

**EXPLORING ICT APPROACHES TO ENHANCE THE READING SKILLS OF DIGITAL FET LEARNERS IN
THE 21ST CENTURY**

By

Monique Jansen

Submitted in the fulfilment of the requirements of the Degree

MASTERS IN LANGUAGE EDUCATION

In the Department of Language Education

Faculty of Education

at the

UNIVERSITY OF THE FREE STATE

Bloemfontein

Supervisor: Dr N.I. Ngubane

November 2023

DECLARATION

I hereby affirm that the dissertation titled **"EXPLORING ICT APPROACHES TO ENHANCE THE READING SKILLS OF DIGITAL FET LEARNERS IN THE 21ST CENTURY"**, which is being submitted for the purpose of obtaining a Masters in Language Education (M. Ed.) at the University of Free State, is solely my own original work. I further confirm that I have not previously submitted this work for any other qualification at any other university or faculty.

I hereby transfer the ownership of copyright to the University of Free State.

Signature:

A handwritten signature in black ink, appearing to read 'Monique Jansen', written in a cursive style.

Name: Monique Jansen

Date: NOVEMBER 2023

ACKNOWLEDGEMENT

I am profoundly grateful to Dr Nomalungelo Ngubane, my mentor and supervisor, for her invaluable guidance and support. I would like to express my sincere gratitude to Dr Ngubane for your invaluable help and direction during my journey. Your support has extended beyond just academic coaching, as you have also fulfilled the roles of counsellor and psychologist at times. I am very appreciative of your investment in my personal and academic growth. The direction and recommendations provided by you were vital in facilitating my progress throughout all the phases of my writing endeavour. Secondly, the successful completion of this voyage would not have been possible without the invaluable support and guidance offered by the defence committee of the Faculty of Education, whose extensive experience and skills were graciously shared.

I would also want to express my gratitude to my spouse, Fazel Jansen, for your unwavering support and understanding during my personal journey. The act of praying on my behalf provided me with the necessary support at times of utmost difficulty. I express my gratitude for your unwavering support and dedication towards me, as well as for providing me with care at times when I was unable to do it myself. I express my gratitude for the encouragement you have provided, which has instilled in me the will to persist unwaveringly and never succumb to defeat. You serve as a steadfast source of support in my life, and I hold deep affection and gratitude for you.

I would like to express my heartfelt gratitude to Mr. Ricardo Parau, an individual with whom I have collaborated in my academic pursuits, fostering a relationship that encompasses both friendship and professional camaraderie. The commencement of our expedition was accompanied by a lack of foresight, leaving us uncertain of the forthcoming events. However, I can confidently assert that, in retrospect, I am content with the course of events that unfolded. During our interactions, we experienced a range of emotions, including laughter and tears, and gained valuable knowledge from one another. I really value your authentic self and the contributions you made. I am grateful for the assistance and mentorship you have provided, and I value your contributions.

Lastly, I would want to express my gratitude to God for guiding me through the many challenges I have encountered. I have encountered the influence of your assistance and counsel consistently over time. May Your name be exalted via my artistic creation, as You are the divine entity who enabled me to successfully complete my academic pursuits. I will continue to place my faith in You for guidance and assurance in my next endeavours.

DEDICATION

This research is dedicated to those who have experienced feelings of inadequacy and have been stigmatised as failures in their personal journeys. This message is intended for those who have harboured doubts on their capacity to achieve significant accomplishments in life. For any person who has experienced a lack of motivation or challenge from educators due to their failure to see their ability, I would want to provide my own experience on the presence of several red circles on a school report card, perhaps including instances of grade failure. I want to provide words of encouragement via my art, demonstrating the potential for achieving all things with the guidance of God, our Lord and Saviour.

I express my gratitude to all those who had faith in my ability to get a postgraduate degree in the field of teaching. I can only anticipate and aspire for change, acknowledging that my placement will ultimately be determined by the divine will of God.

ABSTRACT

The use of Information and Communication Technology (ICT) in education has gained momentum in the last ten years, globally and in South Africa. However, in South Africa, specifically, there is limited information on the impact of the ICT approaches on the development of reading skills of learners. This study, therefore, explored ICT approaches that can enhance the reading skills of digital learners in the first additional language (FAL) classrooms in the Further Education and Training (FET) in the Motheo District, Free State. It sets out to investigate how teachers use ICT approaches to enhance reading skills of the digital 21st century learners; the challenges faced by teachers in the integration of ICT approaches; and the way in which ICT can be used to enhance reading of FET digital learners. Underpinned by Constructivism Theory and Connectivity Theory, the study adopted a qualitative case study research approach within an interpretivist paradigm. Twelve teachers from three high schools in the Motheo District, Free State, participated in this study. Data was collected through semi-structured interviews and focus group interviews. A thematic data analysis framework was adopted. The key findings of the study show that, to some extent, the teachers in the three high schools use diverse ICT approaches to enhance reading skills of their learners. Most teachers agreed that the integration of ICT into the teaching of reading skills has a potential to enhance reading skills of learners. Factors such as managing the use of ICT devices in the reading classrooms; digital divide, teacher professional development, and availability of the internet in the schools were identified by the teachers as key to effective use of ICT to enhance reading skills of learners in the three schools. Despite the challenges of integrating ICT into the reading classrooms, the study found that teachers' and learner's positive attitudes towards ICT approaches influenced the interest in the use of ICT devices for improving reading skills. This study recommends that ICT approaches should be intergrated into curriculum to foster the migration from the traditional methods of teaching reading skills into the 21st century approaches that respond to the learning needs of the digital 21st century learners in the classrooms. Some schools need to urgently review their school policies which ban the use of ICT devices for learning and teaching purposes and establish ways to manage and monitor the use of these resources in the classrooms. This study adds to the body of information on ICT in education and offers educators, policymakers, and academics significant insights. The study concludes that ICT approaches have a potential to enhance reading skills of digital 21st century learners. Lastly, the study concludes that teacher professional development is key for the maximum integration of ICT for the development of learners' reading skills.

TABLE OF CONTENTS

DECLARATION	i
ACKNOWLEDGEMENT	ii
DEDICATION.....	iii
ABSTRACT.....	iv
CHAPTER 1.....	1
1.1 INTRODUCTION.....	1
1.2 PROBLEM STATEMENT	3
1.3 LITERATURE REVIEW	4
1.3.1 Reading.....	4
1.3.2 Reading Comprehension	4
1.3.3 Reading Approaches	4
1.3.4 Digital Learners.....	5
1.3.5 Reading levels of digital second language learners:.....	5
1.3.6 Studies on the use of ICT approaches to enhance the reading of learners:.....	5
1.3.7 Challenges of ICT in teaching reading:.....	6
1.3.8 Digital Approaches to teaching Reading:.....	6
1.3.9 Gaps in Literature:	6
1.3.10 Theoretical Framework:.....	6
1.3.10.1 Constructivism Theory	6
1.3.10.2 Connectivity Theory	7
1.4 RESEARCH QUESTION.....	7
1.4.1 Main research question:.....	7
1.4.2 Secondary research questions:	7
1.5 RESEARCH AIM AND OBJECTIVES	7
1.5.1 Research Aim:.....	7
1.5.2 Research Objectives:.....	7

1.6	RESEARCH METHODOLOGY	8
1.6.1	Research approach.....	8
1.6.2	Research design: Case Study	8
1.6.3	Research Paradigm: Interpretivism.....	8
1.6.4	Research Sampling and Participants:.....	8
1.7	DATA COLLECTION/SETS.....	9
1.7.1	Semi-structured interviews.....	9
1.7.2	Classroom Observation.....	9
1.8	DATA ANALYSIS.....	9
1.9	VALUE OF PROPOSED RESEARCH.....	9
1.10	ETHICAL CONSIDERATIONS.....	10
1.11	DIVISION OF CHAPTERS	10
1.12	CONCLUSION	11
CHAPTER 2	12
2.1	INTRODUCTION AND BACKGROUND.....	12
2.2	DEFINITION OF READING CONCEPTS.....	12
2.1.1	Reading.....	12
2.1.2	Reading Comprehension	12
2.1.3	Reading Approaches in CAPS.....	13
2.3	DIGITAL LEARNERS	14
2.4	READING LEVELS OF DIGITAL SECOND LANGUAGE LEARNERS.....	16
2.5	STUDIES ON THE USE OF ICT APPROACHES TO ENHANCE READING OF LEARNERS.....	18
2.6	CHALLENGES OF ICT IN TEACHING READING	19
2.7	DIGITAL APPROACHES TO TEACHING READING.....	21
2.8	GAPS IN LITERATURE.....	22
2.9	THEORETICAL FRAMEWORK.....	23
2.9.1	Constructivism Theory and Reading.....	24

2.9.2	Connectivity Theory and Reading.....	25
2.10	CONCLUSION	27
CHAPTER 3.....		28
3.1	INTRODUCTION	28
3.2	A QUALITATIVE RESEARCH APPROACH.....	28
3.3	AN INTERPRETIVISM RESEARCH PARADIGM	29
3.4	THE CASE STUDY DESIGN.....	29
3.5	POPULATION AND SAMPLING	30
3.5.1	Participants	30
3.6	DATA COLLECTION METHODS	30
3.6.1	Semi-structured interviews.....	30
3.6.2	Observations.....	31
3.7	DATA ANALYSIS.....	31
3.8	ISSUES OF TRUSTWORTHINESS	32
3.9	VALUE OF THE STUDY.....	32
3.10	ETHICAL CONSIDERATIONS.....	33
3.11	CONCLUSION	33
CHAPTER 4.....		34
4.1	INTRODUCTION	34
4.2	RESEARCH QUESTIONS OF THE STUDY	34
4.3	PROFILING OF THE THREE SCHOOLS	34
4.4	PROFILING OF THE PARTICIPANTS	35
4.5	TABLES OF THEMES FROM INTERVIEWS AND OBSERVATION	35
4.6	DATA PRESENTATION, ANALYSIS AND DISCUSSION.....	36
4.6.1	Semi-structured interviews with teachers	36
4.6.1.1	Preferred reading mode of digital learners:	37
4.6.1.2	Teachers' attitudes towards ICT approaches:.....	37

4.6.1.3	ICT and Acquisition of Reading Skills:	39
4.6.1.4	Challenges in managing ICT in reading classrooms:	40
4.6.1.5	Modernizing reading by integration of ICT:	42
4.6.1.6	The Importance of diversifying approaches to enhance learner reading:	43
4.6.2.	CLASSROOM OBSERVATION.....	45
4.6.2.1	The use of ICT:.....	45
4.6.2.2	The use of digital devices in the reading classroom:.....	46
4.6.2.3	Difficulties of using ICT in reading classrooms:.....	47
4.7	CONCLUSION.....	49
CHAPTER 5	50
5.1	INTRODUCTION	50
5.2	THE OBJECTIVES OF THIS STUDY WERE:.....	50
5.3	SYNOPSIS OF THE FINDINGS.....	50
5.3.1.	ICT approaches that enhance the reading of FET digital learners in the 21st century	50
5.3.2	Teachers' use of ICT approaches to enhance reading of digital learners in the 21st century	51
5.3.3	Challenges faced by teachers in the integration of ICT approaches to enhance the reading of FET digital learners in the 21st century	51
5.3.4	Strengthening ICT approaches for the enhancing reading skills of digital learners	52
5.3.5	Bridging digital divices in digital reading resources	53
5.3.6	Teacher development on ICT reading approaches.....	53
5.4	RECOMMENDATION.....	54
5.5	THE VALUE OF THE STUDY	54
5.6	CONCLUSION.....	54
REFERENCES	55

ANNEXURES

ANNEXURE A:	UFS ETHICAL CLEARANCE CERTIFICATE
ANNEXURE B:	APPROVAL TO CONDUCT RESEARCH IN THE FREE STATE
ANNEXURE C:	RESEARCH STUDY INFORMATION AND CONSENT FORMS: PRINCIPAL
ANNEXURE D:	RESEARCH STUDY INFORMATION AND CONSENT FORMS: EDUCATORS
ANNEXURE E:	PERMISSION FROM PRINCIPALS TO CONDUCT RESEARCH
ANNEXURE F:	SEMI-STRUCTURED INTERVIEWS: EDUCATORS
ANNEXURE G:	OBSERVATION FORM: EDUCATORS
ANNEXURE H:	CERTIFICATE FROM LANGUAGE EDITOR
ANNEXURE I:	TURN IT IN RECEIPT AND REPORT

LIST OF TABLES

Table 4.1:	Profiling of the participants
Table 4.2:	Tables of themes from interviews and observation

LIST OF FIGURES

Figure 3.1:	Methodology categories employed in the study.
-------------	---

LIST OF ABBREVIATIONS/ACRONYMS

ICT:	Information and Communication Technology
CAPS:	Curriculum and Assessment Policy Statement
DBE:	Department of Basic Education
DoE:	Department of Education
FAL:	First Additional Language
FET:	Further Education and Training

CHAPTER 1

Introduction and Background

1.1 INTRODUCTION

The use of Information and Communication Technology (ICT) in education has gained momentum in the last ten years, globally and in South Africa. The use of ICT devices such as e-books, iPads, cellular phones and computers is continuously being investigated and implemented in many language classrooms across the world to determine their impact on the reading skills of learners. In South Africa, specifically, there is a generally held acceptance that the use of ICT such as computers, laptops, tablets, and cellular phones will enhance learning and teaching, especially at school level. Such belief is articulated by the Gauteng Minister of Education, Panyaza Lesufi (2016) through his statement “Gauteng has a vision to be a top performer on par with developed countries by introducing paperless classrooms....to address teaching quality, learner engagement and improved school governance” (p. 9). As such, many schools, especially in the Gauteng province, have since received tablets and computer labs to improve learning and teaching, including the learning of reading.

With the increased availability and use of technology, educators are also expected to adapt to the changes so that their teaching can help learners meet the challenges of the modern times. Moreover, today’s children are referred to as “digital natives” since they belong to the digital era (Ngesi, et al., 2018). Teaching approaches and learning resources should match the changing times to which learners belong. One of the prominent educational theorists, John Dewey (1960) once said “if we teach today’s learners as we were taught yesterday, we rob them of the future” (p. 16).

The advancement of technology has permeated the teaching and learning of language skills such as reading, speaking, writing, and listening. For example, the past ten years has seen the emergence of digital texts to replace the print texts for the teaching and learning of reading in many 21st century classrooms globally (Creighton, 2018; McCarron & Kuperman, 2022). Research also indicated that 21st century learners prefer digital texts because they can be accessed via electronic devices such as cellular phones, laptops and tablets enabling mobile reading practices since these devices are portable and accessible everywhere (Petrova and Nemeč, 2019; Ngesi, et. al, 2018). What also makes digital reading texts more appealing to young people and to the educators is that they contain interactive resources that are not found in the printed texts. For example, online texts can include links to media content such as videos and interactive case studies for the reading activities. As such, digital texts have the potential of not only engaging learners in critical reading processes, but they can also expand learners’ cognitive thinking through their interactive nature. According to Castello and Wagner (2018), learners can post questions to the educator and to other learners to seek clarity and comprehension while engaging with the text. Additionally, digital texts make reading more fun through their press-the-button functions for highlighting and annotating the text, as well as audio translation functions (Ngesi, et al., 2018). Digitisation of texts allows for the educators to integrate the teaching of reading with other skills such as writing. For example, through hypertexts

learners can contribute their own writing in response to the hypertext interactive process. As such, educators can use the same digital text to encourage reading and writing skills in language classrooms (Castello and Wagner, 2018).

Over and above the opportunities provided by digitisation of texts for the teaching and learning of reading in the 21st century classrooms provided above, the Curriculum and Assessment Policy Statement (Department of Education, CAPS, 2011) placed emphasis on the use of ICT in education and it created a huge demand on language educators to use ICT in the teaching of language skills. In fact, the CAPS document appeals to language educators to be at the forefront in promoting the use of new technologies in their 21st century classrooms. Similarly, the White Paper on eLearning (2014) demands that ICT should be integrated into the teaching and learning in the classrooms, recognising that the classrooms consist of digital learners. For the teaching of reading, specifically, the White Paper (2014) suggested that the use of digital texts with their characteristics of digital media can assist learners to engage with their reading texts at a deeper level while they also enjoy the digital interactive features.

Digital learners are born in the digital era, and they grow up with modern technology. Born in the 2000s after the wide spread of technology, digital learners also known as millennials, have been noticed to be technologically confident. They prefer to connect to the world through online digital platforms such as cellular phones, iPhones, computers, tablets, and other digital gadgets (Meyer, 2015). They are distinguished, from the previous generation of learners, by their trust in the Information and Communication Technology (ICT). They have lived most of their life in the presence of digital communication technologies (Cha, Park & Seo, 2020). They utilise computers, mobile phones, and the internet for instantaneous communication and easy access to information where required. Given these characteristics of digital learners, Prensky (2001a) and Oblinger (2003) argued that educators must modify their educational models to accommodate the new kind of learners they are faced with in their classrooms. In reading classrooms, Buragohain and Kassim (2019) observed that “digital learners do not want to be bound by traditional methods of reading and prefer to use technology” (p. 8). As such, digital age will need "digital" educators who must adapt to the future of education.

Studies on digital reading tools (Gilbert, 2017; McCarron & Kuperman, 2022) have illustrated that 21st century learners enjoy reading using their digital devices such as cellular phones because such devices allow the learners a freedom and flexibility of “reading on the move”. Gilbert (2017) noticed that most cellular phones have audio features that permit learners to listen to the correct pronunciation of new words while texts are being read. Hence, there is an urgent call for educators to integrate technology into the teaching of reading comprehension skills in their 21st century classrooms. Petrova and Nemeč (2019) believed that the use of technology for the teaching of reading is not the panacea to all pedagogical problems in the reading classrooms. These scholars were of the view that it is the educator’s creative and innovative use of technology in the classroom that makes the difference rather than the multiplicity of multimedia in the classroom. In the same instance, Gokbulut, Akcamete and Guneyli (2020) argued that good digital pedagogy is enhanced by the educator’s planned and efficient use of different forms of digital platforms available to the learners and the educators. This means that educators remain important role players for the successful use of digital learning tools in the classroom. In fact, the educator has a responsibility to determine the effective digital platforms, digital reading materials and

the effective ICT reading approaches which have a potential for enhancing reading skills of the learners. Other important aspects include ensuring access to internet and availability of data for accessing reading texts from various internet websites.

Information Communication Technology (ICT) has had substantial worldwide and South African development in its use to education, namely in improving reading abilities (Department of Science and Technology, 2021). Digital technologies including e-books, iPads, mobile phones, and PCs are being used to study their influence on pupils' reading skills. The usage of ICT is positively correlated with improvements in learning and teaching, particularly at the school level. Schools have not fully integrated ICT into their leadership and vision, despite recognising its importance in the curriculum (Dean, Pascoe & le Roux, 2021). There is increasing evidence supporting the use of ICT reading interventions to address the reading crisis in South Africa. Access to ICT for learners is limited in many cases, and the necessary organisational and infrastructure support to ensure ICT readiness in schools is lacking in most provinces. Despite obstacles, there is a widespread agreement that ICT can greatly improve the reading skills of modern learners (Dean, Pascoe & le Roux, 2021).

In the light of the above discussions, this study will explore ICT approaches that enhance the reading of digital FET learners in the 21st century. This study assumes that the educators' use of effective ICT approaches plays a vital role in the development of learners reading skills in the 21st century.

1.2 PROBLEM STATEMENT

The rapidly increased use of technology across all aspects of learners' lives has resulted in a quick decline in the levels of their reading comprehension skills, especially the high school learners (Petrova & Nemeč, 2019). While the paper-based reading comprehension approaches remain rigid in many 21st century reading classrooms, research persistently indicates that they do little to improve the reading comprehension skills of digital learners. The printed texts no longer appeal to the 21st century digital learners (Gokbulut, Akcamete & Guneyli, 2020). Literacy abilities in the modern classroom have expanded beyond traditional reading and writing. The National Council of Teachers of English (2013) describes 21st Century literacies as the capacity to master technology tools, establish deliberate cross-cultural connections, collaborate on problem-solving, enhance independent thinking, create and distribute information for global audiences, handle, assess, and combine multiple information sources simultaneously, produce, assess, analyse, and judge multimedia texts, and address the ethical obligations associated with these intricate environments (Williams, 2023). Despite this, there is little use of technology to promote reading comprehension skills of these digital learners, especially in South Africa (Dean, Pascoe & Le Roux, 2021). Research indicates that technology-based reading education may enhance phonemic awareness, phonics, fluency, vocabulary, and comprehension abilities (Petrova & Nemeč, 2019). Capodiecì et al. (2020) conducted a research on a distance programme to enhance language and reading comprehension. The tailored programme for learners with comprehension issues was conducted for 15-20 minutes, at least three times a week, over a period of about four months. Text reading comprehension improved after the intervention, as reported by Capodiecì, Cornoldi, Doerr, Bertolo, and Carretti (2020). It is essential for educators to adjust to these changes and include ICT methods into their teaching strategies

to improve the reading comprehension abilities of their digitally literate 21st-century learners. By doing this, educators may enhance their learners' readiness for the challenges of the digital era and facilitate their success in several aspects of adult life. More research is needed to find the best ways to integrate ICT into the classroom to enhance digital learners' reading skills. Promote learner-centered participation and outcomes. This requires understanding ICTs for continual learning. This study, therefore, responds to an urgent need for educators to adapt to the 21st century changes and seek alternative ICT approaches to enhance reading comprehension skills of their 21st century digital learners.

1.3 Literature Review

1.3.1 Reading

In general, reading is defined as a process or act of decoding symbols to determine the meaning of the text. The process of decoding the symbols necessitates that the reader must be able to spontaneously match the symbols (letters of a language) to the sound and then recognise the pattern of the sounds that create the words that convey the meaning to the reader (Jala, 2020). In other words, reading is an active process in which learners try to make of what they read. Reading remains one of the most important academic skills for learners to acquire and to master. Learners learn new information and become more competent in their subjects through reading. It is not strange that research persistently shows that learners who are proficient readers are likely to perform well in their studies since they learn from what they read. In contrary, learners who experience difficulties in reading often struggle to acquire knowledge and are likely to perform poorly in their studies (Rintaningrum, 2019; Jala, 2020). Poor reading skills also affect learners' self-esteem and their motivation for further engagement with their studies.

