered the lessons and the reactions and behaviours of the learners. Along with my observations regarding the learners' behaviour, silences in the classroom and instructional gaps, I also made notes about the interactions of the learners and their teacher as the lesson progressed. This aligns with the view by Denzin (1998) that field notes ought to be comprehensive, with clear allusions to participants, exchanges, customs, ceremonies, interpretations of time components, and social structure. My comprehension of the ways in which instructors and learners employed ICTs to teach and study ESL in rural secondary schools was thus aided by my field notes.

I observed four ESL lessons from the three selected secondary schools: two lessons from School A, one lesson from School B, and the other lesson from School C. Lessons on descriptive composition and poetry were the first two lessons that I observed from School A, ESL comprehension and explanation of words was the second from School B, and ESL literature was

the last lesson from School C. At each lesson observation, I introduced myself to the class, stating that I was a doctoral candidate sitting in their classroom conducting research on the subject I had brought up at our first meeting during the questionnaire administration. I then detailed the ethical guidelines for the observations to be made during the lessons. I told the learners and instructors that I would be using the data I had collected for my research study on the subject of ICT utilisation in ESL instruction in Zimbabwe's rural secondary schools for my studies and publications. I repeated the research's ethical principles and assured educators and learners that confidentiality would be upheld. Because of this, learners felt at ease acting normally throughout the lessons and understood why I was there. I was able to observe the learners and instructors in the classroom without actively participating in the lessons by using non-participant observation. The observations were conducted to gain a detailed understanding on the practice of ICT integration in secondary schools located in rural Zimbabwe, particularly in ESL teaching and learning. To verify some of the information obtained through the interviews, the observations focused on the computer laboratory's hardware specifications, the manner in which electronic media was utilised in ESL lessons, and the conduct of both the participant teachers and learners in the classroom when ICT tools were used. Throughout the lessons, I kept a close eye on what was going on and made notes in my observation guide.

6.2.4 The observation overview

In addition to the lesson observations in the ESL classrooms, I observed the technologies and other tangible features of ICT integration in each ESL laboratory and classroom, based on the location of each observation session. This was done both during lesson observations and after each lesson observation. I started by looking at the school's computer laboratory at School A. The laboratory had an interactive whiteboard, an overhead projector, and ten desktop computers that former Zimbabwean President, Robert Gabriel Mugabe, had donated, as I heard at the school. I was informed that before being converted into a computer laboratory, the very computer laboratory had actually been a classroom and as such there was a chalkboard in the laboratory on its other end. The computer laboratory's ICT gadgets were all in good working condition, but the space was cramped and, from what I observed, the laboratory could most likely only hold a total of 15 learners at a time. Given the school's minimum of 40 learners in every class, the small size of the computer

laboratory was viewed as a setback to ICT integration in education. Although the school had installed Wi-Fi and internet software systems, it still struggled with sluggish internet access. Two movable whiteboards from the school were set up in the computer laboratory. Below is a picture of the School A laboratory.

Figure 6.1: Computer laboratory in School A



There were 15 PCs with chairs and desks in School B's computer laboratory that I saw. An interactive whiteboard and overhead projector were also present. I noted in my observation that the computer laboratory was too small to house more than 20 learners. With over 500 learners registered in the school, each class had at least 30 learners, so it would be challenging to fit a class of 30 learners in the laboratory.

In School B, I found that not all computers, interactive whiteboards and overhead projectors were operating as intended. There was Wi-Fi in this school, but I observed that retrieval of information from the internet took a long time due to the incredibly poor Wi-Fi connection. During the lesson observed, TB had to use tape-recorded comprehension material to teach her ESL learners. The audio was played at a very low volume. I felt the volume could have been louder, if speakers had been used.

Upon my arrival at School C, I noticed that electricity was unavailable at the school. Although the school had bought a generator, it was not large enough to power the entire school, as I gathered. Luckily, TC had a backup plan in place to power his laptop and projector using his own solar panel. Learners were not allowed to use the generator power during loadshedding or power outages; it was only available for administrative tasks. In the ESL classes, no electricity was used, as it was unavailable due to loadshedding. Even in the neighbourhood surrounding the schools, there were frequent blackouts, so I gathered. The picture below shows the computer laboratory in School C.

Figure 6.2: Computer laboratory in School C



During the lesson observations, the teacher participants, TA, TB and TC, delivered their lessons using technology. It was observed, nevertheless, that learners were sharing the three teachers' meager supply of laptops. This was mentioned earlier in this chapter as one of the difficulties the three chosen schools encountered when using ICTs to teach ESL in remote secondary schools.

My observations also indicated that there was no specific policy in place for using ICTs to teach ESL. Every school implemented the utilisation of ICTs as best as it could, within the limits of its financial resources. Because there were no explicit policy guidelines from the MoPSE, teaching with ICTs was not taken as a mandatory procedure, although from my observation effort was being directed towards enhancing its use. The many ways that ICTs were incorporated into the lessons demonstrated the various ways that teachers in these schools had conceptualised the usage of ICTs. I also noted that although there were national ICT policy regulations available in these three selected rural secondary schools that emphasised the significance of technology use, these did not focus specifically on the "how" of ICT implementation. As a result, the teachers seemed confused and unclear about how seriously ICT usage had to be taken. The lessons observed show how insufficient the policy guidance was. In addition, at some stage in their instruction, I observed some indicators that teachers lacked experience in delivering effective ESL lessons using ICTs.

6.2.5 The lesson observation guide

As mentioned earlier, the observations of the four ESL lessons in the three schools were conducted following an observation guide that helped me to keep focus on the relevant information required for answering my research questions. The following components were the guide's main focus:

- Types of ICTs available in the class
- Teacher's pedagogical orientations
- Usage of ICT devices by the teachers and learners
- Teachers' choice of ICTs that enhance ESL teaching
- Management of ICT technology in the class
- Ability to communicate and collaborate with learners through the usage of ICT
- Whether the teacher involved learners in the use of ICT

I discovered during the lesson observations that my observation guide was quite beneficial in that it gave me a chance to record the pedagogies used by the teachers as well as the teachers' technological know-how. It made it easier for me to concentrate on the areas I wished to research. As I watched the class discussions and all of the activities going on, I took note of the fascinating

details. This involved snapping a few pictures of the incidents that I thought were noteworthy and crucial for this research. However, in accordance with ethical guidelines, I have obscured the photos used in this report to protect the individuals' identities. Although some elements from these photos are analysed in this chapter, I refrained from including any pictures that still showed some obviously recognisable characteristics of learners in my thesis out of respect for their anonymity and confidentiality. Having said that, the observation guide helped me to take a firsthand look at how teachers were using ICTs to give instruction on reading, listening, speaking and writing skills in ESL as well as to gauge how the learners were mastering these basic language skills through the usage of ICTs. The table below summarises the lesson observation data.

Table 6.2: ESL lesson observation summary data

Teacher Pseudonyms	**Topic taught**	**School**	**ICTs used for teaching and learning**	**Teaching material**	**Display platform**
TA	Descriptive Composition writing	School A	Laptop, Projector, PCs and cellphones	PowerPoint slides designed by teacher	Interactive whiteboard
TA	Poetry	School A	Laptop, computers and overhead projector	Learners' notebooks and teacher's notes	Interactive whiteboard
TB	Comprehension passage and explaining word meanings	School B	Tape recorder, laptop	PowerPoint slides designed by teacher	Interactive whiteboard
TC	ESL Literature set book	School C	Laptop	PowerPoint slides	Whiteboard

				designed by teacher	

The details of the lesson observations are presented in the sections that follow.

6.2.6 School A lesson observations

According to Creswell and Creswell (2018), ethical guidelines need to be followed at all stages of a study's life cycle. This entails protecting participants' anonymity throughout the reporting process as a sign of professionalism. As mentioned in Chapter 4, all of the participants that are mentioned individually have been assigned pseudonyms. A detailed descriptive analysis of the lessons observed in the selected schools follows in the next section.

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6.2.6.1 School A lesson observation 1: Descriptive composition writing

Class: Form 4
Date: 18 June 2024
Start Time: 10.30am
End Time: 11.10 am
Topic: Descriptive Composition Writing
ICTs used: Laptop and overhead projector

The lesson observation was done on 18 June 2024 and the lesson took place in the school's computer laboratory. When I got to the school, the head of the school introduced me to TA, even though we had already met on previous data collection occasions. TA then showed me to her class for the ESL lesson observation. I had a great view of the entire laboratory because I was seated near the back. Before giving the learners instructions to sit in groups of four and allow the group leaders to turn on the computers that were in front of them, the teacher acknowledged my presence and gave a brief introduction to the class. I soon noticed that the computers available for learners were inadequate, and thus some learners had to share.

Figure 6.3: Learners working on computers in School A



The teacher had to use her own laptop to give notes and lesson facilitation guidelines while the learners had to share the working PCs. A few learners were utilising their cellphones. I saw that there were a few broken PCs in the laboratory. Upon taking a closer look, I noticed that the laboratory had a whiteboard, projector, smartboard and chalkboard. I also observed that the number of computers in the laboratory was insufficient for the learners (there were 36 learners in class on that day). Electricity was available at the school, and the school administration had supplied an internet connection that allowed the smartboard to be used. Of note again was that the teacher relied on her laptop and the projector for this session rather than on the smartboard.

The following excerpt demonstrates how the teacher facilitated and managed the lesson. The lesson was introduced by letting the learners describe the ICT gadgets that they observed in the classroom. This captured the learners' interest as they described concrete ICT objects that were present in their environment. This teaching methodology was in line with the view by Piaget (1972)

that learners learn best when content is presented from the concrete to the abstract, from the known to the unknown, or from the basic to the complex.

Transcript 1: School A lesson observation 1

Teacher: Good morning students. Today we want to describe what we are seeing in this room. Look around and explain to the class what you see. Once you have identified anything you see, raise your hand. Yes, GA4.

GA4: I am seeing my fellow classmates, broken computers at the back of the room and a projector.

Teacher: Yes. Any other observations? Yes, GA8.

GA8: I see beautiful girls seated in front of me. They are wearing smart uniforms. (Many hands went up and there were many voices speaking at the same time. The teacher restored order and asked the question again.)

GA10: I see the walls of this lab and the charts that are placed disorderly on them.

Teacher: (explained their answers and gave them examples of the main components of a descriptive essay and how to construct one.)

Teacher: Today we want to write a descriptive composition. Could you switch on your computers? Go to the documents file.

G20: We have opened.

Teacher: Under documents look for the document titled ***"Descriptive composition".***

GA32: Our computer is refusing to open, ma'am. Can you kindly assist?

GA28: Ours has frozen, ma'am.

Teacher: Let's wait and see what happens.

GA8: We have opened.

Teacher: What do you see? Yes, GA16.

GA16: There is a picture of Victoria Falls.

Teacher: What do you know about Victoria Falls?

GA1: It's a tourist place.

Teacher: As an individual, write a description of the picture that appears on your computer screens that you have opened.
Teacher […] Can you discuss as a group, produce one good report, present it on PowerPoint, then report to the class what you would have done.

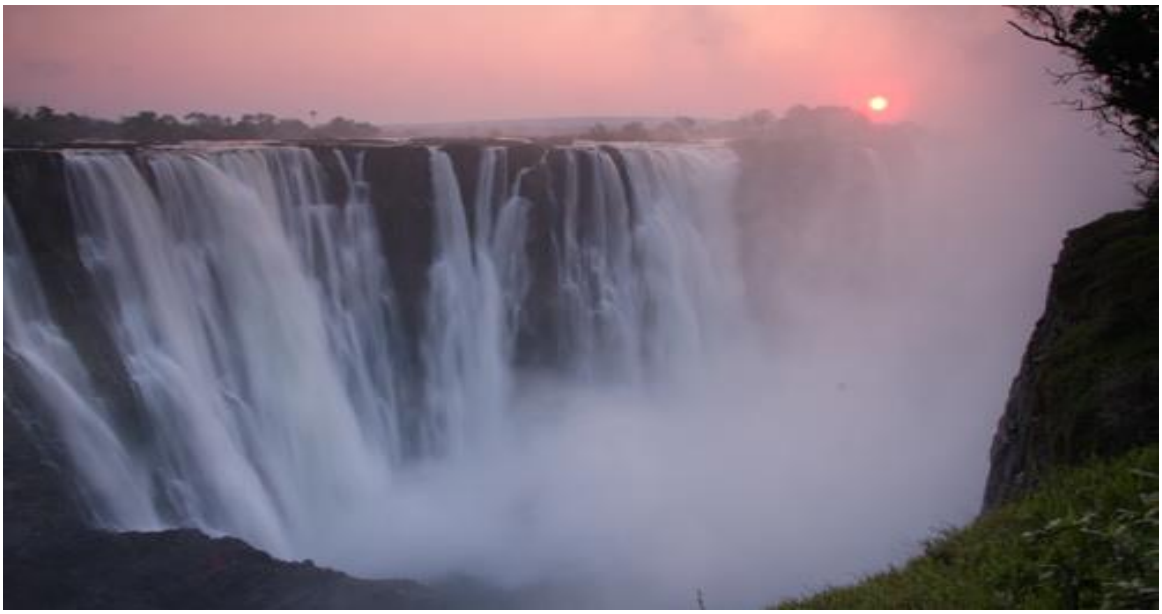
In the excerpt above, TA asked learners to make a description of what they could see from their seats in the computer laboratory. By this, the teacher gave a stimulating beginning to the session as the learners were observed taking notes while they actively looked at their surroundings. This is consistent with the behaviourist theory of learning which posits that learning is made simpler by beginning with the simple concepts and working one's way up to the complicated or abstract concepts. Learners described the computer laboratory, its computers, chairs and tables during the teacher-initiated conversation. The teacher clarified their responses and demonstrated to them the key features of a descriptive essay and how to write it. By writing down their observations and sharing a list of what they observed in the computer laboratory, learners were in the process able to enhance their writing skills. This is so since they had to quickly come up with appropriate descriptive terms for the objects that were identified in the computer laboratory whose names also had to be presented in correct English spellings. Again, it is worth realising the implied simultaneous development of learners' listening skills as they listened to their teacher's instructions on what she expected them to do and her further instructions on how to structure a descriptive composition, as well as listening to each other's contributions. Moreso, as the learners interacted with their teacher, giving feedback on names of objects seen in the laboratory while the teacher was writing these on the whiteboard screen and correcting learners' errors in the learning process, ESL speaking and reading skills were attained.

Figure 6.4: Learners working on PowerPoint slides



The learners were then instructed to work in groups, creating slides using PowerPoint and using the projector to present their descriptions of the images on the whiteboard screen. I saw that learners were having challenges launching PowerPoint and creating the necessary slides for their presentations. The PCs in two of the groups were unusable and were freezing. The teacher intervened and helped the learners to unfreeze their computer screens, and the learners managed to continue with their given task. The learners discussed what they were seeing on the computer and then individually wrote down descriptions of what they were observing.

Figure 6.5: Picture of Victoria Falls as shown on the learners' computers

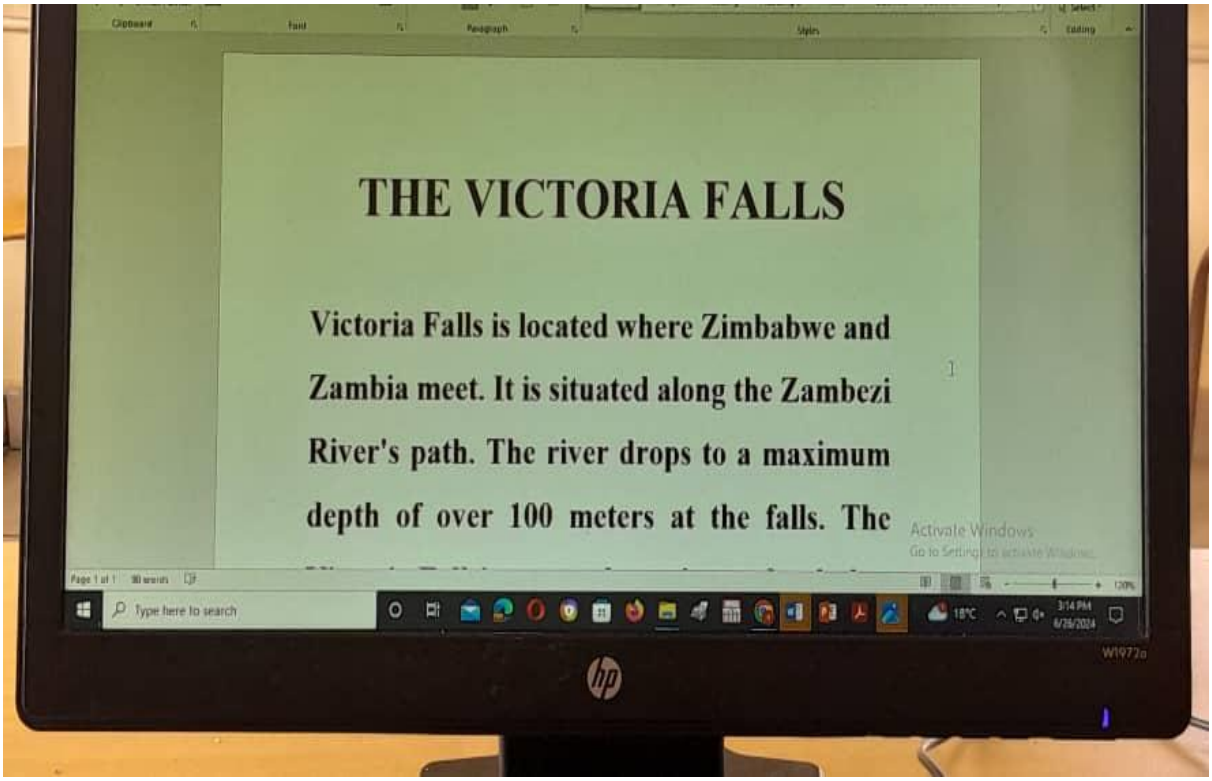


The teacher requested that the learners provide a descriptive report in their written work. Every group came up with the best explanation for the picture and showcased it using PowerPoint slides. Not every group completed the assigned work. It took others a while, and one of the groups struggled to create the presentation, as I observed. Their ability to use PowerPoint seemed to be lacking. A certain group made a powerful presentation that inspired others. By employing the projector, the learners were able to show what they had written. They had developed their own interpretations of the scene that was being depicted in the Victoria Falls photo. They wrote well-constructed paragraphs based on what they had observed. They were also able to discuss their group presentations with the entire class. This was in line with the constructivist philosophy, which favours giving learners the freedom to interpret what they learn. The groups were able to collaborate and share ideas on how to present well-written descriptive compositions and to do slide presentations. This was evidence of connectivism. Siemens (2005) asserts that networking is a key connectivist principle that fosters creativity in the learning process. The teacher assisted the learners in producing their descriptive essays and even gave them permission to keep the material on external devices for use in later classes. The lesson observation indicated that to prevent problems with infusing ESL instruction and learning with the use of technological tools, teachers

need to provide learners with clear instructions and guidance on how to make fruitful use of the various ICT tools.

The teacher's usage of ICTs was suitable for the lesson, and it demonstrated a learner-centred teaching approach. The teacher not only integrated technology into her teaching to communicate with the learners but also got them to use ICT tools to collaborate with one another as they learnt. Because the process of teaching and learning was participatory and collaborative, knowledge building was clearly visible in the lesson. Using the technology, the teacher guided her learners to the proper learning objectives and outcomes. Below in Figure 6.6 is a sample picture of what I observed learners doing as they wrote their descriptive reports in Microsoft Office Word format to present in groups using PowerPoint.

Figure 6.6: Learners' work on descriptive reports



By describing the picture of Victoria Falls that was displayed on their computer screens in the presentations, the learners were exposed to ESL speaking skills through ICT utilisation. They also

had to listen to the teacher and to one another's contributions to produce quality work. This is in line with Siemens' (2005) connectivist theory which posits that networking and collaborative activities enhance learning. As the learners wrote their descriptions of what they visualised on the computer screens, they practised writing using correct spellings of words, appropriate adjectives, suitable vocabulary, correct syntax, logical paragraphing, accurate punctuation, proper sequencing of ideas, and use of discourse markers to create cohesion. Moreso, for them to present their ideas in class they had to read and, in that way, they practised reading skills through utilising ICTs. Some learners were even seen researching on the internet to get more ideas on one of the world's wonders, Victoria Falls. By typing on the computer keyboard and using Microsoft Word to write their descriptive essays, learners also practised their typing skills. ICTs, therefore, have a critical part to play in the development and actualisation of learners' reading, writing, speaking and listening skills in the ESL classroom.

6.2.6.2 School A lesson observation 2: Poem

Class: Form 4
Date: 18 June 2024
Start Time: 2.30pm
End Time 3.10pm
Topic: Reading and critiquing
ICTs used: Laptop, computers and overhead projector

This second lesson observation was conducted in the same laboratory and on the same day as the first one. I had made a prior arrangement with the school head and the ESL teacher to observe a second lesson for the same class on the same day at a later stage and that allowed me to have an opportunity to do my two lesson observations in School A on the same day. The teacher made use of an overhead projector, the school computers, and her laptop during the lesson proceedings. A review of the prior lesson served as the lesson's introduction. Since I had already met the learners at the initial lesson observation, they were at ease with me, and the teacher was able to engage with them without restriction. The poem was projected on the whiteboard for learners to read using a projector. The learners complained that it was hard for them to read from the back of the class

since the writing was in a small font, which I could also not see from where I was sitting. A larger font size adjustment was made by the teacher. During this lesson observation, the poem entitled "Children's Rain Song" was taught.

Children's Rain Song (Musaemura Zimunya)
I see little children
fling their small clothes away
like merry flying termites
after their rainy wedding flights
skipping, hopping and screaming in the rain

Rain fall fall
we will eat berries
rain fall for all
we will eat cucumbers
rain fall fall

Little brown bodies
shrieking in the rain
laughing and playing
splattering in the puddles
loving all the rain…

Children in the rain
they don't feel the pain
of longing all the time
to streak through my years
and dance in the rain again.

This poem was written by Musaemura Zimunya, a Zimbabwean poet. The poem was not part of the prescribed curriculum. However, from my non-participant observation point of view, the

teacher had chosen it as part of her teaching of ESL poetry most probably to instill in learners particular poetry literary appreciation features, such as the meaning of the poem and feelings that may be aroused in learners by the poem's content. The poem's meaning is hidden in its oral form, which mimics a rain song as the speaker in the poem longingly remembers his early childhood years. Though the poem sounds like a little tune, it is actually a metaphor celebrating a type of human belonging that develops over time through interactions with the components of an environment by little children within a community. The picture of the children splashing in the puddles suggests that the African children's identity is coded in this exchange. This image is effective in emphasising a strong sense of belonging by African children in a community and the joy that comes to all and sundry at the falling of the rains. Children in this poem seem to have a strong understanding of seasonal cycles and are aware that rain provides food, thus they marvel at the falling of the rains as they are heard shouting with great joy:

Rain fall fall
we will eat berries
rain fall for all
we will eat cucumbers

The following transcript shows what transpired during the lesson observation as this poem was taught.

Transcript 2: Lesson observation 2

Teacher: (Displays the poem "Children's Rain Song" on the white board.) *Can we sit in our groups around our computers? See what is on the whiteboard. Take out your notebooks.*
Learners: (Some moved to their groups while others were already seated.)
Teacher: Can someone stand up and read the poem on the whiteboard?
Learners: (One of the learners stood up and started to read while the rest were quiet.)
Teacher: This is a poem expressed in its oral structure that imitates the rain song from Shona culture. Let us write what thoughts come to our minds upon reading this poem.
Learners: (started to write notes.)

Teacher: This poem takes us to our childhood days and brings nostalgic recalls of the way children are brought up in our culture. (Continued to give notes.)

Teacher: In what way does this poem bring in our African identity through these children?

Learners: (Some were playing games with their cellphones and pretending to be taking notes. All the learners remained quiet when the question was asked.)

Learner GA15: What do you mean by African identity, ma'am?

Teacher: Can someone help him?

Learners: (remained silent)

Teacher: In your groups, discuss the answer.

Learners: (Some learners were quiet while others were heard mumbling.)

