EXPLORING DIGITAL STRATEGIES USED FOR ENGLISH FIRST ADDITIONAL LANGUAGE READING BY GRADE 4 TEACHERS: A CASE OF THOHOYANDOU CLUSTER

by

Israel Creleanor Mulaudzi

Student Number: 9711289

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UNIVERSITY OF VENDA

SUPERVISOR: PROF. MN LAMBANI

CO-SUPERVISOR: PROF. EK KLU

CO-SUPERVISOR: DR FT NEPHAWE

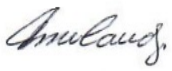
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DECLARATION

I, *Israel Creleanor Mulaudzi* (Student Number: 9711289), declare that this thesis submitted for the Doctor of Philosophy in English Language Teaching at the University of Venda has not been submitted previously for a degree at this or any other university. I further declare that this thesis is my work in design and execution and that all reference materials contained herein have been duly acknowledged

Signature:  Date: 08/01/2025

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DEDICATION

I dedicate this thesis to my family members: my husband, Dr NJ Mulaudzi for his valuable insight and guidance throughout the research process. I am equally indebted to my four sons, Ohula Jedidiah Mulaudzi, Arilwelaho Jezaniah Mulaudzi, Udivhazwothe Jehoshaphat Mulaudzi, and Endanae Jehiskiah Mulaudzi, my late mother Ntavhanyeni Elisa Lephauphau-Chauke, my sister, Livhuwani Tshifularo, and her husband, Shumani Tshifularo; their children, Ndivho, Vhutali and Ndiakona; as well as my entire family for their unwavering support they gave me throughout my doctoral study. A friend in need is a friend indeed. Athalia Makhavhu-Neluvhalani, you have been there for me since my teenage years, and now that you have gone to be with the Lord, I will still get your support from the Lord God Almighty, who has made me achieve all I have.

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ABSTRACT

This study, grounded in the pragmatist paradigm, employs a mixed-methods approach underpinned by both positivist and interpretivist paradigms to investigate digital strategies for teaching English First Additional Language (EFAL) reading to Grade 4 learners in the Thohoyandou Cluster. A convergent parallel design was used to integrate quantitative and qualitative findings. The study is framed by the Technology Acceptance Model (TAM), alongside Shulman's Pedagogical Content Knowledge (PCK), Vygotsky's sociocultural theory, Constructivist Learning Theory, and Cognitive Load Theory. It aimed to explore how digital strategies can help address EFAL reading difficulties. One hundred Grade 4 EFAL teachers completed questionnaires for the quantitative phase, while ten teachers were purposively selected for semi-structured interviews and classroom observations in the qualitative phase. Data analysis involved SPSS Version 29 for quantitative data and thematic analysis for qualitative data. Findings suggest that digital strategies enhance learner engagement and language proficiency, contributing to a more dynamic and inclusive EFAL reading programme. However, systemic difficulties such as limited digital infrastructure and insufficient teacher training hinder full implementation. The study recommends that policymakers invest in targeted professional development to build teachers' digital and pedagogical skills.

Keywords: Digital strategies, EFAL reading difficulties, Technology Acceptance Model, mixed-methods research, convergent parallel design.

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ABBREVIATIONS AND ACRONYMS

ALP	Adaptive Learning Platforms
ANA	Annual National Assessments
AR	Augmented Reality
CAPS	Curriculum and Assessment Policy Statement
DAAR	Drop All and Read
DBE	Department of Basic Education
DEAR	Drop Everything and Read
EFAL	English First Additional Language
EIBs	Electronic Interactive Boards
FAL	First Additional Language
FLC	Foundations for Learning Campaign
GGL	Gamification and Game-based learning
LoLT	Language of Learning and Teaching
NCS	National Curriculum Statement
NRS	National Reading Strategy
PCK	Pedagogical Content Knowledge
PEOU	Perceived Ease of Use
PIRLS	Progress in International Reading Literacy Study
PU	Perceived Usefulness
RSA	Republic of South Africa
SA	South Africa
SPSS	Statistical Package for Social Sciences
SCK	Subject Content Knowledge
T1	Teacher 1
T100	Teacher 100
TAM	Technology Acceptance Model
VR	Virtual Reality

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CHAPTER ONE: INTRODUCTION AND BACKGROUND TO THE STUDY

The South African Department of Basic Education (DBE) has emphasised the importance of improving reading proficiency early, aligning with international standards. This chapter presents the study's background, rationale, problem statement, aim, research objectives, research questions, significance, delimitation, key concepts, organisation, and summary.