1.3.2 Reading Comprehension

Back in the 1970s and 1980s reading theorists such as Smith (1978) and Anderson and Pearson (1984) began to theorise reading comprehension. Their efforts led into them viewing comprehension as a process by which the reader constructs meaning by interacting with the text (Anderson & Pearson, 1984). In other words, the reader's experiences help him to understand the information presented by the author. As such, the reader is able to relate the old information to the new information. McCarron and Kuperman (2022) consider this interaction between the reader and writer as the foundation for comprehension.

1.3.3 Reading Approaches

The South African Department of Education (DoE, 2003) defines ICT as “a combination of networks, hardware and software as well as means of communication, collaboration and engagement that enables the processing, management and exchange of data as well as information and knowledge” (p. 8).

In alignment with the ICT objectives outlined by the Department of Education (DoE, 2003), the Curriculum and Assessment Policy Statements (CAPS, 2011) articulate their intention to encourage the integration of emerging technologies, including Information Communication Technology (ICT), in the educational process (p. 11). Nevertheless, this exemplifies the importance of the educator's role in guiding learners towards the most relevant resources accessible on the internet.

1.3.4 Digital Learners

Digital learners are those who were born during the digital age and are raised in an environment where contemporary technology is prevalent. Digital learners, commonly referred to as millennials, have emerged in the 21st century as a generation born during the era of technological advancements. These individuals exhibit a notable level of confidence in utilising technology and display a preference for engaging with the world through various online digital platforms, including cellular phones, iPhones, computers, tablets, and other digital devices (Meyer, 2015). The current generation of learners may be differentiated from their predecessors by their reliance on and confidence in Information and Communication Technologies (ICTs). The individuals under consideration have mostly resided in an environment characterised by the prevalence of digital communication technologies (Gallardo-Echenique, Marques-Molas, Bullen, & Strijbos, 2015).

1.3.5 Reading Levels of Digital Second-language Learners:

The use of affordances has resulted in a significant transformation in learners' approaches to learning. As a consequence, individuals have encountered difficulties in uncovering novel approaches to harnessing diverse media formats and accessing a wide array of information on the internet. These challenges may potentially impede their progress in developing reading skills. Heng and Sol (2021) believe that the use of digital reading has facilitated learners' ability to conveniently access educational resources at anytime and anywhere. From a critical perspective, it is essential for learners to possess the requisite abilities in order to proficiently use these affordances and maximise their potential benefits. The significance of continuous research and development in this domain is shown by the identification of research gaps in second-language digital reading methodologies (Abequibel, Dela Rama-Ricohermoso, Alieto, Barredo & Lucas, 2021).

1.3.6 Studies on the Use of ICT Approaches to Enhance the Reading of Learners:

According to Zayed (2016), there exists a multitude of mobile applications that are now accessible to students via their smartphones. These applications provide many resources for language learning, including bilingual dictionaries, MP3s, videos, PDFs, as well as platforms like as WhatsApp, Facebook, Twitter, YouTube, and web-based language learning sites. The recognition of this novel technology in language training as a substantial progression in the current day is universally accepted. In the past, language acquisition was primarily confined to traditional educational settings and printed instructional materials. However, the advent of contemporary Information and Communication Technology has significantly expanded the opportunities available to language learners (Zayed, 2016).

1.3.7 Challenges of ICT in Teaching Reading:

Even though the integration of ICT in the teaching and learning of reading skills, it does not come without any challenges. A study by Dean, Pascoe and Le Roux (2021), for example, observed challenges such as learners' limited prior exposure to technology, high rates of learner absenteeism, tardiness among learners, and the challenge of finding suitable time and venues for supplemental ICT intervention within the constraints of the curriculum (Dean, Pascoe & Le Roux, 2021). This observation underscores the challenges that arise while using digital reading platforms, especially for those who are acquiring a second language. It has been noted that students of this kind could need assistance in navigating significant topics inside hypertext, since the heightened cognitive load might surpass their attainable working memory capacities.

1.3.8 Digital Approaches to Teaching Reading:

According to Castillo (2017), digital reading classrooms provide instructors a wealth of real reading materials via several online platforms, in contrast to the traditional reliance on a single obsolete textbook for reading comprehension passages. In the context of a digital reading environment, learners are presented with an increased range of possibilities to actively interact with diverse textual materials. In order to optimise the advancement of students' reading skills, it is essential to establish a balance between traditional paper-based reading methods and digital reading techniques. This assertion has validity, notwithstanding the potential benefits associated with technology-driven methodologies.

1.3.9 Gaps in Literature:

Further study is required to determine the most effective methods for integrating ICT technologies into the classroom to improve reading approaches of digital learners. This involves promoting learner-centered involvement and results. Although ICTs have several advantages, it is crucial to have a deeper understanding of their limits. This involves comprehending the use of ICTs for continuous learning. ICT technologies have the potential to improve literacy skills in FET learners, but more study is necessary to determine the most effective ways to deploy these tools and address their limitations. The present gap is an area of study that lacks comprehensive understanding in the extent to which information and communication technology (ICT) tools may enhance the literacy skills of Further Education and Training (FET) learners.

1.3.10 Theoretical Framework:

This study of exploring ICT approaches to enhance reading of digital learners in the 21st centuries is underpinned by two theories: constructivism theory and connectivity theory.

1.3.10.1 Constructivism Theory

Constructivism places a lot of emphasis on the social environment in which the learning takes place, or in which it is found. As such, constructivism draws from the notion that in the process of learning, learners rely heavily on the interactions with their changing

world. The ability to change and adapt to the changing world of ICTs puts the learners in the centre of their learning process, especially in the era of a digital reading environment.

1.3.10.2 Connectivity Theory

Siemens (2005), widely seen as the progenitor of the connectivism theory, provides a definition of connectivism as a kind of knowledge that emphasises the practicality of knowing where to get information, rather than focusing only on the specifics of what that knowledge entails (p. 7). According to Siemens (2005), the connectivism theory posits that knowledge is dispersed across an information network and may be preserved in several digital forms. The researcher aims to investigate how educators use the principles of constructivism and connectivism in their instructional practices to improve the reading comprehension abilities of digital Further Education and Training (FET) learners in the contemporary era.

1.4 RESEARCH QUESTION

1.4.1 Main Research Question:

- What ICT approaches enhance reading of digital learners in the 21st century?

1.4.2 Secondary Research Questions:

- How do educators use ICT approaches to enhance the reading of digital FET learners in the 21st century?
- What challenges are faced by educators in the integration of ICT approaches to enhance reading of digital FET learners in the 21st century?
- In what ways do the ICT approaches enhance reading of digital FET learners in the 21st century?

1.5 RESEARCH AIM AND OBJECTIVES

1.5.1 Research Aim:

The aim of this study is to explore ICT approaches used by educators to enhance reading of digital learners in the 21st century.

The study will seek to achieve the following research objectives:

1.5.2 Research Objectives:

- To investigate how educators use ICT approaches to enhance reading of digital learners in the 21st century.

- To examine challenges faced by educators in the integration of ICT approaches to enhance the reading of FET digital learners in the 21st century.
- To explore ICT approaches that enhance the reading of FET digital learners in the 21st century.
- To examine ways in which ICT approaches can be used to enhance the reading of FET digital learners in the 21st century.

1.6 RESEARCH METHODOLOGY

1.6.1 Research Approach

This research was grounded in a qualitative framework and aimed to explore ICT techniques that may effectively improve the reading abilities of digital learners in the 21st century. Qualitative research is often seen as a methodical exploration of a social phenomenon within its authentic context (Kandel, 2020). The phenomena include several aspects such as individuals' perceptions of their lives, experiences, interactions, relationships, and other elements within the social context (Rahman, 2020). Qualitative research prioritises the quality of information above its quantity.

1.6.2 Research Design: Case Study

This research examines a group of nine instructors from three secondary schools located in the Motheo area. According to Yin (2009), a case study is a kind of empirical research that examines a phenomenon within its authentic real-life setting. Multiple techniques of data gathering are used in case study research, since it entails a comprehensive examination of a particular event (p. 18). A case study was used in this comprehensive investigation of reading strategies that improve the reading abilities of learners in the digital era of the 21st century. According to Davies et al. (2014), the researcher was given the opportunity to use several data-collecting techniques, including classroom observation and semi-structured interviews.

1.6.3 Research Paradigm: Interpretivism

Interpretivists claim that the perception of reality is subjective and can differ across individuals. As a qualitative research approach interpretivism asserts that understanding the beliefs, motivations, and reasoning of individuals in a social situation is essential to decoding the meaning of the data that can be collected around a phenomenon (Alharahsheh & Pius, 2020). This study uses interpretivism to understand how teachers and learners make sense of their world through social interactions with the participants in their real contexts.

1.6.4 Research Sampling and Participants:

The study population comprises nine educators who specialise in teaching extra languages to students in grades 8 to 12. These instructors are distributed throughout three secondary schools located in the Motheo District within the Free State province. Sampling is the deliberate selection of a subset of individuals or a larger population in order to get a representative sample for a certain research objective. The researchers used purposive sampling to pick language instructors in grades 8 to 12, since the study aims to investigate the use of ICT techniques to improve reading skills among learners in these specific grade levels.

1.7 DATA COLLECTION/SETS

1.7.1 Semi-structured Interviews

A total of nine educators from three educational institutions were subjected to semi-structured interviews as a means of gathering data. The semi-structured interview is a commonly used method in the field of social sciences with the purpose of gathering qualitative data (McGrath, Palmgren & Liljedahl, 2019). The interview process facilitates exploration and provides space for the pursuit of thematic trajectories as the conversation unfolds. However, it generally adheres to a predetermined guide or protocol established before the interview and revolves around a central subject to provide a fundamental framework (Magaldi & Berler, 2020).

1.7.2 Classroom Observation

Observation serves as a valuable method for collecting primary data pertaining to the phenomena being investigated in qualitative research such as the present one. In contrast to quantitative research, which use quantitative measurement to explain the traits or attributes of events, observation relies on the observer's subjective interpretation of sensory perceptions such as sight, sound, smell, taste, or touch (Yin, 2009). Data collection is conducted via the observation of individuals or events in their natural environment. The present research used a participant observation method to examine nine classes where first extra language instruction was being delivered. These classrooms were located in three different schools within the Motheo district.

1.8 DATA ANALYSIS

Thematic analysis was used to examine the experiences of instructors in this study. Thematic analysis seeks to comprehend the intricacy of meanings in the data, as opposed to just quantifying their frequency. The process involves the active involvement of the researcher in both data gathering and analysis. The analysis encompasses the examination of patterns of significance that need further investigation, as well as the identification of how these patterns might be organised into thematic structures (Cohen et al., 2018).

1.9 VALUE OF PROPOSED RESEARCH

This study aims to provide educators and learners with insights on the effective use of ICT classroom practices for enhancing reading skills. This study aims to enhance learner outcomes and facilitate the development of reading abilities among digital learners by using digital platforms and incorporating contemporary instructional approaches. Developing competent readers who possess the ability to comprehend text effectively may greatly benefit learners beyond the secondary education level.

1.10 ETHICAL CONSIDERATIONS

The practice of doing research necessitates adherence to ethical principles, particularly in relation to data collection, study design, and interpretation of findings. In order to engage in data gathering, it is necessary to have proper licence and ethical clearance from the institution where the research is being carried out. This qualification enables the utilisation of qualitative research methods to address research inquiries and accomplish study objectives. According to Alam (2021), it is advisable to gather a sufficient amount of relevant information, while avoiding an excessive accumulation of data. In order to effectively address their research inquiries and accomplish their objectives, researchers must ensure the acquisition of a sufficient amount of data, while avoiding excessive data collection.

1.11 DIVISION OF CHAPTERS

Chapter 1: Introduction and background

This introductory chapter concentrates on the study's background, the problem statement accompanied by the main and secondary research questions.

Chapter 2: Literature review

Chapter 2 contains the specific theoretical framework the study will be employing accompanied by an in-depth literature review.

Chapter 3: Research methodology

In Chapter 3, the specific research questions are once again discussed as well as the paradigm, research approach, sampling, data collection strategy and methodologies for data analysis.

Chapter 4: Results and interpretation of research

In Chapter 4, the results obtained from the study are analysed and discussed. All the results are accompanied by explanations and tables where applicable.

Chapter 5: Conclusion

In Chapter 5 the findings and recommendations are deliberated. A final summary of the study is then provided accompanied by finalised conclusions.

1.12 CONCLUSION

The current chapter provides an in-depth analysis of the study's background and further elaborates on the issue statement. The study contained a concise literature review that included particular frameworks relevant to the research. The study investigated the research technique, specifically emphasising the qualitative approach. The design of the study was a case study, and the paradigm used was interpretivism. In addition, the study participants, data collecting, and data analysis were briefly addressed. Finally, the significance of the findings, ethical issues, and a chapter framework were provided. The subsequent chapter will provide a comprehensive literature review and theoretical frameworks.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION AND BACKGROUND

This chapter presents a review of literature on the Information and Communication Technology (ICT) approaches that can enhance the reading skills of digital learners in the 21st, especially those learners in the Further Education and Training phase (FET phase). Guided by the research objectives, the chapter begins by defining concepts of reading, reading comprehension, reading approaches in the Curriculum Assessment Policy Statements (CAPS, 2011), digital learners, reading levels of digital learners, and ICT reading approaches. It then reviews recent studies on the impact of ICT reading approaches for the development of second-language learners' reading skills in diverse classrooms, globally and in South Africa. Later, the chapter looks at two theories that underpin this study: constructivism theory and connectivism theory, and their influence on the development of reading skills of the 21st century learners. Lastly, the chapter provides a conclusion.

2.2 DEFINITION OF READING CONCEPTS

2.1.1 Reading

The acquisition of reading skills is crucial for achieving success in various aspects of life. Reading literacy, as a concept, encompasses the abilities to comprehend, utilise, assess, contemplate, and actively interact with written materials with the aim of attaining personal objectives, expanding knowledge and capabilities, and actively participating in societal affairs (Habók & Magyar, 2019). According to Zimmerman and Hutchins (2003) "Real reading has to do with thinking, learning, and expanding a reader's knowledge and horizons. It has to do with building on past knowledge, mastering new information, and connecting with the minds of those you've never met". (p.1).

The challenge in South Africa, and in many other countries, is that many learners, especially those reading in the second language, have not fully developed what Zimmerman and Hutchins (2003) above refer to as real reading. The study by Progress in International Reading Literacy Study (PIRLS, 2021) indicates that in South Africa only 19% of grade 4 learners can read for meaning making. This figure is a drop from 22% in 2016. This implies that South Africa has a crisis of reading skills and that an urgent intervention is needed to improve learners' reading skills.

2.1.2 Reading Comprehension

Reading comprehension is the ability to read text, process it and understand its meaning. It relies on two, interconnected abilities: word reading (being able to decode the symbols on the page) and language comprehension (being able to understand the meaning

of the words and sentences) (Peng & Kievit, 2020). When we make sense of a text, however, we don't just remember the exact words and phrases we read. Rather, we form a mental model of what the text describes by integrating the sense of the words and sentences into a meaningful whole, like a film that plays in our head. Good comprehension is vital if reading is to have a purpose, if a reader is to engage with and learn from a text and, ultimately, if a reader is to enjoy what they're reading. According to Amin (2019), reading comprehension is a critical academic skill that contributes to learners' academic success in school and later in life. Reading comprehension, sometimes referred to as critical reading, is required if learners are to get the most out of the information presented to them across their curriculum.

Many reading scholars argue that while the paper-based reading comprehension instruction remains crucial, however, it may not be sufficiently effective for the 21st century digital native learners in many reading classrooms, globally and in South Africa (Demir, 2021). In fact, many scholars argue that the paper-based reading comprehension instruction approaches may be the reason why many digital learners fail to improve their reading comprehension skills. "The conventional reading approaches do not respond to the reading needs and preferences of digital learners" argues Demir (2021, p. 230). Clearly, this argument points forward to the urgent need for teachers of reading to move with the times and start to adapt to the 21st century changes, especially to seek alternative ICT approaches to enhance reading comprehension skills of their digital learners.

2.1.3 Reading Approaches in CAPS

South Africa's Department of Education (DoE, 2003) defines ICT as "a combination of networks, hardware and software as well as means of communication, collaboration and engagement that enables the processing, management and exchange of data as well as information and knowledge" (p. 8). According to the DoE (2003, 8):

"Examples of essential parts that make up ICT include computers, laptops, DCs, DVDs, scanner, digital cameras, and interactive whiteboards while software includes operating systems stored or loaded into equipment to perform certain tasks. By media is meant the materials that contain data such as DVD, CD, hard disks, USB, flash drives, and SD memory cards. Lastly, the services are a combination of hardware, software and people that enable users to do more through the use of internet and other web-based activities."

Supporting these ICT ambitions of the DoE (2003), the Curriculum and Assessment Policy Statements (CAPS, 2011) states it aims as "to promote the use of new technologies such as information communication technology (ICT) in the teaching and learning" (p. 11). However, this demonstrates the significance of the role of the educator in directing learners to the most relevant materials available on the internet. This statement gives the impression that the collaboration of the educator is necessary for the successful incorporation of ICT into the teaching and learning process. As a result, the position of the educator is essential in ensuring that learners can make the most of the incorporation of technology into the educational setting. In general, this section underlines the

significance of ICT in educational settings and emphasises the critical role that the educator plays in successfully incorporating technology.

The CAPS statement and the description of ICT provide a framework for educators to use technology to improve instruction and support learners in acquiring the essential skills to succeed in the digital world. Educators can use this framework to help learners acquire the skills they need to succeed in the digital world.

2.3 DIGITAL LEARNERS

Digital learners have a common interest in reading both print and electronic materials, yet they prefer to read electronic materials over print owing to the ease with which information sources may be accessed (Buragohain, 2019). Li's (2020) latest research on second language digital strategy usage is of relevance, as it discovered new forms of strategies that were unique to second language digital reading, as well as specific print reading methods that were altered. Gaps in the study were also observed, demonstrating that perceived frequency of the application of methods alone does not give a whole picture.

Digital learners prefer to study through technology rather than conventional means of learning. Alakrash & Abdul Razak (2021) assert that there are several mobile apps available nowadays that learners may access via their smartphones and use to study a language through bilingual dictionaries, MP3s, movies, PDFs, WhatsApp, Facebook, Twitter, YouTube, and web-based language learning sites, among other things. A common theme across participants in a variety of research sites was that the availability of an online dictionary was beneficial. Participants were more likely to look up terms online than they were to look them up in paper. The rising usage of digital libraries is a positive indicator that learners are increasing their practice of digital reading. There were a variety of study-related challenges reported throughout the world, including: learners had limited exposure to technology (Azmuddin, Nor, & Hamat, 2020).

Digital learners are born in the digital era, and they grow up with modern technology. Born in the 2000s after the wide spread of technology, digital learners, also known as millennials, have been noticed to be technologically confident and prefer to connect to the world through online digital platforms such as cellular phones, iPhones, computers, tablets, and other digital gadgets. They are distinguished, from the previous generation of learners, by their trust in ICT. They have lived most of their life in the presence of digital communication technologies (Vagg, Balta, Bolger, & Lone, 2020). Given these characteristics of digital learners, Akour and Alenezi (2022) argue that teachers must modify their educational models to accommodate the new kind of learners they are facing in their classrooms. In reading classrooms, Buragohain (2019) observed that "digital learners do not want to be bound by traditional methods of reading and prefer to use technology" (p. 8). As such, the digital age will need "digital" educators who must adapt to the future of education.

Digital learners prefer to study through technology rather than conventional means of learning (Yates, Starkey, Egerton, & Flueggen, 2021). In reality, learners' usage of digital media has a significant impact on their reading habits. Meyer (2015) confirms that digital learners are more technologically savvy, more group-oriented, and like to socialise and interact with the rest of the world via online media. They are often drawn to learning opportunities involving information processing, engagement, and discussion. Buragohain (2019) researched the concept of electronic reading materials, and the findings revealed that digital learners like to absorb a variety of social media information. They generally prefer to read various types of electronic content such as websites, blogs, and e-books on different topics such as travel, picture blogs, lifestyles etc. One of the most prominent elements influencing electronic reading choices is ease of access to information (Kumara & Kumar, 2018).

One of the most apparent reading trends is the significant fall in print newspaper readership among digital learners, which can be reflected in an increase in readership of online newsfeed articles as a preferable alternative. When it comes to digital reading material, digital learners prefer to consume all types of social media information, owing to its interactive aspect, digital connectivity, and ease of access (Buragohain, 2019). When it comes to increasing reading comprehension and understanding, digital learners prefer to contact their peers rather than their educators. Digital learners use digital devices such as smartphones to access online resources to learn and increase their vocabulary. Buragohain's (2019) research also revealed a decrease in the usage of dictionaries among digital learners, which has now been substituted by online resources for this Google generation. Keeping these observations and outcomes in mind, it is essential for educators to examine the reading habits and preferences of digital learners to recognize the need for and apply new techniques to improve their general reading and learning abilities.

According to Maphosa & Bhebhe (2019), a general concept was obtained about learners' reading interests and preferences in the 21st century. To begin with, learners must have access to many forms of technology: learners now access and take in information quite differently as a direct result of the proliferation of digital technology, such as smartphones, tablets, computers, and e-readers. Firstly, reading is made more straightforward and fun for digital learners because of the availability of various reading materials presented in various forms made possible by these technologies. Secondly, learners who are learning online now have the opportunity to participate in online reading communities (Maphosa & Bhebhe, 2019). These communities allow students to communicate with other readers, share their reading experiences, and discuss books and other reading materials. Digital learners can improve their reading abilities, communicate their opinions, and broaden their viewpoints by participating in these communities, which give these possibilities. Thirdly, digital learners can now personalise their reading experiences because of the proliferation of digital reading programmes. These applications include various reading features, such as bookmarks, notes, and search options, making it possible for digital readers to create unique reading environments. Thanks to these apps, learners can read at their speed, underline essential areas, and access extra reading resources relevant to the subject matter. Fourthly, e-books, digital journals, and video reading materials are examples of interactive reading materials. These types of reading materials include visual and audible clues, which enhance the reading experience and make it more fun and engaging (Maphosa & Bhebhe, 2019).