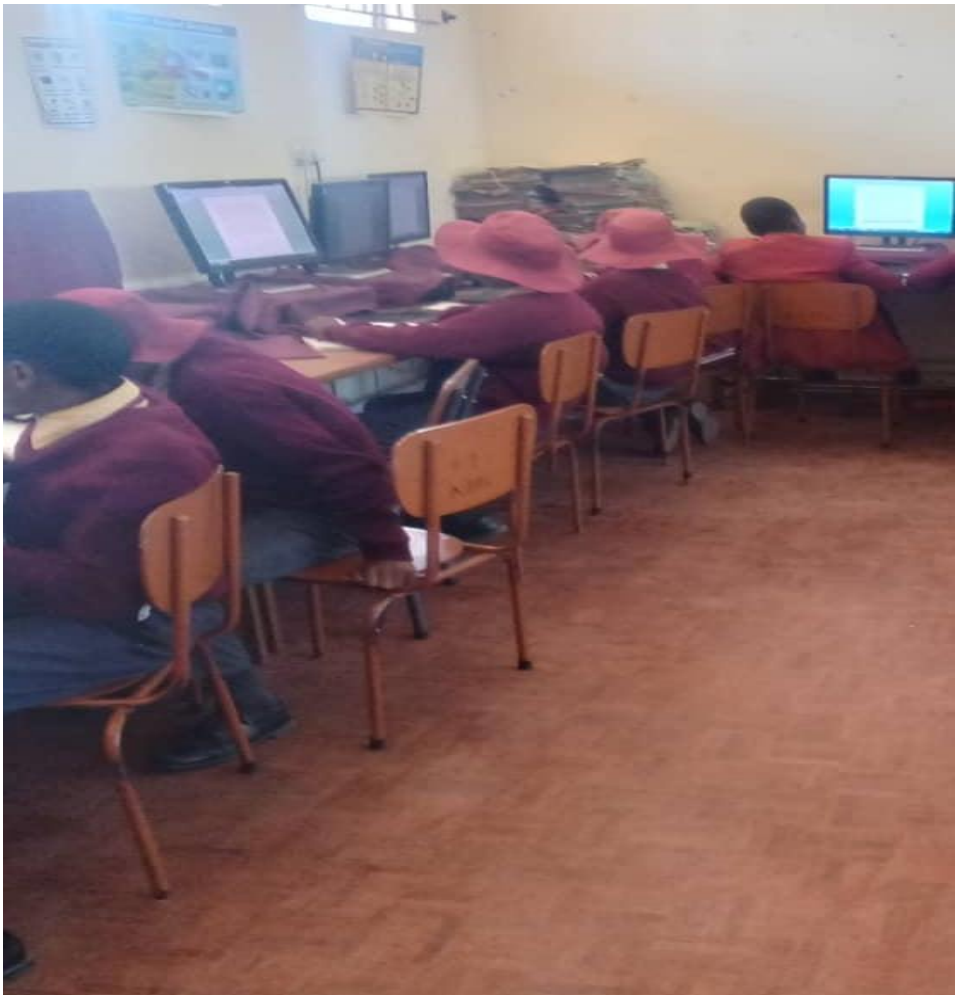
The lesson excerpt in Transcript 2 above demonstrates the lack of meaningful communication between the teacher and learners. Some learners, nevertheless, pretended to listen to the lesson while using their cellphones to play games. The teacher gave learners notes via her laptop. I saw that the teacher mostly depended on the traditional technique of teaching by giving learners notes, which may have contributed to the learners being unable to pay adequate attention. One aspect of the behaviourist approach to teaching that I observed was the teacher-centred nature of the lesson delivery. According to Feldman and McPhee (2008), the behaviourists have come under fire for using this kind of instruction since it assumes that learners are not critical thinkers. Below in Figure 6.7 is a picture of the ICT tools that TA utilised in the poetry lesson. The picture was taken before she started the lesson.

Figure 6.7: ICT tools used by TA in the poetry lesson



Despite the teacher utilising several ICT gadgets in her teaching, as shown in the picture above, she did not maximise ICT use in this poetry lesson. She could have asked the learners to use Google to check the meaning of the word 'identity' to help the learners understand what 'African identity' means, in response to the question posed by learner GA15. Obviously, the learner was struggling to understand the meaning of this term and needed the teacher's assistance. The teacher failed to use an opportunity to draw on internet resources, particularly an online dictionary, to increase learners' vocabulary. Only a few learners paid attention when the teacher asked them to comment on how the poetry portrayed African identity. This indicated that the learners were not inspired by the lesson, as shown in the picture below in which learners look passive despite sitting in front of computers.

Figure 6.8: Learners looking passive despite sitting in front of computers



In several instances of questioning, the teacher's questions demanded group responses, which in my observation's eye discouraged profitable learner participation. Learners provided these collective responses in order for the teacher to carry on with her lesson. After carefully examining this lesson's methodology, I contend that this is a classic example of traditional education that prevents learners from developing critical thinking skills (Freire, 1970). Learners were not actively involved by the teacher to utilise the ICT tools in the classroom. The learners were unable to solve problems in the way that constructivist and connectivist learning theories describe as the need for learner-centred approaches in instruction. Even if the poetry reminded them of their nostalgic childhood memories, it was clear that their imaginations were not triggered and that they were

unable to comprehend and enjoy the poem as they should have. This finding is intriguing, considering that this is the same teacher who earlier in the day applied constructivist and connectivist methodologies in her teaching of descriptive composition writing. The dominance of the behaviourist methodology in this lesson seems to suggest that while ICTs can be applied to ESL teaching in all instances, the aspect of ESL that is being taught determines to a large extent whether ICTs will be effectively utilised in the classroom. It seems that poetry teaching was not TA's strongest skill.

According to Armstrong (2019), poetry is supposed to lure the curiosity of learners. Contrarily, there was no sign that learners in this class were paying attention to the poetry lesson as I observed it unfold. Teachers who lack imagination find it difficult to relate to a poem on a personal level, and later on fail to capture learners' creativity, which makes learners lose interest in the subject. Behaviour issues and a lack of participation by learners in class activities are two ways that this disinterest might show itself. Concerns on ICT usage have been expressed by academics regarding the Zimbabwean poetry curriculum and the need for its revision (Mvenene, 2017). Thus, I contend that the curricular issue is worsened by below-average poetry pedagogy that is isolated from ICT interaction in the classroom, and this circumstance forces learners to respond poorly to poetry. But in this 21st century, where technology is fast permeating all circles of life, I interpret the teacher's passive response to ICT integration in poetry teaching as suggesting that they could simply be lacking motivation.

According to Godsell (2019), poetry offers several methods for analysing knowledge production and co-production, which aids learners in understanding and critically thinking about history, the now and even the future. In a poetry classroom learners must co-create knowledge, which should help them critically analyse reality and change their positionalities and attitudes. Since this was an ESL poetry class, the teacher's use of ICT pedagogy that included learners as co-creators of information was extremely crucial in order to eliminate any possibility of misinterpretations, disinterest or a lack of understanding of the poem by learners. In my non-participant observation, I concluded that there was a noticeable lack of participation among the learners in this class as some of them were playing games on their phones or exhibiting other signs of absentmindedness.

When irrelevant pedagogy is used in the classroom, learners may suffer negative outcomes like boredom, disengagement, rage, tension, anxiety, and depression (Dumont, 2018).

Despite the lesson having looked directionless, there still were some glimpses of the exposure of learners to ESL language skills. For example, when the instructor asked the learner to read the poem that was beamed on the overhead projector, it means that the concerned learner was practising reading aloud while the rest of the learners were reading silently. In addition, as learners were asked to write down various thoughts that came to their minds from the reading of the poem, they were being exposed to the skill of writing. Nevertheless, I saw a class gone wrong because the teacher had ICT resources at her disposal, but she did not seem to be making good use of them. I also observed that the learners who used their cellphones for gaming might have been mischievous and delinquent learners in need of a teacher who could spot inappropriate behaviour during class and intervene quickly. Additionally, I noted that although using ICTs is beneficial for learners, if they are not closely supervised, they may become sidetracked from the subject or misuse ICTs excessively to the point where the lesson's goals are not met. Despite these drawbacks in the lesson, I observed that many learners continued to practise typing and reading informally and indirectly as they used their ICT tools to look up online activities and type messages to their networks, unlike those learners who ignored the lesson and spent their time on their cellphones.

6.2.7 School B lesson observation

Class: Form 4
Date: 19 June 2024
Start Time: 9.30am
End Time 10.30am
Topic: Comprehension passage: "The Great Zimbabwe" (Comprehension and explaining words)
ICTs used: Laptop, computers and overhead projector

I was welcomed to School B's computer laboratory by TB who is the ESL teacher for the O'level class at the school and whom I had previously met. The class had 35 learners present for the lesson

on this day. The lesson was held in the computer laboratory which had 15 PCs, chairs, desks and an interactive whiteboard, in addition to an overhead projector. TB taught the lesson using tape-recorded comprehension content. The audio was played quite softly. I noted in my observation that if speakers had been employed, the sound may have been more audible. During a post-class discussion, TB also revealed that the laptop that was being used in the observed lesson did not belong to the school but to her. Below is the transcription of the audio of the comprehension passage, "Great Zimbabwe".

Comprehension passage: "Great Zimbabwe"

This passage gives information about Great Zimbabwe which over 500 years ago was a great city and the home of the Shona people, some of the original inhabitants of Zimbabwe. The impressive ruins of Great Zimbabwe cover an area of some 80 hectares and lie 30 kilometers from Masvingo. Scientific studies have proved that Great Zimbabwe was founded in the 11th century on a site which had been sparsely inhabited in the prehistoric period by the Shona people. In the 14th century, it was the principal city of a major state, extending over the gold-rich land; its population was more than 10,000 inhabitants. In about CE 1450, this capital was abandoned, not as a result of war, but because the surrounding area could no longer provide food for the overpopulated city, and deforestation made it necessary to go further and further to find firewood. The ruins of Great Zimbabwe are a unique testimony to the lost civilization of the Shona people. A unique artistic achievement, this great city has struck the imagination of African and European travellers since the Middle Ages, as can be seen by long-standing legends. The entire Zimbabwe nation has identified with this historically symbolic group of buildings. It has adopted the steatite bird, possibly a royal symbol, as its emblem. From the 11th to 15th centuries, the wealth of Great Zimbabwe was associated with gold trading, which was controlled by Arab merchants, and extensive trade activities on the east coast of Africa. In addition to jewellery, archaeological excavations in Great Zimbabwe unearthed glass beads and fragments of porcelain and pottery of Chinese and Persian origin. This is an indication of the extent of trade within the continent. A 14th century Arab coin from Kilwa (an island off Tanzania) was also found; it was reissued in 1972. The territory includes the

three main areas of Great Zimbabwe. Firstly, there are the Hill Ruins, which form a huge granite mass facing north-east/south-west and are generally considered to have been a royal city and the residence of successive chiefs. Next comes the Great Enclosure which lies below the hill to the south and dates from the 14th century and is where families lived. Finally, the Valley Ruins are a series of dwellings scattered throughout the valley. Discoveries made in these areas have given us precise information about the farming activities and cultural life of the inhabitants at the time of Great Zimbabwe's heyday and about earthenware and other craft activities.

The passage above is about Great Zimbabwe which, during the late Iron Age in Zimbabwe, served as the capital of the Kingdom of Zimbabwe. Great Zimbabwe functioned as the political powerhouse and the king of Zimbabwe's royal palace (Fontein, 2006). Among its most notable characteristics were the walls, some of which rose to a height of five meters and were built without the use of mortar (Chirikure & Pikirayi, 2008). Granite blocks that were collected from the nearby hills' exposed rock were used to build these walls. This rock offered a handy and easily accessible building material since it naturally divides into even slabs and can be broken into portable sizes. Great Zimbabwe's walls were constructed by stacking stones one on top of the other, with each layer being somewhat more recessed than the last to provide an internally stabilising slope (Ndoro, 1994).

The passage was an audio text used by the teacher to bring a slight change to her teaching methodology by using an ICT gadget to motivate learners who were used to the traditional method of reading the passages from hard copy textbooks, from my observation as a non-participant observer. The use of an audio text allowed the teacher to test the listening, speaking, writing and reading skills of the learners as they utilised ICTs in ESL learning. The transcript below highlights the way the lesson was carried out by the teacher.

Transcript 3: School B lesson observation

Teacher: Good morning students. Let's all settle down and pay attention. Can we listen to the audio from the tape? I want all of you to listen very attentively because thereafter I will ask you to do an activity based on this.

Learners: (listening attentively as the audio played to the end.)

Teacher: Who can give us a summary of the comprehension passage that we listened to? Yes, GB12.

GB12: The passage is about the traditional life at the stone monument under which the Shona people lived.

Teacher: Good. What is it telling us about the economic status of the people that stayed in this traditional settlement?

Learners: Poor people (Some sounds were heard from other learners exclaiming aah!, uumm! and others saying No!.)

Teacher: Okay, why was this great city abandoned during 1450?

Learners: It was overpopulated and not productive anymore, so the inhabitants had to leave.

Teacher: That's very good. In pairs and groups of three use the computers in front of you to find the meanings of the following words or expressions: sparsely inhabited, indication, steatite bird, successive chiefs, fragments of porcelain. Try and link the meanings to the context of the passage.

Learners: (Opening the computers. Some were struggling to start the computers, and the Wi-Fi connectivity was slow.)

Teacher: (Displayed the passage on the whiteboard using the projector.)

Okay let's read the passage again from the whiteboard and use our computers to find the meanings of the expressions and words as used in the passage. I will read it again. Please, may you all pay attention. (Teacher read the passage while learners listened. A learner raised her hand and the teacher called on her to state her issue.) *Yes, GB17. What's the problem?*

GB17: The Wi-Fi is very slow, what should we do? It's not logging on.

Teacher: Yes. Let's be patient and allow it to log on so we can search for the word meanings.

GB12: Ours is now on, ma'am, and we are now doing our work.

(Teacher allowed learners to look up word meanings from Google, linking them with the passage, and to find images relating to the passage. She went round assisting those with challenges as much as she could.)

Teacher: Good, let's all speed up and complete the activity.

(Several learners raised hands as a sign of drawing their teacher's attention that they were now done.)

Teacher: It looks like most of us are through, right? Can I have the answers that you got?

(Learners raised their hands and gave answers. Some gave explanations directly from Google without taking note of the need to link definitions to the context of the passage. The teacher helped by guiding learners on how to best do the activity in future. Other learners did it well.)

The transcript above shows that TB taught comprehension using an audio-recorded comprehension passage. The learners were excited to hear from the audio, suggesting that the teacher took them by surprise. They felt inspired to take part in the lesson's listening activity. Occasionally, the teacher interrupted the audio to engage with learners by asking them questions regarding the comprehension passage. The teacher urged learners to consider what they had heard and to write about it. Learners' speaking skills were sharpened as they responded to the teacher's questions. I observed that they used Google and several electronic dictionaries to look up word meanings. Some even used spell checkers as they checked on the spellings of given words to be defined. This method of teaching utilising ICTs aided learners in improving their writing, thinking, listening, reading and comprehension abilities. It allowed learners to develop these ESL skills in a collaborative and interactive manner, which is key to ESL instruction in the 21st century. The example provided by Indrasari (2015) in a study conducted in Indonesia where learners were given the chance to watch and listen to a short story with clear sound and then write a summary of what they had understood from the story is similar to this lesson's teaching strategy using these specific ICTs. The teacher employed a strategy of using ICTs that forced the learners to understand what they were being taught, and they demonstrated this by actively participating in the lesson.

Figure 6.9: Learners using a computer to look for meanings of words from the passage



As shown in the image above, the learners worked collaboratively in looking up the meanings of the words and expressions given by the teacher from the comprehension passage. There was evidence that the teacher had successfully created a setting in which learners could relate to the lesson and clearly comprehend the history of Great Zimbabwe. ICTs had the impact of drawing and holding learners' attention in this class where the teacher used audio. This observation aligned with conclusions made by Indrasari (2015) who found that when audios were used in class, learners tended to pay close attention and improved their listening skills. The teacher demonstrated her readiness to interact with learners in the process of creating knowledge by going back and forth with them when reading the comprehension passage in detail and clarifying the comprehension passage content and vocabulary items, as opposed to simply giving them a lecture. Furthermore, the act of creating a space for discussion showed the good rapport that the teacher had with the learners and enhanced the acquisition of speaking skills as learners were engaged in discussing the content of the read passage. In doing this, the teacher acted as a constructivist-oriented teacher, allowing all learners to contribute to knowledge building, rather than as the authority of knowledge. Additionally, the teacher demonstrated that she was ready to listen when learners were given the chance to make sense of what they were learning, empowering them to take charge of their learning, an attribute that is much cherished by constructivist theory. I observed that for a

teacher to enforce listening skills amongst their learners, they needed to live the example. As TB gave instructions for learners to listen to the audio tape, it was easier for them to do so as she also took her time to listen to the tape, to their questions and to their contributions throughout the lesson.

An important observation made in this lesson is the strong teacher-learner interaction, which is in line with constructivist theory. The teacher instructed the learners to write in their notebooks while she posted the comprehension passage on the whiteboard for the discussion. An ICT teaching pedagogy is demonstrated by the teacher's use of the whiteboard, the projector and the internet. As indicated in Transcript 3, TB gave the learners permission to browse the internet and check for images of Great Zimbabwe and contextual meanings of vocabulary items. One of the images of the Great Zimbabwe that was downloaded by learners from the internet is shown below.

Figure 6.10: Picture of Great Zimbabwe downloaded by the learners from the internet



From my observations, the teacher's use of ICTs increased her creativity. It also fostered an inclusive learning environment where learners spoke, wrote, listened and read English, with the result that all the four language skills were enhanced in a simultaneous manner. The lesson ended with the teacher asking learners to go and use the given words to construct sentences as homework.

6.2.8 School C lesson observation

Class: Form 4
Date: 20 June 2024
Start Time: 10am
End Time: 11am
Topic: Literature setbook: *Days of Silence* by Sharai Mukonoweshuro
ICTs used: Laptop, computers and overhead projector

On arrival at School C, the head of the school greeted me and showed me where the teacher and the class I had come to observe were located. Again, this was familiar territory as I had been to the school before to collect the quantitative data and to do the interviews. Even though School C was connected to the main lines that powered the hospital, I saw that there was no electricity there on the day of my lesson observation. I was, however, informed that the school had purchased a generator, but it was not powerful and big enough to run the whole school. Fortunately, TC had a fallback plan in place that involved utilising his own solar panel to power his laptop, a few computers and a projector. A couple of the computers in the classroom were therefore operational during the lesson, as can be seen in the picture below where over five learners formed a group around a laptop.

Figure 6.11: Learners formed a group around a laptop



During the lesson, I positioned myself at the back of the classroom so that I could see everything going on and capture a few images. The lesson was centred on the novel *Days of Silence* by Sharai Mukonoweshuro, a Zimbabwean author. Published in the year 2000, this novel is about a Christian family consisting of six daughters and one son. The family has a lot of optimism for their university-educated son since they follow patriarchal traditions of educating the male child. Sadly, their son contracts the Human Immune Virus (HIV) through promiscuous activity. The Hove family had believed that Simbarashe's procreation would guarantee the preservation of the Hove family name, but that does not actually happen. Simbarashe marries Tsitsi, who subsequently discloses that she is HIV positive after being infected by her husband through his infidelity. Gender violence is a defining feature of the family. Tsitsi passes away while their marriage is still very young. All the dreams of the Hove family are crushed by HIV. The phrase "days of silence" literally refers to the Hove family's silent suffering as they wait for the agonising moment when Simbarashe's virus would manifest as acquired immune deficiency syndrome (AIDS). The lives of the infected in *Days of Silence* are marked by stigma, violence, shame, and silence. Although

this novel was being taught by TC, I learned from him during the post-lesson observation conversation that it was not a prescribed text, but he was using it as a cross reference to direct learners' attention towards similar gender issues that arise in the prescribed text. The actual prescribed text from the Curriculum Development Technical Services under the School Examinations Council of Zimbabwe was *I Will Wait* written by Bertha S. Msora which was published in 1984 by Zimbabwe Publishing House in Harare. The text *I Will Wait* is one of the prescribed setbooks as listed on the Examination Circular Number 15 of 2022.

In order to get the class started, TC asked the learners what they believed to be a secret that they would never want to share with anyone. This, in my observation, was an excellent method by which to introduce the lesson since it helped the learners to be provoked to think towards what they would be learning about, and as such this connected their own experiences to the central idea of the text – the secret of carrying an infection. Learners excitedly answered the question in a variety of ways. The teacher then introduced the primary characters of the novel. This was displayed on laptop screens. The laptops belonged to the school. The picture below shows the learners opening the laptops to access images of the characters.

Figure 6.12: Learners opening the laptops to access images of the characters



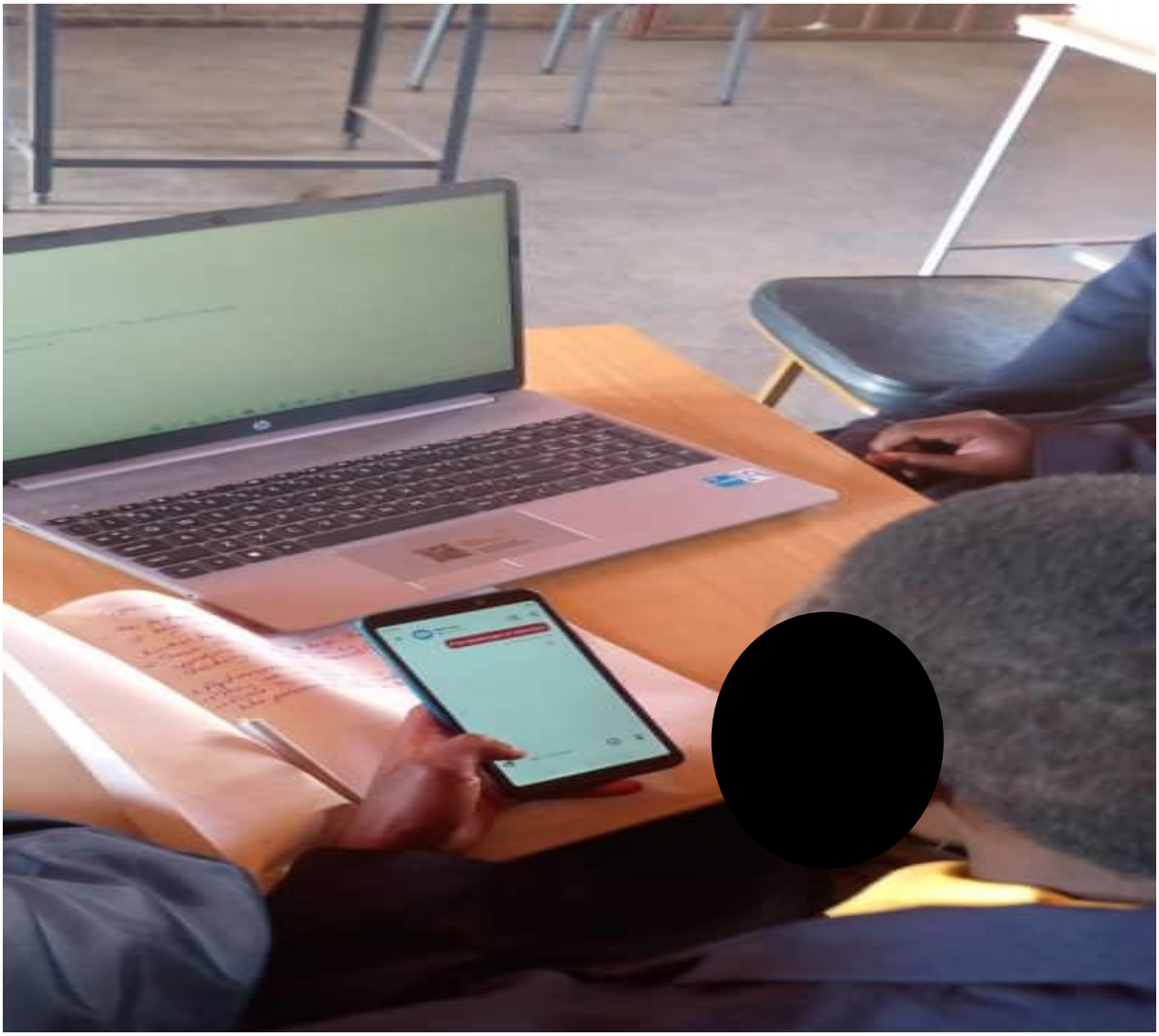
On receiving the teacher's instruction, the learners hurried to view the images of the characters on the computer screens. In my observation, this meant that learners were listening and understood the teacher's instruction. Listening is one of the key skills in ESL instruction and it goes hand in glove with other key skills like reading, writing and speaking. In the lesson, the learners also had to read out the names of the characters of the novel as they viewed them on their screens, while at the same time writing the names down as they listened to each other. I noted the interwovenness of the ESL skills and came to conclude that these four skills looked like body parts that operate together to make the body function meaningfully. Consequently, ICT use in creating cohesive utilisation of language skills was like blood flowing with oxygen through all the body parts to make them perform as a unit.

During the lesson observation, I saw the teacher asking some learners to use his personal laptop because there were not enough laptops for all of them to use. I observed this great sacrifice by the

teacher for the good of the ESL learners. This corroborates findings from the teacher interviews and learner focus group discussions which presented teacher sacrifices as one way of overcoming the challenge of inadequate ICT gadgets in the schools. TC also gave the learners an explanation of the various terminology in the setbook. He defined terms like AIDS and HIV, gender, patriarchy, treachery, martyrdom and famine and also asked learners to define them too. I noted that learners had notebooks in which they wrote down definitions of vocabulary items as expressed by their teacher. The speaking, writing, listening and reading skills were seen in action in this ESL classroom.

Using the pictures from the school laptops, TC explained in this lesson how patriarchy often presented men as good people while women are presented as promiscuous. In the picture below, the learners were looking for meanings of terms like ‘gender’ from the laptops and their own cellphones, as instructed by the teacher. This exercise helped learners acquire the correct spellings and meanings of English words used in the novel, thus expanding their vocabulary store.

Figure 6.13: Learners using laptops and cellphones to look for the meaning of terms



As the lesson progressed, the teacher added that patriarchy is what moves men to believe they have the right to control women, especially if a man has paid the bride price to marry a woman. This sparked a discussion among learners about how the novel *Days of Silence* portrayed women's oppression. In order to make the novel's context relatable to that of the learners, the teacher made frequent parallels using instances that learners were already familiar with. Moreover, to help learners understand certain terms and expressions used in the text, the teacher at times code-switched between isiNdebele, ChiShona and English. I came to realise that most learners understood these English phrases extracted from the novel better through the code-switching done

by the teacher, because exclamations of agreement were frequently heard when learners responded "Okay" and some saying "True, sir". In my observation, the novel was excellent in evoking learners' inner feelings about gender oppression, while the use of ICTs to portray images of the novel's characters and to define vocabulary used in the text enhanced the listening, writing, reading and speaking capabilities of the learners.

The teacher encouraged the learners to provide instances of gender-based violence as the lesson progressed. Learners brought up marital violence, sexual assault, and bullying in schools. The teacher then displayed images of gender-based violence on the smartboard. Below is one of the images.