1.1 BACKGROUND TO THE STUDY

Reading proficiency in English First Additional Language (EFAL) remains a persistent challenge in many rural South African schools. Despite policy efforts and educational interventions, many learners in these settings struggle to acquire the foundational literacy skills necessary for academic success. This is particularly concerning in Grade 4, which marks a critical transitional phase where learners are expected to shift from "learning to read" to "reading to learn." However, due to systemic and contextual barriers, many learners at this stage fail to meet national literacy benchmarks, thereby hindering their progress across other subjects that rely heavily on reading comprehension.

In recent years, digital tools have emerged as a promising avenue to support and enrich reading instruction. Resources such as e-books, educational applications, and gamified platforms offer interactive and engaging learning experiences that can be tailored to learners' diverse needs. Studies have shown that such digital strategies can significantly improve learners' reading comprehension, vocabulary development, and reading motivation (Castillo-Cuesta, 2022; Chuang & Jamiat, 2023). These tools align with constructivist learning approaches, promoting active learner participation and self-directed learning.

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Nonetheless, the integration of digital strategies in rural classrooms remains uneven and is often hindered by various structural and pedagogical difficulties. Research has documented that teachers working in rural contexts face considerable barriers to adopting digital tools, including inadequate infrastructure, limited access to training, and the absence of curriculum-aligned digital content (Czerniewicz & Brown, 2020; Bennell & Akyeampong, 2020). As a result, many educators struggle to incorporate technology into their EFAL instruction in meaningful and sustainable ways.

The digital divide continues to be a pressing concern, particularly in marginalised regions such as the Thohoyandou Cluster. Learners and teachers experience restricted access to digital resources in these areas, further entrenching educational inequalities (Mpofu & Sibanda, 2022). While urban schools may benefit from more consistent access to internet services and digital infrastructure, rural schools often rely on limited or outdated resources, if any at all. This disparity underscores the urgent need for targeted interventions that provide access to digital tools and offer training and support tailored to the unique realities of rural educational settings.

1.1.1 GLOBAL CONTEXT OF DIGITAL EDUCATION

The global shift toward digital learning has redefined educational practises in developed and developing countries. International organisations such as the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Bank strongly advocate integrating digital tools into education systems, especially in under-resourced environments, to improve learning outcomes (UNESCO, 2020). Countries such as South Korea and Finland, which are known for their high-performing education systems, have successfully embedded digital literacy into their core curricula from the primary level. These countries benefit

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from widespread access to technology, strong policy implementation, and comprehensive teacher training programmes (OECD, 2021). Substantial investments in digital infrastructure have enabled them to transition smoothly to digital teaching models.

In contrast, developing countries, particularly in sub-Saharan Africa, face significant barriers to digital integration. Adopting digital learning tools is often hindered by limited infrastructure, insufficient teacher training, and broader socioeconomic difficulties (Ali, Ahmed, & Alsharif, 2024). Although many of these nations acknowledge the importance of Information and Communication Technology (ICT) in education, the speed and effectiveness of implementation vary considerably.

In South Africa, the Department of Basic Education (DBE) has introduced several policy frameworks to promote digital learning and reduce educational inequality. These include the White Paper on e-Education (2004), the National Development Plan (NDP) 2030, the South African Schools Act (SASA) 1996, the Comprehensive Rural Development Programme (CRDP), and the Integrated Strategic Planning Framework for Teacher Education and Development (2011) (Department of Education, 2004; Sayed, 1999; Kariuki, 2010; Stiglingh-Van Wyk, 2020).

Despite these progressive policies, implementation remains inconsistent, particularly in rural provinces. According to DBE reports, approximately 70% of rural schools still lack adequate ICT resources, revealing a stark digital divide between urban and rural educational contexts. While urban schools have seen substantial ICT integration in recent years, rural schools such as those in the Thohoyandou Cluster continue to face difficulties, including poor infrastructure, unreliable internet connectivity, and limited digital literacy among educators (Mpofu & Sibanda, 2022).