In contrast to conventional reading materials, interactive reading materials are much easier to acquire for digital learners (Mandasari & Wahyudin, 2021). These approaches have been promoted by numerous technological breakthroughs and shifting social and cultural elements that have impacted learners' reading practices. To conclude, all language education must include reading methods that assist learners in achieving their objective of becoming proficient language readers. Educators' teaching techniques should be modified to accommodate learners' diverse learning styles and interests, and reading activities should be designed and implemented appropriately.

Prior to studying content-based topics in the language at higher levels, learners must acquire and refine reading methods in the second/foreign language. As a result, learners must be educated about the reading practices that will enable them to become more efficient learners - they must also monitor and assess their reading. Reading is not a solitary ability. As such, it must be combined with other linguistic abilities and socio-affective tactics such as mutual respect, seeking assistance, cooperating, collaborating, and empathising. Successful digital readers are required in the digital world; hence, online resources must be included in reading lessons. With new challenges and opportunities, such as the shift to online teaching/learning during the Covid-19 pandemic, the availability-of activities and materials on the internet, the availability of numerous readily available tools for creating exciting and captivating reading activities, and the expanded scope of distance learning, educators face new challenges in developing new reading strategies on these four dimensions - differentiated, cognitive, mechanistic, and social - there are new opportunities for teachers and researchers to be creative and innovative in developing new reading strategies within these aforementioned dimensions (Farid, Ishtiaq & Hussain, 2020). This also highlights the objective of the study which is to explore ICT approaches that enhance the reading of FET digital learners in the 21st century in order to answer the research question.

2.4 READING LEVELS OF DIGITAL SECOND LANGUAGE LEARNERS

Even though digital learners may be less likely to use dictionaries to learn new words or improve their pronunciation, they can still discover new terms online by using a variety of mobile applications and smartphones, if they have the abilities to do it (Ambarwati & Mandasari, 2020). These tools make materials that digital learners can use to assist them in acquiring a new language readily available to them. However, there needs to be more research done on digital reading techniques for second languages but due to financial constraints in some areas, it is difficult for digital reading techniques to be applied. This suggests that the currently used methodologies may not provide a comprehensive picture due to financial implications (Abequibel, Dela Rama–Ricohermoso, Alieto, Barredo & Lucas, 2021).

Learners' approaches to learning have undergone a sea change due to the misutilisation of affordances. Because of this, they have not been able to discover new methods of utilising a variety of forms of media and access a vast assortment of information on the web, both of which may improve literacy abilities. In contrast Heng & Sol (2021) argue that the transition towards digital reading has allowed learners to access learning materials whenever and wherever it is most conveniently. From a critical stance, learners

must, however, be prepared with the necessary skills to effectively use these affordances to derive the greatest possible advantage from them. Further highlighting the importance of ongoing research and development in this area is that research voids have been discovered in second-language digital reading techniques (Abequibel, Dela Rama–Ricohermoso, Alieto, Barredo & Lucas, 2021).

Despite research voids, reading levels among digital second-language learners can vary widely depending on factors such as their age, language proficiency, prior education, and exposure to the target language. However, digital tools and resources can play a significant role in helping second language learners improve their reading skills. Here are some general reading levels and characteristics you might encounter among digital second language learners:

Beginner Level: Initially, individuals classified inside the novice level classification exhibit a restricted lexicon and employ rudimentary sentence constructions. The individuals experience difficulties in comprehending lengthy texts and intricate grammatical structures. Additionally, individuals derive advantages from uncomplicated, visually captivating material that possesses explicit contextual information (Sari, 2020).

Intermediate Level: Individuals classified within the intermediate level possess an augmented lexicon and have proficiency in comprehending intricate phrase structures. Individuals have the ability to understand texts that possess a moderate level of complexity, although they may occasionally need some form of support. Individuals may begin to actively participate in the consumption of short stories, simplified news pieces, and debates (Rahat & Rahman 2020).

Advanced Level: At the advanced level, learners demonstrate a heightened proficiency in vocabulary and a refined comprehension of grammar. Individuals possess the capacity to comprehend lengthier textual materials and articles with a considerable degree of proficiency. Individuals have the ability to interact with a more extensive array of content, encompassing genuine resources such as news stories and literary works (Ngoc, 2021).

Proficient Level: Proficient learners, as classified within this category, demonstrate a considerable command of vocabulary and grammar. Individuals possess the capacity to engage with and comprehend a diverse range of written materials, encompassing both scholarly and technical content. Individuals have the ability to actively participate in the process of critically analysing and engaging in discussions pertaining to intricate subjects (Babapour, Ahangari, & Ahour, 2019).

In a nutshell, language proficiency can be categorised into four distinct levels, namely beginner, intermediate, advanced, and proficient. Each level corresponds to a distinct phase of language learning and comprehension. Novice language learners possess a restricted lexicon and have difficulties when confronted with intricate sentence formations, whereas individuals at an intermediate level exhibit a more extensive range of vocabulary and are capable of comprehending moderately intricate texts with intermittent assistance. Advanced learners possess an elevated level of competence in terms of vocabulary and grammar, which empowers them to comprehend extensive texts and engage with a broader spectrum of subject matter. Proficient learners possess a substantial level of language mastery, enabling them to effectively interact with a wide range of written sources and actively contribute to critical

discourse. The process of transitioning from one proficiency level to another necessitates consistent engagement in practice and exposure to diverse modes of communication.

2.5 STUDIES ON THE USE OF ICT APPROACHES TO ENHANCE READING OF LEARNERS

Developing the requisite knowledge, abilities, and techniques for digital reading necessitates practice and reflection on the contents as well as the quality of digital texts (Macedo-Rouet, Potocki, Scharrer, Ros, Stadtler, Salmerón & Rouet, 2019). Fox and Alexander (2017) point out that numerous characteristics and parts of the digital world incorporate text. Texts, tasks, and readers are enlarged and redefined in such digital contexts. The usage of mobile aided language learning is a relatively recent subject of investigation in the field of language learning and teaching (Ahmed, 2019). Zayed (2016) asserts that there are several mobile apps available nowadays that students may access via their Smartphone and use to study a language through bilingual dictionaries, MP3s, movies, PDFs, WhatsApp, Facebook, Twitter, YouTube, and web-based language learning sites, among other things. It is widely acknowledged that this new technology in language instruction represents a significant advancement in the 21st century. Language learning was once restricted to the classroom and textbooks, but today's Information and Communication Technology has provided language learners with a wide range of applications and programmes for developing their language skills through computers, the internet, mobile phones, and other forms of communication technology (Zayed, 2016).

Hamad (2017) conducted research to see if the usage of WhatsApp could help Saudi tertiary students improve their writing skills in English. Students' learning and excitement are increased because of utilising WhatsApp, which also aids in the development of English abilities, the expansion of their vocabulary, and the ability to learn from their classmates' errors.

Educators have begun to include online games into foreign language instruction during the last decade, in conjunction with technological improvements, to keep students involved, enhance attention, and create an active learning environment (Korkmaz & Oz, 2021). Instead of listening to their educators and taking exams, students may have the opportunity to collaborate with their classmates in a system that is designed to pull them out of the traditional classroom setting. Instead of listening to their educators and partaking in exams, they may have the opportunity to experience something that feels new, exciting, and that motivates them to learn and practise (Hanus & Cruz, 2018).

Learning via gamification encourages students to keep track of their own progress, connect with their peers in a classroom setting, and attain their learning goals in a way that is both engaging and entertaining (Hung, 2017). According to Korkmaz & Oz, (2021), the Kahoot game, which was utilised to increase learners' reading comprehension abilities in the study, has also been addressed by many researchers in the literature, including the authors of this paper. The Kahoot game was utilised as a formative assessment tool in recent research by Göksün and Gürsoy (2019) to investigate if the usage of the gamification tool created a difference in academic success and student engagement. In addition to Quizizz, a Kahoot game was launched for one semester in conjunction

with it. Results revealed that when gamifying activities used the Kahoot application, the impact on academic success and student engagement was greater than when the control groups were used as the basis for comparison (Göksün & Gürsoy, 2019).

Reading instruction in classrooms where learners are also learning another language has been the subject of numerous studies, and those studies have consistently found that the techniques and strategies that encourage active participation on the part of learners are the most successful (Göksün & Gürsoy, 2019). Authentic reading materials, such as newspapers, periodicals, and novels, provide learners with information that is both significant and pertinent, has and have been the focus of several studies that have highlighted the significance of using these types of reading materials in the classroom (Mudra, 2020). It is also important to utilise individualised instruction, which is when instructors adapt their teaching to meet the requirements of each individual in order to ensure that all learners, regardless of their current reading comprehension level, are able to improve their reading skills. Last but not least, it is imperative that instructors give learners consistent access to high-quality evaluations in order for the latter to develop an awareness of both their existing capabilities and areas in which they can improve. Reading instruction in classrooms where learners are learning a language other than their native tongue benefits greatly from pedagogical approaches and techniques that place an emphasis on the learner, foster collaborative learning, and are realistic (Mudra, 2020).

In conclusion, the incorporation of Information and Communications Technology (ICT) into the teaching of reading offers learners individualised opportunities to access a diverse array of materials, enabling them to construct their own comprehension of the subject matter. Through engaging in real-time interactions with experts or peers, learners have the opportunity to actively exchange and amass knowledge. Furthermore, the use of ICT in reading strategies, such as the incorporation of hyperlinks and multimedia elements, has shown favourable outcomes in terms of enhancing reading comprehension and fostering increased engagement. Therefore, the integration of ICT in reading teaching facilitates enhanced and engaging educational encounters for learners. This also highlights the objective of the study which is to examine ways in which ICT approaches can be used to enhance the reading of FET digital learners in the 21st century in order to answer the research question.

2.6 CHALLENGES OF ICT IN TEACHING READING

Screen Time: Due to the proliferation of technology and the internet, more people spend their leisure time staring at displays rather than perusing physical literature. Due to this change, reading as a form of entertainment has become less of a priority (Lau & Lee, 2021).

Attention Span: The fast-paced nature of the digital world has contributed to a decline in people's ability to focus their attention. Reading for extended amounts of time can be difficult for many who are also readily side-tracked. People need to spend more time reading despite their increasingly hectic schedules, which is caused by the combination of employment and other responsibilities (Martiana, 2019).

A Decline in Reading Culture: There has been a decline in reading culture due to the preference of many individuals to take in information through pictures and movies rather than through books. (Oji & Erubami, 2020).

Access to Books Is Difficult for Many People: Having access to books can be difficult for many people, particularly those who live in underprivileged regions or attend institutions that do not have libraries. Because there is so much material readily accessible online, it can be challenging to concentrate on just one book or author at a time, which can result in a reading experience that is jumbled and disjointed (Chaidi, Drigas, & Karagiannidis, 2021).

Comprehension of What Is Read: Many people need help understanding what they read because of literacy difficulties or linguistic obstacles. This can be a substantial obstacle to either reading for information or enjoyment.

The Cost of Books: Because of the high cost of books, many people need the financial means to buy them consistently, which may restrict the amount of reading material and literature they can access (Qizi, 2021).

There were a variety of study-related challenges reported in the majority world, including: learners having limited exposure to technology before beginning the intervention, high rates of learner absenteeism, learners arriving late to school, finding time for supplemental ICT intervention in a curriculum-determined time (no quiet venues at schools where intervention and assessments could be conducted) (Dean, Pascoe & Le Roux, 2021). This statement highlights some difficulties associated with using digital reading environments, particularly for those learning a second language. It is pointed out that this type of student may need help locating important concepts in hypertext due to the increased cognitive burden, which may necessitate working memory capabilities that are higher than they are capable of achieving. Accordingly, reading in digital environments may require more sophisticated reading skills, which may not be readily accessible to individuals acquiring a second language. In addition, the paragraph brings up several difficulties in the academic realm that are prevalent in most of the globe concerning the use of digital technologies in the classroom. These challenges include insufficient access to technology, a high rate of student disengagement, and difficulty locating sufficient time and space for such interventions within a timetable established by the curriculum. The effectiveness and accessibility of digital interventions in education may suffer due to these difficulties, particularly in contexts characterised by poor income (Dean, Pascoe & Le Roux, 2021).

Despite these obstacles, the paragraph points out that digital learners are still avid and consistent readers, which contradicts the common misconception that digital learners do not read. The fact that digital learners typically read for various reasons, including information, interest in current events, amusement, satisfaction, and personal development, hints at the fact that various motivations drive their reading patterns. This discovery has significant ramifications for using digital reading interventions in education. Concentrating on reading for enjoyment or personal development may be more successful than focusing exclusively on scholastic

reading as the primary goal. In general, the paragraph brings up many significant concerns regarding digital reading environments and the potential effects that these environments may have on learners learning a second language and education in general. It brings to light the need for additional research and consideration of these problems to guarantee that digital interventions are efficient and fair for all learners (Fryer, Coniam, Carpenter & Lăpuşneanu, 2020).

To summarise, digital learners are keen and regular readers, which defies the widely held belief that they do not read. Aside from reading academic texts as part of a course requirement, digital learners prefer to read for information and to remain up to speed on current events, with additional motivations for reading being for fun and enjoyment, as well as for personal development. This also highlights the objective of the study which is to examine challenges faced by educators in the integration of ICT approaches to enhance reading of digital learners in the 21st century in order to answer the research question.

2.7 DIGITAL APPROACHES TO TEACHING READING

The changing times also challenge teachers to explore whether the integration of technology into the teaching of reading comprehension skills can accelerate the reading comprehension skills of their learners or there is a need to balance the traditional paper-based reading approaches and the digital approaches for effective development of learners' reading skills. However, research indicates the limited use of technology to promote reading comprehension skills of digital learners, not only in South Africa, but globally (Castillo, 2017; Dean, Pascoe & Le Roux, 2021). This is despite evidence of the benefits of using digital reading approaches and digital resources to promote reading comprehension skills of additional language or second-language high-school learners as noted by global scholars (Buragohain, 2019; Demir, 2021) and South African scholars (Dean, Pascoe & Le Roux, 2021). For example, Reiber-Kuijpers, Kral and Meijer (2021) argue that:

"In the age of screen ubiquity, digital text is ever more prevalent. For foreign language learners, this means that a plethora of authentic texts in the target language is now readily available at a single mouse click, whereas access was previously limited" (p.1).

Castillo (2017) asserts that in digital reading classrooms, teachers have ample authentic reading resources available via multiple online resources compared to when they largely rely on the single outdated textbook for reading comprehension passages. Within a digital reading environment there are more opportunities for learners to engage with a variety of texts. More conventional methods, such as books and other reading materials printed on paper, can provide a distinctive and unique experience that can supplement the digital strategy. Reading literature, for instance, is essential for developing the ability of attention to detail, which is essential for developing reading comprehension. In a nutshell, the quote above advocates for moving away from the conventional reading methods that rely on paper and towards reading methods that use technology to teach reading comprehension skills to digital

learners. This demonstrates the importance of maintaining a healthy equilibrium between the two strategies to facilitate the growth of reading abilities in learners.

Recently, Information and Communication Technology (ICT) has had a growing impact on reading methods in education. One common approach is using digital platforms and tools to improve reading comprehension and engagement. Research conducted by Jiang, Chen, & Chiang (2020) suggests that incorporating ICT into reading lessons enhances learners' reading skills via interactive and multimedia-rich materials. Learners may access a range of literature and interact with them using various methods including audio, video, and interactive activities. ICT-based reading platforms often provide customised learning experiences that cater to the specific requirements of every learner, as seen in the study conducted by Yıldız (2022). Individualised methods may boost motivation and cultivate a more profound comprehension of the reading topic.

Furthermore, collaborative reading experiences supported by Information and Communication Technology (ICT) have been increasingly popular in recent years. Lee and Hwang (2022) conducted research on the advantages of collaborative reading via online platforms, emphasising the role of peer contact in enhancing reading comprehension. ICT allows students to participate in conversations, exchange comments, and work together on projects irrespective of their geographical locations. This encourages a communal atmosphere among learners and encourages active engagement in the reading process. Recent research have focused on incorporating new technologies like artificial intelligence (AI) and augmented reality (AR) into reading education. Lee & Kwon, (2024) investigate the capabilities of AI-driven teaching systems in enhancing reading comprehension skills. The systems analyse learner's reading behaviours and provide personalised feedback and suggestions to improve their comprehension methods. Educators may enhance reading environments by using ICT methods that use AI and AR technology, which can accommodate to various learning styles and preferences, leading to improved reading comprehension and learning results.

2.8 GAPS IN LITERATURE

There needs to be more published material on Information and Communication Technology (ICT) strategies that improve the literacy abilities of digital FET (Further Education and Training) learners; this highlights the need for additional research in this area. The use of digital tools in developing literacy skills among FET trainees has yet to be significantly examined, specifically in Africa, despite the substantial progress made in the Information and Communications Technology (ICT) field.

A restricted comprehension of how ICT tools can improve the literacy skills of FET learners is one of the knowledge gaps in the current body of research. Studies that concentrate on using ICT tools such as electronic texts, online reading platforms, and reading applications have shown positive results in increasing reading skills among learners. However, there is a need to investigate and determine digital tools and techniques to improve literacy abilities among FET learners. This is necessary in light of the fact that these learners come from a wide variety of backgrounds and are motivated by a variety of factors.

Furthermore, Ramsook and Thomas (2019) stated that many researchers have concentrated on constructivism or connectivism, but there is a gap in the literature about how teachers apply a blend of the constructivist and connectivist ideas in their everyday teaching and learning activities. This research will look at the experiences of teachers who use constructivist and connectivist ideas in their lessons on a regular basis. As a result, the findings will influence future practice in teaching and learning at all levels of education and in this case, enhance the reading of digital FET learners in the 21st century.

Further study is required to determine the most effective methods for integrating ICT technologies into the classroom to improve reading approaches of digital learners. This involves promoting learner-centered involvement and results. Although ICTs have several advantages, it is crucial to have a deeper understanding of their limits. This involves comprehending the use of ICTs for continuous learning. ICT technologies have the potential to improve literacy skills in FET learners, but more study is necessary to determine the most effective ways to deploy these tools and address their limitations. The present gap is an area of study that lacks comprehensive understanding is the extent to which information and communication technology (ICT) tools may enhance the literacy skills of Further Education and Training (FET) learners.

2.9 THEORETICAL FRAMEWORK

This study of exploring ICT approaches to enhance reading of digital learners in the 21st centuries is underpinned by two theories: constructivism theory and connectivity theory. Learners immersed in digital media in the 21st century increasingly depend on technology to obtain and process information as an integral part of their everyday existence. As a result, instructors are looking for new and creative methods to improve literacy skills among their learners. In order to investigate how Information and Communication Technology (ICT) strategies can be utilised to facilitate reading among digital learners, this research uses constructivism theory and the connectivity theory. Constructivism proposes that learners construct their knowledge through involvement with their surroundings. In contrast, the connectivity emphasises the critical role that social networks play in improving learners' academic performance. This research seeks to provide essential insights and recommendations for instructors looking to improve reading abilities in the digital age by bringing these theories to using technology in reading.

Both constructivism and connectivism are well-known learning theories that have gathered much attention in recent years within the field of education. The theory of constructivism emphasises that students should actively construct their comprehension by drawing on their experiences and the information they already possess (Cooper, 1993). Connectivism, on the other hand, emphasises the fact that learning occurs through the process of integrating information obtained from a variety of sources and networks. Reading instruction and comprehension have undergone a sea change due to the widespread adoption of ICT in today's schools. Both of these theories acknowledge technology's significant role in the educational process (Siemens, 2005).

This study aims to investigate how constructivism, connectivism, and ICT can work together to promote a more holistic comprehension of the reading process in educational environments. This article will provide instructors with tried and proper technology-based strategies that facilitate the development of critical reading skills in students. These strategies will be provided by acknowledging the theoretical conceptions of constructivism and connectivism and their influence on learning, reading to be specific. This also highlights the objective of the study which is to investigate how educators use ICT approaches to enhance reading of digital learners in the 21st century in order to answer the research question.

2.9.1 Constructivism Theory and Reading

Constructivism places a lot of emphasis on the social environment in which the learning takes place, or in which it is found. As such, constructivism draws from the notion that in the process of learning, learners rest heavily on the interactions with their changing world. The ability to change and adapt into the changing world of Information and Communication Technology (ICT) puts the learners in the centre of their learning process, especially in the era of a digital reading environment. Such adoption of ICT empowers learners to become knowledge creators rather than absorbers of the knowledge given by the teachers (Cooper, 1993).

Recent studies (De Aldama, 2020; Iivari, Sharma & Ventä-Oikkonen, 2020) have found that ICT tools support constructivist approaches to teaching by providing learners with learning materials that stimulate their cognitive skills and the process of developing their reading skills. The relevance of the social setting in which learning takes place is brought to the forefront by constructivism, which is a perspective that finds special application in language instruction situations. Learners can become active agents in their own learning process when they make use of ICT). This gives them the ability to produce knowledge rather than just receive it passively. Constructivism emphasises the need for interaction and cooperation in the process of acquiring reading abilities.. Learners who have accessibility to digital reading environments can participate in interactive reading activities, which enables them to develop higher-order reading methods and improve their critical thinking abilities (Cooper, 1993).

Constructivist teaching methods are supported by ICT tools because they provide learners access to a variety of learning resources that may be adapted to meet their specific educational requirements. This may include digital texts, films, and interactive exercises that provide learners with the opportunity to connect with text and language in a manner that is more dynamic and interesting. Learners have the opportunity to improve their reading comprehension abilities, vocabulary, and grammatical understanding, as well as their general language ability by participating in these activities. In addition, the use of ICT tools enables a higher degree of flexibility and customisation in the language classroom. This is because learners may work at their own speed and interact with content that is relevant to them and fascinating to them while using these tools. Learners have a higher amount of control over their own learning processes. As a result of this, it helps to foster learner autonomy, which is a core component of constructivist pedagogy.