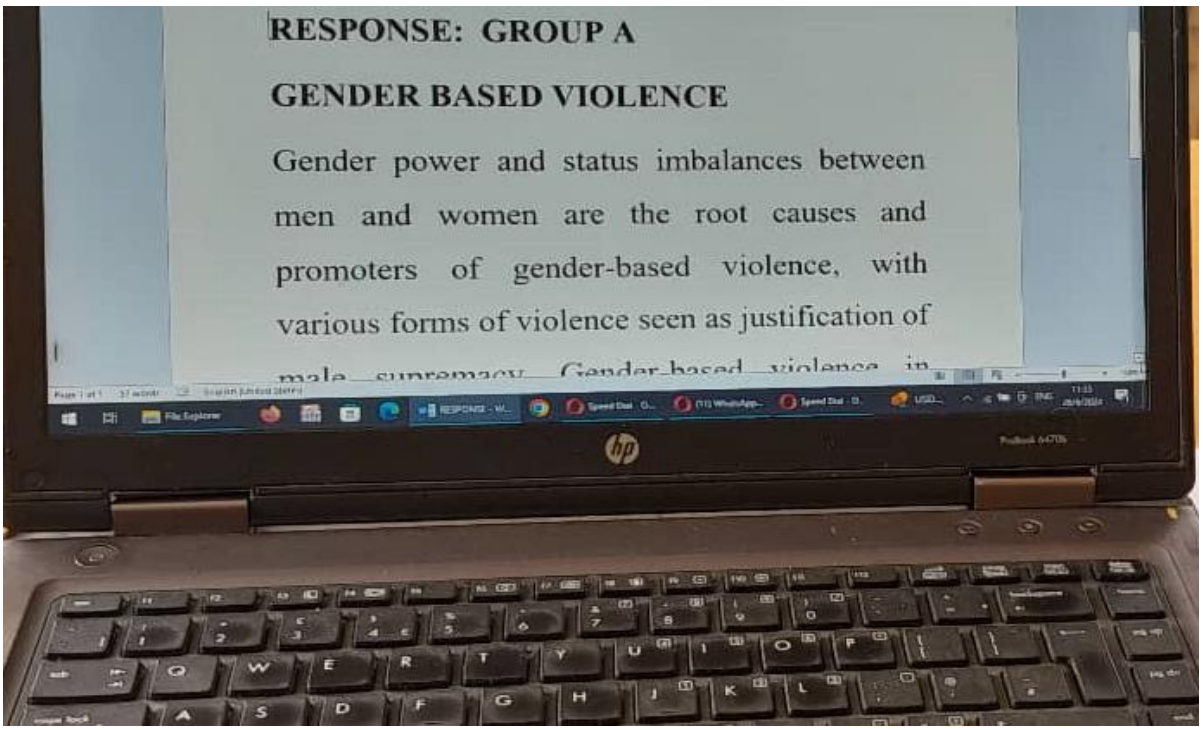
Figure 6.14: Image of gender-based violence



I noted that when the teacher projected the above image on the smartboard the whole class became completely silent. Perhaps the reason for the silence was because the image brought back to the learners' memories some experiences they had had in their own communities, where family fights and other forms of family violence took such horrifying forms.

Throughout the lesson, TC encouraged learners to take notes and also got them doing group discussions. In the group discussions, the teacher asked learners to identify the challenges that Zimbabwean women experienced on a daily basis in a bid to contextualise the novel's theme. By taking notes and answering the teacher's questions, learners in this classroom demonstrated their enthusiasm to learn. This also improved their writing skills, as shown in the picture below featuring Group A's response during the group discussions.

Figure 6.15: Group A's response during the group discussions



In the learners' responses, they did not conceal their feelings about gender-based violence but spoke openly in rejection of it. When the teacher inquired about their plans to improve the circumstances in their communities, they opened up to each other in conversation. The exchanges

between the teacher and the learners at this point in the lesson are depicted in the brief excerpt below.

Transcript 4: School C lesson observation

Teacher: You have mentioned the forms of gender-based violence that women face as Zimbabweans. If you were to be chosen to lead the country for a week, what would you change? Learners: (Many learners shouted responses.) *Jail terms for rapists, drug dealers, murderers and school bullies; the education system to be improved; service delivery to improve and poverty eradication; increase social grant; building houses for the poor; create employment.*

This transcript highlights the distress and daily socio-economic problems of women living in the rural areas where this research was done. Some of the problems listed, such as rape, murder, poverty and unemployment, had immediate effects on these learners and also influenced their emotional lives. For instance, as I continued observing the lesson, I noted that as soon as the teacher displayed the images on the smartboard, the topic of violence in communities and schools took centre stage in the learners' discussions. Below are two other images that the teacher displayed.

Figure 6.16: Images of domestic violence in communities





Upon seeing the above pictures, some of the learners could be seen making various facial reactions. Some of the learners, as I observed, may have experienced trauma from abuse at home and the images may have brought back terrible memories. This situation shows that teachers have to cope with learners' concerns and anxieties, because these feelings are present even in the educational environment. Some learners who have been victims of domestic abuse carry these unseen wounds to school. In language, non-verbal communication is also regarded as communication. Thus, in my observation of this lesson, I surmised that learners spoke a lot by revealing various facial expressions and gestures upon seeing those pictures of gender-based violence. The use of ICTs therefore stirs and enhances all forms of language communication. The teacher's use of ICTs engineered and aided the learners in thinking back about their own or other people's experiences with regard to violence and violation. Here, I contend that when learners encounter pertinent pedagogy, they are given a safe space to express themselves and pathways to recovery are also established in the process. However, this may also trigger acts of violence or create traumatic experiences in learners if the teacher fails to show the consequences of violence to the learners. In

addition, such a pedagogy may recall to learners' minds traumatic experiences of violence that they may be trying to forget. Such a situation calls for empathetic teaching by the teacher.

Following the class, the teacher encouraged learners to pursue lives that were divorced from gender-based violence in their day-to-day practices. I came to see that the teacher's pedagogy allowed learners to consider relationships and how these might influence the decisions they made. The learners had the chance to speak up for themselves through this activity and they were indeed engrossed in the lesson, practising their speaking, reading, writing and listening skills in the process.

6.2.9 Summary of lesson observation findings

According to the findings of the four classroom observations, using ICTs to engage ESL learners makes classes more dynamic and enhances learners' capacity to participate in discussions and engage with others. Because learners employed technology and because technology appeals to 21st century learners, as noted by Kress (2009), there is evidence from the data that the ICT pedagogy made learners in School B and School C actively take part in lessons and this enabled them to improve their writing, reading, speaking and listening skills. Additionally, learners were able to think independently, participate in group discussions, and provide alternative solutions to human problems that were highlighted in literary works. The utilisation of ICTs enabled learners to elevate their thinking to the levels of evaluation and synthesis, rather than operating at low level skills. In School C, the ICT pedagogy fostered the development of learners' capacity to analyse and probe their perceptions of everyday social problems like gender-based violence. As I observed, learners developed critical consciousness as they were able to consider their surroundings critically and suggest ways that society could change for the better.

The class observation data was descriptively analysed, and following the observation guide it shows that all three of the selected secondary schools had some ICT devices available in their computer laboratories and these were being used by the teachers. Digital projectors, laptops, desktop computers, smartphones, Wi-Fi, internet, interactive whiteboards, and smartboards were among the ICT resources that were being used by the teachers in their lessons. The teachers made

the correct choice of ICT resources that were available to teach ESL lessons and that assisted learners to improve their listening, writing, speaking and reading skills. However, TA had problems of integrating ICT tools in her lesson on ESL poetry instruction where she failed to utilise the ICT gadgets that were available for the lesson, and this created problems of class management for her. Her learners were demotivated and ended up playing games on their cell phones while she was teaching. In an earlier lesson, however, she had made better use of ICT tools in teaching descriptive writing. The disparity in the two lessons observed in terms of ICT usage suggests that the extent to which teachers maximise ICTs in the ESL classroom will depend on the genre or component of English they are teaching, as well as their competence in teaching the said genre.

The three computer laboratories that I saw were not sufficiently spacious to hold the sizable numbers of learners in each class. The PCs and laptops that instructors and learners could utilise in most instances were insufficient for ESL instruction and learning. Owing to insufficiently functional ICT tools, teachers made the sacrifice of allowing learners to use their own laptops. Learners had to share the available ICT tools in all the selected schools. The infrastructure, the ICT equipment, maintenance, and human resources of the schools were all inadequate.

6.3 SUMMARY OF CHAPTER FINDINGS

In this study, qualitative data was collected to investigate how ICTs are used in Zimbabwean rural secondary schools to instruct and learn ESL. Phase 2 of the investigation complemented the data from Phase 1, which was the quantitative part of the study. The chapter attempted to provide answers to the study's research questions through the presentation and analysis of the qualitative data. The analysis of the learners' focus group interviews, the teachers' individual interviews, and classroom lesson observations have produced several key findings, which are presented below.

6.3.1 The benefits of ICT pedagogy in ESL education

A major finding presented in this chapter is that the use of ICTs such as visual, audio and audio-visual aids in the classroom ensures an inclusive environment with learner participation in the learning process. This is because different types of teaching aids appeal to learners with varying learning abilities. Additionally, in an ESL classroom, these ICT tools help learners acquire

speaking, writing, listening and reading skills. For instance, using audios helps learners improve their listening comprehension skills. Teachers hone learners' speaking and listening abilities when they ask questions that are based on audios learners have listened to in class. Learners can also find meanings of different words they do not understand through utilisation of online dictionaries and Google, and in that way their written and spoken vocabulary is extended. Despite this benefit, teachers still need to remain proactive in managing the way learners use ICTs as the same ICT gadgets can be abused by learners to listen to videos that are not aligned to the demands of the prescribed syllabus content.

The findings from the teacher interviews indicate that ICTs are useful tools for time management in ESL classes because they assist learners and teachers to complete activities more quickly and effectively. This chapter's data analysis showed how instructors found that using ICTs made it easier to prepare for and deliver their pedagogical activities in the classroom. This became more real when educators could use ICT resources for instruction, such as PCs, laptops, and smartboards. Now that learners have more time to ask questions, teachers may devote more of their time to helping them prepare for tests. Nevertheless, these ICTs still have drawbacks in that some teachers may become complacent and do very little to come up with innovative methodologies in their teaching.

Teachers connected the increased interest displayed by learners in the classroom to their utilisation of a variety of technological tools and equipment, inclusive of computers, laptops, cellphones and interactive whiteboards for instruction. From the data analysis, teachers also thought that this gave learners the freedom to look for and obtain material on their own on what they were learning. This process became two-way, with the learner and the teacher actively seeking for the necessary subject-specific knowledge and information. The literature reviewed in Chapter 2 acknowledges this finding of utilising ICT resources to uncover learning subjects and resolve issues. Fu (2013) suggests that learners can more easily acquire knowledge and understand subject concepts when they use ICTs to access information. Furthermore, Brush, Glazewski and Hew (2008) observed that learners start utilising ICT tools to find solutions to problems during the learning process when they use them to explore subject knowledge. However, while endorsing these views, this chapter's analysis revealed that ICTs may equally pose challenges and cause unnecessary anxiety and strain

to both teachers and learners as they rely on the availability of electricity and Wi-Fi to be able to use ICTs, meanwhile these resources can be unavailable at the times when they are to be used.

During instruction, teacher participants in this study presented the ESL material using projectors. Additionally, the teachers projected audios to the learners. For example, TB claimed that the usage of ICTs simplified her work since it saved her time when creating lesson slides for her learners. Using ICTs, primarily PowerPoint slides, the teachers attempted to eschew the chalk and talk methods, as noted during lesson observations. Because teachers in this study produced PowerPoint presentations which they gave to their learners as notes following the lesson presentations, it can be said that the smartboard simplified life for both teachers and learners. Since notes can be created, preserved and retrieved using ICTs and then shared with learners as and when needed, teachers noted that they no longer needed to spend time writing notes on the chalkboard. Findings from the learners indicated that they could interact with the ESL material as it was provided to them, which saved time because they could read the material rather than merely listen to the teacher. This contributed to developing their listening, speaking and reading skills. The study's findings in this regard support ideas from Bahati (2010) who found that PowerPoint slides and ICTs facilitate better work during class preparation.

6.3.2 Perceptions on the use of ICT in education

Based on the interviews and lesson observations, teacher participants perceived technological tools integration as a way of facilitating ESL learning and teaching, as well as a means of moving away from the conventional teaching approach of chalk-and-talk. The teachers emphasised that ICT usage is helpful for teaching ESL content which learners may find challenging to understand. The teacher participants said that downloading instructional videos on ESL content helps teachers teach certain topics more effectively, in addition to its being beneficial to learners. The teachers felt that using ICTs in the classroom improved learner engagement and concentration, and thus they saw ICTs as useful tools for improving ESL instruction.

From the teacher participants' interviews, the teachers perceived that usage of ICT posed a challenge to the ongoing viability of the traditional teaching approach. For learners who are already tech-savvy, ICT makes learning far more engaging and convenient compared to the traditional

teaching approach, which only uses the textbook and chalkboard. Even though some participant teachers disclosed that the majority of them in their schools continued to employ traditional teaching methods, they were aware of the ways in which ICTs could enhance learning and teaching by making it more engaging, learner-centred, and suitable for the large number of currently enrolled learners in secondary schools located in rural areas.

Both teacher and learner participants acknowledged the benefits of technological tools in ESL instruction and learning, although proper ICT application remained difficult because of inadequate ICT tools such as whiteboards, smartboards and overhead projectors, as well as insufficient ICT skills and inadequate training for both instructors and learners. All three schools had computer laboratories, but it soon became apparent that there was not enough room space or desktop computers to support the high learner enrolment numbers in the schools. It was also observed that many computers were left unrepaired and just kept in a classroom, indicating that technical staff members were not assigned to schools to resuscitate the ICT equipment to function.

6.3.3 Challenges of ICT usage in ESL education

The data analysis showed that one of the challenges to ICT usage in ESL instruction and learning was teachers' incompetence in using ICTs in the classroom. The data indicated that teachers who were proficient in using ICTs in the classroom enhanced learners' acquisition of higher order thinking and critical consciousness. However, those instructors who lacked the necessary technological know-how often lost interest in using ICTs in the classroom. This finding corroborates findings by Chigona et al. (2014) which demonstrated that instructors who lack ICT abilities are less likely to integrate ICTs into their lesson plans. Nonetheless, the study also found that the teachers' lack of confidence was induced partly by the critical shortage of in-service technical assistance in the rural secondary schools.

The internet's limited accessibility and lack of connectivity hinder the utilisation of technological tools in ESL instruction in secondary schools located in rural areas. The qualitative data analysis shows that the internet and Wi-Fi connectivity speed in the schools was quite slow. Similar findings were made by Kundu and Nath (2018) in India, who pointed out that most rural schools

lacked internet access because internet service providers were expensive, and most rural schools could not afford them. Teacher participants in the current study shared their opinion that learners were misusing the school laptops and computers by visiting websites, watching movies, downloading music, and playing video games that had nothing to do with the ESL content being taught. Despite these challenges that both instructors and learners faced in the rural secondary schools, they still found means and ways of utilising ICTs in teaching and learning activities.

6.3.4 How teachers overcame their challenges

It emerged from the teacher participant interviews that when faced with the challenges presented by the integration of ICTs in instruction and learning, ESL instructors adopted a wide range of ways to resolve their challenges. Firstly, they attended workshops that were organised by their schools as a way of empowering themselves on the how and why of utilising ICTs in ESL instruction. As these did not suffice, teachers took it upon themselves to enrol for training on ICT use in various training institutions to boost their know-how on teaching ESL using ICTs. In addition, the lesson observation findings indicated that teachers made sacrifices by availing their own laptops and smartphones for teaching purposes and even provided their own solar panels as backup where there was no electricity in ESL classes. The ESL teachers also trained their learners on how to use ICTs and even assisted them to resolve challenges that they encountered with utilising ICTs during ESL instruction. Teachers also joined WhatsApp platforms with other ESL teachers within their ESL district teachers' cluster where challenges and solutions on the use of ICTs in ESL instruction were tabled.

6.4 CHAPTER SUMMARY

A presentation and analysis of the study's qualitative data was done in this chapter. The chapter presented the themes that surfaced in the process of analysing the interview data and as well as the ideas that stood out in the observation data analysis. The findings provided insights into the methods used by the instructors in rural secondary schools to teach ESL. It was shown that the teachers utilised ICTs to communicate with their learners within class and after class. To increase their topic expertise, teachers also used ICTs to do current information searches, deliver material to learners via PowerPoint slides, as well as participate in online conversations, social media, and debates. The findings presented in this chapter include teachers' opinions about the pedagogical

benefits of ICTs in general and ESL instruction and learning specifically. According to findings from learner focus group interviews, learners regarded ICTs as bringing convenience and flexibility to their educational experiences. ICT integration improves learning and facilitates the shift from written or spoken to visual interactions by expanding the flexibility of communication channels. ICTs also allow learners the opportunity to connect with information knowledge networks across the globe.

The results of this study demonstrate that internet access and connection, teacher professional development, resource availability, and technical support in schools are among the essential obligations for a successful ICT integration in ESL instruction and learning. A discussion of the study's findings from its two phases is provided in the next chapter.

CHAPTER 7

DISCUSSION OF FINDINGS

7.0 INTRODUCTION

The presentation and analysis of both quantitative and qualitative data were provided in Chapter 5 and Chapter 6, respectively. In this chapter, discussions of the study's key findings from the quantitative and qualitative data are covered. In other words, this chapter provides a cross-data reflection on the study's findings. It begins by discussing how the methodology worked to produce the findings. It then moves on to looking at how the study's findings extend knowledge regarding ICT utilisation in education. Then it discusses the findings in relation to the disjuncture between policy and practice regarding the use of ICT in education. Thereafter, the discussion progresses to explore the perspectives of learners and teachers on ICT usage in ESL education. In addition, the chapter looks at the implications of ICT usage for curriculum and textbook design in ESL education. The theoretical ramifications of the research from the point of view of constructivism, behaviourism, and connectivism as learning theories are also covered in this chapter. These theories provide key ideas that are used to interpret the research findings. Lastly, the chapter presents an attempt to conceptualise an ICT-oriented pedagogy in ESL education.

7.1 A RECAP OF THE METHODOLOGY

This study used a mixed methods technique. The study used questionnaires to obtain quantitative data as well as focus group discussions, individual semi-structured interviews, and classroom observations for qualitative data collection. According to Terrell (2012), in order to fully understand a subject, it is necessary to study it using more than one research approach. Therefore, the use of a mixed method research technique in this study was in order to address the objectives of the research and offer a more comprehensive understanding of the research problem. Qualitative and quantitative approaches were used in order to offset each other's shortcomings (Onwuegbuzie & Leech, 2007). Three teachers and 120 ESL O'level learners from the three participating rural secondary schools constituted the sample population. Questionnaires, semi-structured interviews,

focus group interviews, and lesson observations were the techniques I employed to collect empirical data. In the three chosen rural secondary schools, questionnaires were given to 120 learners and all three participating teachers to gather quantitative data. All 123 participants completed the questionnaires, which I then collected for analysis. The three ESL teachers from the chosen rural secondary schools were interviewed one-on-one in a semi-structured manner to gather qualitative data. In addition, data from the participant learners was gathered through focus group interviews. Lastly, classroom observations of teachers and learners using ICTs for ESL teaching and learning were conducted. Through classroom observations, I was able to see how the teachers were integrating ICTs into their ESL lessons. Overall, through their experiences of and perspectives on how ICTs influence ESL teaching and learning, the teachers and learners provided the necessary data for answering the study's research questions.

For this study, triangulation reduced the shortcomings of single-source research by involving data sources that complemented and verified each other; it provided additional sources of insightful information that could not be obtained from the literature review alone; and it produced richer and more comprehensive information by allowing me to draw information from a variety of sources, including the in-person interviews that provided first-hand, lived experiences of the ESL teachers. Triangulation helped the study to build evidence from multiple data sets. For example, the findings from the lesson observations revealed that the schools did not have enough ICTs for ESL instruction. Similarly, the findings from the questionnaires showed that the ICT tools were inadequate in rural secondary schools and that there were constraints associated with ICT use in the schools. Both the quantitative and qualitative findings revealed the difficulties associated with the non-availability of some technological gadgets and the skills adopted by instructors to overcome challenges in ESL teaching using available ICTs in the schools. The findings of the qualitative phase supplemented, affirmed and elaborated on the results from the quantitative phase. From both phases, it was demonstrated that some of the main obstacles to incorporating ICTs in ESL instruction were limited or no resources and poor training on ICT use for both instructors and learners.

7.2 EXTENDING THE KNOWLEDGE ON ICT USAGE IN EDUCATION

This study looked at how ICTs are used in Zimbabwean rural secondary schools to teach and learn ESL. An ongoing campaign exists on prioritising ICT use in rural secondary education worldwide. Scholars such as Karsenti et al. (2012) contend that effective ICT policies and infrastructure provisioning are essential for the uptake and utilisation of technological gadgets in education, while UNESCO (2015) argues that the delivery of commendable ICT policies as well as facilities is crucial for ICT usage and adoption. According to Nkula and Krauss (2014), low-level ICT use in South African schools results in learners learning about computers rather than using them for learning. In my view, this indicates that learners are still learning the descriptive process of using ICTs for information storage, communication, and retrieval. Few ICTs were being employed in Zimbabwe's rural secondary schools for ESL instruction and learning at the time of this study. These include PCs, laptops, digital TVs, smartphones, smartboards, and projectors. Despite the scarcity of resources, the learners and instructors who took part in this study made use of ICTs in their learning and teaching, suggesting that rurality and its disadvantages have not hindered the spread of ICT usage in ESL education. Learning with ICTs entails using computer hardware and software in a practical way. Through these hands-on experiences, learners gain and improve proficiency in their academic and career-related competencies required for global competitiveness.

ICT has a major impact in knowledge distribution, educational development, and practical application and it is imperative for it to be integrated into the ESL learning process. From the lesson observations and interviews, the usage of technological tools in ESL education showed that ICTs are significant in creating a learner who can solve problems and think critically. However, this study noted that for this to happen, there is need for the Zimbabwean national ICT policy to be integrated into the school curriculum. This is in line with the view by UNESCO (2017) which states that ICTs must be harnessed to support school curriculum goals, by enforcing policies that make their implementation more effective. The collected quantitative and qualitative data in this study have illustrated that ICTs can spread knowledge and thus it is crucial to effectively integrate ICTs into ESL instruction. Findings from this study have shown that there is a compelling need to actualise the use of ICTs to accomplish educational goals in line with Zimbabwe's economic and

educational policies, even considering the frequently high costs associated with ICT implementation.

Looking at the literature reviewed in Chapter 2 of this thesis, several points emerge that this study's findings have extended understanding on. According to the literature, using technological tools in education helps to build teachers' confidence by increasing their subject knowledge through the availability of online resources (Ndlovu, 2018). While this study's findings in both quantitative and qualitative phases, agree that teachers' use of online resources for lesson preparation contributes to promoting confidence-building in teachers, it also argues that the use of technological resources for ESL education can break down teachers' sense of confidence in teaching where technical support is lacking and where electricity and internet connectivity are unstable. Teachers in rural secondary schools who experience these challenges frequently may find their confidence levels diminishing under the weight of constantly having to do crisis management during lessons. Moreover, the overwhelming availability of online teaching resources may lead to teachers becoming lethargic in merely reproducing existing content and methodologies rather than working with what works best within their specific context.

The literature review equally showed that the utilisation of technological gadgets in education enhances learning transfer between instructors and learners, accommodates a range of learning preferences for learners, and helps learners achieve deeper content knowledge and long-term memory (Ghavifekr et al., 2014; Kuiper et al., 2005; Musarurwa, 2018). This study has shown that while these positives are welcome, from the qualitative and quantitative findings, a negative is that the use of computer and internet images featuring everyday violence may also trigger traumatic memories for learners whose past or present experiences include violations of various kinds. It was noted in Chapter 6 that the use of technological tools in ESL instruction ought to be handled with care, especially where visual aids are used to teach a particular aspect of English.

Much of the literature presented in Chapter 2 argues in favour of integrating the utilisation of portable electronics in instruction and learning as this facilitates communication and creates opportunities for collaborative learning (Aburezeq & Ishtaiwa, 2013; Ahad & Lim, 2014; Bere &

Rambe, 2016; Gachago et al., 2015; Rambe & Chipunza, 2013). While this study found this to be true, it also found that the acceptance of mobile devices in schools also created distractions for learners where they got busy on their phones doing personal things rather than using the phones for accessing relevant learning content. The study noted the need for ICT literacy on the rights and responsibilities that go with using ICT tools in schools to be as important as providing learners with sufficient ICT tools for learning purposes.

7.3 THE DISJUNCTURE BETWEEN POLICY AND PRACTICE IN ICT USAGE IN EDUCATION

This study's primary finding from both the quantitative and qualitative phases is that there is a discrepancy between policy and practice when it comes to the utilisation of technological tools in education in Zimbabwe, because of the inconsistency between the goals of national ICT policies and how they are put into practice in rural secondary schools. The variations between the mandatory messaging from the national policies and the actual usage of ICTs in ESL instruction suggest that the goals of ICT utilisation have not been fully met, which means that there are still challenges with using ICTs to teach and learn ESL in Zimbabwean secondary schools located in rural areas. There is unequal access to the usage of ICTs in ESL education due to limited financial resources for the teachers and the learners. The findings from Chapters 5 and 6 have highlighted the discrepancy between compliance with regulations and actual practices in ICT usage in the ESL lessons in rural secondary schools in Zimbabwe. For instance, in this study, policies and regulations of integrating ICTs have been drafted by the government for schools to implement, but on the ground the schools have no resources, and in some instances have limited resources, while teachers have poor ICT skills and internet connectivity is weak. In practice, the integration of technological tools in instruction and learning ESL becomes a daunting task for teachers. However, it was noted only from the qualitative findings that, out of sacrifice, teachers have taken steps to use their own resources to integrate ICTs in ESL instruction in rural secondary schools. While this shows teacher agency, the stark contrast between what policies demand of schools and what teachers are unable to do in the classrooms points to the need for thinking through practicalities when education policies are being drafted.