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The NDP envisions that by 2030, all learners will have access to digital learning resources, yet achieving this goal remains elusive in rural settings. The Thohoyandou Cluster exemplifies this gap, where many schools operate without basic digital tools and teachers struggle with limited support and training for ICT integration. Addressing these disparities requires targeted investment, context-sensitive implementation strategies, and sustained stakeholder collaboration.

1.1.2 NATIONAL CONTEXT: THE ROLE OF DIGITAL STRATEGIES IN SOUTH AFRICAN EDUCATION

Integrating digital strategies in South Africa's education system is a crucial step toward achieving the goals outlined in the National Development Plan (NDP) 2030, which seeks to improve educational equity and learner outcomes. The Department of Basic Education (DBE) has acknowledged the importance of foundational reading skills, particularly in Grade 4, when English First Additional Language (EFAL) becomes the Language of Learning and Teaching (LoLT). At this stage, learners are expected to shift from “learning to read” to “reading to learn,” yet many in rural areas continue to face literacy difficulties due to insufficient resources, limited English exposure, and systemic inequalities (Gustafsson & Makgetla, 2019). Despite progressive national policies such as the National Integrated ICT Policy White Paper and the Republic of South Africa Schools Act (1996), implementation remains uneven. Approximately 70% of rural schools lack adequate ICT infrastructure, perpetuating the digital divide and further marginalising learners in under-resourced communities (DBE Reports, 2020).

Information and Communication Technology (ICT) has become increasingly important for transforming teaching and learning practises, especially in language instruction. Digital tools have shown the potential to improve reading fluency, vocabulary development, and comprehension when effectively integrated into EFAL instruction (Leal Uhlig et al., 2023). However, widespread

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implementation is hindered by insufficient funding, high hardware costs, and limited internet connectivity, particularly in remote areas.

These systemic barriers also impact teachers. Many work in overcrowded classrooms with minimal access to professional development opportunities, focusing on digital pedagogy (Bennell & Akyeampong, 2020). In response, there is a growing recognition of the need for a multi-faceted approach that includes:

- Improving digital infrastructure,
- Delivering targeted training for teachers, and
- Developing culturally and linguistically relevant digital content.

This study contributes to these national efforts by examining how digital strategies can enhance EFAL reading instruction in rural Grade 4 classrooms, particularly within the Thohoyandou Cluster. It explores the effectiveness of these tools and highlights best practises that can inform future policy and classroom innovation.

1.1.3 LOCAL CONTEXT: DIFFICULTIES AND GAPS IN ENGLISH FIRST ADDITIONAL LANGUAGE DIGITAL INSTRUCTION IN RURAL AREAS

In South Africa, integrating Information and Communication Technology (ICT) into education is a national priority, with several policies encouraging digital learning to improve literacy outcomes. However, many rural schools, particularly in regions like the Thohoyandou

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Clusters struggle to translate these policies into effective classroom practices due to entrenched infrastructural, socioeconomic, and pedagogical difficulties (Bennell & Akyeampong, 2020; HSRC, n.d.).

Overcrowded classrooms, limited teaching materials, and restricted internet access are some primary barriers undermining effective EFAL (English First Additional Language) instruction in these contexts (Mulaudzi, 2021). While digital tools have been shown to improve learner engagement and reading comprehension, the lack of electricity, insufficient digital devices, and unreliable connectivity make it difficult for teachers to adopt these strategies consistently (HSRC, n.d.; Czerniewicz & Brown, 2020).

Another significant concern is the lack of digital literacy and ongoing professional development among rural teachers. Although the Department of Basic Education (DBE) has introduced digital training workshops, many educators report that these are too general and do not sufficiently equip them to integrate technology into EFAL instruction (Bennell & Akyeampong, 2020). The absence of curriculum-aligned guidance on implementing digital strategies in language teaching further complicates adoption (Fesi & Mncube, 2021).

Socioeconomic disparities compound these issues, with many learners coming from households that lack access to basic resources, including electricity and mobile devices. This limits their ability to engage in reading activities beyond the school environment and aggravates the digital divide (Czerniewicz & Brown, 2020). The COVID-19 pandemic intensified these gaps by exposing the deep inequities in digital access and prompting renewed attention to the need for scalable, inclusive digital learning solutions (Maja, 2023).