Constructivism, a learning theory, highlights the active participation of learners in creating their own knowledge. Learning happens when people interact with their environment, engage with others, and adjust to different situations. Constructivism is especially pertinent in the realm of digital literacy and reading comprehension. Constructivism states that learners build their knowledge by incorporating new information into their current mental structures. Two fundamental components of constructivism in the realm of ICT-based learning are:

Active Engagement and Knowledge Construction: Constructivism posits that knowledge is not transferred passively from educator to learner. Learners do not passively receive information but rather actively create their own individual interpretations of it (Makewa, 2019). The role of the educator evolves from a transmitter of information to a facilitator who establishes an efficient learning environment (Makewa, 2019). Technology is a potent tool for learners in the digital era. It enables individuals to investigate, test, and build knowledge by actively participating. Constructivism acknowledges that learning is dynamic and context-dependent. Learners adjust to the evolving environment, particularly in the field of ICTs (Parent & Iatauro, 2019). Learners are central to their learning process in a digital reading environment. They use internet resources, work together, and assess material critically. Adapting to technological changes is essential for digital learners in the 21st century (Parent & Iatauro, 2019). Constructivism, in a nutshell, places an emphasis on the significant parts that social contact, collaborative effort, and independent learner autonomy have in the educational process. This is especially important in the classroom setting of an additional language, where the use of ICT resources may help the development of higher-order reading abilities and generate a more dynamic and interesting learning experience for students.

2.9.2 Connectivity Theory and Reading

Siemens (2005), who is regarded as the father of the connectivism theory defines connectivism as an “actionable knowledge, where an understanding of where to find knowledge may be more important than answering how or what that knowledge encompasses” (p. 7). The connectivism theory (Siemens, 2005) assumes that knowledge is distributed across an information network and can be stored in a variety of digital formats. What makes the connectivism theory more attractive for this study of exploring reading approaches for digital learners is that it provides a framework for learners and teachers to make choices about their classrooms. Connectivism theory is strengthened by the following basic principles:

- *Learning and knowledge rests in diversity of opinions.*
- *Learning is a process of connecting information from specialists.*
- *Learning may reside in non-human appliances.*
- *Capacity to know more is more critical than what is currently known.*
- *Connections are needed to facilitate continual learning.*
- *Ability to see connections between information is a core skill.*

- *Decision making itself is a learning process* (Siemens, 2005, p 9).

The notion of connectivism provides a fresh viewpoint on the educational process by recognising the many and ever-expanding resources of information and knowledge that are accessible to learners. Because it goes beyond the standard text-based techniques and incorporates the links and interactions between many sources of information, this method of reading exploration is very appealing. Standard text-based methods do not contain these elements. This is particularly important in reading, which is an activity that requires interpretation and analysis as fundamental abilities. The focus placed on linking knowledge from experts and non-human appliances highlights the potential for digital resources and technologies to enhance reading and learning in some way or another. Learning is more of a continuous process of inquiry and discovery than it is just the acquisition of static information, according to the idea that the potential to know more is more important than what is now understood. The emphasis placed on connections draws attention to the significance of networking and collaborating in the process of acquiring new information and abilities. Therefore, the concept that making decisions is a process of learning emphasises the importance of critical thinking and reflection in promoting a more profound comprehension of the content being read and increasing one's level of engagement with it. In general, the application of these guiding principles makes the connectivism theory an enticing strategy for investigating reading and education in the digital age (Siemens, 2005, p 9).

According to Ramsook and Thomas (2019), constructivism gives learners the opportunity to form their own understanding of the world by drawing from their own experiences and engaging with others. They achieve this goal by collecting data from a wide range of sources, which ultimately results in a fresh perspective. On the other hand, Downes (2008) contends that connectivism enables learners to construct their own meanings and learn in a more organic manner without having to depend on language or reasoning. In addition, Downes (2008) also proposes a methodology for the implementation of connectivism that includes demonstration and modelling by the instructor, as well as practice and reflection by the learner.

Siemens (2005) recommends connectivism as a way of thinking and an approach to education that is appropriate for learners in the 21st century. He is of the opinion that learners in today's society engage well with the many different technological instruments that influence their thinking. Consequently, educational planning must take into consideration the major influence these technology linkages have on the learning experiences of modern-day learners. In this regard, the purpose of the preceding section was to discuss the significant facets of constructivism and connectivism, as well as the ways in which these philosophies may be included in instructional methods. In addition to this, it highlights the need of taking into consideration the part that technology plays in today's educational experiences.

Connectivism is a contemporary educational approach that focuses on network connections, information dissemination, and the importance of understanding how to access knowledge. Key components of connectivism are as follows: Networked Learning and Cyber Nodes: Connectivism proposes that learning takes place via network connections where people exchange interests,

information, and skills in online or virtual settings (Kropf, 2013). The Internet, with its extensive collection of information (online classrooms, social networks, and virtual communities), acts as a central hub for connectivism. Learners receive trustworthy knowledge from a vast array of sources, then replicate, reproduce, and distribute it across their social circles (Kropf, 2013).

Connectivism stimulates higher order thinking abilities by helping learners distinguish trustworthy information from the vast array of internet sources (King, Goodson & Rohani, 2009). It is crucial to differentiate sustainable information from irrelevant or untrustworthy data in the digital era. This is in line with the idea of advanced cognitive abilities, highlighting perseverance, self-assessment, receptiveness, and adaptability. Many educators who have received a Bachelor of Education degree from a university are currently teaching in different schools around the globe. They were exposed to a variety of educational and practical courses, including constructivism and connectivism (Ramsook & Thomas, 2019). Based on the two theories chosen for this study, the researcher seeks information that would explain how educators implement the fundamentals of constructivism and connectivism in their classrooms to enhance reading comprehension skills of digital FET learners in the 21st century. This study is of the view that the learning and teaching of reading that is based on the constructivism theory and the connectivism theory promotes group collaborations and discussions, allowing for different viewpoints and perspectives to aid problem solving, decision making and making sense of information (Corbett & Spinello, 2020).

2.10 CONCLUSION

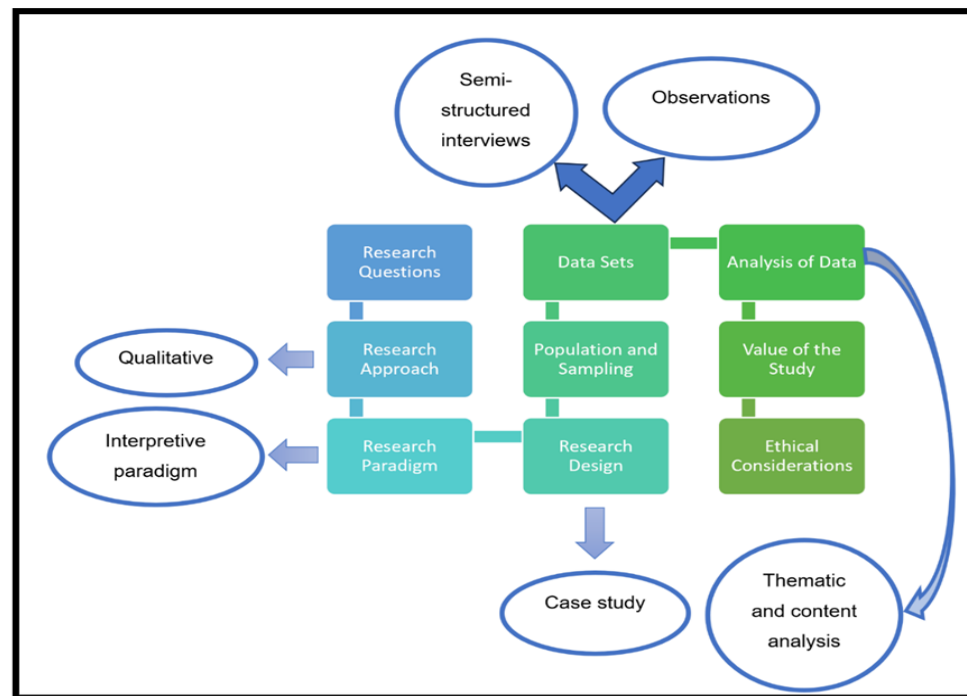
In conclusion, this chapter reviewed literature on reading concepts, approaches to reading, including digital reading approaches. Furthermore, the chapter drew the attention of the readers to the literature on the 21st century digital learners and their reading needs. Last, but not least, the chapter reviewed two theories underpinning this study: constructivism theory and connectivity theory and connected these theories to the reading skills. The next chapter will discuss the methodology employed in this study.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

Chapter two provided the literature and theoretical framework of this study. This chapter will elucidate on the methodology framework employed to understand the Information and Communication Technology (ICT) approaches to enhance the reading skills of digital FET learners in the 21st century. At the onset, the chapter presents the research approach adopted for this study. It then discusses a research paradigm, research design and data collection methods. Later, the chapter elucidates on the data analysis procedures, issues of trustworthiness and ethical considerations undertaken for this study. Lastly, but not least, the chapter provides a conclusion.



(Figure 3.1
Methodology
Categories Employed
in This Study)

3.2 A QUALITATIVE RESEARCH APPROACH

A qualitative framework underpinned this study of ICT approaches that enhance reading skills of digital learners in the 21st century. Qualitative research can be defined as a systematic investigation of a social phenomenon in its natural setting (Kandel, 2020). The phenomena may include, but are not limited to, how people within the social setting perceive their life, experiences, interactions, relationships, and so on (Rahman, 2020). In other words, qualitative research puts emphasis on the quality of the information rather than the amount of the information. Qualitative data or information can be gathered in various ways, including interviews with research participants, formal or informal discussions, observations of lived experiences, analysis of documents, and so on (Holtrop, Rabin & Glasgow, 2018).

In most cases, qualitative studies target a specific smaller sample to obtain an in-depth investigation, and this often raises the question of whether the findings can be generalised to a larger population. A further limitation of the qualitative approach is that the data interpretation and analysis may be more complicated, and it necessitates a tremendous amount of time to analyse individuals' stances. Despite these shortcomings of a qualitative approach, this study is suitable for this approach to be utilised. Firstly, a qualitative approach afforded the researcher an opportunity to obtain first-hand data through observation of the natural setting, (which is FET reading classrooms) to understand ICT approaches utilised by educators to develop the reading skills of digital learners. In addition, it enabled the researcher to interact with the participants to gain primary data of their inner experiences and investigated how meanings are formed within a classrooms culture through semi-structured interviews with the participants (Cohen, Manion, & Morrison, 2011).

3.3 AN INTERPRETIVISM RESEARCH PARADIGM

A fundamental belief system and a theoretical framework, including assumptions regarding ontology, epistemology, methodology, and procedures, are called a paradigm. A paradigm is utilised to comprehend and investigate the actuality of the world around us (Rehman & Alharthi, 2016). Interpretivists think that reality is subjective and may vary across persons. Adopting the interpretive paradigm in this study would make generalising data obtained and analysed more difficult, as it depends on context, perspective, and values of the participants of this study. However, as suggested by Cohen, Manion and Morrison (2018), adopting the interpretive paradigm may also give in-depth knowledge about situations under investigation, such as cross-cultural beliefs, and a high level of validity due to human contributions and variable considerations (Olugboyega, Oseghale, & Aigbavboa, 2023).

As a researcher working within the interpretive paradigm, I was able to utilise qualitative approaches because they were the most effective way to respond to the inquiry I am attempting to answer in this study. Following the characteristics of the interpretive paradigm mentioned above, the researcher is conducting a study of Information and Communication Technology methods utilised by educators so that new reading practices can emerge that will improve the reading skills of learners.

3.4 THE CASE STUDY DESIGN

This study is a case of nine teachers in three secondary schools in the Motheo district. Case studies are a qualitative design in which the researcher explores in depth a programme, event, activity, process, or one or more individuals. The case(s) are bound by time and activity, and researchers collect detailed information using a variety of data collection procedures over a sustained period of time. Yin (2009) defines case study as an “empirical inquiry which investigates a phenomenon in its real-life context. In a case study research, multiple methods of data collection are used, as it involves an in-depth study of a phenomenon” (p. 18). Furthermore, Yin (2009) contends that it must be noted a case study is not a method of data collection, rather is a research strategy or design to study a social unit.

Since this is an in-depth study of reading approaches that enhance reading skills of the digital 21st century learners a case study was employed. It gave the researcher leeway to use different data-collection methods such as classroom observation and semi-structured interviews (Cresswell, 2014). The unit of a case in this study were nine teachers across the three schools. Last, but not least, the purpose for choosing a case study was to describe a phenomenon in detail in its real-world context without generalising the finding to other contexts (Cohen, et al. 2018).

3.5 POPULATION AND SAMPLING

3.5.1 Participants

The population of study are nine teachers who are teaching additional languages in grades 8–12 across the three secondary schools in the Motheo District in the province of the Free State. Sampling is selecting a sample from an individual or a big group of people for a specific research goal. Purposive sampling was used to select language teachers in grades 8– 2 since the study explores Information and Communication and Technology (ICT) approaches to enhance reading of learners in these selected grades. According to Illiyasu & Etikan (2021) purposive sampling best fits this study since it is a non-probability sampling procedure that is based on demographic features and the research objectives. Convenient sampling (Cohen, et al., 2018) was also used to ensure that the selected schools are easily accessible to the researcher who is also a teacher in one of the schools in the Motheo District.

3.6 DATA COLLECTION METHODS

3.6.1 Semi-structured Interviews

Nine teachers across the three schools were interviewed using semi-structured interviews as a data collection tool. The semi-structured interview is an exploratory interview often used in the social sciences to acquire qualitative data (McGrath, Palmgren & Liljedahl, 2019). It allows for exploration, with room to pursue thematic trajectories as the discussion progresses, but typically follows a guide or procedure created before the interview and is centred on a core topic to offer an essential framework (Magaldi & Berler, 2020). For this study, a basic framework of questions was drafted prior to the face-to-face interviews. The interview questions

provided room for the interviewees to digress or elaborate if the situation required it or if the interviewer wanted to explore more detail (Creswell, 2014).

Prior to the interview meetings, permission was sought, and suitable times were agreed upon with the participants. For data collection, the researcher wrote letters to the district manager and the selected participants to seek permission to carry out the study. Interviews were conducted personally by the researcher, and permission letters included the purpose of the study and an ethical clearance letter. Furthermore, all the interview sessions were recorded and transcribed for analysis.

3.6.2 Observations

In qualitative studies like this one, observation is another tool of gathering first-hand information about the phenomena under investigation. Unlike in quantitative studies where characteristics or qualities of phenomena are described using quantitative measures, observation is rather based on the observer's subjective interpretation of what they see, hear, smell, taste or feel (Yin, 2009). In other words, , the researcher gathers data by watching people or events in their natural setting.

For this study observation was employed to understand how teachers utilise ICT approaches to enhance reading skills of 21st digital learners. A researcher can be a participant observer by participating in the culture or context being observed. In this case, a researcher is accepted as part of the community in order to gain in-depth information. In contrast, non-participant observation is unobtrusive as possible to avoid bias of the observation (Cohen, et al., 2018). During a non-participant observation, a researcher may use a video recorder or tape recorder to gather the data (Cresswell, 2014). This study used a participant observation of nine first additional language classrooms across the three schools in the Motheo district. The purpose was to understand how teachers utilise Information and Communication Technology (ICT) approaches in the teaching of reading in their classrooms. All data collected was analysed to arrive at the findings.

3.7 DATA ANALYSIS

After data collection a process that follows is data analysis. According to Cresswell (2014), qualitative data analysis is iterative and reflexive. It is a process that begins during the process of data collection. In this study, the process of reading and interpreting data did not end at data collection, it continued throughout the study. That is, data were constantly compared through the constant comparative analysis method, by comparing and conceptualising data according to interviews and observation to identify themes (Yin, 2009). Also, participants' accounts were compared with others to find differences and similarities.

In this research, the experiences of teachers were analysed using thematic analysis. Thematic analysis starts with a search for meaning and progresses to the identification and comparison of several meanings (Cohen et al, 2018). Rather than measuring the frequency of meanings in the data, thematic analysis aims to understand their complexity. It entails the researcher participating in

data collection and analysis. The analysis includes looking for patterns of meaning that may be investigated further and identifying how these patterns might be arranged into themes. Furthermore, the analysis must be led by transparency (Cohen et al, 2018). As a result, the analysis is a reflective process aimed at illuminating meaning. The purpose of thematic analysis within the study will be to deduce patterns of meaning from data on lived experiences of teacher participants. Thematic analysis will start with textual data and seeks to arrange the meanings discovered in the data into patterns and, eventually, themes (Cohen et al, 2018).

To be able to identify, analyse, and interpret themes within qualitative data, this study adopted Braun and Clarke's six phases of thematic analysis which are: familiarisation, coding, searching for themes, reviewing themes, defining and naming themes, and writing the report (Braun & Clarke, 2006).

3.8 ISSUES OF TRUSTWORTHINESS

Ethical issues are of paramount importance in the conduct of research, since they are crucial in safeguarding the study's validity and integrity (Duggineni, 2023). The concept of transferability pertains to the degree to which study results may be extrapolated or applied to other contexts or populations (Dangal & Joshi, 2020). This raises ethical considerations about the possible consequences and ramifications of the research on multiple groups. It is essential for researchers to use caution in the implementation of their results so as to prevent the perpetuation of discriminatory practices or any kind of damage. Credibility, denoting the degree of trustworthiness and precision of the study outcomes, necessitates the ethical adherence to meticulous technique, transparent acquisition of data, and impartial interpretation (Agba & Rijami, 2022). The adherence to ethical principles is of utmost importance in order to preserve the integrity of research and prevent any distortion or manipulation of data. The concept of dependability, which pertains to the reliability and consistency of research findings over an extended period, underscores the need to adhere to ethical principles throughout data collecting, storage, and analysis processes (Singha & Singha, 2023). This ensures that no modifications are made that may potentially undermine the dependability of the study. Finally, the concept of conformability, which pertains to the impartiality and lack of bias on the part of the researcher, necessitates ethical conduct in the interpretation and reporting of data (Singh, Benmamoun, Meyr & Arikan, 2021). This is done to prevent the dissemination of misleading or distorted findings that may have an influence on decision-making processes or the development of policies. In order to preserve the ideals of honesty, fairness, and respect for all stakeholders involved, it is essential for researchers to place ethical issues as a top priority throughout the whole of the study process.

3.9 VALUE OF THE STUDY

This research will help educators understand ICT classroom strategies to improve reading. This research will increase learner outcomes and help them improve their reading skills since they are digital learners and have space to learn in a digital format and use current educator methods. Producing proficient readers who can understand can help learners after high school. Learners can use their reading-and-understanding skills in different contexts. Educators must develop and perfect pedagogical methods to help

learners succeed. Early detection of problems allows educators to adjust their methods to improve reading comprehension. Learners will build confidence in the subject and learn how to read in any language.

3.10 ETHICAL CONSIDERATIONS

Research requires ethical conduct, especially when collecting data, setting up the study, and interpreting the outcomes. Data collection requires authorisation and ethical clearance from the University of the Free State. This certification allows qualitative research to answer research questions and achieve study aims. After getting enough information, individuals must consent to research (Khoa, Hung, & Hejsalem-Brahmi, 2023). The researcher should not collect unnecessary personal information from participants, should minimise intrusions into their personal lives, obtain participants' explicit consent before recording, observing, or video/audio capturing during data collection, and ensure that any digital devices used for data collection are secure and do not compromise participants' privacy. The researcher must also appreciate the participants' efforts and roles in the study. Open and honest research is also important.

As a final point, researchers should follow their institutions' or fields' ethical guidelines and policies, disclose any conflicts of interest that may affect the study, and be willing to share their research methodology, data collection tools, and findings with participants and other researchers if asked. Finally, before collecting data, the researcher must obtain ethical permission from the institution or ethics commission. The researcher must also follow any ethical guidelines specific to their field (Connelly, 2014).

3.11 CONCLUSION

In conclusion, this chapter reviewed literature as an ever evolving and unending process, with the goals of finding new information, finding solutions to problems, and developing new knowledge. Furthermore, the chapter drew the attention to the research topics, research methodology, paradigm, design, population and sampling, data sets, data analysis methodologies, and the significance of the study, all of which are presented and discussed. The next chapter will discuss the findings, analysis and a discussion based on the findings from semi structured interviews and observations employed in this study.

CHAPTER 4

DATA FINDINGS, ANALYSIS AND DISCUSSION

4.1 INTRODUCTION

This chapter presents data collected from participants and findings on the Information and Communication Technology (ICT) approaches that enhance reading skills of digital 21st century learners in the three schools in Motheo District, in the Free State province. The chapter will first reiterate the research questions underpinning this study. After that, the profile of the three schools will be discussed. Later, findings from the semi-structured interviews and classroom observation will be presented, analysed, and discussed in the light of the reviewed literature and theoretical framework.

4.2 RESEARCH QUESTIONS OF THE STUDY

- What ICT approaches enhance reading skills of digital learners in the 21st century?
- How do teachers use ICT approaches to enhance the reading skills of digital FET learners in the 21st century?
- What challenges are faced by teachers in the integration of ICT approaches to enhance reading skills of digital FET learners in the 21st century?
- In what ways do the ICT approaches enhance reading skills of digital FET learners in the 21st century?

4.3 PROFILING OF THE THREE SCHOOLS

After obtaining the ethical clearance from the university and from the Free State Department of Education, the researcher visited three schools in person to obtain permission from the school principals to conduct research in their schools, specifically among the teachers and to conduct classroom observations. The researcher provided a detailed description of what would be expected of the participants who were willing to take part in the study and elaborated on data collection tools to be used by the researcher. The researcher developed electronic booklets consisting of the necessary information and documentation pertaining to the study as well as written interview questions that the participants had to answer to familiarise themselves with the research questions and prepare themselves for the structured face-to-face interviews. Before each interview session, participants were asked to choose the most comfortable and private space for the interview. Furthermore, observations were conducted at three of the schools and a total of two observations per school. According to these three different schools where observations were conducted, the length of their periods per school were not the same; however sufficient data was obtained to analyse so that the data aligns with the research objectives.

To protect the identities of the participants and schools, pseudonyms (School A, School B, and School C) have been used in the presentation and reporting of findings from this study.