From the literature, the MoPSE (2017) verified that ICTs had been incorporated into the Zimbabwean school curriculum in response to the widespread adoption of technology as a valuable tool for education and as a necessary set of skills for learners entering secondary education. In addition, the Government of Zimbabwe crafted a policy that recommended the utilisation of technological tools for learning and offered protection against the misuse of ICTs in schools by learners (MoPSE, 2020). Ever since the 2016 ICT policy draft, the ICT policy has still not been properly implemented. This has created a disjuncture between policy and practice. The literature reviewed in Chapter 2 demonstrated that teachers encounter both advantages and difficulties when attempting to put the government's ICT-related programmes into practice. This study's findings from both qualitative and quantitative phases have revealed that teachers enjoy the application of ICTs in ESL teaching as it enables their learners to master the concepts quite easily and that it saves time for lesson preparations. However, the challenges of insufficient resources, weak internet connectivity, and lack of ICT skills by teachers have all made it difficult for the teachers to fully utilise ICTs.

ICTs can enhance instructional procedures, expand information access, and provide educators and learners with the requisite expertise to pursue higher education and better career prospects, according to the MoPSE (2016). But, as the MoPSE (2017) later acknowledged, there are a number of factors that deter learners from using ICTs in ESL, including a shortage of classrooms, poor internet access, big teacher-to-learner ratios, limited or unavailable laboratories, and generally inadequately equipped technology centres. This has forced instructors to use their own resources in order to assist learners in teaching ESL using ICTs. The findings of this study show that ESL teachers could use technology to break up uninteresting lessons and draw learners' attention with the limited ICT resources available in their schools. The teachers and learners who participated in the quantitative and qualitative phases all agreed that their schools were not usually given enough ICT resources to meet their educational goals. Effectively, ESL instructors' ability to use ICTs for instruction and learning depended on the schools' ability to provide ICT equipment; in the absence of this, teachers would have to forgo their own resources to support learners.

Regarding ICT use to improve ESL instructional activities in secondary schools located in rural areas, the study's participating instructors appeared to be devoid of many of the resources required

to meet the national ICT policy. ICT use to improve teaching in schools at national level was encouraged by the Zimbabwe National Policy for Information and Communication Technology (2016) to raise national education standards. In addition, the Zimbabwean Curriculum Framework for Primary and Secondary Education 2015–2022 highlighted that instructors need to be competent professionals who can adapt to technology and educational knowledge changes in society. By encouraging the use of technology to accomplish that, these policies support the usage of ICTs in ESL instruction and learning. Nevertheless, findings from this study indicate that inadequately equipped rural secondary schools conflicted with national policy documents that demand the application of ICTs in instructional procedures since they are insufficiently equipped and are unable to integrate ICTs in ESL lessons as required by the ICT policies. These under-equipped schools would find it difficult to meet the policy requirements which advocate for the utilisation of ICTs to learn and teach ESL. Even access to the internet, something that in other settings would be considered standard, is unavailable in these kinds of institutions (Goswami, 2008). In the setting described above, there is a disjuncture, not just between the technoscape and the implementation methods, but also between the policy and practices, especially when it comes to the notion that ICT must be used to promote education. Although the idea of incorporating ICTs into ESL instruction is appreciated in national and rural secondary school environments, its implementation is clearly hampered by a lack of technology. Instructors and learners who took part in this study lamented the poor infrastructure and inadequate supply of ICT gadgets in their schools. As a result, in the context of ESL instruction, the realisation of the idea that ICTs must be used to enhance learning and teaching is not yet fully attained in practice in rural secondary schools in Zimbabwe. Despite research showing the benefits of ICTs for both learning and teaching, as well as a clear mandate for its usage in education at all levels, ICT use is still a notion that is frequently not implemented in ESL instruction.

7.4 LEARNER PERSPECTIVES ON ICT USAGE IN ESL EDUCATION

As noted in Chapters 5 and 6, this study articulated findings on learners' perspectives on ICT usage in ESL education. ICT integration in the classroom, according to Mdlongwa (2012), inspires learners to generate their own knowledge and apply it to real-world situations. Learners that consistently utilise ICTs for ESL assignments and tests cultivate a culture of information management, autonomous study habits, and self-directed learning (Mdlongwa, 2012). From the

constructivist theory perspective, this involves learners' capacity to organise, plan, and ask questions to comprehend and control cognitive processes and engage in critical thinking (Parsons, Hinson, & Broom, 2001). Diverse perspectives, cultural experiences, and differing beliefs are all used in constructivist pedagogies, and they are best realised through interactions with group members who are from various places, backgrounds, and languages. Using ICTs, such as the internet, can assist in this and eventually advance the education of ESL learners outside the constraints of restricted knowledge transfer (Anderson & Dron, 2011). In this study, findings from learners' focus group interviews revealed that internet use by learners to look for material they might need for writing and speaking activities is crucial to their ESL learning. The literature review in Chapter 2 pointed to studies that argued that the learner-centred classroom paradigm has replaced the traditional teacher-centred classroom paradigm due to use of the internet, leading to a rich environment that is full of interactive and collaborative resources that promote participation and information sharing (Montrieux et al., 2015). This fits well with connectivist learning theories, which believe that because of interactive course experiences, learners construct their own facts in newly constructed learning models (Sekgwelea, 2007). The connectivist learning theory discussed in Chapter 3 supports the claims made by McLoughlin and Lee (2008) that the provisions of ICT, like email, the internet, and web browsing, make room for networked, collaborative, and social learning. This allows for the application of collective intelligence to generate deeper and more complex ideas in the context of ESL instruction. However, this is only achievable where learners have access to the affordances of ICT.

Learner participants in this study concurred that there was limited internet connection in their rural schools. They also added that it was challenging for learners to use ICTs to study ESL due to irregular power supply and a lack of electronic equipment, such as tablets, laptops, and personal computers for teachers and learners. These findings support existing literature which states that it is challenging to employ ICTs in ESL classes due to power outages, restricted or non-existent electricity supply, damaged phone lines, and a limited variety of technological instruments (Larson, 2015). In support of this, Mikre (2011) pointed out that inadequate electricity supply and power outages are two instances of infrastructure problems that have been documented in the literature. The research findings revealed that the participants' perception of the present energy shortages and power outages in rural Zimbabwe was that these issues had detrimental effects on

attempts to include ICTs into ESL instruction. Nevertheless, findings from the quantitative data show that learners' ability to access educational applications and programmes, along with books, articles, and videos, to support their English language skills, was made easier with the use of ICTs. Learners who took part in the study indicated that technological gadgets made it possible for them to exchange knowledge and ideas and that they could ask teachers and classmates questions whenever they wanted. This aligns with the constructivist learning theory discussed in Chapter 3, which maintains that learners should engage in conversations, work together to generate personal meaning, and apply the knowledge they have together developed (Akpan & Beard, 2016). Constructivists concur that learning occurs when learners actively engage and interact with their surroundings. Dede (2012) and Shelly et al. (2010) hold the constructivist belief that learners use their imagination and critical thinking skills to form their own viewpoints about the world.

Learner participants in this study revealed in the focus group interviews that they utilised the internet effectively for gathering learning resources and conducting research. By engaging in real-world initiatives like the research topics suggested by their teachers for assignments or learning activities linked to ESL continuous evaluation, these learners said that they were given the authority to take control of their ESL education. Their opinions on the use of ICTs in ESL instruction support the idea that using ICTs enhances learners' speaking, listening, and information processing abilities (Meladi & Awolusi, 2019). Thus, I argue that learners who use ICTs in their ESL classes become more adaptable and sensitive to new technologies and the digital world. From the lesson that I observed at School C, learners could complete reading assignments in ESL, refer to e-dictionaries, practise content-related grammar and pronunciation, and receive quick feedback within the same lesson when they used ICTs. According to the participant learners in the focus group discussions in the qualitative phase, ICT technologies were helpful to them as they prepared for in-class presentations.

The learners' focus group interviews showed that ICTs give language learners chances for both interpersonal and intrapersonal communication. By focusing their attention on language and producing meaning through ongoing internal discourse and cognitive processing, the opportunities for intrapersonal involvement offered language benefits to learners. The learners claimed that ICT

tools had benefited them in several interactive ways, including enabling them to gather and distribute educational resources among themselves.

In using ICT tools such as email, Facebook, blogs, Skype, and Google Docs for cooperative learning activities, learners stand to gain more. For example, from the lessons that I observed, the learners could practise speaking and listening by using audio materials, and they did this to their benefit. Dede (2012) notes that ICT can help learners become better readers and writers when they use a variety of reading materials, including e-books, e-journals, and e-papers. The learners who participated in focus group interviews and provided responses to the questionnaires suggested that a variety of web browsers and mobile applications, either offline or online, may be utilised to practise speaking, listening, writing, grammar, and other language skills. One of the numerous advantages of ICT use is that it makes resources for content analysis and reading more easily accessible to learners. In addition, ICTs enable learners to exchange and solicit feedback on academic content from peers. When ICTs are used in ESL instruction and learning, an atmosphere is established that fosters the development of learners' capacity for learning as well as their independent and autonomous learning habits. However, from the findings of this study, learners felt that there was need for them to be trained in using ICTs. From the lesson observations, the learners had difficulties in using the computers because they did not have the skills to effectively operate them.

7.5 TEACHER PERSPECTIVES ON ICT USAGE IN ESL EDUCATION

The data analysis in Chapter 6 makes evident the different viewpoints of the teacher participants in the qualitative phase about how ICTs are used in rural secondary schools and the difficulties in successfully integrating them for ESL instruction and learning. As per these teachers, the utilisation of ICTs in the classroom may foster greater creativity, convenience, and relevance while preparing learners to actively engage in the information age. However, according to the information gathered from the individual interviews, some teachers felt inferior to learners who were more technologically savvy, and these teachers were afraid of looking less knowledgeable in front of their learners because they lacked ICT abilities. The findings showed that teacher

participants believed that regular workshops should be used to deliver ICT training, and they understood the significance and need of doing so for all teachers.

Technology-enhanced ESL training makes learning easier for learners and facilitates a smoother transition from traditional teacher-centred to modern learner-centred methods. In Chapter 3, it was highlighted that constructivist teachers use ICTs to facilitate information flow rather than acting as their learners' exclusive source of knowledge (Montrieux et al., 2015). From the constructivist approach, ICT facilitates dialogue and negotiation, which are two essential elements of effective ESL learning, as was stated in Chapter 3. In this study, it was found that although all three teachers believed in using ICTs in ESL teaching, they applied constructivist theory differently, depending on the ESL component they were teaching. Components such as descriptive composition writing, listening comprehension and fiction landed themselves more readily to constructivist approaches than genres like poetry.

According to Cheng et al. (2022), teachers have a higher probability to include ICTs in their lessons when they believe these resources may simplify and expedite their work. According to the lesson observations in this study, teachers used ICTs in ESL instruction because they believed that doing so would improve their work performance in terms of quantity, quality, or time. This means that teachers will include ICTs if they are confident and persuaded that doing so will improve their ability to instruct ESL learners. The teacher interviews suggested that instructors are more inclined to adopt and apply a pedagogical innovation in the classroom if it offers a noticeable benefit.

The participating teachers in the qualitative phase, unlike in the quantitative phase, believed that one of the greatest obstacles to integrating ICTs into ESL classrooms was the absence of a baseline study. These participants stated that had the government recognised contextual differences in the schools prior to the ICT policy adoption, it would have been in a better position to take the necessary actions to mitigate some of the problems that rural secondary schools were facing in implementing the ICT policy. Thus, from these teachers' perspectives, even if the government were to provide rural secondary schools with minimal funding for ICT infrastructure, consumables and equipment, it would still fail in getting the schools to achieve maximum ICT integration in

education since no baseline study was conducted to ascertain the individual context and needs of each school.

Teachers thought that ICT was better utilised for lesson preparation and easing workloads than for actual classroom use. In addition, quantitative data revealed that the teachers thought ICTs were typically useful. Findings from the teacher questionnaires and interviews indicate that teachers found ICTs helpful in their work, especially as a tool for productivity, information gathering, and representation. Teachers used ICTs as teaching aids because they gained a lot of information when they used the internet to source materials. It, therefore, appears from both the quantitative and qualitative data that participants were very excited about the use of ICTs to lessen their workload. However, the study noted that while teachers could have enjoyed less work in lesson preparations, the utilisation of ICTs also increased their workload in terms of class management. The lesson observations noted that teachers had problems in managing their classes when using ICTs in teaching. For example, computers were at some points of the lesson malfunctioning even at the time learners were presenting their findings on PowerPoint. Moreover, some learners were busy playing games on their cellphones and needed close management by the teacher to concentrate on the objectives of the lesson. This clearly showed problems of class management that presented themselves with the utilisation of ICTs. The participating teachers reported that because learners were using their own tablets or smartphones irresponsibly, they were finding it difficult to keep the classroom under control. Instead of using their tablets to look for academic information for lessons, learners downloaded and played games, music, and videos. This situation increased the teachers' worries and fears about implementing ICTs in ESL classrooms.

7.6 THE IMPLICATIONS OF ICT USAGE FOR CURRICULUM DESIGN IN ESL EDUCATION

The conventional approaches of instruction and learning are becoming less and less relevant with the advent of new ICT instructional strategies. According to Laurillard et al. (2009), the educational environment is rapidly transforming due to technology, and using ICTs in the teaching process is becoming more and more required. Since the invention of technology, more teachers and learners are utilising ICTs in the classroom. Education experts and practitioners assert that the integration of ICTs can revolutionise pedagogy and the creation of educational curricula, including

in ESL. The idea that implementing new digital technologies in schools and other educational settings will spur pedagogical innovation is one of the strongest justifications for its usage (Cheng et al., 2022). The rapid progress in technology within the education sector suggests that educational institutions understand how important it is to introduce technology usage into their curricula. The findings from both quantitative and qualitative phases indicate that technology and its resources should be integrated into curriculum design to provide learners with a greater scope of learning opportunities using a variety of tools and resources, as well as to promote creativity, application, and lifetime learning. The formulation of curriculum objectives and assessment methods is another area in which ICTs are crucial.

A curriculum is essential to the teaching process because it acts as a road map for learning. Its primary objective is to maximise learner achievement by making clear the roles that both educators and learners have in the educational process. Teachers can organise and sequence learning in a logical way with the help of a curriculum, thus giving learners the tools they need to thrive in and outside of the classroom (Shin, 2015). Therefore, the purpose of a curriculum is to give teachers a pre-established framework for instruction so they can balance the conflicting demands of textbooks, programmes and assessments, among other things (Barab & Squires, 2004). It is important to emphasise that a curriculum provides the method of instruction and learning with a management structure, and that any educational institution could descend into anarchy if pedagogy fails to take this into account. Consequently, it is reasonable to say that a curriculum is essential to the use of effective teaching techniques.

Utilising ICTs has improved human connection and communication, increased accessibility to information and resources, and allowed for unrestricted access primarily by using communication technologies. Because ICTs give a whole new range of online resources that have the capacity to enhance the instructional process, it is crucial to infuse them into the school curriculum. Findings from individual teachers' interviews in the qualitative phase indicate that ICT has created a global village where learners can communicate on a regular basis and are also learning through online spaces. Thus, this study argues that there is need to involve ICTs in curriculum designing for secondary schools in Zimbabwe. ICTs are seen as tools to support learners in problem solving, which in turn allows them to be critical thinkers. ICTs must be incorporated into the ESL

curriculum so that learners and instructors can complete the course material at their own speed and on their own schedule. The connectivist and constructivist theories covered in Chapter 3 provide compelling evidence for this. Constructivism holds that learners need to engage in active learning (Ally, 2004). The focus of the instructional process is the learners, and the instructor's job becomes one of giving support and direction. Therefore, the curriculum should be designed to ensure that learners can use ICTs to work together to develop knowledge in a knowledge community where there is reciprocal dependency (Vygotsky, 1978). Connectivism places strong emphasis on a curriculum that promotes the cognitive development of learners, and through the utilisation of ICTs information is negotiated and constructed in a community of learning via dialogue, sharing, and critical thinking (Downes, 2012).

Worldwide, there is a consensus that the incorporation of ICTs into educational settings is essential to curriculum transformation (Cooper & Higgins, 2015; Raturi & Boulton-Lewis, 2014). In China, learning steadily improved as ICTs were introduced into educational settings and incorporated into curricula in schools (Lai, 2015). In other cases, using ICTs enhanced learner interaction, while using WhatsApp helped learners acquire advanced cognitive abilities (Baguma et al., 2019; Persaud & Persaud, 2019). Thus, ICTs have the power to transform teaching methods and greatly enhance learners' learning experiences. Among transformative teaching methods are the use of web-based applications for collaboratively creating and answering multiple-choice questions to foster peer-to-peer collaboration and the use of online instructional videos to teach cognitive, affective, and psychomotor rehabilitation skills (Cooper & Higgins, 2015).

In ESL instruction, the utilisation of ICT gadgets has had a profound impact on how learners acquire the language and develop a variety of communicative competencies (Chapelle, 2003). The findings of this study demonstrate that because multimedia technology has made it possible for instructors to engage in fresh, real-world interactions with learners, ESL teachers comprehend the benefits of computer-assisted language learning and computer-mediation on communication in ESL instruction. According to Kim et al. (2015), these technologies have the power to produce meaningful learning experiences and to fully develop the breadth of learner competencies.

ICTs are important in the ESL design and development of curricula because of their many advantages. Findings from this study's interviews show that ICTs are a tool for assisting learners in making the shift from physical classroom walls to online learning environments, and this calls for the redesigning of the school curriculum. Findings from the lesson observations indicate that among many other advantages, ICTs can change didactic practices, spark pedagogical innovation, give learners flexibility, promote learner engagement, accommodate learners' diverse learning preferences, and foster learners' autonomy in the learning process. They can also increase learner interaction, communication, and collaboration as well as foster intellectual expressiveness and learner creativity. Because of these advantages, an ICT-based curriculum should enable learners to acquire knowledge, apply it, and use it throughout their lives. This is confirmation to the effect that including ICTs in the ESL curriculum may encourage innovation, practical use, and lifelong learning.

7.7 THE IMPLICATIONS OF ICT USAGE FOR TEXTBOOK DESIGN IN ESL EDUCATION

Textbooks are utilised in schools as an ESL teaching tool. A textbook is an essential tool for ESL education and is meant for a specific user group with a specified age range, educational specialisation, and educational level (Ivic, 2019). Textbooks are still important because they are the main learning resource used in ESL instruction. The use of textbooks in the majority of Zimbabwe's rural secondary schools serves as evidence of this. Because of their hands-on value, textbooks are still a crucial component of instruction in many different educational contexts (Prastowo, 2011). Liu (2013) claims that as ICT has been used in educational settings, the variety of reading materials has increased. A text like a book that is digitally shown on the screen of a computer or mobile device is referred to as a "digital text" (Jeong e t al., 2010). According to Jeong et al. (2010), digital textbooks are published materials which include books or journals that may be viewed on a digital device, like a tablet or smartphone. They are not hardcopy. Digital textbooks, as stated by Jones et al. (2016), are a teaching medium that can improve learning processes and help teacher educators as well as learners. As stated by Agustiana (2021), a digital textbook is typically an electronic copy of a printed textbook, though occasionally a book may be released exclusively online without a physical copy as well. Findings from both focus group and

individual interviews in this study indicated that digital textbooks are becoming more and more common in ESL education settings, replacing the printed materials.

A digital text, according to the teacher participants, is crucial to promoting and increasing learners' knowledge of technology. It can also help learners become more engaged and motivated by giving them access to schoolwork at home and even when they are physically present at school, as the findings suggest. In Zimbabwe, rural secondary schools, like other educational institutions, placed a strong emphasis on virtual interaction of learners with their instructors at the time of the Covid-19 pandemic, and this practice has continued to this day (Maphosa, 2021). According to the literature study, since online learning is typically used in secondary and higher education settings where learners are already familiar with technology, it becomes one of the best approaches to incorporate into ESL instruction (Agustiana, 2021). Due to online teaching and learning, digital textbooks have become more common. Learners are encouraged to use both physical and digital textbooks in this uncertain environment, even if some may feel uncomfortable doing so.

Curriculum rules have traditionally specified the use of prescribed paper-based textbooks, which were created especially for school usage and subjected to quality assurance procedures (Masango et al., 2020). Before being utilised in classrooms, digital books undergo a similar evaluation and approval process as that of printed textbooks (Masango et al., 2020). The challenge that teacher participants in this study mentioned is that when obtaining digital textbooks for ESL instruction, publishers might not have made certain titles available, or the titles might have been listed incorrectly in the database of approved titles. As a result, teachers at some point were unable to order the titles that they wanted. In addition, not all the textbooks that were offered had complete navigation and interactivity, according to both the qualitative and quantitative data. Consequently, these materials lacked user-friendliness as they did not engage learners and were difficult to navigate through when looking for information. Participant ESL teachers brought up issues of licensing difficulties, as was revealed in the qualitative data, as they lamented that without the required license, they and their learners were unable to access digital literature on their devices. This issue created a barrier for both teachers and learners to utilise digital textbooks in ESL classrooms. According to the teacher participants, teachers found it difficult to purchase digital

textbooks for their classrooms because of this problem. The learner participants also had difficulties in using the digital texts as they could not easily access them from the internet.

Some learners, according to Chisango et al. (2019), prefer printed textbooks since they can physically handle the books, annotate the pages, and even write summaries inside the texts. In contrast, some learners choose to use digital textbooks if they need to bring many physical volumes to class (Chisango et al., 2019). Thus, in terms of textbook designing, there is need for ICTs to become more user-friendly as far as textbook accessibility by instructors and learners is concerned. The implication of this is that when the Curriculum Design Unit is designing digital textbooks for use in ESL interaction, they should consider the level of the content to be given to the O'level ESL learners and make the textbooks easily accessible. They could even have annotations on the hard copy texts which direct learners on where to locate the very same texts in soft copy format on the internet, to ease learners' use of both hard and soft copies. The findings from the teachers' individual interviews also noted that there was need for teachers' input to be considered in ESL textbook designing to fully address ESL issues that matter and were in line with societal needs.

7.8 THEORETICAL INTERPRETATIONS OF THE FINDINGS

The interpretation of the study's findings in light of the learning theories that guided the research is the main focus of this part. Ertmer and Newby (2013) state that one of the primary arguments in favour of placing a strong emphasis on learning theories is their ability to offer proven teaching methods, techniques, and approaches. To determine successful technologies, learning theories and their associated pedagogical techniques plan, produce and provide effective teaching and learning experiences (Thomas, 2020). This study focused on these theories because behaviourism, constructivism and connectivism, in that order, are theories that help make better ICT usage in ESL instruction, based on the topic area, learning objectives, the teacher's pedagogy, and the potential of the learners. It is necessary to discuss each learning theory in line with its interpretive value to the findings of this study, as each theory has its own perspectives on the usage of ICTs in learning.

7.8.1 Behaviourism

The behaviourist ideas covered in Chapters 3 offered a framework for interpreting the study's findings, but the main conclusions demand that the concepts be expanded to include the idea of learner conditioning in relation to the utilisation of ICTs for ESL instruction in rural secondary schools. According to Skinner (1968), operant conditioning is a learning strategy that involves rewarding and punishing behaviour. An individual learns to correlate a specific behaviour with a result through operant conditioning (Skinner, 1968). The phrase "reinforcement" was first used in operant conditioning. In other words, behaviours that are rewarded tend to be repeated, but behaviours that are not rewarded tend to disappear; thus, both positive and negative reinforcement are demonstrated by this. Behaviourists believe that learning is a mechanical process that entails connecting a sensory reaction to a new behaviour, or learning. For the newly learned behaviour to be executed fast and effectively and to develop into a strong habit, behaviourists additionally emphasise the necessity of practising, thus fortifying the association. For instance, learners' proficiency and understanding of a given ICT tool would improve when it is used consistently throughout ESL instruction. Findings from the lesson observations reveal that learners' performance on comprehension questions for ESL was enhanced by their consistent utilisation of computers and smartphones to find word meanings and spellings.

The idea of Skinner's operant conditioning is to link an action and a reward. According to Skinner (1968), an endeavour is encouraged when it produces a positive outcome; on the other hand, when it produces an unfavourable outcome, that specific behaviour is discouraged. Within the ICT community, educational software that provides learners with immediate feedback on a task will motivate them to utilise it frequently, thereby causing them to learn to gain positive feedback. Conversely, if a learner receives negative feedback frequently about utilising a technical or instructional tool, they will grow aversion to it and eventually stop using it. To motivate users to increase their learning, it is therefore advisable to create materials that provide supportive comments to the user even when the user is not performing well on the assignment. Findings from the learner participants show that the learners continuously used ICT tools in answering given assignments in ESL because of the instant feedback they were getting via the ICT gadgets.

Despite the many benefits that are directed towards behaviourism, there are many criticisms linked to learner conditioning when using ICTs for ESL instruction and learning. One of the concerns is that if there are no incentives for the use of ICTs, learners' intrinsic motivation may be undermined and their interest in learning may be diminished. It is believed that external rewards may result in certain unanticipated behavioural issues in the classroom since they may lower intrinsic motivation and make learners lose interest in learning if they are not offered incentives for using ICTs (Thomas, 2020). To put this into perspective, the findings of this study demonstrate that while using ICTs might be fun for learners, if the material being taught is not engaging, learners risk losing interest after the novelty of the device wears off. For instance, teacher participants experienced difficulties when electricity would suddenly be cut off or when computers would freeze in the middle of ESL lessons, leaving the learners feeling demotivated. While learners may be enthused when teachers introduce them to an ESL lesson that makes use of ICTs in the smart classroom, teachers still must teach in a way that keeps learners' attention. For instance, in the lesson observation at School A, the instructor had ICT devices to teach a poem, but these were not effectively utilised to draw the attention of the learners. From the behaviourist perspective, the learners were disengaged because the teacher did not offer them incentives in the form of using ICT gadgets to explain the poem.

Behaviourist approaches are criticised for encouraging the adoption of conventional teaching techniques that rely on lecturing learners to fill up knowledge gaps. To reinforce the S-R association, learners participate in drill and practice, but not in the creation of new concepts. This does not assist learners in becoming creators of knowledge. However, the learners in this study noted that the use of ICTs resulted in the creation of significant educational tools, such as personalised tutorials with instructions and feedback that were encouraging and rewarding in the learning process.