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This study investigates how Thohoyandou Cluster teachers navigate these systemic difficulties and examines their digital strategies in EFAL instruction. By exploring barriers and opportunities, the research aims to provide practical insights for improving reading outcomes in under-resourced rural classrooms.

1.1.4 DIGITAL STRATEGIES FOR ENGLISH FIRST ADDITIONAL LANGUAGE READING

Integrating digital strategies into EFAL instruction offers numerous benefits, including enhanced learner engagement, personalised learning experiences, and improved literacy outcomes. Tools such as interactive e-books, gamified platforms, and audio resources provide opportunities for differentiated instruction, catering to learners' diverse needs and abilities (Chuang & Jamiat, 2023). For instance, interactive e-books with embedded audio and visual elements can support vocabulary acquisition and pronunciation, while gamified platforms like Kahoot and Quizlet make learning enjoyable and motivating (Castillo-Cuesta, 2022).

Audio tools and podcasts model fluent reading and improve listening skills, enabling learners to self-correct and monitor their fluency (Vlachopoulos & Makri, 2019). Digital storytelling tools encourage creativity and critical thinking, allowing learners to construct their narratives using multimedia elements (Kim & Li, 2021). These strategies align with the study's aim to evaluate the effectiveness of digital tools in enhancing EFAL reading outcomes.

1.1.5 BARRIERS TO DIGITAL INTEGRATION

Despite their potential, integrating digital strategies into rural EFAL instruction faces significant barriers. Limited access to technology, unreliable internet connectivity, and insufficient teacher training hinder the adoption of digital tools in classrooms

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(Bennell & Akyeampong, 2020). The lack of culturally relevant content and alignment with the EFAL curriculum makes effective implementation difficult (Fesi & Mncube, 2021).

Teachers often report feeling overwhelmed and underprepared to use digital tools, highlighting the need for continuous professional development and peer support networks (Darling-Hammond, Hyler, & Gardner, M., 2017). Socioeconomic factors further aggravate these difficulties, with many learners unable to access digital resources outside school (Czerniewicz & Brown, 2020). Addressing these barriers requires a collaborative effort among policymakers, educators, and stakeholders to provide the necessary infrastructure, training, and support.

The integration of digital strategies in education is transforming learning environments globally. In South Africa, particularly within rural areas like the Thohoyandou Cluster, EFAL teaching difficulties are significant due to limited access to technology, insufficient infrastructure, and teacher training deficiencies (Mulaudzi, 2024). These difficulties impair educational inequalities, making exploring innovative teaching strategies to bridge the gap and improve literacy outcomes imperative. Digital tools offer new opportunities for enhancing EFAL reading instruction, but their adoption remains uneven across urban and rural settings. This study aims to investigate the potential of digital strategies in overcoming these barriers and improving EFAL reading outcomes for Grade 4 learners.

The South African Department of Basic Education (DBE) has emphasised the need to enhance reading proficiency early in a child's educational trajectory, aligning with international standards. Grade 4 is a critical transition point where EFAL becomes the LoLT.

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making it imperative to explore innovative teaching strategies. Digital tools offer new opportunities for improving literacy, yet many schools face barriers to successfully adopting these technologies, which this study aims to investigate.

1.1.6 DIGITAL LITERACY CRISIS

Many rural South African teachers need more literacy skills, which are critical for adopting modern teaching tools. Studies conducted by the Education Training and Development Practises Sector Education and Training Authority (ETDP SETA) reveal that more than 65% of rural teachers feel unprepared to integrate digital strategies into their lessons, citing a lack of training and support (OECD, 2021). This highlights a systemic issue within the education sector where teachers are expected to implement digital strategies without adequate training.

1.1.7 IMPACT ON LEARNERS

The issue most significantly impacting learners is the effect of poor literacy skills in their home language on their academic progress, particularly in rural areas. Statistics South Africa (2020) reports that nearly 80% of Grade 4 learners in these areas struggle to read for meaning in any language. This literacy crisis significantly hampers their ability to engage with learning materials across subjects. Integrating digital tools holds promise in addressing this challenge by providing interactive, engaging, and multimodal learning experiences. However, digital literacy disparities exist between them. If done effectively, integrating digital tools could provide a pathway to improved literacy for these learners. However, the existing inequalities will likely worsen without a concerted effort to improve teacher and learner digital literacy.