4.4 PROFILING OF THE PARTICIPANTS

A balanced representation of perceptions and experiences of female and male teachers was prioritised during sampling. However, since the participation was voluntarily only two male teachers out of the nine teachers participated. Also, for representation in terms of the number of years of teaching experiences, young and senior teachers were included in the selection of participants. A total of nine participants across the three schools participated in this study. The following table shows the profile of participants across the three schools in terms of gender, number of years of teaching experience and the highest qualification:

School	Participant (Pseudonym)	Nr of years teaching FAL	Nr of years teaching	Gender	Highest qualification
A	Avery	7 years	7 years	Female	Degree
A	Ashlyn	10 years	13 years	Female	Degree
A	Andy	9 years	10 years	Female	Degree
B	Bentley	8 years	10 years	Male	PGCE
B	Blue	13 years	15 years	Female	Degree
B	Bailey	8 years	9 years	Female	Honours
C	Corey	5 years	6 years	Female	Degree
C	Cassie	9 years	10 years	Male	Honours
C	Charlie	5 years	7 years	Female	Masters

(Table 4.1. Profiling of teachers)

4.5 TABLES OF THEMES FROM INTERVIEWS AND OBSERVATION

THEMES FROM TEACHER INTERVIEWS	THEMES FROM CLASSROOM OBSERVATION
Preferred reading mode of digital learners	The use of innovative technology in reading classrooms

Teachers' attitudes towards ICT approaches	The use of digital devices in reading classrooms
ICT and acquisition of reading skills	Challenges of integrating technology into reading
Teachers' challenges in navigating ICT in reading classrooms	
Modernising reading through integration of ICT	
Importance of diversifying approaches to improve reading skills of learners	

(Table 4.2, Table of Themes)

4.6 DATA PRESENTATION, ANALYSIS AND DISCUSSION

In this section of the dissertation, the researcher analyses the themes and subthemes derived from the data collected from the semi-structured interviews with the teachers and from classroom observation in the three schools. The primary objective of the study was to explore ICT approaches used by teachers to enhance reading skills of digital learners.

Throughout the course of the interviews with the selected participants, the researcher diligently documented the participants' discussions, thereafter, transcribing the recorded interviews. Furthermore, the researcher conducted six classroom observations in accordance with ethical guidelines, obtaining agreement from both the schools administration and the individual participants. Following the acquisition of data via interviews and observations, the researcher synthesised the prevailing patterns identified in the raw data into thematic categories. This was done to effectively communicate the findings of the study during the subsequent discussion. The researcher integrated the chosen common patterns into themes, which would be organized according to data collection tools in the following sections. The section begins by presenting, analysing and interpreting data from the semi-structured interviews.

4.6.1 Semi-structured Interviews with Teachers

Qualitative studies like this one often use the technique known as semi-structured interviews to understand phenomena under investigation. In contrast to unstructured interviews, semi-structured interviews need the use of an interview guide that is comprised

of questions that are geared toward addressing the purpose of the study. Based on the semi structured interviews with the participants, the following codes and themes were derived based on the transcripts collected by the researcher:

4.6.1.1 Preferred reading mode of digital learners:

Based on the interviews with the nine participants, it was found that two of the nine participants exhibited a pronounced inclination towards the utilisation of information and communication technology (ICT) as a preferred mode of developing reading comprehension skills of digital learners. This ties in with the current study's objective which is to explore ICT approaches that enhance the reading of Further Education and Training (FET) digital learners in the 21st century. The following are excerpts. Two participants, Charlie from school (C) and Ashlyn from school (A), articulate their perspectives about the integration of technology and audiobooks in the context of their reading classrooms:

"Yes, learners are more likely to read information given to them through technology than information on a piece of paper. They would have to learn how to read in order to comprehend the information given to them." (9); Charlie.

"What I have heard so far is that teachers use audiobooks to not exhaust themselves by reading but instead focus on listening and understanding as learners follows reading in their books. Because the teachers' voices don't take strain from reading, they are able to engage in an in-depth meaningful discussion with the learners, giving them more insight into what the book/text is about." (2); Ashlyn.

In the above excerpts Charlie argues that digital learners are more inclined to engage actively with information presented via electronic platforms rather than traditional paper-based resources. This can be attributed to the fact that these learners are digital natives, they grew up with technology. Besides, in Chapter 2 of this study, Singer & Alexander (2017a) discovered that digital learners prefer to study through technology rather than conventional means of learning.

Nevertheless, in the above excerpt, Ashlyn recommends the use of audiobooks as a teaching instrument. As per Ashlyn's perspective, teachers use audiobooks as a strategy to mitigate the physical strain linked to reading aloud and to facilitate learners' simultaneous interaction with the text in their own copies. This approach enables educators to focus on fostering meaningful interactions with learners, so enhancing their understanding of the subject matter at a deeper level. Audiobooks serve as a significant tool for educators, enabling the facilitation of engaging and informative teaching sessions.

Both teachers' perspectives highlighted in the above excerpts state the need of adapting teaching methods to include technology as alternative resources, to enhance the learning process and promote improved understanding among learners.

4.6.1.2 Teachers' Attitudes towards ICT approaches:

When asked what ICT approaches enhance reading skills of digital learners most participants were not too clear in their responses, however, the majority of participants conveyed that the primary advantage of on-screen reading lies in the ability to facilitate

connections between various texts, pictures, and other elements found in digital media. Findings from the interviews indicated that four participants (Avery, Charlie, Cassie and Blue) had a significant inclination towards endorsing interactive digital reading facilitated by Information and Communication Technology (ICT). These individuals expressed their perspectives on the advantages that learners may get from such an approach. This is a direct reference to another objective of the current study which is to examine ways in which ICT approaches can be used to enhance the reading of FET digital learners in the 21st century. The following are excerpts from the participants' statements.

"Digital Storytelling: Learners can make and share their own stories by using resources for digital storytelling. This method not only improves their reading and writing skills, but also helps them be more creative, think critically, and use technology well." (1); Avery.

"I think that it would benefit the learners fundamentally since we live in a digital era. Learners tend to find hard copy books and the lack of technology boring and outdated. I therefore think that learners would find the use of ICT in the classroom interesting, which might improve their reading skills as they would actively participate in class." (9); Charlie.

"Since we live in a digital era and most learners that are attending school now, grew up with technology. It would therefore help the learners if they can be taught how to read through the use of technology. They are already familiar with most of the devices and the services that it presents."(9); Cassie

"I think it's a good thing because it produces good quality digital learners that the world may need in the future. The ICT educational reading programme that I am familiar with is Night Zookeeper. I invested in Night Zookeeper because it is a tool to help learners with reading. There are buckets of fun and ideas to help keep learners entertained and engaged in learning. Learners has such an amazing time whilst developing storytelling, illustration, reading and writing skills for their futures. The programme is also interactive for learners of all ages. I also believe that all human beings, no matter what age, can benefit from it." (5); Blue.

The quotations presented from schools A, B and C convey favourable attitudes towards the use of digital storytelling and technology in education. However, adopting a critical perspective entails examining the possible disadvantages and constraints associated with these methodologies. For example, the four teachers also alluded to aspects of excessive focus on technology which may perhaps result in a neglect of conventional reading and writing proficiencies. Maintaining equilibrium between digital technologies and ancient ways is of paramount significance. Participant Charlie, specifically, raised a concern with the excessive use of ICT in learning because a significant proportion of learners, particularly those residing in impoverished regions, may encounter limited availability of digital devices and services. A critical viewpoint would take into account the possibility of increasing educational disparities.

Notwithstanding the recognition of digital reading resources indicated by the participants of this study in the above excerpts, recent studies (Alneyadi, Abulibdeh & Wardat, 2023), on the other hand, highlight the need for teachers to evaluate the digital content's quality and instructional worth and its ability to engage learners before they select the approaches and tools. All in all, the use of digital storytelling and technology in education has a potential for enhancing the learning experience as mentioned by participants in this study. However, it is important to adopt a critical lens that acknowledges the possible constraints, concerns around fairness, and the need to integrate technology with pedagogically sound instructional strategies.

4.6.1.3 ICT and acquisition of reading skills:

Teachers indicated that another contributing aspect to the development of proficient reading habits among FAL learners is the use of the internet. According to the teachers the availability of the internet has a significant role in fostering positive reading habits among learners. It was determined that three of the nine participants made noteworthy contributions to the establishment of a link between technology and the acquisition of reading skills. These educators articulated their viewpoints about the benefits that learners may get from such an approach. The below excerpts are derived from the statements provided by the participants.

"I use a computer, data projector, cell phones and tablets because it also helps me to explain more complex topics to make it easier and "dumb it down" in a way for them so that topics are easier to understand by providing visuals and sometimes maybe even recorded audio feedback. Combining technology with reading books helps both learner and teacher to learn more about the world and each other. It also helps learners learn about humanity, they get better at writing, they understand other views and cultures, and most importantly it improves their critical thinking skills." (1); Avery.

"Yes, ICT can improve reading skills. Videos are significant in this case, because learners would not only have to read the text or the subtitles, but can also hear the pronunciation of the word, and would therefore be able to pronounce the words correctly when reading. The use of digital classroom (Google classroom, MS Teams, Skype etc.) discussion and messaging applications, can encourage the learners to read as they would have to respond to the discussion or lesson." (9); Charlie.

"There are useful programs/apps (Night Zookeeper) that can be incorporated within the classroom and are beneficial. Learners build reading skills in a safe & moderated environment. The setting in which learning takes place needs to be comfortable so that the learners feel safe and focus on the learning process. Programmes can also be used as a gamified approach and interactive lessons that builds reading skills with reading challenges and activities to make reading fun and engaging." (5); Blue.

The above interview snippets provided significant insights into the efficient integration of technology into educational settings to augment reading proficiency. The following are evaluations of each of the submissions:

In the perspective of Avery from School A, a significant emphasis was placed on the utilisation of diverse digital gadgets and resources as a means to streamline intricate topics for those engaged in the learning process. This technique could be efficacious, since the use of technology may offer visual aids and interactive resources that facilitate the process of understanding. The assertion that technology aids in the comprehension of the world and fosters mutual understanding between learners and educators highlights the potential of technology to enhance cross-cultural learning and promote global awareness. The significance of technology in enhancing critical thinking abilities is underscored. This argument has considerable importance since technology has the potential to foster in learners a disposition to question, analyse, and critically assess information.

In the perspective of Charlie from School C, a significant emphasis was placed on the need to incorporate multimedia information as a means of enhancing reading proficiency. The use of videos, which include both visual and aural elements, has been shown to

effectively augment the process of vocabulary learning and pronunciation improvement. The assertion about the efficacy of digital classroom systems such as Google Classroom and Microsoft Teams in fostering reading skills via interactive conversations and communications is well-founded. These platforms serve to promote the development of reading comprehension and written communication abilities. Charlie's viewpoint is in accordance with the notion that technology has the potential to foster participatory and captivating educational settings.

From Blue's perspective of School B, the programme "Night Zookeeper" is highlighted as a potential educational tool that might be integrated into school settings. This exemplifies the efficacy of using specialised instructional software as a means to enhance reading proficiency. The establishment of a conducive and secure learning environment has significant importance, as learners tend to exhibit higher levels of participation in reading activities when they experience a sense of safety and support. The notion of gamification and interactive instructional methods is deserving of attention. Similarly, Nkomo (2022) argues that the electronic media provide a plethora of opportunities, including practically boundless access to searchable information and electronic books. Language learners have the convenience of accessing a wide range of e-texts in a single session, eliminating the need to physically go between different bookshelves or rooms in search of their preferred reading materials (Iftanti, 2015).

The integration of entertaining and engaging components into reading exercises has the potential to enhance the effectiveness and enjoyment of the learning process. In general, the participants provided a comprehensive perspective on the potential of technology to augment reading proficiency in the realm of education. The significance of accessibility, engagement, and originality in using technology to enhance learners' reading skills is emphasised. The observations made emphasise the capacity of technology to revolutionise and enhance the educational process.

4.6.1.4 Challenges in managing ICT in reading classrooms:

Certain frustrating factors of managing the use of Information and Communication Technology (ICT) learning devices were mentioned by the teachers. These challenges include insufficient recognition from peers, managing classrooms within computer labs, unsuitable teaching resources (such as textbooks and software), sizable class populations, and the dynamic nature of ICT subjects. Based on the interviews conducted with the participants, it was discovered that four participants expressed their discontent with the integration of ICT in the classroom. The individuals expressed their perspectives on the potential impact that learners may experience from this particular approach. This, in turn, informs the findings of the present study, which aims to investigate the difficulties encountered by teachers when incorporating ICT approaches to improve the reading skills of FET digital learners in the 21st century. The following snippets have been taken from the statements supplied by the participants:

"Yes, however it depends on the type of learner being taught. Discipline can be a hindrance to learning because there are learners that are just not interested in learning no matter how you try to work with them. If they refuse to learn they disturb the class whilst the teacher struggles to manage the lesson taking place. There are classes where improvements are guaranteed due to learners with good behaviour and allowing the teacher to teach." (6); Bailey.

"Learners that don't respect the boundaries around new gadgets and disruptive learners fidgeting with the plugs and wire connections in class." (5); Blue.

"Some of the major challenges would be extremely rowdy classes where learners are unable to behave properly and secondly is the issue of loadshedding which makes it extremely difficult to integrate ICT when there is no electricity." (8); Cassie.

"Teachers can turn to ICT to engage with learners at any point during the day. Mobile learning and educational apps would make it possible for children to continue activities when they get home, not just in the classroom. Teaching reading skills would not be limited to in-school time. Incorporating mobile apps in classes can increase engagement and reduce misbehaviour in class and at home...Double win!" (6); Bailey.

The first statement from the participant of School B posits that the efficacy of disciplinary measures in the educational setting is contingent upon the specific characteristics and learning style of the individual learner. Although it is indeed true that learners possess diverse preferences and learning styles, it is incumbent upon educators to modify their instructional approaches in order to effectively engage all pupils. Categorising some learners as lacking desire in the pursuit of knowledge might impose limitations and foster a pessimistic outlook. Effective educators use a diverse range of instructional techniques in order to actively include learners with varying learning styles, so creating a favourable atmosphere conducive to learning for all individuals.

The aforementioned quotation also acknowledges the occurrence of disruptive conduct inside the educational setting, which may be attributed to learners who exhibit a lack of engagement with, and enthusiasm for, the learning process. Indeed, it is a valid assertion that the occurrence of disturbances within a classroom setting may provide a formidable obstacle. However, it is essential to prioritise the identification and resolution of the underlying factors that contribute to disengagement and disruptive conduct. Educators and educational institutions need to actively seek out methods to enhance the engagement and applicability of the learning process for learners, with the aim of mitigating disruptive conduct, rather than passively accepting it as an unavoidable occurrence.

The second quotation highlights the challenges posed by learners' disregard for limits around new technological devices and the disruptive behaviours associated with technology. The establishment of explicit technology use regulations and the provision of education on appropriate etiquette for the use of electronic devices in educational settings are crucial for schools. Furthermore, it is important for educators to incorporate technology into their instructional practices in a manner that optimises the learning experience, rather than serving as a source of diversion.

The third quotation emphasises the difficulties associated with disruptive classroom behaviour and power outages, both of which may have a negative impact on the educational setting. The use of good classroom management tactics is vital inside educational institutions to effectively handle disruptive behaviour and provide an atmosphere conducive to learning. In relation to the issue of load shedding, educational institutions have the option to allocate resources towards acquiring backup power sources or formulating contingency plans with the aim of mitigating interruptions to the integration of Information and Communication Technology (ICT) inside their premises.

The fourth quotation proposes the use of mobile learning and educational applications as a means to actively involve learners inside and beyond the confines of the traditional classroom setting. Although adopting a positive perspective, it is crucial to acknowledge that technology in and of itself is not a universal solution for the many difficulties faced in education. In order to guarantee that technology is used in a manner that complements, rather than supplants, conventional instructional approaches, it is essential to include deliberate curriculum development and comprehensive preparation for educators. The quotation underscores the potential advantages of using mobile applications as a means to enhance participation and mitigate instances of misbehaviour. The efficacy of mobile applications is contingent upon the calibre of their content and the degree to which they connect with educational goals and objectives. Educators must use discernment and deliberate consideration when choosing and using applications that augment the educational process, rather than depending only on them as a means of behaviour management.

In conclusion, the interview responses presented include several significant facets pertaining to classroom management and the use of technology in the field of education. Recognising the significance of admitting issues, it is equally important to contemplate proactive tactics and solutions in order to tackle these challenges and provide a constructive and efficient learning milieu for all learners.

Findings from this study on the challenges of managing ICT resources can be associated with the findings from other countries such as Turkey (Roman & Ploeanu, 2021) and India (Safi, 2019) on the insufficient allocation of ICT resources in the educational system which has a detrimental effect on the effective use and management.

4.6.1.5 Modernising reading by integration of ICT:

Based on the interviews conducted with the participants, it was discovered that six participants expressed their views regarding modernising reading by the integration of Information and Communication Technology (ICT) in their reading classrooms. The individuals expressed their perspectives on the potential impact ICT has in a classroom setting. This, in turn, reinforces the findings of the present study, which aims to explore ICT approaches that enhance the reading of FET digital learners in the 21st century. The following snippets have been taken from the statements supplied by the participants:

"Yes. As I said previously, it makes lessons more fun for the learners and they actually enjoy doing the work when I incorporate technology into the lesson. Technology creates more ways to teach them on the cognitive level that they are. Whiteboards, software, and digital resources allows me to create an engaging and stimulating learning experience for my learners." (1); Avery.

"As a teacher, I have experienced how ICT helps learners develop new skills and become more creative. It is definitely a valuable tool for producing good academic results. Using ICT in the language classroom motivates learners because they can make more sense of difficult topics. In the end, by producing visuals and audio's learners reading skills improves." (7); Corey.

"I have made use of technology in a few lessons to assist with developing reading skills. It works well with 'stronger' classes where learners have an interest. It becomes challenging with 'weaker' classes as they are more prone to play around." (8); Cassie.

"Yes. One of the main problems is that schools don't have the right ICT equipment and tools. Many schools, especially those in poor environments or rural places, might not have enough computers, internet access, or software. If teachers don't have easy access to ICT tools, it can be hard for them to use technology to help learners learn to read better." (2); Ashlyn.

"ICT can be used in the form of videos where learners have to read and follow the text or subtitles on the video. It can also be improved through the use of PDF or MS Word documents displayed on the board through a data projector or send through on messaging application. Learners can then see and read the text from the board or from their cell phones. Google classrooms, discussion platforms and emails can also be used to improve reading skills as learners would be required to read the information on these platforms and respond accordingly." (9); Charlie.

"There are pros and cons to the use of ICT. One of the pros is the flexibility behind it. Learners can physically hold the device in their hands and taking notes. One of the cons is that it may hinder learning in terms of learners becoming distracted and not following the prompting within the lesson." (4); Bentley.

The responses given by the educators throughout the interviews provided significant insights about the use of ICT within educational settings, particularly in relation to enhancing reading proficiency. A number of educators in this study have reported that the integration of technology into instructional practices contributes to heightened levels of student engagement and enjoyment in the learning process. This presents a notable benefit, since students who are actively involved in their learning are more inclined to exhibit motivation and attentiveness. Nevertheless, Shadieff & Yang, (2020) argue that while ICT approaches have potential to yield positive benefits for learners' reading skills, it is also crucial to acknowledge that the degree of student participation might differ, and some individuals may still exhibit a preference for conventional instructional approaches. Maintaining equilibrium between technological integration and other pedagogical approaches is of paramount importance.

In summary, teachers in this study indicated that the integration of ICT into educational settings to enhance reading proficiency has evident benefits, including heightened student involvement and the cultivation of essential skills. Nonetheless, the use of technology in education presents some obstacles pertaining to the accessibility of resources, the capacity to cater to diverse student populations, and the possibility for diversions. In order to optimise the use of ICT in the realm of education, it is essential to adopt a well-rounded strategy that takes into account the requirements and constraints of both students and educators. Moreover, it is essential to prioritise the resolution of gaps in technology access in order to provide equal educational opportunities for every student.

4.6.1.6 The Importance of diversifying approaches to enhance learner reading:

The act of reading is characterised by a lack of audible sound. According to Moats (2020), classroom techniques should emphasise the subtle character of reading skills and avoid placing excessive emphasis on oral reading. Some educators, however, argue that the most effective method of teaching reading is via the instruction of oral reading.

Based on the interviews conducted with the participants, it was discovered that four participants expressed their views on diverse pedagogical approaches to improve learner reading skills. The individuals expressed their perspectives on integrating various

reading-teaching approaches in Information and Communication Technology (ICT) classrooms. This, in turn, reinforces the findings of the present study, which aims to investigate how teachers use ICT approaches to enhance reading of digital learners in the 21st century. The following snippets have been taken from the statements supplied by the participants:

"From my point of view and what I have experienced in my own classroom, yes. ICT can improve reading skills. Online group reading tools allow learners to make notes, share what they think, and talk about them with their friends or teachers. This makes reading more social and engaging, which can help learners with understanding and thinking critically." (7); Corey.

"I think ICT can be used by creating reading groups, a platform where learners can share their thoughts on the book, they can give book suggestions, building social credibility for the process of reading, the idea is to make it a social act. ICT also helps to make adaptable learning tools that can test a learner's reading skills and make suggestions based on what they do well and what they need to work on. These sites can offer reading tools that are right for the level of the learners, making it easier for them to improve their reading skills over time." (2); Ashlyn.

"I think teachers make use of data projectors, interactive White boards, Google classrooms, MS Word and PDF documents, videos, email, WhatsApp etc." (9); Charlie.

"What I have heard so far is that teachers use audiobooks to not exhaust themselves by reading but instead focus on listening and understanding as learners follows reading in their books. Because the teachers' voices don't take strain from reading, they are able to engage in an in depth meaningful discussion with the learners, giving them more insight into what the book/text is about." (2); Ashlyn.