Teacher-centred learning strategies are supported by behaviourism. Teachers are thought of as the experts who are responsible for teaching their learners through lectures or hands-on instruction. Learners in this context are sometimes referred to as "empty vessels," receiving and processing knowledge. Teacher-centred education is reflective of Freire's (1972) banking education since learners tend to follow the teacher's pre-programmed instructions. The findings from the teacher

participants indicate that following the behaviourist mode, teachers provided learners with programmed instructions. However, the use of ICTs also allowed the learners to interact among themselves and work independently, thus moving into a learner-centred approach. Effectively, this study shows that teacher-centred pedagogy is not fixed but rather constantly trades places with learner-centred pedagogy as teachers and learners engage ICTs differently in ESL instructional activities.

7.8.2 Constructivism

Constructivist learning theory, which is primarily credited to Vygotsky (1978), discusses learning via experience. Constructivism is the idea that personal experiences serve as the foundation for learning. According to Vygotsky (1978), a person's learning process and the things they learn are influenced by the culture they are a part of. The constructivist method assumes that individuals create their conception of reality via a reflection on their past experiences. In this study, learner participants had to use their experiences in using the WhatsApp platform to carry out the assignments given to them by their teachers during the Covid-19 era. According to constructivist theories, learners should participate in activities that result in the creation of their own knowledge rather than only receiving it from others. For Vygotsky (1978), learning is a social process that necessitates collaboration because it involves discussion, bargaining, and reaching consensus. In digital learning environments, internet technologies such as wikis, blogs and podcasts, when used skillfully, can improve learner engagement and cooperation (Agustiana, 2021). According to Jarvela et al. (2001), ICTs can facilitate collaborative knowledge creation.

Constructivism holds the view that the teacher's responsibility in the classroom is different from that of a teacher within other learning theories. Here, the instructor plays the role of a learning facilitator, whose primary responsibility is to help the learners organise their thoughts. This is contrary to the assumption that the teacher is the source of all knowledge, and their role is to impart that knowledge to learners through lectures, as noted in behaviourist theory. The learner in a constructivist learning environment becomes the centre of their learning rather than the teacher. The findings from the observations in School B and School C indicated that the teachers were

facilitators of the lessons in which ICT tools were utilised for teaching. These lesson observations demonstrated constructivist learning since the learners were at the centre of the learning activities.

Khine and Fisher (2003) emphasise how teachers use the internet to provide learning instructions and how crucial it is to design these instructions with the needs of learners in mind. These authors claim that the internet makes a multitude of knowledge accessible (Khine & Fisher, 2003). This encourages meaningful interactions with the content and connects individuals to discuss, encourage, and respond to one other. Both the learners and teachers who took part in this study concurred that the usage of ICTs in ESL instructional activities encouraged interactions and networking among learners and that improved their performances. However, it must be acknowledged that even though the internet can accomplish all of this, learning cannot go smoothly without the teacher's guidance. Constructivist learning is not ensured by just giving learners access to the internet. Ng'ambi and Johnston (2006) contend that for learners to be able to construct their own meanings, the teacher needs to offer direction or coaching. ICTs can give learners the materials and environment they need to build their knowledge and comprehend concepts that are unclear to them, but the teacher remains important in facilitating learners' use of ICTs for maximum benefits.

Furthermore, greater chances for learner participation in learning, teamwork, independent study, peer evaluation, as well as individual and group evaluation are necessary for constructivist learning (Kumari, 2021). With the use of ICTs, learners can access these kinds of activities through a variety of channels. By using the internet, for instance, a learner can obtain a wealth of resources to aid in the acquisition of new ideas as well as platforms that enable them to work together with other learners on a variety of projects, both locally and globally. Findings from the learners in this study show that the usage of ICTs provides learners with a wealth of resources that enable them to find solutions to issues concerning ESL, such as writing of compositions as well as reading, listening and speaking challenges. The teachers interviewed in this study felt that the utilisation of ICTs in ESL facilitates learning by creating critical thinkers who are ready to solve problems from the real-world scenarios. However, a teacher participant from School C echoed sentiments that ICTs can be an excellent tool in a constructivist classroom, but they cannot take the place of a teacher. Although the teacher's engagement may be lesser than in a traditional classroom setting (where

instruction is delivered through lectures), the teacher must nonetheless be there to assist learners in all activities.

Constructivism is criticised for seeing education as a socially performed activity and for making it impossible to explain how education occurs in an organisational setting (Siemens, 2006). Stated differently, ICTs can be used to create learning environments where learners actively develop their own knowledge and are self-directed, but it is merely an information carrier when it is used to convey digital texts. Therefore, a lesson delivered via WhatsApp or a video CD, or even information made available via a computer, just modifies the information source and testing agency, without allowing the learners to actively engage in the learning process. This kind of ICT use minimises the potential to fully employ technology for interactive and collaborative learning and instead encourages customised learning (Kumari, 2021).

The constructivist theory is further constrained by the potential for the teacher to lose control over the class even as learners pick up knowledge from one another. In this research, this was noted in the poetry lesson observed where some learners busied themselves with their cellphones while the teacher gave instructions on the lesson. The teacher participants emphasised that learner access to technological gadgets in the classroom presented a huge challenge for teachers to keep control over the learners since some of them become distracted by their gadgets while in class. Thus, while constructivist theory encourages ICT usage by learners, such usage may also hinder the learning process.

7.8.3 Connectivism

Connectivism was considered as a learning theory while analysing the data collected in this investigation. The constructivist theory of learning, which places the learner at the centre of the learning process and encourages them to link and create new information within a framework that incorporates social media and other external networks, is the foundation of connectivism, as was stated in Chapter 3. The central tenet of connectivism is that knowledge is activated when learners participate in and are connected to a learning community (Goldie, 2016). The learning community, as defined by the connectivist theory, is a node that arises from the connecting points on a network

and can include any type of knowledge source, including libraries, websites, journals, databases, and organisations. From the findings of this study, teachers and learners concurred that the usage of ICTs in ESL instruction allowed them to be networked using WhatsApp platforms and Facebook and to also be connected through the internet to find solutions to given assignments. This provided an environment for learners and instructors to interact freely and participate effectively, whether they were in class or at home. From the lesson observations, it was noted that learners used ICTs in enhancing their skills of speaking, listening and writing through a variety of activities that were presented to them by their instructors. In addition to using audio-recorded comprehension passages to improve their listening abilities, learners could use the internet to search up word definitions. Such activities also improved their word pronunciations as the instructors asked them to read poems, comprehension passages, words from the computers, and interactive boards, corrected them and also allowed them to correct each other as and when this was required.

According to connectivist philosophy, a learning community is an online classroom that connects learners to a virtual world of limitless possibilities. This implies that the learning of ESL education can now take place anywhere, at any time, and is not limited to being an individualistic process. Instead, it is a collaborative scholarship that transacts through space and time, independent of location or time zones. For learners to succeed in the digital age, connectivism offers new learning techniques and competencies. From this study's findings, the learners affirmed that they benefitted through searching for knowledge and even in storing information in external ICT gadgets for future use, and also felt happy to be part of a learning community. Since knowledge is ever-expanding and changing, access to necessary information by learners is now more crucial than relying on already known and existing knowledge (Siemens, 2005). In the context of a virtual classroom, connectivism dismantles the false ideological views of learning that are held by a privileged group of individuals and creates a new sense of freedom for all learners, despite their varied geographical locations. The results of this study demonstrated that ESL learning tasks could be completed using online resources and that teachers and learners could network virtually through the use of ICTs.

The utilisation of ICT and its evolving applications are inevitable in a digital age (Goldie, 2016). In rural secondary schools, teachers are greatly impacted by this dramatic shift in the manner that

teaching and learning are conducted in ESL and other subjects. Based on this study's findings, modern technology frees teachers and learners in rural locations from relying only on outdated printed textbooks and other physical media, by enabling them to connect online with leaders, experts, and professionals in their fields of interest across the globe. However, I think it is important to emphasise that new technologies require skilled teachers, and that ICT is evolving so quickly that it is useless to try to compare a given skill over time as advancing technology may have made it irrelevant. Thus, with ICT always evolving, teachers must also possess the necessary abilities to stay up to date. This is to say that the knowledge and abilities of teachers should advance along with ICTs for teachers to effectively assist learners. However, findings from the teacher participants indicated that teachers lacked the advanced skills for the use of ICTs in their lessons. Assisting each learner in making the right connections within their learning networks is regarded by this study as one of the teacher's responsibilities. In a connectivist learning environment, teaching is mostly done by setting an example. In a virtual classroom, learners that use connectivist learning also teach teachers and other learners. The need for connectivist teaching techniques is being emphasised due to the rapid growth of technology (Bolisani & Bratiani, 2018). Therefore, connectivism is practically ineffective when educators are unable to apply technology to support learners in making connections with their learning settings.

The other role of a teacher in connectivist theory is to point learners towards pertinent resources and other experts, in addition to providing experiences that promote lifetime learning. Based on the information shared by teachers and learners in focus groups and in one-on-one interviews, questionnaires and non-participant observations, technology has a significant impact on the ESL learning processes for developing learners' speaking, listening, writing and reading skills. Learners could be advised on which ICTs to utilise to locate, organise and store knowledge across a variety of multimedia platforms. In other words, for each learner in a connectivist learning environment to create and maintain a personal learning network that is a part of other networks, they need to receive assistance from teachers, peers, experts, a facilitator, and non-human support systems. In this study, the teachers assisted the learners in finding the correct data search engines from the internet for the information required to learn certain ESL concepts, for example, the meaning of words in a text. In this study, teachers and learners utilised communication methods like WhatsApp

and SMS, not for social networking, but as helpful means of exchanging ESL content, which allowed learners to absorb ESL information more rapidly and effortlessly.

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From the research, it is evident that maintaining and fostering relationships between instructors and learners within a learning community is crucial in promoting lifelong learning. Since information is always changing, it is important that networked teachers and learners continue to connect in order to adapt and adopt the unstoppable ICT-oriented ESL pedagogies. Although there is a wealth of data available on the internet, it can be overwhelming at times. Therefore, it is imperative that teachers and learners of a network understand the basic skill of identifying links among various domains, concepts, and ideas. Furthermore, learning is valuable when learners apply what they have learned to create new information rather than merely gauging their level of understanding (Bolisani & Bratiani, 2018). Connectivist learning aims to ensure that learning nodes lend current and accurate information to users, and the currency of the available information is a key component in this process.

Some academics have disagreed with connectivist founders, Siemens and Downes, about connectivism's classification as a learning theory, believing that it falls short of being a comprehensive theory. Bell (2011) views connectivism as a strategy for altering the way that instruction takes place in a technologically upgraded classroom, rather than as a theory. Similarly, Goldie (2016) sees connectivism more as curriculum and pedagogy than as a theory since it emphasises the skills and knowledge that individuals must acquire for them to learn. From this study's findings, connectivism is a philosophy of learning that places a strong emphasis on the responsibility that networks and connections have in learning processes. It is predicated on the notion that knowledge is not only gained but rather arises from the relationships formed among a network of people, concepts, and assets. This study indicates that knowledge can be obtained via online forums, social media, and other technological platforms, in addition to more conventional methods like textbooks and lectures. Both inside and outside of official educational institutions, learning is a constant process of investigation and discovery, according to connectivism. To determine what information is trustworthy and pertinent, connectivism also contends that learners

need to be critical thinkers. This was evidenced by the way learners in this study critically analysed the characters of the literature setbook in a lesson that was observed at School C.

7.9 CONCEPTUALISING AN ICT-ORIENTED PEDAGOGY IN ESL EDUCATION

Over the years, technology has made incredible strides in all areas of the globe, and its widespread use has had a significant impact on education, leading to revolutionary developments. The use of technology in ESL instruction has improved instructional strategies, with increased efficiency and higher educational standards in mind. This shift to technology-integrated instruction aims to modernise educational systems across the globe.

Given that English is a global language, it is given significant emphasis in the Zimbabwean educational system, albeit as a second language. ICT integration in ESL classes has been shown to be a very successful strategy for ensuring successful language acquisition by ESL learners. For example, the learners in the lessons observed managed to improve their language acquisition through listening to an audio recording their teacher used in a comprehension lesson. ICT tools provide learners with a wealth of technological resources that improve their language learning experiences. The internet is one of the technological tools that is becoming more and more popular in education systems. Other ICT tools such as Facebook, Instagram, Twitter and WhatsApp hold a lot of promise to improve ESL instructional activities for teachers and learners. These platforms place a high value on user participation, cooperation, and content creation, which is in accordance with the development of abilities like teamwork, information accessibility, and competency with online learning. Thus, one can conceptualise an ICT-oriented pedagogy in ESL education as a pedagogy that puts these various ICT tools at the heart of its operationalisation.

Findings in this research indicate that using ICTs is now just as important to ESL instruction and learning as is using printed materials. There is a plethora of resources available on the internet that allows one to learn through audio-visual presentations, video clips, and visual displays. Learner-centred classrooms are made possible by ICTs (Castro Sánchez & Alemán, 2011). Teachers can allow learners to make decisions about plans, choices and other matters because through utilising

ICTs learners actively engage in the learning processes in ESL classrooms (Lin, Wang & Lin, 2012). As a result, using ICTs in pedagogy gives teachers and learners access to more educational opportunities and affordances.

According to Koc (2005), learners may collaborate, exchange knowledge, and communicate at any time and any place by using ICTs, and they could get the chance to generate concepts as well as examine issues and investigate ideas. Together, learners not only learn new things but also exchange a variety of educational experiences that allow them to express themselves and think critically about what they have learned in ESL classes. ICT gives learners more time to delve deeper than the technical aspects of the material, which helps them grasp ESL concepts more fully. The link between teaching and learning is also altered by ICT use. Findings from this study indicate that the roles of teachers and learners are occasionally reversed since learners too can confidently assist teachers with technological problems in the classroom. Consequently, ICTs alter the traditional teacher-centred method of instruction and compel educators to be more creative in tailoring their own lesson plans to fit the evolving needs of modern teaching positions. An ICT-oriented pedagogy in ESL education can therefore be seen as marked by teacher creativity, learner-centred instruction, flexibility in adapting resources to different educational spaces, and creation and maintenance of a thriving learning community.

7.10 CHAPTER SUMMARY

This chapter has attempted a discussion of some of the key findings that emerged from the data analysis in Chapters 5 and 6 in line with the literature reviewed in Chapter 2 as well as the learning theories identified in Chapter 3. It started by recapping the study's methodology to highlight how the two phases of the study (quantitative and qualitative) came together to form the basis for the discussion of findings. Then it moved on to discuss specific ways in which the study's findings extended knowledge in the literature on ESL education. The mismatch between policy and practice in ICT usage in education was also covered. The learner and teacher perspectives on ICT usage as well as the implications of ICT usage on curriculum and textbook design in ESL education were equally discussed. This chapter also addressed the theoretical implications of the research from the perspectives of constructivism, behaviourism, and connectivism as learning theories. Important

concepts from these theories were applied in interpreting the research findings. The study's conclusions and proposals will then be the main topics of the following chapter.

CHAPTER 8

CONCLUSION

8.0 SUMMARY OF THE STUDY

The purpose of this study was to find out how ICTs were used to teach and learn ESL in rural secondary schools in Zimbabwe. This study was based on a theoretical framework that integrated constructivism, behaviourism, and connectivism to investigate the use of ICTs in ESL classrooms. The study used a mixed-methods research methodology, collecting data using both quantitative and qualitative techniques. An explanatory sequential research design was employed. The research questions for this study focused on the types of ICT tools that were available for teaching and studying ESL in rural secondary schools in Zimbabwe and how ICT use affected the ESL instruction in terms of developing learners' listening, reading, writing and speaking skills. The questions also looked at the challenges that instructors and learners faced while employing ICTs for ESL instruction and learning, and how these challenges were overcome. Chapters 5 to 7 presented the findings from the study as well as a discussion of the findings. This chapter now offers the conclusions drawn from the study. It also provides some ideas that could form the basis for new research in the area of ICT use in Zimbabwean secondary schools.

8.1 SUMMARY OF THE FINDINGS

As mentioned in Chapter 4, this study employed an explanatory sequential mixed methods research design to investigate the problem of ICT usage in ESL instruction in secondary schools located in rural Zimbabwe. The data gathered from the two consecutive research phases (quantitative and qualitative) are combined to present a summary of findings under the following themes:

- The types of ICTs that are available in secondary schools located in rural areas.
- The benefits of using ICTs in ESL teaching and learning.
- The obstacles that teachers and learners face when utilising ICTs in ESL teaching and learning.
- The approaches that teachers and learners take to get past these obstacles.

8.1.1 Types of ICTs available in rural secondary schools

A major finding of this research, from both its quantitative and qualitative data, is that rural secondary schools in Zimbabwe's Bubi District lack an adequate supply of a range of ICTs, including laptops, tablets, cellphones, desk computers, radios, projectors, Wi-Fi, and the internet. This was supported by the 120 learners and three teachers who took part in the study through interviews, focus group discussions, questionnaires, and classroom observations.

Analysing the data collected using the four data collection tools, this study found that smartphone use was common in the participants' homes. This, therefore, meant that the learners had access to these smartphones as personal ICT devices because their parents had purchased them, and they had been using these for virtual learning throughout the Covid-19 period. Thus, they were very familiar with learning that involved using their phones to access learning content. The learners could complete their assignments using online resources accessed via their cellphones. In place of in-person instruction, teachers could simply give their learners audio recordings of ESL learning assignments and activities, as was noted during the lesson observations. All of these ICT-based practices constituted familiar ground for ESL learners and teachers. However, the school policies that limited learners' usage of ICT tools in class left both teachers and learners feeling underwhelmed. Learners attested to this when they disclosed that not every learner had the privilege of using ICT tools in the school laboratory; this was only possible when the teachers held lessons in the laboratories, as was the case during the lesson observations.

Participating teachers and learners concurred that although learners found it difficult to get access to personal computers, mobile phones as educational tools could help them since they were portable and convenient for use in conducting research for given assignments. The findings also showed that the portability of mobile phones facilitates social interaction, connectivity, individuality, and instant access to various functions that are useful in the instruction and study of ESL, and this could help language learners with their language acquisition.

In an effort to support the government's ICT policy, the President donated few computers to secondary schools located in rural areas. Teachers used these ICTs to teach ESL, though this was

not a common occurrence, as stated by all the participants and as observed in their lessons. Furthermore, the findings showed that the only individuals allowed to own a tablet or smartphone and even have easy access to the school's laboratories were teachers and learners enrolled in computer science and technical graphics subjects. This left ESL learners deprived of ICT resources for school-based learning activities.

8.1.2 Benefits of using ICTs in the teaching and learning of ESL

According to the findings from the questionnaires given to the teachers and learners, ICTs were being used effectively for assessment, learning, and instruction. According to the teachers, ICT was seen as a potent instrument for restructuring and changing education. The results of the investigation also revealed that teachers allowed their learners to make decisions, establish plans, and grow as they used ICTs to learn ESL, as was observed during lesson observations. During focus group discussions, learners said that they used ICT tools to find out about subjects, pick up linguistic abilities (speaking, writing, listening, and reading), as well as provide solutions to problems that came up while they were learning. They mentioned how using ICTs in ESL classes improved their comprehension of subjects and made learning more accessible.

The participating teachers agreed that ICT tools can be helpful and efficient when it comes to writing exercises. They also all felt that traditional approaches to teaching writing, speaking, listening and reading in ESL caused learners to lose interest in class, particularly when teachers did not use ICTs. Furthermore, most participants concurred that integrating ICTs into instruction fosters learner collaboration in learning. In a similar vein, nearly all of the study's participants concurred that ICTs support instruction.

The study's findings also indicated that learners studying ESL can obtain as much information as they can from a range of internet sources to complete their given coursework by using ICT devices. Learners made the point that using the internet to reinforce concepts learned in ESL was just as important as using it for information discovery. This was evidenced during the lesson observations where learners could use the internet to download information, which helped them in writing a descriptive composition, and learn the meanings of various vocabulary items, as was requested by

their instructors. Teachers who were interviewed revealed that ICTs also enabled learners to participate in inquiry-based learning. ICTs are equipped with programmes that use Google voice search to teach learners how to pronounce and spell various English language terms. This has been shown to be far more beneficial for learners than utilising traditional hard copy textbooks.

Participating learners also mentioned during group discussions that the commentary on a number of novels and the methods offered within for critiquing literary works served as a useful resource, expanding their understanding of various approaches to valuing language and literature. It was noted during lesson observations that learners enjoyed learning when lessons were delivered using ICTs and that they frequently got better at knowing and selecting English vocabulary definitions. Additionally, learners reported that ICTs helped them do better on daily activities like public speaking and debating. During focus group conversations, learners expressed the view that ICTs greatly enhanced their speaking and report writing skills by allowing them an opportunity to watch inspirational speakers on television and other electronic devices.

The research findings from the focus group discussions also showed that learners would rather have soft copies than hard copies of textbooks since they felt that carrying around heavy hard copies added to the strain of learning. Learners reported that since practically most hard copy textbooks were now readily available online as soft copies, including the most recent editions, these could easily take the place of hard copy texts. ICTs enhance education and offer greater instructional and learning support for both instructors and learners, according to this study's focus group discussions and interview data. Without a doubt, it emerged in this study that integrating ICTs into the classroom enhances the way instructors teach and helps learners acquire ESL knowledge.

The teacher interviewees also said that ICT tools improved the learners' interest levels for their classes. For instance, by employing PowerPoint slides during lessons, as was seen in the lesson observations, learners could identify words, phrases, or sentence patterns rather than relying solely on text reading. Teachers could also obtain a variety of material in multiple formats (audio, visual and audio-visual) owing to the use of ICTs. The utilisation of PCs, software, cameras, and other ICT instruments can improve the effectiveness and enjoyment of reading instruction for learners.

With ICTs, learners can also interact directly with teachers and with each other. The findings from the interviews with ESL teachers showed that the use of ICTs such as WhatsApp chats and email helps learners interact and communicate with other communities by allowing them to use language for authentic purposes and contexts. ICTs assist and enhance literacy abilities, according to the research findings. ICT usage, in the opinion of teachers, fosters interactive instructional methods and offers a wealth of creative potential. ICTs can increase curiosity about how languages function when they are used creatively. With the use of ICTs, learners may take charge of their education and become completely immersed, allowing them to concentrate more on their educational tasks.

From the findings, learners found great value in the ICT repository's educational resources, which include English language dictionaries, grammar-related reference materials, and language learning applications, all of which help in enhancing their fluency in English. In addition to having the ability to improve education quality, technological advancements – and the web in particular – can also be used to develop new learning environments and enable enhanced ESL instruction and engagement, as noted in this study. Moreover, the study found that task-based language instruction could become active learning with the help of new technologies, as they enable learners to work together to conduct research on assigned topics, and to communicate, interact and build knowledge.

8.1.3 Constraints in utilising ICTs in ESL teaching and learning

The findings from this research support the notion that ESL instruction using ICTs is a difficult procedure that can run into several obstacles. ICTs are primarily utilised in ESL instruction to give learners access to English language learning resources. With the use of these resources, learners can improve their speaking, listening, reading and writing abilities. The findings from the lesson observations in the study, however, demonstrated that there were not sufficient computers, smartboards or projectors to use in the teaching of ESL. Learners were sharing the laptops or desk computers. The teacher participants expressed outrage over the fact that the technical infrastructure of the schools was still far from meeting the needs of instructors and learners who wanted to use ICT applications to teach and learn ESL.

The findings from the observations, questionnaires and focus group interviews indicated that due to outdated equipment and inadequate training, ESL teachers were unable to use ICT appliances and applications. Few classrooms in the rural secondary schools where my study's participants were located had the technology needed for teaching, and some of these classrooms with ICT tools were typically reserved by other instructors for computer science and technical graphics lessons, making it challenging for anyone learning English as a second language to access.

In addition, the study's findings highlighted the problem of power outages which significantly hindered teachers and learners' ability to access and utilise ICTs efficiently when teaching ESL. Not only were power outages mentioned as a source of outrage during teacher interviews, but complaints were also voiced over internet speed, which was perceived to present an unlimited number of obstacles to the utilisation of ICTs in ESL teaching and learning. Findings of this research indicated other significant difficulties that learners faced when learning ESL, as there appeared to be inadequate teacher preparation and a lack of guidance on how to use ICTs effectively. Among these difficulties was the fact that certain learners and even their teachers could not find the information they needed fast enough owing to the slow internet connectivity.

The study's participating teachers reported that improper usage of ICTs by learners caused problems for them in terms of control and administration of learning activities in the classroom. Instructors voiced complaints regarding learners' behaviour and mishandling of tablets and cellphones in the classroom. The majority of teachers felt that because of the disruptive behaviour of the learners in the classroom, managing the classroom had never been harder than it was now. Findings showed that rather than using their ICTs to look for instructional content, learners instead downloaded and played games and music videos and watched a variety of movie channels.

The teachers who were interviewed about the challenges they faced when utilising ICTs to teach reading, speaking, writing and listening skills in ESL classes cited time and location restrictions, bad internet connections, a lack of ICT expertise regarding how to fully and effectively use ICTs, as well as a lack of ICT tools. This may be one of the reasons ESL teachers opposed using ICTs to teach essential English language skills. Additionally, they said that time was lost as a result of

network issues, computer freezes, and waiting for apps and websites to load, thus discouraging ESL teachers. Instructors also complained about not having enough time to prepare for technical classes, since they had to investigate the many features of educational software, or to analyse several websites. Thus, it was regretted that teachers' professional schedules included time constraints in several areas that hindered their ability to finish ICT-related duties.