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1.1.8 EDUCATIONAL POLICY FRAMEWORKS

South Africa's education system is governed by various policy frameworks aimed at improving the quality of education and integrating digital learning tools. One such framework is the Curriculum and Assessment Policy Statement (CAPS), which provides guidelines for teaching EFAL (White Paper on the Department of Education, 2004). However, CAPS do not adequately address how digital strategies can be incorporated into EFAL instruction, leaving teachers with little guidance on navigating this evolving landscape. This disconnect between policy and practice has contributed to the difficulties teachers face in the Thohoyandou Cluster as they attempt to reconcile the expectations of modern digital education with the realities of their limited resources.

The White Paper on the Department of Education (2004) set the foundation for South Africa's push toward digital learning by outlining a vision for ICT integration in schools. The policy proposed that every South African learner be proficient in ICTs by 2013, with teachers expected to integrate digital learning tools into their pedagogical practices. However, the reality is starkly different, particularly in rural schools.

The National Integrated ICT Policy White Paper on the Department of Education (2004) built on these earlier initiatives by addressing the broader ICT ecosystem and proposing strategies for broadband access and digital literacy training across all sectors. Despite these ambitious goals, schools in rural areas continue to face systemic barriers. The lack of infrastructure and resources has led to significant implementation delays, particularly in the education sector. In the Thohoyandou Cluster, for example, many schools still lack basic internet connectivity, a prerequisite for most digital learning platforms.

Reading is a foundational skill critical for academic success and lifelong learning. The National Integrated ICT Policy White Paper on the Department of Education (2004) states that, in South Africa, EFAL instruction equips learners with the necessary literacy skills.

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For navigating an increasingly globalised world. However, many rural schools face significant difficulties in fostering practical reading skills, including limited resources, overcrowded classrooms, and a lack of adequately trained teachers. Traditional methods of teaching reading often fall short of addressing these difficulties, leaving many learners struggling with basic literacy.

The advent of digital strategies offers new opportunities to enhance reading instruction by providing interactive, engaging, and learner-centred tools (Jean Piaget's work, 1936). Technologies such as e-books, gamified platforms, and adaptive learning systems may transform EFAL reading instruction by catering to diverse learner needs, supporting differentiated instruction, and promoting active engagement. Despite their promise, integrating these tools into rural classrooms remains challenging due to infrastructural deficits, limited teacher training, and socioeconomic disparities. This study aims to explore digital strategies for improving EFL reading instruction for Grade 4 learners in the Thohoyandou Cluster, Limpopo Province.

1.1.9 CURRENT ENGLISH FIRST ADDITIONAL LANGUAGE STRATEGIES IN RURAL AND URBAN SCHOOLS

In rural and urban South African schools, the predominant methods used to teach EFAL are traditional and teacher-centred, focusing primarily on printed textbooks, rote memorisation, and worksheet-based comprehension tasks (Pretorius & Spaull, 2016). They further posit that while these approaches have been widely implemented, they often fail to engage learners meaningfully, especially in Grade 4, where students are expected to transition from "learning to read" to "reading to learn". This transition is crucial for fostering critical thinking and comprehension skills, but the conventional strategies in place often limit learners' ability to make this shift effectively.

Despite better access to resources and greater exposure to English in urban schools, instruction remains relatively rigid and textbook-centric. As Moodley and Dube (2022) note, urban schools tend to employ traditional instructional methods with limited differentiation.

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This lack of differentiated teaching means that the diverse linguistic needs of learners in these classrooms are often overlooked, reducing instruction effectiveness. While urban learners have more access to English inside and outside the classroom, the failure to adapt teaching methods to cater to different learning styles limits engagement and academic growth.