Corey's answer from School C recognises the favourable influence of Information and Communication Technology (ICT) on the development and improvement of reading abilities. The use of digital platforms for collaborative reading endeavours, whereby individuals engage in note-taking, exchanging ideas, and fostering discourse, is a commendable strategy. The creation of a collaborative and engaging learning environment has the potential to enhance learners' comprehension of texts and promote critical thinking skills. The use of technology in learning may provide significant advantages to learners who excel in interactive environments, especially in terms of the social dimension.

Ashlyn's reaction from School A underscores the need of fostering social reading and adaptive learning by advocating for the establishment of reading communities and digital platforms that facilitate the exchange of ideas and recommendations among learners. This strategy uses ICT to transform reading into a communal endeavour, so fostering increased learner engagement with reading materials and facilitating meaningful discussions about their reading experiences. Furthermore, the inclusion of adaptable learning tools that evaluate reading abilities and provide customised recommendations is consistent with the notion of adaptive learning, a pedagogical approach that has shown to be very efficacious in catering to the unique learning requirements of individuals.

The use of ICT tools by instructors is a prevalent practice in the field of education. In answer to the inquiry, Charlie has compiled a comprehensive list of widely employed ICT resources. These tools include data projectors, interactive whiteboards, Google Classroom, as well as a range of digital documents and communication platforms. Although the provision of a list of resources is indeed useful, it would be advantageous to further elaborate on the successful utilisation of these tools within the educational setting, specifically in terms of their impact on bolstering reading proficiency and fostering learner engagement.

Ashlyn's remark underscores the use of audiobooks as a pedagogical approach to actively include learners in the process of reading. This strategy is considered practical since it enables educators to prioritise understanding and meaningful dialogues and ease the strain caused by continuous reading aloud. Audiobooks may provide advantages to learners who have difficulties with conventional reading approaches, offering them an alternate means of accessing the text.

In conclusion, the aforementioned comments exemplify several approaches for the successful integration of ICT in educational settings to enhance reading proficiency. The significance of establishing interactive and socially oriented reading encounters, harnessing adaptive learning resources, and using technology to augment pedagogical approaches is underscored by these individuals. Moreover, the use of audiobooks as a method to foster substantive debates and enhance understanding is a significant pedagogical approach. The following section presents, analyses and interprets findings from classroom observations across the three schools.

4.6.2. Classroom Observation

Classroom observation of Information and Communication Technology (ICT) approaches that enhance reading skills of digital learners were conducted across the three schools in Motheo District. A total of nine classrooms observations were conducted across the three schools, three classroom observations per school. Classroom observation was used to triangulate data from the semi-structured interviews. An observation schedule was used to guide the observations. Notes from classroom observations were immediately analysed. Three themes emerged from the classroom observation: the use of innovative technology; the use of digital devices in the reading classroom; and difficulties of using ICT in reading classrooms. In the following sections these three themes are analysed and interpreted in the context of literature and theory.

4.6.2.1 The use of ICT:

Teachers from the three schools indicated the use of innovative technology such as phones and tablets by learners in the reading classrooms. The following snippets of notes taken by the researcher during reading lessons in the three schools indicate the use of cellular phones by learners:

"Learners use their phones to take pictures of the work from other learners' textbooks. The picture consists of the work the teacher covers in class (work pertaining to the lesson)." (School A)

"Use of phones/ tablets (for those who have) about 3 learners in class had access to tablets. The teacher encourages learners to download past papers on their phones and uses this technique successfully as children enjoy using their phones." (School B).

"Learners are allowed to use their devices in the class and can read the text on their phone" (School C).

Observation notes from School A indicate that learners are using their cell phones to photograph their classmates' books, with a particular emphasis on the material addressed during the instructional session. While this behaviour may suggest a high level of involvement and a deliberate attempt to gather significant data, it also gives rise to some apprehensions. The act of photographing someone else's work may not effectively foster autonomous learning or facilitate adequate comprehension of the subject matter. Moreover, the act of distributing copyrighted textbook information in this way may give rise to concerns of privacy and copyright infringement. The educator needs to evaluate the extent to which this practice is consistent with educational objectives and tackle any possible concerns.

Findings from School B show that the educator is effectively integrating accessible technological resources, such as smartphones and tablets, inside the classroom setting. This is achieved by actively encouraging learners to use their devices for the purpose of downloading prior examination papers. The positive side of learners deriving enjoyment from using their smartphones for educational purposes lies in its potential to enhance the engagement level throughout the learning process. Nevertheless, it is important to guarantee that the use of technology is in accordance with educational goals and does not deviate into a source of diversion. Furthermore, it is essential for the educator to take into account equity considerations, since it is possible that some learners may lack access to smartphones or tablets, therefore resulting in unequal learning opportunities.

From School C, observation indicates that learners are permitted to use their electronic devices inside the classroom setting for the purpose of accessing textual content. The use of mobile devices for reading purposes offers handy accessibility to knowledge; yet it is crucial to contemplate if this practice facilitates or impedes the process of learning. It is important for educators to engage in the active supervision of learners to ascertain that their use of electronic devices is primarily focused on educational activities rather than being diverted towards non-academic interests. Furthermore, it may be necessary to establish protocols about safe utilisation of electronic devices within the educational setting.

In conclusion, the use of mobile devices within educational settings might yield both advantageous and detrimental consequences. The thorough consideration of technology integration in the learning environment is vital for educators, as it is crucial to ascertain that it effectively promotes learning outcomes while simultaneously addressing possible obstacles and equality concerns.

4.6.2.2 The use of digital devices in the reading classroom:

The use of digital technology has become prevalent in the realm of language acquisition, and its efficacy has been duly recognised in scholarly literature (Zhang & Zou, 2022). Based on the classroom observation conducted with the participants in this study, it was discovered that three of the participants make regular use of digital devices in the language classroom. This, in turn, informs the findings of the present study, which aims to investigate how teachers use ICT approaches to enhance reading of digital learners in the 21st century. The following snippets have been taken from the researcher's observation notes across the three schools:

"Learners are not permitted to use cell phones or any other devices as it becomes distracting amongst these learners. It is a policy established by the teacher supported by SMT" (School A).

"1. The use of PPT in the classrooms whereby the teacher has colourful slides with animations – makes it enticing to look at. Teacher permits phone use by learners" (School B).

"14. Not all learners in class have 'data' or access to the latest phones. However, from my observation it seemed like the majority of the class was able to use the internet/ cellular devices." (School C).

From observation of School A in the above extracts, it is evident that the educator has enforced a policy that restricts the use of mobile phones and other electronic devices inside the educational setting, mostly motivated by worries over potential disruptions. This particular methodology has the potential to facilitate concentration and decrease interruptions in the classroom setting. Nevertheless, it is important to achieve a harmonious equilibrium between the reduction of distractions and the use of technology for educational objectives. The potential educational benefits of incorporating classroom activities and educational applications on smartphones should be taken into account by educators when deciding whether to implement a complete prohibition on the use of such devices. It is important to assess if a blanket ban coincides with the educational objectives and whether there are specific criteria for making exceptions to this policy.

During classroom observation in School B, the educator was seen using PowerPoint presentations that had visually appealing graphics and dynamic animations. The inclusion of mobile devices in educational settings may be associated with facilitating access to presentation materials and promoting active engagement with the course content. When used judiciously, the integration of technology into educational resources has the potential to augment student engagement and comprehension. Nevertheless, it is crucial to guarantee that the use of mobile phones stays centred on educational endeavours and does not give rise to diversions or improper utilisation.

School C findings bring attention to a significant issue related to equality. Although it is evident that a significant proportion of learners have internet connectivity and own mobile devices, it should be noted that there exists a disparity in access levels across learners within the class. The existence of the digital gap has the potential to generate inequalities in educational access and opportunity. Educators should demonstrate awareness of these differences and contemplate using alternate pedagogical approaches or supplementary educational materials for pupils who may lack access to contemporary smartphones or data. Ensuring equitable access to instructional materials and activities for all learners, irrespective of their technological resources, is of paramount significance.

In conclusion, the aforementioned findings exemplify varying strategies used in the management of mobile phone and gadget usage within educational settings. Achieving a harmonious equilibrium that aligns with educational objectives, mitigates diversions, and guarantees equal opportunities for all learners to use digital resources is of paramount importance.

4.6.2.3 Difficulties of using ICT in reading classrooms:

Research on the integration of Information and Communication Technology (ICT) in reading classroom shows that educators possess the ability to design tasks that integrate the literacy skills learners acquire inside the school environment with those they develop outside of it. For instance, it is necessary to mandate learners to include both paper and electronic references and citations in their academic assignments (Alshairawi, 2021).

Evidence from this study indicates that there were technological difficulties such as power outages. This, in turn, informs the findings of the study, which aims to examine challenges faced by teachers in the integration of ICT approaches to enhance the reading of FET digital learners in the 21st century. The following snippets have been taken from the observation notes supplied by the researcher:

"14. One of the major challenges would be load shedding. At times without prior warning there are power cuts during periods where PPT is being used." (School A).

"12. The teacher have access to a data projector but due to load shedding it cannot not be put to use." (School A).

"13. As mentioned in number 12, the learners are provided with an opportunity to read from the teacher's power point. This particular class is rowdy and the teacher is unable to effectively use ICT as learners are extremely distracted." (School A).

One notable issue faced by educational institutions heavily dependent on technological resources, such as PowerPoint presentations, is load shedding - a deliberate practice of scheduled power disruptions. Power outages have the potential to significantly interrupt the educational process, particularly in instances when technology plays a crucial role in the instructional activities. It is essential for educators to establish contingency measures, such as the provision of printed resources or the use of alternative pedagogical approaches, in order to guarantee the uninterrupted delivery of instruction in the event of power outages. Furthermore, establishing effective communication channels with both learners and staff members to discuss the possibility of power outages and their possible consequences on the class timetable may aid in the management of expectations.

The second insight pertains to the significance of having access to a data projector as a significant resource for augmenting classroom learning. Nevertheless, the occurrence of load shedding can hinder the use of this particular technology. In order to address this concern, educators should take into account the potential occurrence of power outages while planning their instructional sessions. Furthermore, it is worth considering the exploration of other pedagogical approaches that do not depend on electrical resources. These may include interactive dialogues, collaborative activities, or the use of low-tech instructional tools such as whiteboards and markers.

During the third observation, the use of a data projector by the educator was hindered due to load shedding. Consequently, the educator resorted to an alternative approach, whereby pupils were permitted to read the content directly from the PowerPoint presentation. Nevertheless, it was evident that the classroom atmosphere was characterised by a high level of noise and disruption, resulting in learners being easily diverted from their tasks. Consequently, this poses a significant obstacle to the successful use of ICT as well as the maintenance of sustained learner engagement. The presence of disruptive behaviour and distractions within the

educational setting might hinder the acquisition of knowledge and require classroom management techniques to effectively mitigate these issues. Educators have the opportunity to deliberate upon many strategies aimed at enhancing learner engagement and involvement, such as the incorporation of interactive activities and the use of tactics designed to capture learners' attention.

In essence, the occurrence of load shedding poses a substantial obstacle to the use of technology within educational settings. It is essential for educators to establish contingency measures in the event of power outages, necessitating potential adjustments to their instructional approaches in order to maintain optimal learning outcomes. The effective management of classroom behaviour and participation is crucial in establishing an optimal learning environment.

4.7 CONCLUSION

This chapter presented an analysis and interpretation of data, as well as a discussion of results, on the use of ICT techniques to increase the reading skills of digital learners in the 21st century. The primary objective of this research is to investigate the use of Information and Communication Technology (ICT) by educators in order to boost the reading abilities of learners who are accustomed to digital media in the contemporary day. Data collection took place throughout the sessions performed with participants from several schools. The researcher collected signatures from the educators who provided consent for the implementation of observational activities. The research approach used in this study successfully accomplished the desired purpose and goals.

CHAPTER 5

Recommendations and Conclusions

5.1 INTRODUCTION

This chapter presents the recommendations and conclusion of the study. It begins by reiterating the objectives of the study. It then provides the synopsis of findings against the four objectives of the study. Later, the chapter presents recommendations of the study and it also elucidates on the value of study. Lastly, but not least, the chapter provide a conclusion of the study.

5.2 THE OBJECTIVES OF THIS STUDY WERE:

- To investigate how teachers use ICT approaches to enhance reading of digital learners in the 21st century.
- To examine challenges faced by teachers in the integration of ICT approaches to enhance the reading of FET digital learners in the 21st century.
- To explore ICT approaches that enhance the reading of FET digital learners in the 21st century.
- To examine ways in which ICT approaches can be used to enhance the reading of FET digital learners in the 21st century.

5.3 SYNOPSIS OF THE FINDINGS

The primary objective of this study was to understand Information and Communication Technology (ICT) approaches that enhance reading skills of digital learners in the 21st century. Driven by the four research questions, the study collected data through semi-structured interviews with nine teachers across the three secondary schools and through classroom observation of reading classrooms in the three schools. The following section presents the summary of finding against different objectives of this study. In general, teachers across the three schools agree that the integration of ICT into the teaching of reading skills has a potential to enhance reading skills of learners. Most teachers encourage learners to use ICT devices for accessing more reading stories on the internet. The study also found that teachers use diverse approaches for teaching reading, including maintaining a balance between ICT approaches and traditional reading approaches. The following sections expand on the key findings of the study.

5.3.1. ICT Approaches that Enhance the Reading of FET Digital Learners in the 21st Century

Findings from this study show that teachers in the FET phase across the three participating schools are incorporating technology into their instructional practises for the development of learners' reading skills. Teachers have said that integration of Information and Communication Technology (ICT) into reading skills, over time, can increase levels of learner engagement and motivate improvement of their reading skills. This implies that learners who actively engage in their learning through the use of ICT devices to access reading resources are more likely to demonstrate motivation and improvement in their reading. However, it is essential to

recognise that the level of learner engagement may vary, and some people may still demonstrate a predilection for traditional teaching methods. Additionally, it is crucial to prioritise the maintenance of a balance between the incorporation of technology and traditional educational techniques. The use of ICT inside educational environments to augment reading competence offers discernible advantages, such as increased student engagement and the development of crucial reading competencies. However, the integration of technology in the field for the development of reading skills has some challenges regarding the availability of resources, the ability to meet the needs of varied learner preferences, and the potential for distractions. To enhance the utilisation of ICT in the reading classrooms, it is essential to implement a comprehensive approach that considers the needs and limitations of both learners and educators. Thus, the study's last objective which was to examine ways in which ICT approaches can be used to enhance the reading of FET digital learners in the 21st century has been fulfilled.

5.3.2 Teachers' Use of ICT Approaches to Enhance Reading of Digital Learners in the 21st Century

The findings from the present study suggest that the use of Information and Communication Technology (ICT) pedagogical approaches cultivates reading comprehensions skills of learners. The approach highlights the need of using technology in the field of education to enhance reading and comprehension skills. This viewpoint emphasises the need to modify instructional approaches to include technology and alternative resources, with the aim of enhancing the learning process and fostering enhanced comprehension among learners. Moreover, there are benefits to infusing technology into instructional methodologies, especially considering the digital era. However, it is important to include a critical perspective that raises concerns over the possible overemphasis on technology, which might potentially lead to a neglect of traditional reading and writing skills. Therefore, it is of utmost importance to establish a balance between modern technology and traditional practices. An additional discovery derived from the research pertained to the potential of using digital storytelling and technology inside the realm of education, as a means of augmenting the overall learning encounter. Nevertheless, it is crucial to approach the subject matter with a critical perspective that recognises potential limitations, ethical considerations about equity, and the need of effectively using technology with pedagogically competent teaching methods. According to the findings of the research, several participants have said that the incorporation of technology into instructional practices leads to increased levels of learner engagement and pleasure throughout the learning process. This offers a significant advantage, since learners who actively engage in their learning are more likely to demonstrate motivation and attention. However, it is essential to recognise that the level of learner engagement may vary, and some people may still demonstrate a predilection for traditional teaching methods. Ensuring a balance between the incorporation of technology and other instructional methods is of utmost significance. Consequently, the study's objective is also met as it has been investigated how teachers use ICT approaches to enhance reading of digital learners in the 21st century.

5.3.3 Challenges Faced by Teachers in the Integration of ICT Approaches to Enhance the Reading of FET Digital Learners in the 21st Century

The research discovered that educators had difficulties while using Information and Communication Technology (ICT) methods, caused by disruptive behaviour within the language classroom. This behaviour may be linked to learners who demonstrate a lack of interest in, and motivation towards, the learning process. It is a fair claim that the presence of disruptions in a classroom environment may present a significant barrier that hinders the effectiveness of both teaching and learning processes. Nevertheless, it is essential to give precedence to the identification and resolution of the fundamental reasons that lead to disengagement and disruptive behaviour. The presence of new technical gadgets and the disruptive behaviour connected with technology indicate learners' disrespect for constraints. It is essential for educational institutions to have clear policies on the use of technology and to provide instruction on proper etiquette while using electronic devices within educational contexts. Moreover, the research revealed the significance of educators integrating technology into their teaching methodologies in a way that enhances the learning process, rather than functioning as a distraction. The interview participants provided valuable insights about several aspects related to classroom management and the integration of technology in the language learning environment. Acknowledging the importance of problems, it is equally crucial to consider proactive strategies and resolutions to address these obstacles and provide a productive and effective learning environment for all learners. Ultimately, the second objective for the study was fulfilled which encompassed examining challenges faced by teachers in the integration of ICT approaches to enhance the reading of FET digital learners in the 21st century.

5.3.4 Strengthening ICT Approaches for the Enhancing Reading Skills of Digital learners

The findings derived from the semi-structured interviews, in conjunction with the observation tool, helped to underscore the intricate relationship between pedagogy and Information and Communication Technology (ICT) as witnessed within educational settings, as well as the many external factors that exert both beneficial and detrimental effects. The effectiveness of ICT in promoting the development of skills depends on the quality of the content and its smooth integration into the curriculum. The research highlighted the challenges linked to the use of technology in educational environments, particularly among academically challenged learners, since they may have a heightened vulnerability to distractions. This highlights the need of adapting technology-based educational methods to suit the specific needs and capacities of learners. Moreover, it underscores the need to develop efficacious classroom management practices and offer suitable supervision when integrating technology into language classes. The issue of insufficient availability of ICT equipment and tools inside educational institutions is a subject of considerable importance. The possibility of widening educational disparities develops when some schools and/or learners possess more advanced technical resources in comparison to others. In order to address this issue in an efficient manner, authorities must prioritise the fair provision of access to ICT resources in all educational institutions, with a specific focus on underserved areas. The research examined several uses of ICT that contribute to the improvement of reading skills. These include the use of diverse multimedia resources, such as motion pictures, Portable Document Format (PDF) documents, and interactive chat platforms. This serves as a demonstration of technology's capacity to adapt and cater to a wide range of learning techniques and preferences. However, the effectiveness of these tactics may vary depending on the specific topic and the educator's skill in implementing them.

5.3.5 Bridging Digital Devices in Digital Reading Resources

The study's results indicate that there are many recurring hurdles in the language classroom. These challenges include power outages, technological difficulties, limited financial resources, inadequate access to necessary materials, distractions caused by mobile phones, and deficiencies in reading skills. To foster an ideal educational setting within a language classroom in South Africa, it is essential to acknowledge the challenges faced by educators in effectively integrating Information and Communication Technology (ICT) while adhering to curricular requirements. The present issue is often faced since the integration of technology requires additional consideration and planning. The provision of support and opportunities for professional growth by educational institutions plays a critical role in enabling educators to effectively incorporate ICT into their teaching practices, while also maintaining the continued emphasis on other important aspects of the curriculum. An additional suggestion advocates for the incorporation of specific time periods dedicated to training and education in the field of ICT. This proposal offers a practical approach to efficiently address challenges connected to time management. Educational institutions may facilitate the efficient utilisation of technology for improved educational results by prioritising ICT and designating specific time slots for training purposes, therefore empowering both educators and learners. However, it is important to ensure that these allocated time periods do not result in any interference with the extensive curriculum, while also ensuring that educators are sufficiently prepared with the necessary assistance and resources to effectively use ICT. The presence of load shedding is a significant hindrance to the use of technology in educational environments. Educators must prioritise the establishment of contingency plans to address power outages, which may require them to adapt their instructional methods to ensure the achievement of optimal learning outcomes. The proficient management of classroom conduct and engagement plays a pivotal role in creating an ideal learning setting.

5.3.6 Teacher Development on ICT Reading Approaches

The use of digital platforms for collaborative reading initiatives, in which people participate in the activities of note-taking, idea exchange, and discourse facilitation, was seen as an admirable approach. The establishment of a participatory and stimulating educational setting has the capacity to augment learners' understanding of written materials and foster the development of critical thinking abilities. The use of technology in educational settings may provide notable benefits to learners who thrive in interactive learning situations, particularly with regard to the social aspect. There exists a need to promote the development of reading communities and digital platforms that encourage the sharing of ideas and suggestions among learners, in order to support social reading and adaptive learning. This approach employs Information and Communication Technology (ICT) to convert the act of reading into a collaborative activity, so promoting heightened learner involvement with reading materials and enabling substantive conversations around their reading encounters. Additionally, another suggestion is the incorporation of flexible learning tools that assess reading proficiency and offer personalised recommendations. This aligns with the concept of adaptive learning, an instructional method that has demonstrated significant effectiveness in addressing the distinct learning needs of individuals. Based on the gathered data, the use of audiobooks as a teaching strategy serves to actively engage learners in the reading process. This

approach is seen as practical since it allows educators to stress comprehension and meaningful discussions without the burden of constant oral reading. Audiobooks may provide benefits to those who have challenges with traditional reading methods, presenting them with an alternative avenue for acquiring textual content.

5.4 RECOMMENDATIONS

Based on the findings from this study, the following are recommended to enhance Information and Communication Technology (ICT) approaches for reading skills in different contexts:

- Integration of ICT for the learning and teaching of reading skills should be promoted to respond to the learning needs of the digital 21st century learners in the reading classrooms.
- ICT devices should be made available for all learners, through school ICT labs, to bridge the divide in accessing knowledge and learning.
- School policies on the use of ICT for learning and teaching should be reviewed to enable teachers and learners to take advantage of benefits of integrating ICT into their reading lessons.
- Learners should be trained on the proper management of ICT devices and information so that they benefit most from using ICT for their reading skills.
- Teachers should be capacitated on digital pedagogies so that they can maximise their practices and the learning in their classrooms.