Participants expressed concerns about the government's lack of baseline research before introducing and implementing ICT policies, which should have taken into account the contexts of the schools, interested parties like parents, teachers and community leaders, as well as the types of resources available in the various schools. Even though they thought the government's introduction of ICTs in schools was a good initiative, the teachers still felt that they ought to have been consulted about their contextual needs before the rolling out of the policy. According to the participants, some secondary schools in rural areas lacked the safe infrastructure necessary for preserving ICT equipment for ESL instructional activities.

Findings from this study showed that, because of not having access to ICT operational environments and adequate training workshops, the instructors expressed a lack of confidence in their abilities to employ ICTs in the instruction of ESL. They lacked the pedagogical expertise to use ICTs effectively to combine in-person and online instruction to engage learners both within and outside of the classroom, especially after the Covid-19 era when blended teaching became a norm. The participating teachers claimed that they lacked sufficient understanding of the different ICT platforms for English language learning that are helpful for enhancing learners' proficiency in the language. For the most part, they were using ICTs that were at the most basic level when teaching ESL. Their concepts regarding the application of ICTs for collaborative projects and English language instruction were limited. According to the teachers, they needed to undergo training on the use of ICTs before they could successfully include them into the ESL instruction and learning process.

8.1.4 Strategies of overcoming the challenges

The focus group participants felt that learners required parental support to use ICTs when studying ESL. They believed that this would help learners to responsibly surf material that is found on ICT tools and to use this material specifically to enhance their learning of English. The participants agreed on the crucial role parents should play in providing additional ICT materials as well as encouraging their children to utilise ICTs.

It was noted that teachers and learners adopted various strategies to deal with the problem of incorporating ICTs into ESL instruction. The study's findings show that teachers attended seminars on how to utilise ICTs in English instruction. The teachers felt that this helped them become more adept at helping learners who were having difficulty in understanding language concepts. Teachers also exercised agency in joining relevant WhatsApp groups where they could benefit from shared ideas on utilising ICTs in instruction and learning around their area. In response to the challenge of inadequate ICT resources in schools, teachers were willing to make personal sacrifices in order to accomplish the educational goals. Findings from the lesson observations revealed that the ESL instructors sacrificed their own personal ICT gadgets to teach the learners. For instance, TC allowed learners to use his own laptop during the lesson because the computers were inadequate for the many learners in the class. Learners equally shared their iPads and smartphones during lessons that required the use of such ICT devices.

Beyond these practical things that participants did to overcome their challenges, they recommended certain actions that must take place for the challenges to be fully overcome. They recommended that the specified devices that were available in the schools should receive regular software updates and be kept in good working order. The study's findings revealed that further protection was needed to prevent the theft of technological gadgets in the schools. The study also suggested that instructors in rural secondary schools should take advantage of valuable, continuous professional development programmes that would enable them to more effectively employ technology to teach learners who are struggling to acquire ESL.

It is critical that instructors should have a voice in the technologies they employ in the classroom. It usually will be disheartening and demoralising for teachers to feel as though they have lost the capacity to instruct in a way that best suits them. Teaching is a very personal experience and as such it is also wise to remember that no single educational technology will be ideal for every teacher; teachers ought to be permitted to choose technological tools with which they are most comfortable. Giving teachers greater technological options will therefore help them maintain a sense of control over their classrooms and enable them to effectively use ICTs for instruction. This would be a strategy to overcome the challenge of teacher reluctance to engage ICT tools in teaching ESL.

To address the numerous issues that learners in rural secondary schools face when trying to use ICTs, as is suggested by the research findings of this study, school administrators should secure unlimited Wi-Fi, increase network bandwidth to improve internet access by learners, and upgrade the quality of ICT tools by buying modern devices and providing instruction on how to use them. Learners stated that the school should allow them to bring their personal laptops from home for continuous use and ease of access to ICTs during lessons since the school ones were only used under stringent conditions. They also suggested that the schools should arrange with the power company, Zimbabwe Electricity Supply Authority, to avail uninterrupted power in their schools on a preferential category basis so that they could enjoy smooth and uninterrupted use of electronic gadgets.

The study's participants were vocal about the need for school administrations to take a lead in helping schools fix broken computers or to provide special funding so that the schools could handle repairs on their own. They believed that this could help guarantee that the existing ICT resources were used effectively in the ESL classrooms for the learners' benefit. Additionally, participants said it would be beneficial if the government helped schools find trustworthy insurance providers to safeguard the security of school property, as well as also procure more ICT facilities to match learner numbers.

This study's findings point to the idea that learners' internet use should be closely monitored to guarantee that it is appropriate for learners' ages in their current settings. It was mentioned that computers used by learners should be set up so that teachers could see the screens most of the time when they were teaching in a classroom setting. This is because some learners might not be aware that some information on websites misrepresents the truth and is biased, misleading, or just wrong. The findings of the research affirm that learners require assistance from their teachers in order to distinguish between online fiction and fact and to comprehend the principles of copyright. The findings also make it clear that learners need to receive instruction on effective browsing and searching techniques to make sure they visit trustworthy websites and locate relevant material that they can save in online bookshelves for fruitful use in their academic work.

8.2 THE STUDY'S CONTRIBUTIONS TO KNOWLEDGE

This study's main goal was to investigate the utilisation of ICTs in ESL instruction in Zimbabwe's secondary schools located in rural areas. Findings from the investigation contribute to different scholarly aspects in the teaching of ESL as well as to the methodological aspects of teaching. Both quantitative and qualitative information revealed that the types of ICTs available in rural secondary schools in Zimbabwe included laptops, tablets, cellphones, desktop computers, radio, digital television, video, email, projectors, Wi-Fi and internet, but these were insufficiently provided to learners. The participating teachers believed that the utilisation of ICTs in the instruction of ESL improves their job performance. Thus, the study makes the case that ICTs can be effectively used to supply content for English courses, conduct research, facilitate online conversations, teach online, and share information, which can cause a shift away from traditional pedagogies toward more modern approaches to teaching ESL.

Knowledge gleaned from this study has helped to clarify the necessity of making available the ICT resources required for ESL instruction in secondary schools located in rural areas. Enhancing the performance of O'level ESL learners in Zimbabwe can be achieved only by providing these ICT tools to these underfunded rural secondary schools, along with providing training on how to use them effectively. The study currently reveals a disjuncture between policy and practice in ICT usage, which arises from a mismatch between the envisaged implementation of national ICT

policies and how ICTs are actually applied in instruction. The discrepancies between the required messaging from national policies and the real application of ICTs in ESL instruction raise the possibility that the objectives of ICT use have not been fully achieved, indicating that there are still issues with ICT use for ESL instruction in Zimbabwe's rural secondary schools. Due to limited financial resources, there is unequal access to ICT usage in ESL instruction. The findings presented in Chapters 5 and 6 have brought attention to the differences that exist between the actual ICT usage practices in ESL classrooms in Zimbabwe's rural secondary schools and the compliance with legislation. The findings offer empirical baseline data on ICT integration practice that can serve as a reference for future ICT integration efforts in terms of policy formulation, ICT support, usage monitoring, and equipment assessment.

The study has demonstrated that, in spite of obstacles that might prevent ICT integration, such as the lack of ICTs in the classroom, instructors employ ICTs in the teaching of ESL because they have positive views about the educational benefits of doing so. With the information obtained from this study, the Zimbabwean government, school development authorities, and other stakeholders can better understand why technology is unavailable in secondary schools in rural areas and build necessary infrastructure to assist the schools to incorporate ICTs into instructional activities. The findings of this study can help the government of Zimbabwe shift the focus of its ongoing technical intervention programmes to include enabling instructors and learners to use ICTs in ESL classes.

This study has shown that there is an immediate need to improve English instructors' access to ICT resources for instructional activities. Relying solely on donations does not guarantee that ICTs will be utilised at the anticipated rate in rural secondary schools, because recipients are not always able to tell donors what they need. Therefore, to adequately resource secondary schools in rural areas, the government, educational institutions, teachers and parents must collaborate to create more workable alternatives. To accommodate more content, MoPSE's ICT training sessions should eventually be made available to all teachers and held for longer periods of time, such as during the school holidays, which typically run for a minimum of one month, to enable teachers to acquire adequate information on ICT usage. The shortcomings identified in teacher training institutions in Chapter 2 of this study suggest that these establishments ought to take a closer look

at their ICT-related curricula and deliberately begin preparing ICT-savvy instructors with a focus on ESL before they graduate as qualified teachers.

One of the theories driving this study, constructivism, is supported by the way teachers employed technology in this study from a learner-centred perspective, which is one-way ICTs may be used in classroom activities to increase learning. This also closes a gap in the research of Fu (2013), which indicates that rather than encouraging learner-centred learning, instructors generally employ ICTs to reinforce their current techniques. This study suggests that most instructors employed ICTs in ESL teaching to bring in innovation rather than maintain old methodologies of teaching. It was also shown in this study that some ESL topics such as poetry may pose a barrier to ICT usage in the classroom and therefore attention needs to be paid to improving teachers' content knowledge as well as pedagogical practice in this area if maximum utilisation of ICTs in ESL education is to be achieved.

This study's findings advocate for a more comprehensive curriculum strategy to address the usage of ICTs in ESL instruction in Zimbabwean secondary schools located in rural areas. Based on the quantitative and qualitative data reported in Chapters 5 and 6, the study has concluded that the incorporation of ICTs into ESL curriculum is useful, owing to the various benefits that ICTs provide for learners. Ensuring learners have meaningful educational experiences can help to promote their autonomy and independence. While they continue to be knowledge absorbers, learners take on a new role as information producers and knowledge contributors to their own ESL education. As a result of the technological prowess of 21st century learners, the curriculum can be developed to incorporate ICT use in the classroom to improve ESL instruction and better prepare learners for the digital workplace. This method of designing curriculum encourages learners to take charge of their education, which helps them become critical thinkers, confident individuals, and even scholars with more creative imaginations.

The research adds to the corpus of knowledge previously available on the incorporation of ICTs into ESL instructional activities in an effort to support government policies regarding technology adoption. The study provides data to assist ICT integration initiatives and may provide direction

for the creation of policies. Rich empirical data from the study may contribute to theoretical frameworks for technological integration procedures in secondary school classrooms in Zimbabwe. The study found, for instance, that curriculum structure, pedagogical practices, teachers' knowledge, institutional support, and teachers' opinions on the pedagogical value of ICTs all contribute to successful technological integration in rural secondary schools. ICT teacher training is the cornerstone of any successful ICT integration in the classroom, which is why schools must take an effectively-mediated ICT training approach. Educators who have adequate ICT professional development enhance their classroom managerial skills and develop skills on how to use technology to design more interactive learning environments.

Information about the assessment of teachers' ICT self-efficacy in relation to using ICTs in the ESL classroom was lacking in Zimbabwean literature. The focus of the most recent publications on teachers' ICT self-efficacy has been mainly on teachers in science and technology education (see Karimazondo et al., 2020; Sifelani, 2022). Other research has examined the preparedness of educators to include ICTs into teaching and learning in schools (Kangara et al., 2022). The majority of the published literature on the incorporation of ICTs in Zimbabwean education concentrated on factors like integration levels, opportunities, skills, and barriers (Konyana & Konyana, 2013; Mandina, 2015; Musarurwa, 2018). Therefore, there was a dearth of research on ESL teachers' ICT self-efficacy, which is important as ESL is a compulsory subject in Zimbabwean secondary schools. The findings of this study on ESL teachers' utilisation of ICTs in instructional activities have highlighted ESL teachers' ICT self-efficacy, which is nuanced in that on the one hand the teachers have a high ability to utilise ICTs in teaching ESL but on the other hand they have low confidence levels in using ICTs due to the lack of ongoing training. This finding closes the gap in the literature on ESL teachers' ICT self-efficacy.

8.3 LIMITATIONS OF THE STUDY

There were several challenges in the use of a mixed methods approach while investigating ICT integration practices in ESL instruction in this study. It presented a challenge to me because the mixed methods approach required my proficiency with both quantitative and qualitative methodologies. Moreover, because the study only included three rural secondary schools in Zimbabwe's Bubi District of Matabeleland North Province, its findings cannot be applied to other

rural secondary schools or those located in urban areas. Nevertheless, it is envisaged that the research findings would expand teacher understanding, the application of policies and curricula, and teacher educator professional development regarding ICT utilisation in ESL classrooms.

The number of selected teacher participants in the sample was one other limitation. Considering that the Bubi District comprises 18 secondary rural schools, only three instructors from three different schools were among the chosen teacher participants. However, a high number of participants might have added more variation and enhanced the findings. As a result, the study was limited by the relatively small sample size that was chosen. One additional constraint was the unease experienced by a few of the teacher participants while sharing their opinions regarding various administrative matters and school policies. This could have influenced how they presented their opinions. Given that I was the primary data collector for this study, it became challenging to maintain an entirely bias-free mindset. As I read the participants' perspectives in the interview transcripts, I was continuously aware of my direct participation and how it could introduce my own beliefs and values into the study. Thus, in an attempt to remove my researcher's presumptions and influence as well as be able to extract the mirrored experiences of the participants, I used bracketing. In qualitative research, bracketing is a methodological strategy used to identify and control biases, assumptions, and prejudices while collecting and analysing data (Creswell et al., 2007). This allowed me to approach the data with greater openness and impartiality. Notwithstanding the aforementioned drawbacks, I have no doubt that this research will have a positive impact in terms of informing policy and practice on ICT integration in ESL teaching and learning in Zimbabwean rural secondary schools.

8.4 SUGGESTIONS FOR FURTHER RESEARCH

To completely understand ICT usage in ESL instruction in secondary schools in Zimbabwe, subsequent research should involve larger samples of learners and teachers from both rural and urban schools. Creating a knowledge society is one of the country's objectives for the adoption of ICTs in schools. This can be accomplished by developing learners who are adept ICT users and by looking into the strategies and opportunities for doing so in upcoming research projects. This will enable teachers across all subject areas to make the most of ICTs.

In-depth study on ICT integration is required, with an emphasis on identifying the challenges to its effective application in Zimbabwean teaching and learning. The only viewpoints on ICT incorporation into ESL instruction investigated in this research were those of the teachers and learners, whereas heads of schools, subject heads, parents and MoPSE officials all have a stake in this matter. Therefore, future research can attempt to draw on larger samples involving all these stakeholders in identifying the range of challenges involved in ICT integration in the schools.

The global Covid-19 outbreak forced a quicker adoption of ICT use in schools as a way to preserve access to education. Exposing the disparity between the wealthy and the impoverished is one of the pandemic's well-known repercussions. Other than that, a lot more needs to be discovered regarding the methods and results of ICT usage in education at national level. The resulting evidence could be useful in the creation or amendment of educational policies. More study is advised on the method and results of the evaluation of Zimbabwe's rapid e-learning adoption in primary schools too.

8.5 RECOMMENDATIONS OF THE STUDY

Beyond offering suggestions for further research, this study makes some recommendations for various stakeholders who would benefit from considering its findings.

8.5.1 Policy makers, government, and the Ministry of Primary and Secondary Education

MoPSE, policy makers, ICT training providers, and the academic community are the target audiences for this proposal. Though policies and regulations have been developed by several levels of government to support infrastructure provisioning and teacher ICT training, it is evident from the findings of this study that ICT adoption and appropriation in the classroom is still in need of attention. A dedicated ICT policy for education should outline the steps involved in integrating ICTs into teaching and learning activities. Such a policy will necessitate central government funding for ICT usage in schools. The limitations on the use of teaching and learning technologies are expected to be addressed by policy makers. Comprehensive policy statements are one way to do this. As a result, the study suggests creating a specific ICT strategy for education rather than merely giving schools a generic ICT policy.

Although the government's plan to electrify rural areas makes sense, in the near to medium term, renewable energy sources, such as solar power, must be used to ensure that learners in communities without electricity are enabled to still make use of digital learning resources in the event of power outage. The government may also need to investigate the usage of generators powered by biogas. ICT integration problems that remain unresolved in rural schools have the potential to worsen the disparity in academic achievement between rural and urban learners, leading to feelings of social injustice among learners. Thus, this study recommends implementing a programme to supply alternative energy sources to schools that do not receive power from the national grid to address the issue of electricity shortage.

Findings of this study show that even though learners were not allowed to have cellphones in class, most of them smuggled them in. Consequently, it is necessary for government and schools to consider how to better integrate ICTs into teaching and learning through the use of mobile phones in class. Using portable electronics as teaching aids is known as mobile learning. The research suggests that since having a phone during class can be a useful teaching tool, the discussion on the need by learners to use cellphones in the classroom should be energised and should involve all relevant parties, such as MoPSE, heads of schools, teachers, learners, parents and independent observers, to reach a more tangible and user-friendly position for all interested stakeholders. More internet connectivity should be offered, together with guidelines to guarantee that learners utilise the internet in an ethical and responsible manner.

Lastly, since ICT pedagogical resources were deemed inadequate by the participants in this study, the government should consider supplying facilities where learners and instructors can use technology in clustered schools. The study recommends that the MoPSE constructs well-coordinated technological centres to serves clusters of schools in particular areas. This will lessen the budgetary demands on the government while also ensuring that schools have access to ICT resources.

8.5.2 Staff development programmes

One problem that may prevent the utilisation of ICTs in instructional activities is a lack of opportunity for teachers to pursue professional development (Charalambos & Glass, 2007). According to the interview data in this study, local seminars for professional development were often conducted in the region, but some teachers preferred to attend only workshops organised by the MoPSE, despite the MoPSE being unable to host workshops frequently owing to budgetary restrictions. The study suggests then that to improve teachers' confidence in integrating digital technology into lessons, the MoPSE should: (1) increase the frequency, funding, and coordination of staff development workshops; (2) establish an efficient system for monitoring and evaluating the incorporation of ICTs into the ESL classroom; and (3) conduct an audit of computers donated to schools. All these recommendations are necessary to carry out effective staff development programmes. Institutions that train teachers play a crucial part in the development of competent teachers who can swiftly adopt new strategies for using ICTs to teach. Institutions of higher learning must provide teacher trainees with essential abilities for using ICTs in ESL classrooms. This study has demonstrated that even educators who are proficient in the utilisation of ICTs in the classroom occasionally struggle to contextualise ESL ideas so that learners may grasp them. Teachers must therefore be trained in the creation and use of multimodal texts. Teachers who are confident in their ability to share ICT skills with other teachers and their ideas with learners will ultimately allow both parties to experiment with new ICTs and enjoy new opportunities for ESL instruction. Ultimately, teachers must be adequately prepared for the teaching of English. This means they should be knowledgeable about subject content and have skills that can help learners think critically. Subject matter experts and ESL facilitators ought to provide on-the-job seminars for teachers to assist them refresh their pedagogical knowledge and abilities.

8.5.3 School administrators

Regarding the incorporation of ICTs into education, school administrators are crucial. The leadership of the schools are failing to support several ICT projects, as found in this study. Effective and long-lasting ICT integration requires managers to be proficient in using technology (Ogbomo, 2011). It is envisaged that when the leadership of schools is ICT-trained, they will in

turn canvass for resources to enable both teachers and learners to utilise ICTs for learning and instruction to their fullest potential.

The teachers who participated in this project indicated that there was not enough money to support ICT utilisation in ESL classrooms. This research nonetheless proposes that school administrators provide training on ICT instructional strategies and enable all teachers to use the ICT tools available in the schools. While funding from the government is anticipated to be used to implement the National ICT policy which requires schools to incorporate ICTs in their instruction and learning, schools may also benefit from the government introduced Education 5.0 policy which seeks to empower learners with ICT practical skills in their learning. Education 5.0 is a movement that promotes education that is informed by the heritage-based ideology that posits the application of new technologies to deliver higher quality instruction in schools. Thus, the research suggests that schools adopt Education 5.0 so that learners can receive ICT training and teachers can also access training via the learners. To raise money, schools might also take part in projects that generate revenue. A portion of the money might go towards supporting ICT utilisation in teaching and learning.

The requirement for digital device maintenance is one of the obstacles to the utilisation of ICTs in ESL instruction. In order to pool funds for equipment care, the research recommends that each school cluster engages an IT specialist to oversee technological equipment and help repair or update all broken equipment. This has the potential of increasing the number of ICT devices available for use in schools.

8.5.4 ESL Teachers

Low ICT self-efficacy was noted by the participating teachers of this study. Staff development seminars that boost teacher confidence in employing digital teaching approaches are essential since poor ICT self-efficacy is a major challenge to ICT usage in ESL instruction. Even in low-tech settings like rural secondary schools, there are digital resources accessible for use in instruction and learning. These include radios, TVs, cameras, and smartphones. It is thus recommended that ESL instructors include ICT utilisation of the gadgets that are accessible in their teaching. They

can start by making use of a few basic technologies like projectors and PCs and then advance to using smartboards and online videos as their confidence increases.

8.5.5 Baseline studies

Policy development and the decision to initiate innovation initiatives such as curriculum designing should be guided by contextual needs, which are ascertained through feasibility investigations. Thus, to determine the degree of community and school context preparedness to adopt new ICTs for ESL instruction, the government should first perform baseline research involving the stakeholders in the community and school. This is because these stakeholders are ultimately the ones to see that education translates into social impact on the community. The purpose of education is to generate critical thinkers who can name their reality, grow in self-awareness, self-realisation, and self-reliance, and above all change their oppressed world into an emancipated one. Therefore, curriculum planners must involve community and school stakeholders in their ICT implementation plans through baseline research. Incorporating instructors and learners into curricular decision-making on the utilisation of ICTs in ESL instruction is strongly advised.

8.6 CHAPTER SUMMARY

This chapter has provided a conclusion to the study by presenting a summary of the significant findings in relation to the study's research questions. It has also highlighted some of the study's most significant additions to the body of knowledge on ICT utilisation in education. Owing to the study's temporal and spatial limitations, this chapter has provided some ideas for future investigation by scholars in this field. To give the study's findings practical value, the chapter has also outlined some recommendations for various stakeholders. In conclusion, the study reiterates that ESL teachers will be willing to include ICTs in their lessons if they realise that doing so improves their teaching, and that having access to ICTs enables them to meet their learning goals. The study's findings support a more thorough curriculum approach to addressing ICT usage in ESL instructional activities in secondary schools in rural Zimbabwe.

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APPENDICES

APPENDIX A1

ETHICS CLEARANCE CERTIFICATE

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Mukomana

CLEARANCE CERTIFICATE	PROTOCOL NUMBER: H22/08/22
PROJECT TITLE	An Assessment of the use of Information Communication Technology (ICT) in the Teaching of English as a Second Language in Zimbabwean Rural Secondary Schools
INVESTIGATOR(S)	Mrs S Mukomana
SCHOOL/DEPARTMENT	School of Education/
DATE CONSIDERED	19 August 2022
DECISION OF THE COMMITTEE	Approved Risk Level: Low
EXPIRY DATE	19 October 2025

DATE 20 October 2022 CHAIRPERSON _____
(Professor J Watermeyer)

cc: Supervisor : Prof N Nkealah

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and ONE COPY returned to the Secretary at Room 10004, 10th Floor, Senate House, University. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to submit an amendment of the protocol to the Committee. I agree to completion of a regular progress report. For Minimal and Low studies, this is due annually on 31 December. For Medium and High Risk studies, this is due twice annually on 30 June and 31 December.

S Mukomana

_____ 22_____/_10_____/__2022_____
Signature Date

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

APPENDIX A2

ETHICS TRAINING CERTIFICATE



CERTIFICATE OF COMPETENCE IN RESEARCH ETHICS

Name: Saziso Mukomana

Student/Staff No: 2291639

Date of Certification: 13 July 2022 - 12 July 2025 (This certificate is valid for a period of three years)

TRAINED BY:

PROFESSOR JASPER KNIGHT
(RESEARCH ETHICS)

SIGNATURE

UNIVERSITY OF THE
WITWATERSRAND
JOHANNESBURG

ISSUED BY:

DR ROBIN DRENNAN
(DIRECTOR: RESEARCH
OFFICE)

SIGNATURE

This certificate is confirmation of successful completion of a training course in Research Ethics for Non-Medical human research, based upon achieving a minimum level of competence in different assessment tasks.

APPENDIX A3

APPLICATION LETTER TO THE PERMANENT SECRETARY

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Wits School of Education
Division of Languages, Literacies and Literatures
Private Bag 3
Wits 2050
South Africa

02/June 2022

The Permanent Secretary
The Ministry of Primary and Secondary Education
P.O BOX CY 121
Causeway
Harare

Dear Madam/Sir

REF: REQUEST TO CONDUCT RESEARCH IN BUBI--UMGUZA RURAL DISTRICT SECONDARY SCHOOLS [MATABELELAND NORTH PROVINCE]

My name is Saziso Mukomana, and I am doing a research with Dr Naomi Nkealah my supervisor and Senior Lecturer in the Department of English Division of Languages Literacies and Literatures towards a Doctor of Philosophy in Education Degree at Witwatersrand University in South Africa. I write this letter to your good office of the Ministry of Primary and Secondary Education as the authority of all Primary and Secondary schools in Matabeleland North Province requesting

permission to do research in three secondary schools in Bubi - Umguza Districts. The schools are [*information retracted for confidentiality and anonymity purposes*].

The purpose of the research is to make an investigation of ICT Usage in English Second Language Teaching and Learning in Zimbabwean rural secondary schools. The relevance of the study in the educational field is to empower both teachers and learners to engage in pedagogical activities that are 21st Century oriented by taking up on the use of Information Technology in teaching and learning. The study would seek to inform policy makers, teachers and learners on how best English as a second language can be taught and learnt using technology. During the study, teachers .and learners will be requested to give their expert opinions about the use of Information Communication Technology (ICTs) in the teaching and learning of English as a second language in the schools by way of completing a questionnaire and participating in personal and focus group interviews as well as being involved in lesson observations.

There are no foreseeable potential risks of the study since all information gathered during the study will be treated with strictest confidentiality and the participants will not be coerced to take part. Copies of the results of this study will be relayed to your office both electronically and in hard copy format for consideration and further distribution. The summary of results will also be availed to Heads of schools, and teachers of English in both soft and hard copies. The researcher will also be happy to be given an opportunity to present the results at some of your staff development workshops both at provincial and district levels. The due date for the research is July 2022

For any further details regarding this study, you are free to contact me on +263780809335 or at: smukomana@gmail.com or my supervisor on +27783743068 or at naomi.nkealah@wits.ac.za

Thank you in advance

Yours faithfully

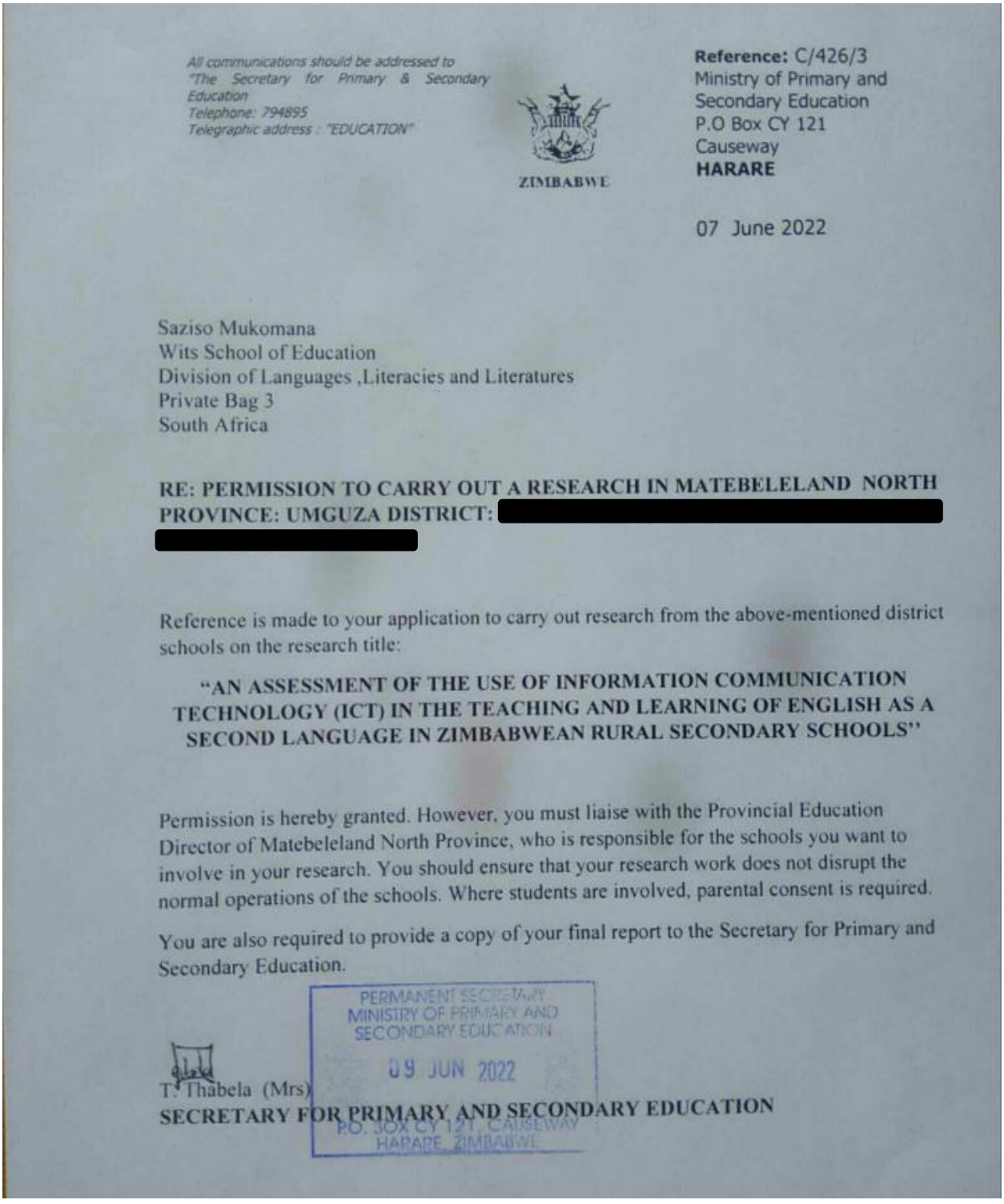


Saziso Mukomana

Student Pass Number:2291639

APPENDIX A4

PERMISSION LETTER FROM THE PERMANENT SECRETARY



All communications should be addressed to
"The Secretary for Primary & Secondary Education
Telephone: 794895
Telegraphic address : "EDUCATION"

ZIMBABWE

Reference: C/426/3
Ministry of Primary and Secondary Education
P.O Box CY 121
Causeway
HARARE

07 June 2022

Saziso Mukomana
Wits School of Education
Division of Languages ,Literacies and Literatures
Private Bag 3
South Africa

RE: PERMISSION TO CARRY OUT A RESEARCH IN MATEBELELAND NORTH PROVINCE: UMGUZA DISTRICT: [redacted]

Reference is made to your application to carry out research from the above-mentioned district schools on the research title:

"AN ASSESSMENT OF THE USE OF INFORMATION COMMUNICATION TECHNOLOGY (ICT) IN THE TEACHING AND LEARNING OF ENGLISH AS A SECOND LANGUAGE IN ZIMBABWEAN RURAL SECONDARY SCHOOLS"

Permission is hereby granted. However, you must liaise with the Provincial Education Director of Matebeleland North Province, who is responsible for the schools you want to involve in your research. You should ensure that your research work does not disrupt the normal operations of the schools. Where students are involved, parental consent is required.

You are also required to provide a copy of your final report to the Secretary for Primary and Secondary Education.

PERMANENT SECRETARY
MINISTRY OF PRIMARY AND SECONDARY EDUCATION
09 JUN 2022
P.O. BOX CY 121, CAUSEWAY
HARARE, ZIMBABWE

T. Thabela (Mrs)
SECRETARY FOR PRIMARY AND SECONDARY EDUCATION

APPENDIX A5

APPLICATION LETTER TO THE PROVINCIAL EDUCATION DIRECTOR OF MATABELELAND NORTH PROVINCE

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Wits School of Education

Division of Languages, Literacies and Literatures

Private Bag 3

Wits 2050

South Africa

07 September 2022

The Provincial Education Director

The Ministry of Primary and Secondary Education

Matabeleland North Province

P.O Box 555

Bulawayo

Zimbabwe

Dear Madam/Sir

REF: REQUEST TO CONDUCT RESEARCH IN BUBI--UMGUZA RURAL DISTRICT SECONDARY SCHOOLS [MATABELELAND NORTH PROVINCE]

My name is Saziso Mukomana, and I am doing research under the supervision of Dr Naomi Nkealah my supervisor and Senior Lecturer in the Department of English Division of Languages Literacies and Literatures towards a Doctor of Philosophy in Education Degree at Witwatersrand University in South Africa. I write this letter to your good office of the Ministry of Primary and Secondary Education as the authority of all Primary and Secondary schools in Matabeleland North

Province requesting permission to do research in three secondary schools in Bubi - Umguza Districts. The schools are [*information retracted for confidentiality and anonymity purposes*].

The purpose of the research is to investigate the use of Information Communication Technology (ICTs) in the teaching of English as a second language in Zimbabwean rural secondary schools. The relevance of the study in the educational field is to empower both teachers and learners to engage in pedagogical activities that are 21st Century oriented by taking up on the use of Information Technology in teaching and learning. The study would seek to inform policy makers. teachers and learners on how best English as a second language can be taught and learnt using technology. During the study, teachers .and learners will be requested to give their expert opinions about the use of Information Communication Technology (ICTs) in the teaching and learning of English as a second language in their schools by way of completing a questionnaire and participating in personal and focus group interviews as well as being involved in lesson observations.

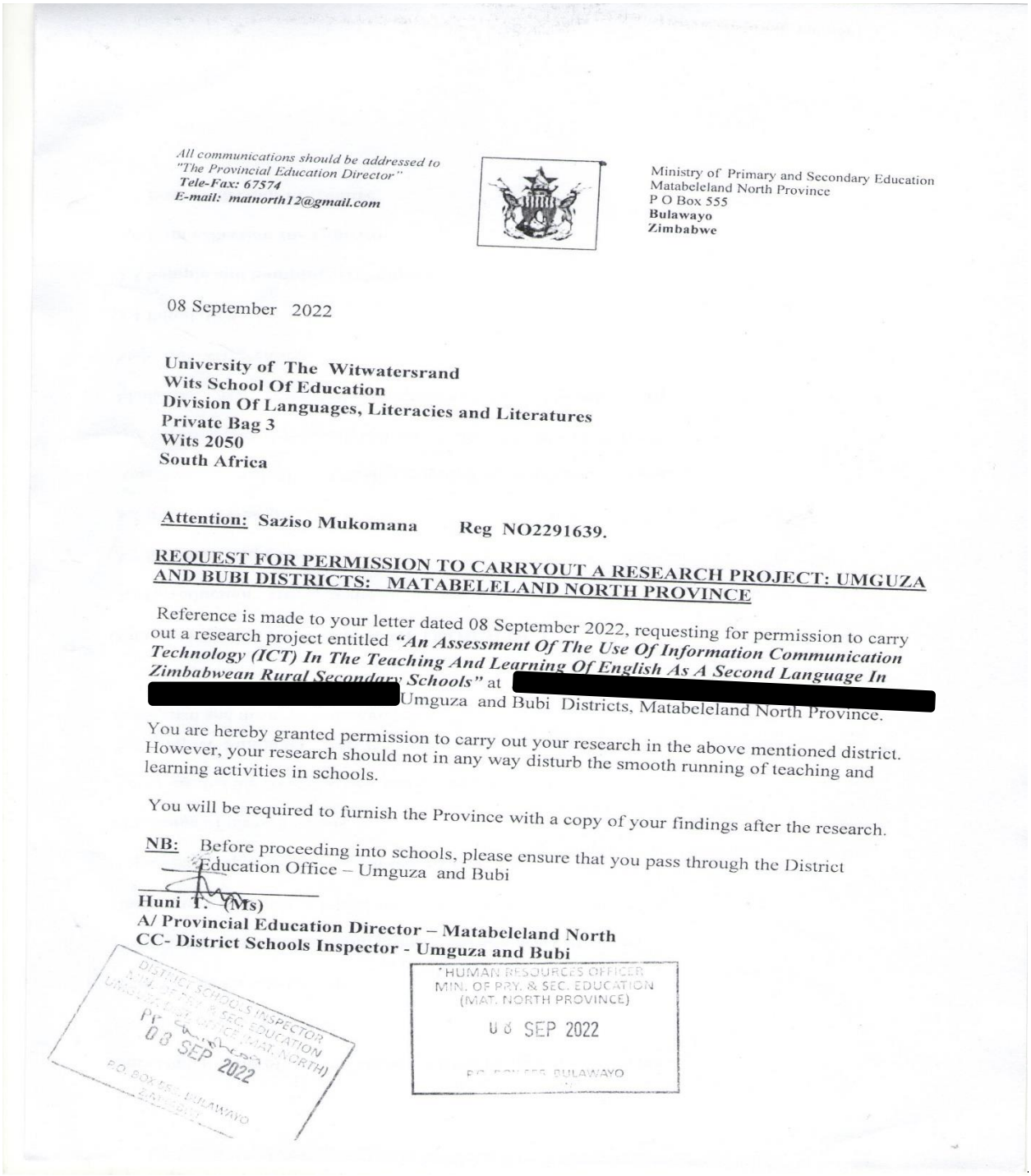
There are no foreseeable potential risks of the study since all information gathered during the study will be treated with strictest confidentiality and the participants will not be coerced to take part. Copies of the results of this study will be relayed to your office both electronically and in hard copy format for consideration and further distribution. The summary of results will also be availed to Heads of schools, and teachers of English in both soft and hard copies. The researcher will also be happy to be given an opportunity to present the results at some of your staff development workshops both at provincial and district levels. The due date for the research is October 2022
For any further details regarding this study, you are free to contact me on +263780809335 or at : smukomana@gmail.com or my supervisor on +27783743068 or at naomi.nkealah@wits.ac.za
Thank you in advance
Yours faithfully

S Mukomana

Saziso Mukomana
Student Pass Number:2291639

APPENDIX A6

PERMISSION LETTER FROM THE PROVINCIAL EDUCATION DIRECTOR OF MATABELELAND NORTH PROVINCE



All communications should be addressed to
"The Provincial Education Director"
Tele-Fax: 67574
E-mail: matnorth12@gmail.com

Ministry of Primary and Secondary Education
Matabeleland North Province
P O Box 555
Bulawayo
Zimbabwe

08 September 2022

University of The Witwatersrand
Wits School Of Education
Division Of Languages, Literacies and Literatures
Private Bag 3
Wits 2050
South Africa

Attention: **Saziso Mukomana** **Reg NO2291639.**

REQUEST FOR PERMISSION TO CARRYOUT A RESEARCH PROJECT: UMGUZA AND BUBI DISTRICTS: MATABELELAND NORTH PROVINCE

Reference is made to your letter dated 08 September 2022, requesting for permission to carry out a research project entitled ***"An Assessment Of The Use Of Information Communication Technology (ICT) In The Teaching And Learning Of English As A Second Language In Zimbabwean Rural Secondary Schools"*** at [redacted] Umguza and Bubi Districts, Matabeleland North Province.

You are hereby granted permission to carry out your research in the above mentioned district. However, your research should not in any way disturb the smooth running of teaching and learning activities in schools.

You will be required to furnish the Province with a copy of your findings after the research.

NB: Before proceeding into schools, please ensure that you pass through the District Education Office – Umguza and Bubi

Huni T. (Ms)
A/ Provincial Education Director – Matabeleland North
CC- District Schools Inspector - Umguza and Bubi

DISTRICT SCHOOLS INSPECTOR
MIN. OF PRY. & SEC. EDUCATION
UMGUZA DISTRICT OFFICE (MAT. NORTH)
08 SEP 2022
P.O. BOX ESS, BULAWAYO

HUMAN RESOURCES OFFICER
MIN. OF PRY. & SEC. EDUCATION
(MAT. NORTH PROVINCE)
08 SEP 2022
P.O. BOX ESS, BULAWAYO

APPENDIX A7

APPLICATION LETTER TO THE SCHOOL HEAD: SCHOOL A, BUBI- UMGUZA DISTRICT

The Head

School A

Intabazinduna

Bulawayo

06 September 2022

Dear Sir

REF: REQUEST FOR PERMISSION TO DO RESEARCH AT GLOAG HIGH SCHOOL.

My name is Saziso Mukomana a PhD student at Witwatersrand University in South Africa (See attached confirmation letter). With reference to the attached permission letter to carry out research at your school by the Permanent Secretary of the Ministry of Primary and Secondary, I do hereby seek permission to do academic research at your school. The title of my research is "*An investigation of ICT usage in English Second Language Teaching and Learning in Zimbabwean Rural Secondary Schools*". During the research, I would request to interview some teachers and have focus group discussions with learners. I would humbly request the teachers and learners to fill in self-distributed questionnaires as well. I am grateful that the Permanent Secretary of Primary and Secondary Education has granted me permission to enter your school as shown in the attached letter from the Permanent Secretary.

Should you need clarification about the research you are free to contact me on: Email: smukomana@gmail.com Cell: 0780809335

Thank you in advance for your support.

Yours Sincerely

S Mukomana

Saziso Mukomana Pass number 2291639

APPENDIX A8

APPLICATION LETTER TO THE SCHOOL HEAD: SCHOOL B, BUBI- UMGUZA DISTRICT

The Head

School B

Intabazinduna

Bulawayo

06 September 2022

Dear Sir

REF: REQUEST FOR PERMISSION TO DO RESEARCH AT GLOAG HIGH SCHOOL.

My name is Saziso Mukomana a PhD student at Witwatersrand University in South Africa (See attached confirmation letter). With reference to the attached permission letter to carry out research at your school by the Permanent Secretary of the Ministry of Primary and Secondary, I do hereby seek permission to do academic research at your school. The title of my research is '*An investigation of ICT usage in English Second Language Teaching and Learning In Zimbabwean Rural Secondary Schools*". During the research, I would request to interview some teachers and have focus group discussions with learners. I would humbly request the teachers and learners to fill in self-distributed questionnaires as well. I am grateful that the Permanent Secretary of Primary and Secondary Education has granted me permission to gain entry into your school as shown on the attached letter from the Permanent Secretary.

Should you need clarification about the research you are free to contact me on: Email: smukomana@gmail.com Cell: 0780809335

Thank you in advance for your support.

Yours Sincerely

S Mukomana

Saziso Mukomana Pass number 2291639

APPENDIX A9

APPLICATION LETTER TO THE SCHOOL HEAD: SCHOOL C, BUBI- UMGUZA DISTRICT

The Head

School C

Box XXX

Bulawayo

06 September 2022

Dear Sir

REF: REQUEST FOR PERMISSION TO DO A RESEARCH AT GLOAG HIGH SCHOOL.

My name is Saziso Mukomana a PhD student at Witwatersrand University in South Africa (See attached confirmation letter). With reference to the attached permission letter to carry out research at your school by the Permanent Secretary of the Ministry of Primary and Secondary, I do hereby seek permission to do academic research at your school. The title of my research is '*An investigation of ICT usage in English Second Language Teaching and Learning In Zimbabwean Rural Secondary Schools"*. During the research, I would request to interview some teachers and have focus group discussions with learners. I would humbly request the teachers and learners to fill in self-distributed questionnaires as well. I am grateful that the Permanent Secretary of Primary and Secondary Education has granted me permission to gain entry into your school as shown on the attached letter from the Permanent Secretary.

Should you need clarification about the research you are free to contact me on: Email: smukomana@gmail.com Cell: 0780809335

Thank you in advance for your support.

Yours Sincerely

S Mukomana

Saziso Mukomana Pass number 2291639

APPENDIX B1

PARTICIPANT INFORMATION SHEET (PIS) FOR TEACHER QUESTIONNAIRE

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Dear Sir / Madam

My name is Saziso Mukomana, and I am doing a research with Dr Naomi Nkealah my supervisor and Senior Lecturer in the Department of English Division of Languages Literacies and Literatures towards a Doctor of Philosophy in Education Degree at Witwatersrand University in South Africa. I am conducting a research study on '*An investigation of ICT usage in English Second Language Teaching and Learning in Zimbabwean Rural Secondary Schools"*.
I am inviting you to take part in answering a questionnaire. If you decide to take part, your participation in this research study will last about an hour. The answering of the questionnaire will take place at ……School at 2 pm.

This data will be stored in computer for three years and/or deleted after three years. Only the researcher will have access to the data. During the research activity, I will need to ask for some personal information about how you are using ICTs in the teaching and learning of English as a second language in rural secondary schools of Zimbabwe.

The Questionnaire will be confidential and anonymous. When I share the results of the research study, I will not include your name or anything else that could identify you. With your permission, other researchers may use the data collected from this research study, but your name and any personal information will not be used or passed on.

If you decide to take part in the research study, it should be because you want to. You can stop being in the study at any time. You do not have to answer any questions if you do not want to. You will not get any direct benefits if you choose to join the research study. You will not lose any services, benefits or rights you would normally have if you decide not to join. Taking part in the research study will not cost you anything. You will not be paid for being in this research study. This research study will be written up as a research report. The report will be available on the university library website. If you would like to receive a summary of this report, I will be happy to send it to you.

For any further details regarding this study, you are free to contact me on +263780809335 or at: smukomana@gmail.com or my supervisor on +27783743068 or at naomi.nkealah@wits.ac.za
Thank you in advance
Yours faithfully

Saziso Mukomana, +263780809335 or at: smukomana@gmail.com

Student Pass Number:2291639

APPENDIX B2

PARTICIPANT INFORMATION SHEET (PIS) FOR LEARNER QUESTIONNAIRE (LEARNER UNDER 18 YEARS)

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Dear Sir / Madam

My name is Saziso Mukomana, and I am doing a research with Dr Naomi Nkealah my supervisor and Senior Lecturer in the Department of English Division of Languages Literacies and Literatures towards a Doctor of Philosophy in Education Degree at Witwatersrand University in South Africa. I am conducting a research study on '*An assessment of the use of Information Communication Technology (ICTs) in the teaching of English as a second language in Zimbabwean rural secondary schools*.

.

I am inviting your child to take part in answering questionnaires. If you decide to let her/him, take part, her/his participation in this research study will last about an hour. The answering of questionnaires will take place at ……School at 2 pm.

This data will be stored in computer for three years and/or deleted after three years. Only the researcher will have access to the data. During the research activity, I will need to ask for some personal information about how your child is using ICTs in the teaching and learning of English as a second language in rural secondary schools of Zimbabwe. When I share the results of the research study, I will not include her/his name or anything else that could identify him/her. With your permission, other researchers may use the data collected from this research study, but her /his name and any personal information will not be used or passed on.

If you decide to let her/him take part in the research study, it should be because you want to. You can stop her /him being in the study at any time. Your child will not get any direct benefits if she/he chooses to join the research study. Your child will not lose any services, benefits or rights he/she would normally have if he/she decides not to join. Taking part in the research study will not cost her/him anything. Your child will not be paid for being in this research study. This research study will be written up as a research report. The report will be available on the university library website. If you would like to receive a summary of this report, I will be happy to send it to you.

For any further details regarding this study, you are free to contact me on +263780809335 or at: smukomana@gmail.com or my supervisor on +27783743068 or at naomi.nkealah@wits.ac.za Thank you in advance.

Yours faithfully

Saziso Mukomana, +263780809335 or at: smukomana@gmail.com

Student Pass Number:2291639

APPENDIX B3

PARTICIPANT INFORMATION SHEET (PIS) FOR LEARNER QUESTIONNAIRE (LEARNER ABOVE 18 YEARS)

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Dear Sir / Madam

My name is Saziso Mukomana, and I am doing research with Dr Naomi Nkealah my supervisor and Senior Lecturer in the Department of English Division of Languages Literacies and Literatures towards a Doctor of Philosophy in Education Degree at Witwatersrand University in South Africa. I am conducting a research study on '*An assessment of the use of Information Communication Technology (ICTs) in the teaching of English as a second language in Zimbabwean rural secondary schools*.

.

I am inviting you to take part in answering a questionnaire. If you decide to take part, your participation in this research study will last about an hour. The answering of the questionnaire will take place at ……at 2 pm.

This data will be stored in computer for three years and/or deleted after three years. Only the researcher will have access to the data. During the research activity, I will need to ask for some personal information about how you are using ICTs in the teaching and learning of English as a second language in rural secondary schools of Zimbabwe.

The Questionnaire will be confidential and anonymous. When I share the results of the research study, I will not include your name or anything else that could identify you. With your permission, other researchers may use the data collected from this research study, but your name and any personal information will not be used or passed on.

If you decide to take part in the research study, it should be because you want to. You can stop being in the study at any time. You do not have to answer any questions if you do not want to. You will not get any direct benefits if you choose to join the research study. You will not lose any services, benefits or rights you would normally have if you decide not to join. Taking part in the research study will not cost you anything. You will not be paid for being in this research study. This research study will be written up as a research report. The report will be available on the university library website. If you would like to receive a summary of this report, I will be happy to send it to you.

For any further details regarding this study, you are free to contact me on +263780809335 or at: smukomana@gmail.com or my supervisor on +27783743068 or at naomi.nkealah@wits.ac.za
Thank you in advance
Yours faithfully
Saziso Mukomana, +263780809335 or at: smukomana@gmail.com

Student Pass Number:2291639

APPENDIX B4

PARTICIPANT INFORMATION SHEET (PIS) FOR TEACHER INTERVIEW

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Dear Sir / Madam

My name is Saziso Mukomana, and I am doing research with Dr Naomi Nkealah my supervisor and Senior Lecturer in the Department of English Division of Languages Literacies and Literatures towards a Doctor of Philosophy in Education Degree at Witwatersrand University in South Africa. I am conducting a research study on '*An investigation of ICT usage in English Second Language Teaching and Learning in Zimbabwean Rural Secondary Schools"*.
I am inviting you to take part in an interview. If you decide to take part, your participation in this research study will last about an hour. The interview will take place at ……. School at 2pm. With your permission, I would like to audio record the interview. Only the researcher will have access to the data.

During the research activity, I will need to ask for some personal information about how you are using ICTs in the teaching and learning of English as a second language in rural secondary schools of Zimbabwe.

The interview will be confidential and anonymous. When I share the results of the research study, I will not include your name or anything else that could identify you. With your permission, other researchers may use the data collected from this research study, but your name and any personal information will not be used or passed on.

If you decide to take part in the research study, it should be because you want to. You can stop being in the study at any time. You do not have to answer any questions if you do not want to. You will not get any direct benefits if you choose to join the research study. You will not lose any services, benefits or rights you would normally have if you decide not to join. Taking part in the research study will not cost you anything. You will not be paid for being in this research study. This research study will be written up as a research report. The report will be available on the university library website. If you would like to receive a summary of this report, I will be happy to send it to you.

For any further details regarding this study, you are free to contact me on +263780809335 or at: smukomana@gmail.com or my supervisor on +27783743068 or at naomi.nkealah@wits.ac.za
Thank you in advance
Yours faithfully

Saziso Mukomana, +263780809335 or at: smukomana@gmail.com

Student Pass Number:2291639

APPENDIX B5

PARTICIPANT INFORMATION SHEET (PIS) FOR LEARNER FOCUS GROUP DISCUSSION (LEARNER UNDER 18 YEARS)

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Dear Sir / Madam

My name is Saziso Mukomana, and I am doing a research with Dr Naomi Nkealah my supervisor and Senior Lecturer in the Department of English Division of Languages Literacies and Literatures towards a Doctor of Philosophy in Education Degree at Witwatersrand University in South Africa. I am conducting a research study on '*An investigation of ICT usage in English Second Language Teaching and Learning In Zimbabwean Rural Secondary Schools*".

.

I am inviting your child to take part in focus group discussions. If you decide to let her/him, take part, her/his participation in this research study will last about an hour. The focus group discussions will take place at…….. School at 2 pm.