5.5 THE VALUE OF THE STUDY

It is hoped that this study will be of value to curriculum designers and developers at school level and government level. The intergration of ICT in the reading curriculum will drive the implementation of ICT pedagogies and strategies in the reading classrooms. Furthermore, this study will also inform policy makers on the importance of designing school policies that are flexible enough to allow teachers and learners to integrate the use of technology such as cellphones in the classrooms. Lastly, but not least, the study will support language teachers with ICT approaches that are likely to enhance reading skills of FAL learners in different schooling contexts.

5.6 CONCLUSION

In this chapter, the objectives driving the study were reiterated to remind the readers about the aims of the study. After that, the summary of the findings from the previous chapter were provided. Recommendations that emerged from the findings of the study were also provided as well as the value of the study.

REFERENCES

- Abequibel, B., Dela Rama–Ricohermoso, C., Alieto, E., Barredo, C. & Lucas, R.I., 2021. Prospective Reading Teachers' Digital Reading Habit: A Cross-sectional Design. *TESOL International Journal*, 16(4.4), pp.246-260.
- Agba, M.S. & Rijami, J., 2022. Data Integrity in Research: A Fundamental Prerequisite for Credible Research Output across Disciplines and Professions. *International Journal of Democracy and Development Studies*, 5(2), pp.31-45.
- Ahmed, S.T.S., 2019. Chat and learn: Effectiveness of using WhatsApp as a pedagogical tool to enhance EFL learners reading and writing skills. *International Journal of English Language and Literature Studies*, 8(2), pp.61-68.
- Akour, M. & Alenezi, M., 2022. Higher education future in the era of digital transformation. *Education Sciences*, 12(11), p.784.
- Alakrash, H.M. & Abdul Razak, N., 2021. Technology-based language learning: Investigation of digital technology and digital literacy. *Sustainability*, 13(21), p.12304.
- Alam, M.K., 2021. A systematic qualitative case study: questions, data collection, NVivo analysis and saturation. *Qualitative Research in Organizations and Management: An International Journal*, 16(1), pp.1-31.
- Alharahsheh, H.H. & Pius, A., 2020. A review of key paradigms: Positivism VS interpretivism. *Global Academic Journal of Humanities and Social Sciences*, 2(3), pp.39-43.
- Alneyadi, S., Abulibdeh, E. & Wardat, Y., 2023. The Impact of Digital Environment vs. Traditional Method on Literacy Skills; Reading and Writing of Emirati Fourth Graders. *Sustainability*, 15(4), p.3418.
- Alshairawi, I., 2021. Digital Reading versus Print Reading in The Classroom. Master of Arts in Education thesis. Malmo Universteit.
- Ambarwati, R. & Mandasari, B., 2020. The influence of online Cambridge dictionary toward students' pronunciation and vocabulary mastery. *Journal of English Language Teaching and Learning*, 1(2), pp.50-55.
- Amin, M., 2019. Developing Reading Skills through Effective Reading Approaches. *International Journal of Social Science and Humanities*, 4(1), pp.35-40.
- Anderson, R.C. & Pearson, P.D., 1984. A schema-theoretic view of basic processes in reading comprehension. *Handbook of reading research*, 1, pp.255-291.

- Azmuddin, R.A.A., Nor, N.F.M. & Hamat, A., 2020. Facilitating online reading comprehension in enhanced learning environment using digital annotation tools. *IAFOR Journal of Education*, 8(2), pp.7-27.
- Babapour, M., Ahangari, S. & Ahour, T., 2019. The effect of shadow reading and collaborative strategic reading on EFL learners' reading comprehension across two proficiency levels. *Innovation in language learning and teaching*, 13(4), pp.318-330.
- Braun, V. & Clarke, V., 2006. Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), pp.77-101.
- Buragohain, D. & Kassim, M.S.A.C., 2019. Blending Folklore with Technology as Language Teaching and Learning Tools: Role and Impact. *Journal of Communication in Scientific Inquiry*, pp.43-48.
- Capodieci, A., Cornoldi, C., Doerr, E., Bertolo, L., & Carretti, B., 2020. The Use of New Technologies for Improving Reading Comprehension.
- Castillo, A. M. (2017). The role of digital technologies in promoting literacy practices in the language classroom. *Colombian Applied Linguistics Journal*, 19(2), 233-248.
- Castillo, N.M.R., & Wagner, D.A. 2018. Supporting Home Language reading through technology in rural South Africa. *Journal Articles Literacy Organisation*, 50, pp. 1 – 20.
- Cha, H., Park, T. & Seo, J. 2020. What should be considered when developing ICT-integrated classroom models for a developing country? *Sustainability*, 12, pp. 1–19.
- Chaidi, I., Drigas, A. & Karagiannidis, C., 2021. ICT in special education. *Technium Social Sciences Journal* 23, p.187.
- Chen, J. and Mokmin, N.A.M., 2024. Enhancing primary school students' performance, flow state, and cognitive load in visual arts education through the integration of augmented reality technology in a card game. *Education and Information Technologies*, pp.1-21.
- Cohen, L., Manion, L. & Morrison, K., 2018. *Research methods in education* (8th edition). Abingdon, Oxon.
- Cohen, L., Manion, L., & Morrison, K. 2011. *Research methods in education* (7th ed.). London: Routledge.
- Connelly, L.M., 2014. Ethical considerations in research studies. *Medsurg Nursing*, 23(1), pp.54-56.

Cooper, P.A. 1993. Paradigm shifts in designed instruction: From behaviorism to cognitivism to constructivism. *Educational technology*, 33(5), pp.12-19.

Corbett, F. & Spinello, E., 2020. Connectivism and leadership: harnessing a learning theory for the digital age to redefine leadership in the twenty-first century. *Heliyon*, 6(1), pp. 1-9.

Creighton, T.B. 2018. Digital Natives, Digital Immigrants, Digital Learners: An International Empirical Integrative Review of the Literature. *Education Leadership Review*, 19, pp. 132-140.

Creswell, J.W., 2014. *A concise introduction to mixed methods research*. SAGE publications.

Dangal, M. & Joshi, R., 2020. Hermeneutic phenomenology: Essence in educational research. *Open Journal for Studies in Philosophy*, 4(1).

Davies, T.E., Pettorelli, N., Cresswell, W. & Fazey, I.R., 2014. Who are the poor? Measuring wealth inequality to aid understanding of socioeconomic contexts for conservation: a case-study from the Solomon Islands. *Environmental conservation*, 41(4), pp.357-366.

De Aldama, C. 2020. Cognitive enhancement or cognitive diminishing? Digital technologies and challenges for education from a situated perspective. *Límite Interdisciplinary Journal of Philosophy & Psychology*, pp. 15 – 21.

Dean, J., Pascoe, M. & le Roux, J., 2021. Information and communication technology reading interventions: A scoping review. *Reading & Writing*, 12(1), pp.1-16.

Demir, H.C., 2021. *Affective filter in EFL reading classes: the application readers' theatre* (Master's thesis, Maltepe Üniversitesi, Lisansüstü Eğitim Enstitüsü).

Department Basic Education. 2014. White Paper 7 on e-Education. www.education.gov.za/policydocuments.

Department of Education. 2011. *Curriculum and Assessment Policy Statement (CAPS): Afrikaans First Additional Language Grades 10-12*.

Department of Science and Technology. 2021. Policy Brief June 2021. Available at: https://www.dst.gov.za/images/Policy_Brief_June_2021.pdf (Accessed: 1 March 2024).

Dewey, J., 1960. *On experience, nature, and freedom*. New York: Liberal Arts Press.

DoE, (2003). Draft White Paper on e-Education Transforming Learning and Teaching through ICT. <http://www.gov.za/documents/download.php?f=68777>. (Date accessed: 18 June 2022).

Downes, S., 2008. Places to go: Connectivism & connective knowledge. *Innovate: Journal of Online Education*, 5(1), p.6.

Duggineni, S., 2023. Impact of Controls on Data Integrity and Information Systems. *Science and Technology*, 13(2), pp.29-35.

Farid, A., Ishtiaq, M. and Hussain, M.S., 2020. A Review of Effective Reading Strategies to Teach Text Comprehension to. Teach Text Comprehension to Adult English Language Learners. *Global Language Review*, 5(3), pp. 77-88.

Fox, E., & Alexander, P. A. (2017). Text comprehension: A retrospective, perspective, and prospective. In S. E. Israel (Ed.), *Handbook of research on reading comprehension* (pp. 335–352). New York: The Guilford Press, 2nd.

Fryer, L., Coniam, D., Carpenter, R. and Lăpuşneanu, D., 2020. Bots for language learning now: Current and future directions. *Language and Learning*, 24(20), pp 8- 22.

Gallardo-Echenique, E., Marques-Molas, L., Bullen, M., & Strijbos, J. 2015. Let's talk about digital learners in the digital era. The International Review of Research in Open and Distributed Learning. Retrieved from: <http://www.irrodl.org/index.php/irrodl/article/view/2196/3337>.

Gilbert, J., 2017. A study of ESL students' perceptions of their digital reading. *The reading matrix: an international online journal*, 17, 2, pp.179-195.

Gokbulut, D., Akcamete, G. & Guneyli, A. 2020. Impact of co-teaching approach in inclusive education settings on the development of reading skills. *International Journal of Education and Practice*, 8, pp. 1-17.

Göksün, D.O. & Gürsoy, G., 2019. Comparing success and engagement in gamified learning experiences via Kahoot and Quizizz. *Computers & Education*, 135, pp.15-29.

Habók, A. and Magyar, A., 2019. The effects of EFL reading comprehension and certain learning-related factors on EFL learners' reading strategy use. *Cogent Education*, 6(1), p.1616522.

- Hamad, M.M., 2017. Using WhatsApp to Enhance Students' Learning of English Language" Experience to Share". *Higher Education Studies*, 7(4), pp.74-87.
- Hanus, M.D. & Cruz, C., 2018. Leveling up the classroom: A theoretical approach to education gamification. In *Gamification in Education: Breakthroughs in Research and Practice* (pp. 583-610). IGI Global.
- Heng, K. & Sol, K., 2021. Online learning during COVID-19: Key challenges and suggestions to enhance effectiveness. *Cambodian Journal of Educational Research*, 1(1), pp.3-16.
- Holtrop, J.S., Rabin, B.A. & Glasgow, R.E., 2018. Qualitative approaches to use of the RE-AIM framework: rationale and methods. *BMC health services research*, 18(1), pp.1-10.
- Hung, H. T. (2017) Clickers in the flipped classroom: Bring your own device (BYOD) to promote student learning. *Interactive Learning Environments*, 25(8), 983-995. <https://doi.org/10.1080/10494820.2016.1240090>.
- Iftanti, E., 2015. What makes EFL students establish good reading habits in English. *International Journal of Education and Research*, 3(5), pp.365-374.
- Iivari, N., Sharma, S. & Ventä-Olkkonen, L. 2020. Digital transformation of everyday life—How COVID-19 pandemic transformed the basic education of the young generation and why information management research should care? *International Journal of Information Management*, 55, pp. 102 - 118.
- Ilyasu, R. and Etikan, I., 2021. Comparison of quota sampling and stratified random sampling. *Biom. Biostat. International. Journal of Review*, 10, pp.24-27.
- Insuasty Cárdenas, A., 2020. Enhancing Reading Comprehension through an Intensive Reading Approach. *HOW Journal*, 27(1), pp.69-82. Available at: (Accessed: 1 March 2024).
- Jala, G.T. 2020. Pupils' reading comprehension, problem-solving skills and academic performance. *Journal of World Englishes and Educational Practices*, 2, pp. 1-9.
- Kandel, B., 2020. Qualitative Versus Quantitative Research. *Journal of Product Innovation Management*, 32(5), p.658.

Kerr, M.A. & Symons, S.E., 2006. Computerized presentation of text: Effects on children's reading of informational material. *Reading and writing*, 19, pp.1-19.

Khoa, B.T., Hung, B.P. & Hejsalem-Brahmi, M., 2023. Qualitative research in social sciences: data collection, data analysis and report writing. *International Journal of Public Sector Performance Management*, 12(1-2), pp.187-209.

King, J., Goodson, L., & Rohani, F., 2009. Higher Order Thinking Skills: Definition and Assessment.

Korkmaz, S. & Öz, H., 2021. Using Kahoot to Improve Reading Comprehension of English as a Foreign Language Learners. *International Online Journal of Education and Teaching*, 8(2), pp.1138-1150.

Kropf, D. C., 2013. Connectivism: 21st Century's New Learning Theory.

Kumar, B.S. & Kumara, S.S., 2018. The digital divide in India: use and non-use of ICT by rural and urban students. *Emerald Insight*, 15(2), pp. 156 – 168.

Lau, E.Y.H. & Lee, K., 2021. Parents' views on young children's distance learning and screen time during COVID-19 class suspension in Hong Kong. *Early Education and Development*, 32(6), pp.863-880.

Lee, H. and Hwang, Y., 2022. Technology-enhanced education through VR-making and metaverse-linking to foster teacher readiness and sustainable learning. *Sustainability*, 14(8), p.4786.

Lee, S.J. and Kwon, K., 2024. A systematic review of AI education in K-12 classrooms from 2018 to 2023: Topics, strategies, and learning outcomes. *Computers and Education: Artificial Intelligence*, p.100211.

Lesufi, P. 2016. MEC Panyaza Lesufi: Gauteng Education budget vote 2015/16. <http://www.gov.za/speeches/mec-panyaza-lesufi-gauteng-education-budget-vote,20/08/2016>.

Li, J., 2020. Development and validation of second language online reading strategies inventory. *Computers & Education*, 145, p.103733.

Liza, K. & Andriyanti, E., 2020. Digital literacy scale of English pre-service teachers and their perceived readiness toward the application of digital technologies. *Journal of Education and Learning (EduLearn)*, 14(1), pp.74-79.

- Macedo-Rouet, M., Potocki, A., Scharrer, L., Ros, C., Stadtler, M., Salmerón, L. & Rouet, J.F., 2019. How good is this page? Benefits and limits of prompting on adolescents' evaluation of web information quality. *Reading Research Quarterly*, 54(3), pp.299-321.
- Magaldi, D. & Berler, M., 2020. Semi-structured interviews. *Encyclopedia of personality and individual differences*, pp.4825-4830.
- Makewa, L. N., 2019. Constructivism Theory in Technology-Based Learning. In *Advances in Educational Technologies and Instructional Design* (pp. 268-287). IGI Global. DOI: 10.4018/978-1-5225-5915-3.ch015.
- Mandasari, B. & Wahyudin, A.Y., 2021. Flipped classroom learning model: implementation and its impact on EFL learners' satisfaction on grammar class. *Ethical Lingua: Journal of Language Teaching and Literature*, 8(1), pp.150-158.
- Maphosa, C. & Bhebhe, S., 2019. Digital literacy: A must for open distance and e-learning (ODEL) students. *European Journal of Education Studies*, 5(10), pp. 1 – 14.
- Martiana, N., 2019,. Challenges of teaching English with its four language skills in a rural school of West Kalimantan. In *UNNES International Conference on ELTLT* (pp. 176-182).
- McCarron, S.P. & Kuperman, V. 2022. Effects of year of post-secondary study on reading skills for L1 and L2 speakers of English. *Journal of Research in Reading*, 45, pp. 43-64.
- McGrath, C., Palmgren, P.J. & Liljedahl, M., 2019. Twelve tips for conducting qualitative research interviews. *Medical teacher*, 41(9), pp.1002-1006.
- Meyer, B. 2015. iPads in inclusive classrooms: Ecologies of learning. In *E-learning systems, environments and approaches*. pp. 25-37. Cham: Springer.
- Moats, L.C., 2020. Teaching Reading Is Rocket Science: What Expert Teachers of Reading Should Know and Be Able to Do. Accessed on the 12th of October 2023 from <https://www.aft.org/ae/summer2020/moats>
- Mudra, H., 2020. Digital literacy among young learners: How do EFL teachers and learners view its benefits and barriers? *Teaching English with Technology*, 20(3), pp.3-24.
- Mullis, I.V. & Martin, M.O., 2019. *PIRLS 2021 Assessment Frameworks*. International Association for the Evaluation of Educational Achievement. Herengracht 487, Amsterdam, 1017 BT, The Netherlands.

Ngesi, N., Landa, N., Madikiza, N., Cekiso, M., Tshotsho, B., & Walters, L. 2018. Use of Mobile Phones as Supplementary Teaching and Learning Tools to Learners in South Africa. *Reading & Writing: Journal of the Reading Association of South Africa*, 9, <https://eric.ed.gov/?id=EJ1197071>. (Date accessed: July 2022).

Ngoc, N., 2021. The Relationship between Non-English Major Students' Metacognitive Reading Strategies Use and Reading Comprehension Performance at Dong Nai Technology University. *American Journal of Sciences and Engineering Research*, 4(2), pp.117-126.

Nkomo, S., 2022. Social networking sites in cultivating the reading habits of secondary school learners in Bulawayo, Zimbabwe. *South African Journal of Libraries and Information Science*, 88(1), pp.1-11.

Oblinger, D., 2003. Boomers gen-xers millennials. *EDUCAUSE review*, 500(4), pp.37-47.

Oji, M. & Erubami, A.J., 2020. Discourse on social media use and reading culture of Nigerian youths. *Academic Journal of Interdisciplinary Studies*, 9(6), pp.105-113.

Olugboyega, O., Oseghale, G.E. & Aigbavboa, C., 2023. *Multiple holistic case study of project-level building information modelling (BIM) adoption in Nigeria*. *Construction Innovation*, 23(3), pp.567-586.

Parent, S., & Iatauro, S., 2019. Global Robotics Competition Meets Inclusive Education: The Exceptional Journey of Five Resilient Students. *LEARNing Landscapes*, 12(1), 29-32. DOI: 10.36510/learnland.v12i1.975.

Peng, P. & Kievit, R.A., 2020. The development of academic achievement and cognitive abilities: A bidirectional perspective. *Child Development Perspectives*, 14(1), pp.15-20.

Petrova, A., & Nemeč, M., 2019. The Impact of E-Learning on Reading Comprehension in High School Students.

Petrová, Z. & Nemeč, R. 2019. Changing reading paths in a digital age: What are the consequences for meaning-making? *Journal of pedagogy*, 10, pp. 65 – 85.

Prensky, M. 2001a. Digital natives, digital immigrants, Part 1: *On the Horizon*, 9(5), pp. 1-6.

Qizi, A.K.H., 2021. Improving literacy skills through learning reading. *Наука и образование сегодня*, 4 (63), pp.85-86.

- Rahat, L. & Rahman, G., 2020. Impact of Graphic Organizers on Reading Comprehension of English Learners at Intermediate Level. *sjesr*, 3(3), pp.128-134.
- Rahman, M.S., 2020. *The advantages and disadvantages of using qualitative and quantitative approaches and methods in language “testing and assessment” research: A literature review*, *Journal of Education and Learning*; 6 (1), pp. 102 – 112.
- Ramsook, L. & Thomas, M.M., 2019. Implementation of the Principles of Constructivism and Connectivism. *International Journal of Contemporary Applied Researches*, 6(5), pp.28-36.
- Rehman, A.A. & Alharthi, K., 2016. An introduction to research paradigms. *International Journal of Educational Investigations*, 3(8), pp.51-59.
- Rintaningrum, R. 2019. Explaining the important contribution of reading literacy to the country’s generations: Indonesian’s perspectives. *Journal of Turkish Science Education*, 11, pp. 3-23.
- Roman, M. & Plopeanu, A.P., 2021. The effectiveness of the emergency eLearning during COVID-19 pandemic. The case of higher education in economics in Romania. *International Review of Economics Education*, 37, p.100218.
- Safi, A.B., 2019. ICT and Integration In Education: A Meta-Analysis. *Journal of Emerging Technologies and Innovative Research*, 6(6), pp. 117 – 126.
- Sari, D.M.M., 2020. Contextual redefinition: A teaching strategy for enhancing beginner level of reading achievement. *Journal of English Educational Study (JEES)*, 3(2), pp.110-118.
- Shadiev R, Yang M., 2020. Review of studies on technology-enhanced language learning and teaching. *Sustainability*. 2020 Jan 10;12(2):524.
- Siemens, G., 2005. Connectivism: Learning as network-creation. *ASTD Learning News*, 10(1), pp.1-28.
- Siemens, G., 2005. Learning development cycle: Bridging learning design and modern knowledge needs. *Elearn space everything elearning*. file:///Users/ngubanenl/Downloads/Learning_Development_Cycle_bridging_lear.pdf
- Singer, L.M. & Alexander, P.A., 2017. Reading on paper and digitally: What the past decades of empirical research reveal. *Review of educational research*, 87(6), pp.1007-1041.

- Singh, N., Benmamoun, M., Meyr, E. & Arikan, R.H., 2021. Verifying rigor: analyzing qualitative research in international marketing. *International marketing review*, 38(6), pp.1289-1307.
- Singha, S. & Singha, R., 2023. Protecting Data and Privacy: Cloud-based Solutions for Intelligent Transportation Applications. *Scalable Computing: Practice and Experience*, 24(3), pp.257-276.
- Smith, C.T., 1978. Evaluating answers to comprehension questions. *The Reading Teacher*, 31(8), pp.896-900.
- Støle, H., Mangen, A. & Schwippert, K., 2020. Assessing children's reading comprehension on paper and screen: A mode-effect study. *Computers & Education*, 151, p.103861.
- Vagg, T., Balta, J.Y., Bolger, A. & Lone, M., 2020. Multimedia in education: what do the students think? *Health Professions Education*, 6(3), pp.325-333.
- Warde, W.F., 1960. John Dewey's theories of education. *International Socialist Review*, 21(1), pp.54-61.
- Williams, C., 2023. Technology Magic: Transforming Reading Skills! Center for Student Achievement Solutions. Available at: (Accessed: 1 March 2024).
- Yates, A., Starkey, L., Egerton, B. & Flueggen, F., 2021. High school students' experience of online learning during Covid-19: the influence of technology and pedagogy. *Technology, Pedagogy and Education*, 30(1), pp.59-73.
- Yildiz, E.P., 2022. Teacher Education in the Digital Transformation Process in North Cyprus: A Situation Analysis Study. *International Education Studies*, 15(1), pp.187-199.
- Yin, R. K., 2009. Case study research: Design and methods. London: SAGE.
- Zayed, N.M., 2016. Special designed activities for learning English language through the application of whatsapp!. *English Language Teaching*, 9(2): 199-204. Available at: <https://doi.org/10.5539/elt.v9n2p199>.
- Zhang, R. & Zou, D., 2022. Types, purposes, and effectiveness of state-of-the-art technologies for second and foreign language learning. *Computer Assisted Language Learning*, 35(4), pp.696-742.
- Zimmermann, S. & Hutchins, C., 2008. *7 keys to comprehension: How to help your kids read it and get it!*. Harmony.