With your permission, I would like to audio record the focus group discussions. Only the researcher will have access to the data. During the research activity, I will need to ask for some personal information about how your child is using ICTs in the teaching and learning of English as a second language in rural secondary schools of Zimbabwe.

The Focus Group Discussions will not be confidential and anonymous. With your permission, other researchers may use the data collected from this research study, but her /his name and any personal information will not be used or passed on.

If you decide to let her/him take part in the research study, it should be because you want to. You can stop her /him being in the study at any time. You will not get any direct benefits if you choose your child to join the research study. Your child will not lose any services; benefits or rights he/she would normally have if you decide for her/him not to join. Taking part in the research study will not cost your child anything. Your child will not be paid for being in this research study. This research study will be written up as a research report. The report will be available on the university library website. If you would like to receive a summary of this report, I will be happy to send it to you.

For any further details regarding this study, you are free to contact me on +263780809335 or at : smukomana@gmail.com or my supervisor on +27783743068 or at naomi.nkealah@wits.ac.za
Thank you in advance.
Yours faithfully

Saziso Mukomana, +263780809335 or at : smukomana@gmail.com

Student Pass Number:2291639

APPENDIX B6

PARTICIPANT INFORMATION SHEET (PIS) FOR LEARNER FOCUS GROUP DISCUSSION (LEARNER ABOVE 18 YEARS)

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Dear Sir / Madam

My name is Saziso Mukomana. My name is Saziso Mukomana, and I am doing a research with Dr Naomi Nkealah my supervisor and Senior Lecturer in the Department of English Division of Languages Literacies and Literatures towards a Doctor of Philosophy in Education Degree at Witwatersrand University in South Africa. I am conducting a research study on '*An assessment of the use of Information Communication Technology (ICTs) in the teaching of English as a second language in Zimbabwean rural secondary schools.*

.

I am inviting you to take part in focus group discussions. If you decide to take part, your participation in this research study will last about an hour. The interview/research activity will take place at David Livingstone High School at 2 pm.

With your permission, I would like to audio record the focus group. This data will be stored in computer for three years and/or deleted after three years. Only the researcher will have access to the data. During the research activity, I will need to ask for some personal information about how you are using ICTs in the teaching and learning of English as a second language in rural secondary schools of Zimbabwe.

The Focus Group Discussions will be no confidentiality and anonymity. With your permission, other researchers may use the data collected from this research study, but your name and any personal information will not be used or passed on.

If you decide to take part in the research study, it should be because you want to volunteer. You do not have to take part. You can stop being in the study at any time. You do not have to answer any questions if you do not want to. You will not get any direct benefits if you choose to join the research study. You will not lose any services, benefits or rights you would normally have if you decide not to join. Taking part in the research study will not cost you anything. You will not be paid for being in this research study. This research study will be written up as a research report. The report will be available on the university library website. If you would like to receive a summary of this report, I will be happy to send it to you.

If you have any questions during or afterwards about this research study, feel free to contact me or my supervisor on the details listed below. For any further details regarding this study, you are free to contact me on +263780809335 or at: smukomana@gmail.com or my supervisor on +27783743068 or at naomi.nkealah@wits.ac.za Thank you in advance

Yours faithfully

Saziso Mukomana, +263780809335 or at: smukomana@gmail.com

Student Pass Number:2291639

APPENDIX C1

CONSENT FORM FOR LEARNER QUESTIONNAIRE (LEARNER UNDER 18 YEARS)

GUARDIAN/PARENT CONSENT FORM

Title of project.*" An investigation of ICT usage in English Second Language Instruction and Learning in Zimbabwean Rural Secondary Schools".*

Name of researcher: Saziso Mukomana, +263780809335 or at: smukomana@gmail.com

Student Pass Number:2291639

I, ……., agree to let my child take part in this study.

I consent to the following: (Please mark the appropriate choices below.)

I understand the purpose of this study	Yes	No
I am aware that I can provide my child's participation in the study by volunteering.	Yes	No
I accept that the researcher will not use my or his/her name in their research report and that our involvement will stay anonymous.	Yes	No

I acknowledge that the data provided in the questionnaire may be utilised by other studies (subject to obtaining their own ethics clearance); nevertheless, the individual's name and any personally identifiable information will remain confidential. Yes No

…… (signature)
…… (participant name)
…… (date)

APPENDIX C2

ASSENT FORM FOR LEARNER QUESTIONNAIRE (LEARNER UNDER 18 YEARS)

Title of project "*An investigation of ICT usage in English Second Language Teaching and Learning in Zimbabwean Rural Secondary Schools***".**
Name of researcher: Saziso Mukomana, +263780809335 or at : smukomana@gmail.com

Student Pass Number:2291639

I ……thus consent to take part in this research study.

I consent to the following: (Please mark the appropriate choices below).

I received an explanation on the research study Yes No

I understand the purpose of this study. Yes No

I accept that the researcher may not use my name in their research report and that it will remain anonymous. Yes No

I acknowledge and agree that my identity and any personal information will not be used or shared with any other researchers, but they are free to use the material I share in the questionnaire provided they have their own ethics clearance Yes No

…… (signature)
…… (participant name)
…… (date)

APPENDIX C3

CONSENT FORM FOR LEARNER QUESTIONNAIRE (LEARNER ABOVE 18 YEARS)

LEARNER CONSENT FORM

Title of project *"An investigation of ICT usage in English Second Language Teaching and Learning in Zimbabwean Rural Secondary Schools"*.
Name of researcher: Saziso Mukomana, +263780809335 or at : smukomana@gmail.com

Student Pass Number:2291639

I, ……., agree to let my child take part in this study.

I consent to the following: (Please mark the appropriate choices below.)

The purpose of the study was explained to me. Yes No

I am aware that I can choose to participate in the study voluntarily. Yes No

I accept that the researcher will not use my identify in their research report and that my involvement will stay anonymous. Yes No

I acknowledge that my identity and any personal information will not be used or shared, but that other researchers may utilise the data I submit in the questionnaire (pending the acquisition of their own ethics clearance). Yes No

…… (signature)
…… (participant name)
…… (date)

APPENDIX C4

CONSENT FORM FOR TEACHER INTERVIEW

Title of project: *"An investigation of ICT usage in English Second Language Teaching and Learning in Zimbabwean Rural Secondary Schools".*
Name of researcher: Saziso Mukomana, +263780809335 or at: smukomana@gmail.com

Student Pass Number:2291639

I, …….., agree to participate in this research project.

I agree to the following: (Please circle the relevant options below)

The research study was explained to me. I understand what this study is about.	YES	NO
I understand that I can volunteer to take part in the study	YES	NO
I agree that the interview may be audio recorded	YES	NO
I agree that direct quotations from my interview may be used by the researcher in research report	YES	NO
I agree that my participation will remain anonymous (my name will not be used by the researcher in their research report)	YES	NO
I agree that other researchers may use the information I provide in my interview (depending on their own ethics clearance being obtained) but my name and any personal information will not be used or passed on	YES	NO

…… (signature)
…… (name of participant)
…… (date)

APPENDIX C5

CONSENT FORM FOR FOCUS GROUP DISCUSSION (LEARNER UNDER 18 YEARS)

PARENT/GUARDIAN CONSENT FORM

Title of project *"An investigation of ICT usage in English Second Language Teaching and Learning in Zimbabwean Rural Secondary Schools"*.
Name of researcher: Saziso Mukomana, +263780809335 or at : smukomana@gmail.com

Student Pass Number:2291639

I, ……., agree to let my child take part in this study.

I consent to the following: (Please mark the appropriate choices below.)

I understand the purpose of this study	Yes	No
I am aware that I can provide my child's participation in the study by volunteering.	Yes	No
I accept that the researcher will not use my or his/her name in their research report and that his /her involvement will stay anonymous.	Yes	No

I acknowledge that the data provided in focus group interviews may be utilised by other studies (subject to obtaining their own ethics clearance); nevertheless, the individual's name and any personally identifiable information will remain confidential Yes No

I concur that recording the focus group interviews of my child on audio is possible Yes No

I acknowledge that my child's identity and any personal information will not be used or shared, but that other researchers may utilise the data he/she submits in the focus group interviews (pending the acquisition of the researcher's own ethics clearance).	Yes	No

…… (signature)
…… (Parent /Guardian name)
…… (date)

APPENDIX C6

ASSENT FORM FOR FOCUS GROUP DISCUSSION (LEARNER UNDER 18 YEARS)

Title of project: *'An investigation of ICT usage in English Second Language Teaching and Learning in Zimbabwean Rural Secondary Schools".*
Name of researcher: Saziso Mukomana, +263780809335 or at : smukomana@gmail.com
Student Pass Number:2291639

I……thus consent to take part in this research study.

I consent to the following: (Please mark the appropriate choices below.)
I received an explanation on the research study Yes No
I understand the purpose of this study. Yes No
I acknowledge that my guardian/parent is aware of my voluntary participation in the study. Yes No
I concur that recording the focus group discussion on audio is possible. Yes No
I consent to the researcher using direct quotes from our focus group conversation in a research report. Yes No
I accept that the researcher may not use my name in their research report and that it will remain anonymous. Yes No
I acknowledge and agree that my identity and any personal information will not be used or shared with any other researchers, but they are free to use the material I share in our focus group discussions provided they have their own ethics clearance.

…… (The signature)

……(participant name)

……. (date)

APPENDIX C7

CONSENT FORM FOR FOCUS GROUP DISCUSSION (LEARNER ABOVE 18 YEARS)

LEARNER CONSENT FORM

Title of project *"An investigation of ICT usage in English Second Language Teaching and Learning in Zimbabwean Rural Secondary Schools".*

Name of researcher: Saziso Mukomana, +263780809335 or at: smukomana@gmail.com

Student Pass Number:2291639

I ……..thus consent to take part in this research study.

I consent to the following: (Please mark the appropriate choices below).

I received an explanation on the research study Yes No

I understand the purpose of this study and my voluntary participation in it. Yes No

I concur that recording the focus group discussions on audio is possible Yes No

I consent to the researcher using direct quotes from our focus group conversations in a research report. Yes No

I accept that the researcher (may not use my name in their research report and that it will remain anonymous Yes No

I acknowledge and agree that my identity and any personal information will not be used or shared with any other researchers, but they are free to use the material I share in our focus group discussions provided they have their own ethics clearance.

…… (signature)
…… (participant name)
…… (date)

APPENDIX C8

ASSENT FORM FOR CLASSROOM OBSERVATION (LEARNER)

Title of project: *"An investigation of ICT usage in English Second Language Teaching and Learning In Zimbabwean Rural Secondary Schools".*
Name of researcher: Saziso Mukomana, +263780809335 or at : smukomana@gmail.com

Student Pass Number:2291639

I ……thus consent to take part in this research study.

I consent to the following: (Please mark the appropriate choices below).

I received an explanation on the research study Yes No

I understand the purpose of this study. Yes No

I acknowledge that my guardian/parent is aware of my voluntary participation in the study.
Yes No

I concur that recording on audio in lesson in the observations is possible. Yes No

I consent to the researcher using direct quotes from the observations in a research report.
Yes No

I accept that the researcher may not use my name in their research report and that it will remain anonymous. Yes No

I acknowledge and agree that my identity and any personal information will not be used or shared with any other researchers, but they are free to use the material I share in the observations provided they have their own ethics clearance.

…… (signature)
…… (participant name)
…… (date)

APPENDIX D1

QUESTIONNAIRE FOR TEACHERS

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

QUESTIONNAIRE FOR TEACHERS ON THE USE OF INFORMATION COMMUNICATION TECHNOLOGY(ICTS) IN THE TEACHING OF ENGLISH AS A SECOND LANGUAGE IN ZIMBABWEAN RURAL SECONDARY SCHOOLS

My name is Saziso Mukomana, and I am doing research with Dr Naomi Nkealah my supervisor and Senior Lecturer in the Department of English Division of Languages Literacies and Literatures towards a Doctor of Philosophy in Education Degree at Witwatersrand University in South Africa. I write this letter to your good office of the Ministry of Primary and Secondary Education as the authority of all Primary and Secondary schools in Matabeleland North Province I am conducting a study entitled, 'An Investigation of ICT Usage In English Second Language Teaching and Learning In Zimbabwean Rural Secondary Schools' This questionnaire seeks to solicit information on how the use of Information Communication Technology(ICTs) in the teaching of English as a second language in Zimbabwean rural secondary schools is being carried out. Please answer all the questions as honestly as possible by placing a tick in each of the boxes that correspond to your answer. Where comments are requested, please write in the spaces provided. In order to ensure absolute anonymity, you are kindly requested not to indicate your name, the name of your school or any form of identification on this questionnaire.

SECTION A: BIODATA

1. Gender:

	Tick	Code
Male		1
Female		2

2. Highest Professional Qualification

	Tick	Code
None/Untrained		1
Certificate/Diploma in General Education		2
Bachelor's Degree in General Education		3
Bachelor's Degree in Special Communication-English		4
Post Graduate Degree in General Education		5
Master's Degree		6
Doctorate degree		7

3. Experience as a teacher for English as a second language

	Tick	Code
Less Than 1 Year		1
1-5 Years		2
6-10 Years		3
11-15 Years		4
16-20 Years		5
More Than 20 Years		6

SECTION B: CONCEPTIONS OF THE USE OF ICTS IN THE TEACHING OF ENGLISH AS A SECOND LANGUAGE IN SECONDARY SCHOOLS

NB: Indicate your level of agreement with each of the statements about your understanding of the use of ICTs in the teaching and learning of English as a second language in rural secondary schools using the following key:

KEY: Strongly Agree = 1; Agree=2; Neutral=3; Disagree=4; Strongly Disagree=5

	1	2	3	4	5
In my view, ICTs are more powerful in teaching than discussion and teaching without the use of ICT.					
ICTs (referring generally to computers, videos, hardware, software, and networks) increase my knowledge and skills as an English teacher					
ICTs are highly needed by teachers in teaching English					
CTs can be used as advanced instructional tools in teaching English to my students.					
In my view, ICTs can replace teacher in teaching English.					
As far as I know, ICTs can be used to effectively manipulate instructional contents and materials					
I know that ICTs can spread knowledge and information fast.					
In my view, ICTs are more effective for teaching and learning than books and other printed materials.					
I think ICT use does NOT offer educational/instructional values for student in learning English					
I use/have used ICTs for teaching and in daily life.					

SECTION C: BENEFITS OF USING ITCs IN THE TEACHING AND LEARNING OF ENGLISH AS A SECOND LANGUAGE IN RURAL SECONDARY SCHOOLS

NB: Indicate your level of agreement with each of the statements about your understanding of the use of ICTs in the teaching and learning of English as a second language in rural secondary schools using the following key:

KEY: Strongly Agree = 1; Agree=2; Neutral=3; Disagree=4; Strongly Disagree=5

ITEM	1	2	3	4	5
The use of ICT helps my learners to study English more					
The use of ICT helps my learners with reading skills					
The use of ICT helps my learners with writing skills					
The use of ICT helps my learners with speaking skills.					

The use of ICT helps my learners with listening skills					
The use of ICT helps my learners master grammar competence.					
The use of ICT enables my learners to acquire vocabulary better.					
English learning can be more fun with ICT applications.					
The use of ICT (e.g. the Internet) lets me gain access to more updated English materials.					
The use of ICT is a good way for instructors and students to communicate					

SECTION D: CONSTRAINTS OF USING ITCs IN THE TEACHING AND LEARNING OF ENGLISH AS A SECOND LANGUAGE IN RURAL SECONDARY SCHOOLS

NB: Indicate your level of agreement with each of the statements about your understanding of the use of ICTs in the teaching and learning of English as a second language in rural secondary schools using the following key:

KEY: Strongly Agree = 1; Agree=2; Neutral=3; Disagree=4; Strongly Disagree=5

I know that many forms of ICT tools and techniques at school are accessible for use in teaching English.	1	2	3	4	5
I can avoid problems in many areas such as in handwriting and in organizing ideas when I use ICT.					
I have no difficulty in using ICT					
I know about ICT materials related to English language learning that I can use for my teaching					
I have limited time to integrate ICT in my teaching.					
I know how to access the Internet and get some information from it.					
The Internet is easily accessible and available at school.					
Generally speaking, I have enough experiences and training on available computers and/or software					

APPENDIX D2

QUESTIONNAIRE FOR LEARNERS

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

QUESTIONNAIRE FOR 'O' LEVEL LEARNERS ON THE USE OF INFORMATION COMMUNICATION TECHNOLOGY(ICTS) IN THE TEACHING OF ENGLISH AS A SECOND LANGUAGE IN ZIMBABWEAN RURAL SECONDARY SCHOOLS

My name is Saziso Mukomana, and I am doing research with Dr Naomi Nkealah my supervisor and Senior Lecturer in the Department of English Division of Languages Literacies and Literatures towards a Doctor of Philosophy in Education Degree at Witwatersrand University in South Africa. I write this letter to your good office of the Ministry of Primary and Secondary Education as the authority of all Primary and Secondary schools in Matabeleland North Province I am conducting a study entitled, 'An Investigation of ICT Usage In English Second Language Teaching and Learning In Zimbabwean Rural Secondary Schools' This questionnaire seeks to solicit information on how the use of Information Communication Technology(ICTs) in the teaching of English as a second language in Zimbabwean rural secondary schools is being carried out. Please answer all the questions as honestly as possible by placing a tick in each of the boxes that correspond to your answer. Where comments are requested, please write in the spaces provided. In order to ensure absolute anonymity, you are kindly requested not to indicate your name, the name of your school or any form of identification on this questionnaire.

SECTION A: BIODATA

1. Gender:

	Tick	Code
Male		1
Female		2

2. AGE

	Tick	Code
Less than 15yrs		1
15-17 years		2
17-19 years		3
19-20 years		4
Above 20years		5

SECTION B: HOW OFTEN DO YOU ENGAGE IN THE USE OF ICTS IN THE TEACHING OF ENGLISH AS A SECOND LANGUAGE IN SECONDARY SCHOOLS

NB: Indicate your level of agreement with each of the statements about your understanding of the use of ICTs in the teaching and learning of English as a second language in rural secondary schools using the following key:

KEY: Almost never = 1; Sometimes=2; Often=3; Almost always=4;

	1	2	3	4
I use a computer as part of my learning process.				
My teachers use a computer during their classes.				
My teachers expect me to use a computer as part of my learning process				
Virtual learning environments are used in during Covid19 era.				

SECTION C: PLEASE, RATE THE FOLLOWING STATEMENTSCONCERNING THE USE OF ITCS IN THE TEACHING AND LEARNING OF ENGLISH AS A SECOND LANGUAGE IN RURAL SECONDARY SCHOOLS

NB: Indicate your level of agreement with each of the statements about your understanding of the use of ICTs in the teaching and learning of English as a second language in rural secondary schools using the following key:

KEY: Strongly Agree = 1; Agree=2; Neutral=3; Disagree=4; Strongly Disagree=5

	1	2	3	4
Using a computer for learning is very important to me.				
Using a tablet for learning is very important to me.				
Using a smartphone for learning is very important to me.				
Using ICT tools for learning is very important to me				
Using a computer for learning makes me happy.				
I use ICT tools for learning because I'm very interested in IT.				
I save time if I use ICT tools for learning				
I can focus on learning more if I use ICT tools.				
I can understand the material much more easily, if I use ICT tools				
I can remember what I've learnt better if I use ICT tools.				
Information is much more easily available by using ICT tools than by visiting the library.				
I cannot learn without using ICT tools				
ICT tools create a better atmosphere in the classroom.				
ICT tools play an important role in my learning process				

SECTION D: ASSISTANCE GIVEN BY TEACHERS IN THE USE OF ITCs IN THE TEACHING AND LEARNING OF ENGLISH AS A SECOND LANGUAGE IN RURAL SECONDARY SCHOOLS

NB: Indicate your level of agreement with each of the statements about your understanding of the use of ICTs in the teaching and learning of English as a second language in rural secondary schools using the following key:

KEY: Strongly Agree = 1; Agree=2; Neutral=3; Disagree=4; Strongly Disagree=5

	1	2	3	4
Teachers give us guidance on how to use ICT tools for learning tasks to be completed at home				
Teachers give us guidance on how to use ICT tools for learning				
Teachers support the use of ICT tools for learning.				
Teachers should incorporate the use of ICT tools into their teaching.				
The material covered does not allow for the use of ICT tools in class.				
The material covered does not allow for the use of ICT tools at home.				

SECTION E: ICT TOOLS OFTEN USED BY LEARNERS IN THE TEACHING AND LEARNING OF ENGLISH AS A SECOND LANGUAGE IN RURAL SECONDARY SCHOOLS

How frequently do you use the following tools? KEY: Almost never = 1; Sometimes=2; Often=3; Almost always=4;

	1	2	3	4
Database				
Blogs				
Audio/video chats				
E books				
E libraries				
E mail				
E journal				
Social media				
Internet browsers				
Photo editing				
Search engines				

Film/ videos				

SECTION F: LEARNERS' PERCEPTIONS OF USING ITCS IN THE TEACHING AND LEARNING OF ENGLISH AS A SECOND LANGUAGE IN RURAL SECONDARY SCHOOLS

NB: Indicate your level of agreement with each of the statements about your understanding of the use of ICTs in the teaching and learning of English as a second language in rural secondary schools using the following key:

KEY: Strongly Agree = 1; Agree=2; Disagree=3; Strongly Disagree=4

	1	2	3	4
The use of ICT helps me study English more				
The use of ICT helps me improve my reading skills				
The use of ICT helps me improve my writing skills				
The use of ICT helps me improve my speaking skills.				
The use of ICT helps me improve my listening skills				
The use of ICT helps me master my grammar competence.				
The use of ICT enables me to acquire vocabulary better.				
English learning can be more fun with ICT applications.				
The use of ICT (e.g. the Internet) lets me gain access to more updated English materials.				
The use of ICT is a good way for instructors and students to communicate				

Thank you for completing our questionnaire

APPENDIX D3

INTERVIEW SCHEDULE FOR TEACHERS

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Biographical Information

Gender: Male Female

Name of your school: .....

State your Qualifications: .....

Teaching experience for English: ..... years

1. Do you have an ICT laboratory/centre?

If yes, how many computers are available in the ICT laboratory/ centre?.....

2. What ICT tools are available at your school?

3. Have you received any training on the use of ICTs in your English teaching activities?

4. How confident are you about your ability to use ICT tools for English teaching and learning?

5. Do you feel you have the necessary skills to use ICTs in your daily teaching responsibilities? Yes/ No Explain:

6 Do all teachers at your school integrate ICTs in their teaching activities? Yes/ No Explain:

7. Do you have all the necessary application software such as word processor, database, etc. as is required for the facilitation of teaching and learning? Yes/ No Explain:

8. Do you use these ICT tools in teaching English subject matter to provide new ways of enhancing learners' experiences of acquiring knowledge? Yes/ No Explain:

9. Does the use of ICTs prove to be a better method of teaching learners as compared to the traditional methods of teaching? Yes/ No Explain:

10. Do learners learn better as a result of using ICTs in teaching your subject matter? Yes/No

Explain:

11. How do you use ICTs to cater for learners' learning needs?

12. Do you use the computer and the internet to update your subject knowledge? Yes /No

Explain:

13. Do you use the internet to update your professional development? Yes/ No

Explain

14. Do you give learners tasks which prompt the use of the internet? Which ICT tools do you use to teach language skills?

15. Do you use the email to post homework to your learners? Yes /No

16.What major challenges are you faced with in using ICTs to teach English as a second language?

APPENDIX D4

FOCUS GROUP DISCUSSION SCHEDULE FOR LEARNERS

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Name of the group:

1. As learners of English as a second language, what is your vision on the use of ICT in Learning? Explain:

2. Does your school have ICT tools for use in learning of English language? Yes/No Explain:

3. Do all teachers use ICT in their daily teaching activities? Yes, No Explain

4. What changes have been noticed as a result of using ICTs in teaching English as a second language at your school? Explain and show the benefits and constraints.

5. Is teaching and learning improving as a result of using ICTs at your school? Yes/ No Explain:

6. What factors inhibit the use of ICTs in the teaching and learning of English as a second language usage at your school? Mention them:

7. What is your school policy in terms of the use of ICTs in your learning of English as a second language at your school? Explain:

8. How do your parents or any other well-wishers support the use of ICT at your school? Explain:

9. What do you recommend in terms of bridging the gap to enable learners and teachers to use ICTs in teaching and learning of English as a second language at your school? Explain:

10. Do you happen to have suggestions on what you feel can be done to overcome the challenges you have cited?

THANK YOU FOR YOUR PARTICIPATION!

APPENDIX D5

LESSON OBSERVATION GUIDE

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

SECTION A

DATE …… **OBSERVATION** **START TIME…….**

END TIME …….

SCHOOL PSEUDONYM …… **CLASS**……

SECTION B: ICTS USED BY THE TEACHER

ICT DEVICE USED	PURPOSE OF THE ICT DEVICE
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

SECTION C: TEACHER PEDAGOGICAL ORIENTATION

PEDAGOGICAL ORIENTATION ITEM	TICK
Lecturing	
Discussion	
Modelling	
Simulations	
Drill and practice	
Others	

SECTION D: HOW THE TEACHER USED ICT DEVICE IN TEACHING AND LEARNING

ITEM	TICK
Uses the technology without making mistakes	
Uses the ICT tools but commit few mistakes	
Uses the ICT tools but commit a lot of mistakes	
Does not know how to use the ICT tools	

SECTION E: TEACHERS' TECHNOLOGY PEDAGOGY

ITEM	TICK
Is able to choose ICTs that enhance the teaching approaches for a lesson	
Is able to manage ICT rich classroom effectively	
Is able to evaluate the appropriateness of a new technology for teaching and learning	
Is able to integrate appropriate instructional methods and ICTs into teaching	
Is able to combine content and technology	
Is able to evaluate and reflect on the effective use of ICTs to enhance teaching and learning	
Is able to use ICTs to communicate and collaborate with learners and the community	

Takes advantage of new ICT resources to improve his practices with learners' creativity and learning	