ANNEXURE A: UFS ETHICAL CLEARANCE CERTIFICATE



GENERAL/HUMAN RESEARCH ETHICS COMMITTEE (GHREC)

03-May-2023

Dear Miss Monique Peterson

Application Approved

Research Project Title:

Exploring ICT approaches to enhance the reading skills of digital FET learners in the 21st century.

Ethical Clearance number:

UFS-HSD2023/0096/23

We are pleased to inform you that your application for ethical clearance has been approved. Your ethical clearance is valid for twelve (12) months from the date of issue. We request that any changes that may take place during the course of your study/research project be submitted to the ethics office to ensure ethical transparency. Furthermore, you are requested to submit the final report of your study/research project to the ethics office. Should you require more time to complete this research, please apply for an extension. Thank you for submitting your proposal for ethical clearance; we wish you the best of luck and success with your research.

Yours sincerely

Dr Adri Du Plessis

Chairperson: General/Human Research Ethics Committee

Adri
Du
Plessis
Digitally
signed by
Adri Du
Plessis
Date:
2023.05.03
18:29:33
+02'00'

205 Nelson Mandela Drive P.O. Box 339
Park West Bloemfontein 9300
Bloemfontein 9301 Tel: +27 (0)51 401 9337
South Africa duplessisA@ufs.ac.za
www.ufs.ac.za



ANNEXURE B: APPROVAL TO CONDUCT RESEARCH IN THE FREE STATE

Enquiries: M.Z. Thango
Ref: Research Permission: M. Jansen
Tel. 051 404 8808
Email: MZ.Thango@fseducation.gov.za



50 De Kroon
Woodland Hills Wildlife Estate
Bloemfontein
9301

Dear Mrs. M. Jansen

PERMISSION TO CONDUCT RESEARCH IN THE FREE STATE DEPARTMENT OF EDUCATION: MOTHEO DISTRICT

This letter serves to inform you that you have been granted permission to conduct research in the Free State Department of Education within the Motheo Education District. The details in relation to your research project with the University of the Free State are as follows:

Topic: Exploring ICT approaches to enhance the reading skills of digital FET learners in the 21st century.

- List of schools involved:** Bloemfontein High School, HTS Louis Botha and Petunia Secondary School.
- Target Population:** Fifteen educators teaching First Additional Languages at the selected schools.
- Period of research:** From the signature of this letter until 30 September 2023. Please note that the department does not allow any research to be conducted during the fourth term (quarter) of the academic year. Should you fall behind your schedule by three months to complete your research project in the approved period, you will need to apply for an extension. The researcher is expected to request permission from the school principals to conduct research at schools.
- The approval is subject to the following conditions:
 - The collection of data should not interfere with the normal tuition time or teaching process.
 - A bound copy of the research document should be submitted to the Free State Department of Education, Room 101, 1st Floor, Thuto House, St. Andrew Street, Bloemfontein or can be emailed to the above-mentioned email address.
 - You will be expected, on completion of your research study to make a presentation to the relevant stakeholders in the Department.
 - The ethics documents must be adhered to in the discourse of your study in our department.
- Please note that costs relating to all the conditions mentioned above are your own responsibility.

Yours Sincerely,

Mr. MZAMO W. JACOBS
DIRECTOR: QUALITY ASSURANCE, M&E AND STRATEGIC PLANNING

DATE: 01/03/2023

Enquiries: M.Z. Thango
Ref: Notification of research: M. Jansen
Tel. 051 404 8808
Email: MZ.Thango@fseducation.gov.za



District Director
Motheo District

Dear Mr. Molo

NOTIFICATION OF RESEARCH: PERMISSION TO CONDUCT RESEARCH PROJECT IN MOTHEO DISTRICT

This letter serves to inform you that Mrs. M. Jansen has been granted permission to conduct research in the Motheo District under the auspices of the University of the Free State. The details in relation to the research project are as follows:

Topic: Exploring ICT approaches to enhance the reading skills of digital FET learners in the 21st century.

- List of schools involved:** Bloemfontein High School, HTS Louis Botha and Petunia Secondary School.
- Target Population:** Fifteen educators teaching First Additional Languages at the selected schools.
- Period of research:** From the signature of this letter until 30 September 2023. Please note the department does not allow any research to be conducted during the fourth term (quarter) of the academic year nor during normal school hours. The researcher is expected to request permission from the school principals to conduct research at schools.
- Research benefits:** This research will help both educators and learners to better understand ICT approaches that can be utilised in the classroom to enhance the reading practices of learners. This research will raise learner outcomes as it unfolds, and learners will be able to improve their reading abilities since they are digital learners and space is provided to fit their desire, which is digital learning and more current ways used by educators. Producing readers who can comprehend can assist learners beyond high school. Learners may employ what they've learned in any reading-and-understanding circumstance.
- The Sub-directorate of Research and policy will make the necessary arrangements for the researchers to present the findings and recommendations to the relevant officials in the Department.

Yours Sincerely,

Mr. MZAMO W. JACOBS
DIRECTOR: QUALITY ASSURANCE, M&E AND STRATEGIC PLANNING

DATE: 01/03/2023

ANNEXURE C: RESEARCH STUDY INFORMATION AND CONSENT FORMS: PRINCIPAL

UNIVERSITY OF THE
FREE STATE
UNIVERSITEIT VAN DIE
VRYSTAAT
YUNIVESITHI YA
FREISTATA



Dear Principal

I am conducting research at your secondary school and would like to request your permission to obtain some information from your staff members through the form of an interview.

Date:

01 February – 31 Mei 2023

Title of the Research Project:

Exploring ICT approaches to enhance the reading skills of digital FET learners in the 21st century.

Principle Investigator/Researcher name and Contact Number:

Monique Jansen 2011127855 083 321 0681

Faculty and department:

Faculty of Education- School of Social Sciences and Language Education

Dr. N. Ngubane

☎ 051 401 9676

✉ NgubaneNI@ufs.ac.za

What is the AIM/Purpose of the study?

The aim of this study is to explore teachers' perceptions of alternative pedagogic approaches to enhance the reading skills of digital high school learners in the 21st century.

Who is conducting the research?

Mrs M Jansen, Language educator in the FET phase, at Brebner High School. I want to conduct this research as part of my responsibilities as a language educator in the FET phase and obtain a deeper understanding of the most effective teaching methods to utilise to enhance reading skills and understanding in the language classroom.

Has the study received ethical approval?

The study is in the process of ethical clearance from the Research Ethics Committee of UFS. A copy of the approval letter can be obtained from the researcher as soon as ethical clearance are granted and approved.

Approval number: UFS – HSD2023/0096

UNIVERSITY OF THE
FREE STATE
UNIVERSITEIT VAN DIE
VRYSTAAT
YUNIVESITHI YA
FREISTATA



Why is your institution invited to partake in this research?

Your institution is best suited as it is a school within the Free State region teaching to a diversity of learners and having a diverse teaching staff. Participants were purposefully selected and will comprise of a total of five participants.

What is the nature of Participation in this Study?

The study involves semi-structured interviews with five language educators from gr 8-12 at the school. A personal meeting will be held with the individual educators to explain their involvement in the study. It will take approximately 30 minutes for participants to complete the interview. The study involves individual interviews with educators from the school.

What are the potential benefits of taking part in this study?

The potential benefit of this study is to help both educators and learners to better understand pedagogical approaches, which affect the academic performance of learners. This research will raise learner outcomes as it unfolds, and learners will be able to improve their reading abilities since they are digital learners and space is provided to fit their desire, which is digital learning and more current ways used by educators. Producing readers who can comprehend can assist learners beyond high school. Learners may employ what they've learned in any reading-and-understanding circumstance. Educators must build and perfect various areas of pedagogy geared at learners' achievement. From the educator's viewpoint, difficulties will be discovered early, and the educator may alter his/her pedagogy to improve reading comprehension. Learners will gain confidence in approaching the subject and will be equipped with the information necessary to develop reading abilities in any additional language.

What are the potential risks of partaking in this research?

There are no risks foreseen for participants in this study.

Will the information be kept confidential?

The names of the participants will be kept confidential, and this implies the anonymity of their participation. Code numbers will be utilised to refer to the participants in the study. Privacy will be protected and participants may refuse or choose to withdraw at any stage of the process. Participants' names and surnames will not be stipulated anywhere and their data will be coded for inventory purposes. Privacy will be protected and participants will be informed that they have the right to withdraw from the study at any time. It is mandatory to mention that only the transcriber will have access to the data. It is apparent that research ethics denote the moral beliefs guiding research. Confidentiality will be upheld by signing a confidentiality agreement. The thesis will be

reviewed by several scholars to ensure that the research has been done appropriately. The thesis will be submitted but the individual participants will not be identifiable in the study.

How will the information be stored and ultimately destroyed?


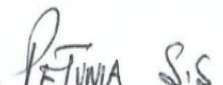
The scholar will safeguard all the hard copies of the answers provided for a period of five years in a locked cabinet at home, school and university. It is important to indicate that for future research or academic purposes, electronic information will be stored on a password computer. Further use of the data will be subject to further Research Ethics Review and approval if applicable. If the data is not required anymore, it will be paper shredded.

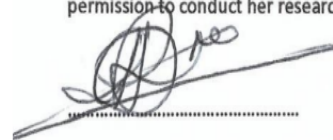
Will there be payment or any incentives for participating in this study?

It is vital to indicate that there will be no payment or reward offered to the participants. This being said, it can be predicted that the potential level of inconvenience will be low.

How will the institution be informed of the findings/results of the study?

If you would like to be informed of the final research findings, please contact me, Mrs. Jansen on 083 321 0681 or via email at mpeterson887@gmail.com. Should you have any further information or want to contact the researcher about any aspect of this study, please contact my supervisor as the details are mentioned Dr. NI Ngubane at 051 401 9676.

I  principal of  hereby provide the student researcherMonique Jansen..... with the student number2011127855..... permission to conduct her research for the stated duration.



Mr. J. Brown (Principal)

School Stamp:



PETUNIA
SECONDARY SCHOOL
21458 HEIDEDAL 9308
TEL: (051) 4327800
FAX: 083 408 5365
EMAIL: petuniasecschool@iburst.co.za

reviewed by several scholars to ensure that the research has been done appropriately. The thesis will be submitted but the individual participants will not be identifiable in the study.

How will the information be stored and ultimately destroyed?

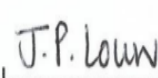

The scholar will safeguard all the hard copies of the answers provided for a period of five years in a locked cabinet at home, school and university. It is important to indicate that for future research or academic purposes, electronic information will be stored on a password computer. Further use of the data will be subject to further Research Ethics Review and approval if applicable. If the data is not required anymore, it will be paper shredded.

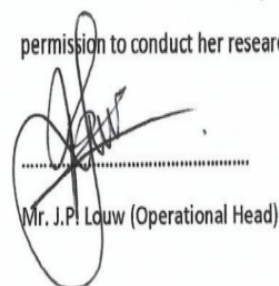
Will there be payment or any incentives for participating in this study?

It is vital to indicate that there will be no payment or reward offered to the participants. This being said, it can be predicted that the potential level of inconvenience will be low.

How will the institution be informed of the findings/results of the study?

If you would like to be informed of the final research findings, please contact me, Mrs. Jansen on 083 321 0681 or via email at mpeterson887@gmail.com. Should you have any further information or want to contact the researcher about any aspect of this study, please contact my supervisor as the details are mentioned Dr. NI Ngubane at 051 401 9676.

I  principal of  hereby provide the student researcherMonique Jansen..... with the student number2011127855..... permission to conduct her research for the stated duration.



Mr. J.P. Louw (Operational Head)

School Stamp:

CURRO BLOEMFONTEIN
INDEPENDENT SCHOOL
P.O. BOX 42449
HEUWELSIG
9332
TEL: 087 284 7300

UNIVERSITY OF THE
FREE STATE
UNIVERSITEIT VAN DIE
VRYSTAAT
YUNIVESITHI YA
FREISTATA



Brebner High School

P.O. BOX 28703 DANHOF 9310 ☎ (051) 436 2267 FAX. (051) 436 4791
E-Mail: headmaster@brebnerhigh.co.za

reviewed by several scholars to ensure that the research has been done appropriately. The thesis will be submitted but the individual participants will not be identifiable in the study.

How will the information be stored and ultimately destroyed?

The scholar will safeguard all the hard copies of the answers provided for a period of five years in a locked cabinet at home, school and university. It is important to indicate that for future research or academic purposes, electronic information will be stored on a password computer. Further use of the data will be subject to further Research Ethics Review and approval if applicable. If the data is not required anymore, it will be paper shredded.

Will there be payment or any incentives for participating in this study?

It is vital to indicate that there will be no payment or reward offered to the participants. This being said, it can be predicted that the potential level of inconvenience will be low.

How will the institution be informed of the findings/results of the study?

If you would like to be informed of the final research findings, please contact me, Mrs. Jansen on 083 321 0681 or via email at mpeterson887@gmail.com. Should you have any further information or want to contact the researcher about any aspect of this study, please contact my supervisor as the details are mentioned Dr. NI Ngubane at 051 401 9676.

I T.F. Connaway principal of BLOEMPONTEIN SS hereby provide the student researcher Monique Jansen with the student number 2011127855 permission to conduct her research for the stated duration.

Mr. T. Connaway (Principal)



TO WHOM IT MAY CONCERN

I, Elbie Roberson, Principal of Brebner High School hereby provide the

Student researcher Monique Jansen

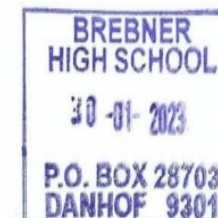
with the student number 2011127855

permission to conduct his/her research for the stated duration.

Thank you

Elbie Roberson
E. ROBERSON
PRINCIPAL

30.1.23
DATE



ANNEXURE D: RESEARCH STUDY INFORMATION AND CONSENT FORMS EDUCATORS



Consent to take part in research.

- I confirm that I voluntarily agree to participate in the research study referred to as: *EXPLORING ICT APPROACHES TO ENHANCE THE READING SKILLS OF DIGITAL FET LEARNERS IN THE 21ST CENTURY*, in relation to Language Education and which the Study is being conducted by Mrs. Monique Jansen.
- I understand that even if I agree to participate now, I can withdraw at any time or refuse to answer any question without any consequences of any kind.
- I understand that I can withdraw permission to use data from my interview within two weeks after the interview, in which case the material will be deleted.
- I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study.
- I understand that participation involves...[outline briefly in simple terms what participation in your research will involve].
- I understand that I will not benefit directly from participating in this research.
- I agree to my interview being audio-recorded.
- I understand that all information I provide for this study will be treated confidentially.
- I understand that in any report on the results of this research my identity will remain anonymous. This will be done by changing my name and disguising any details of my interview which may reveal my identity or the identity of people I speak about.
- I understand that disguised extracts from my interview may be quoted in...[list all forum in which you plan to use the data from the interview: dissertation, conference presentation, published papers etc.].



- I understand that if I inform the researcher that myself or someone else is at risk of harm, they may have to report this to the relevant authorities - they will discuss this with me first but may be required to report with or without my permission.
- I understand that signed consent forms and original audio recordings will be retained in [specify location, security arrangements and who has access to data] until [specific relevant period – for students this will be until the exam board confirms the results of their dissertation].
- I understand that a transcript of my interview in which all identifying information has been removed will be retained for [specific relevant period – for students this will be two years from the date of the exam board].
- I understand that under freedom of information legalisation I am entitled to access the information I have provided at any time while it is in storage as specified above.
- I understand that I am free to contact any of the people involved in the research to seek further clarification and information.

Names, degrees, affiliations and contact details of researchers (and academic supervisors when relevant).

Signature of research participant

Date:

Signature of researcher

Date:

I believe the participant is giving informed consent to participate in this study.

ANNEXURE E: SEMI-STRUCTURED INTERVIEWS: EDUCATORS

Interview questions

1. **What ICT approaches enhance reading skills of digital FET learners in the 21st century?**

Follow-up questions:

- What do you think about the use of ICT for improving reading skills of additional language learners?
- Have you used technology for teaching reading skills in your additional language classroom? If yes, why? If no, why? – Please elaborate.
- Do you think that using ICT can improve learners' **learning** of reading skills? Please elaborate.
- Do you think that using ICT can improve the **teaching** of reading in additional language classroom? Please elaborate.

2. **How do teachers use ICT approaches to enhance the reading skills of digital FET learners in the 21st century?**

- How do you think ICT can be used to improve learners reading skills?

3. **What challenges are faced by teachers in the integration of ICT approaches to enhance reading skills of digital FET learners in the 21st century?**

- Are there challenges faced by teachers in using ICT for improving learners reading skills? Please elaborate.
- How can these challenges be addressed?

4. **In what ways do the ICT approaches enhance reading skills of digital FET learners in the 21st century?**

- What do you think are the benefits of using ICT for teaching reading skills?
- Can ICT improve reading skills of additional language learners? In what ways?

ANNEXURE F: OBSERVATION FORM: EDUCATORS

Classroom Observation Form

School: _____
Subject/Grade: _____
Date of Observation: _____
Evaluator: M. Jansen (Researcher) _____
Topic of the Lesson: _____
Duration the lesson _____



ASPECTS OF OBSERVATION	OBSRVATION NOTES
1. What ICT approaches are used in the lesson?	Short explanation
2. Is ICT utilized specifically to enhance reading skills?	Yes/No
3. Is ICT integrated with other approaches to enhance reading skills?	Yes/No
4. Are the learners using ICT approaches to enhance their reading skills?	Yes/No
5. Are there opportunities for the learners to utilise ICT to enhance their reading skills in the lesson?	Yes/No
6. What ICT approaches are used by learners to enhance their reading skills?	Short explanation
7. How do learners' use ICT approaches to enhance their reading skills?	Short explanation
8. Is the learners' utilisation of ICT appropriate for the development of reading skills?	Yes/No
9. Does the learners' utilisation of ICT assist with the development of reading skills?	Yes/ No
10. Is teacher utilising ICT for development of learners' reading skills?	Yes/ No
11. Are there opportunities for the teacher to utilise ICT to enhance their reading skills in the lesson?	Yes/ No
12. What ICT approaches are used by the teacher to enhance learners' reading skills?	Short explanation
13. How does the teacher utilise ICT approaches to enhance learners' reading skills?	Short explanation
14. Are there challenges limiting the use of ICT for the enhancement of reading skills in the classroom?	Short explanation
Researcher's additional notes:	



ANNEXURE G: CERTIFICATE FROM LANGUAGE EDITOR

505 The Oaks

1a Oak Avenue

Wynberg

Cape Town

7800

084 6764670

catherineharrison1@gmail.com

23 November 2023

TO WHOM IT MAY CONCERN

This is to certify that I, Catherine Jourdan, proof-read, copy-edited and formatted the dissertation ***EXPLORING ICT APPROACHES TO ENHANCE THE READING SKILLS OF DIGITAL FET LEARNERS IN THE 21ST CENTURY*** by Monique Jansen.

Yours faithfully

A handwritten signature in black ink that reads "C. Jourdan". The signature is written in a cursive, flowing style.

Catherine Jourdan

ANNEXURE H: TURN IT IN RECEIPT AND REPORT

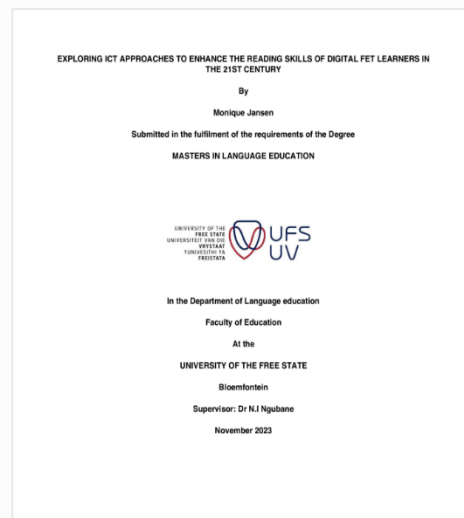


Digital Receipt

This receipt acknowledges that Turnitin received your paper. Below you will find the receipt information regarding your submission.

The first page of your submissions is displayed below.

Submission author: Monique Jansen
Assignment title: Turnitin Draftbox
Submission title: Master's dissertation
File name: Monique_FINAL_draft_-_08_November_2023.docx
File size: 10.67M
Page count: 80
Word count: 27,726
Character count: 161,841
Submission date: 10-Nov-2023 07:09PM (UTC+0200)
Submission ID: 2224016112



Copyright 2023 Turnitin. All rights reserved.

EXPLORING ICT APPROACHES TO ENHANCE THE READING SKILLS OF DIGITAL FET LEARNERS IN THE 21ST CENTURY

By

Monique Jansen

Submitted in the fulfilment of the requirements of the Degree

MASTERS IN LANGUAGE EDUCATION



In the Department of Language education

Faculty of Education

At the

Match Overview

4%

1	scholar.ufs.ac.za Internet Source	1%
2	Submitted to Upper lo... Student Paper	1%
3	wiredspace.wits.ac.za Internet Source	<1%
4	researchspace.ukzn.ac... Internet Source	<1%
5	repository.up.ac.za Internet Source	<1%
6	Tehmina Zafar, Muham... Publication	<1%
7	core.ac.uk Internet Source	<1%
8	eprints.utas.edu.au Internet Source	<1%
9	euologo2005.oeizk.w... Internet Source	<1%
10	Submitted to The Robe... Student Paper	<1%