On the other hand, rural schools face even more severe difficulties. Teachers in these schools often work in overcrowded classrooms and struggle with a lack of essential reading resources, significantly affecting EFAL instruction quality (Spaull, Daniels, Ardington, Cilliers, De Barros, Ingle, & Pretorius, 2021). Learners in rural areas also have minimal exposure to English outside the school environment, exacerbating vocabulary development and reading comprehension difficulties. The lack of sufficient resources and exposure contributes to lower literacy levels and poor comprehension skills, making it harder for students to move beyond basic reading into more complex tasks required in higher grades. This situation is compounded by teacher-centred methods that rarely incorporate visual or auditory stimuli, limiting how different learning styles can be addressed.

Both rural and urban schools share a common shortcoming: they often overlook the importance of learner autonomy. Current instructional strategies do not promote reading as a meaningful or enjoyable activity. Traditional methods focus on teacher-led instruction with limited opportunities for students to actively engage with texts in ways that stimulate independent thinking and a love for reading (Niemann & Makalela, 2020). Furthermore, assessments are mostly summative and do not offer real-time feedback, making it challenging to identify and address learners' difficulties as they arise (Niemann & Makalela, 2020). The limitations of these traditional methods have become particularly evident in light of the Fourth Industrial Revolution, where developing foundational reading skills alongside digital literacy is essential for success in the 21st century.

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1.1.9.1 Shortcomings of Current English First Additional Language Strategies

Current strategies for teaching English First Additional Language (EFAL) in rural and urban South African schools are mainly traditional. These strategies are typically teacher-centred and textbook-driven, focusing on rote learning, grammar drills, and whole-class instruction. Learners are often passive recipients of knowledge, and teaching rarely accommodates differentiated instruction or individual learner needs. Using standardised teaching methods, with minimal opportunity for learner autonomy or creative engagement, limits the development of essential literacy skills, particularly reading comprehension and oral fluency.

In urban schools, where learning resources are more available, the instructional approach still falls short in several critical ways. Although urban educators may have access to libraries, internet connectivity, and multimedia tools, these are often underutilised. One key shortcoming is the lack of differentiated instruction. Teachers frequently deliver the same material to all learners, without accounting for the linguistic diversity and varying levels of language proficiency found in urban classrooms (Moodley & Dube, 2022). This one-size-fits-all approach means that learners who need additional support or challenge are often neglected, and learner agency remains low due to continued reliance on teacher-led instruction. Furthermore, assessment practices in urban settings are largely summative, providing limited formative feedback and little opportunity for learners to improve continuously.

In rural schools, the shortcomings of current EFAL strategies are even more pronounced due to severe resource limitations. Many schools lack basic infrastructure such as libraries, reading materials, visual aids, and digital tools (Pretorius & Spaull, 2016). Class sizes are often large, and classrooms are overcrowded, which makes individualised instruction difficult. Teachers in rural areas must often teach without adequate support, sometimes without specialised training in language education. Despite these difficulties,

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rural EFAL instruction continues to rely heavily on outdated textbooks and rigid teaching approaches. As a result, learners at different stages of language acquisition are taught uniformly, leading to gaps in comprehension and slower language development (Spaull et al., 2021).

A shared challenge across urban and rural contexts is how assessment is conducted. Teachers rely predominantly on summative assessments such as written tests and end-of-term exams. These methods provide little to no formative feedback, making it difficult for educators to diagnose learner difficulties early or provide targeted interventions (Niemann & Makalela, 2020). This lack of real-time, responsive assessment results in missed opportunities to support struggling learners and hinders the achievement of foundational literacy milestones.

Given these widespread shortcomings, there is a clear need to explore digital strategies in EFAL instruction. Digital tools offer significant potential to enhance engagement, differentiate instruction, and bridge the resource gap, particularly in rural schools. Interactive e-books, educational apps, and offline digital content can provide learners access to diverse reading materials and allow them to learn at their own pace. Additionally, digital platforms enable real-time feedback and assessment, allowing teachers to monitor progress and adjust instruction accordingly. Digital strategies also foster learner autonomy, creativity, and collaboration qualities that are underdeveloped in traditional EFAL classrooms. In light of these benefits, integrating digital tools into EFAL instruction aligns with 21st-century learning goals. It addresses the critical difficulties facing language education in urban and rural South African schools.

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1.1.9.2 Justification for the Exploration of Digital Strategies

The shortcomings of traditional methods provide a compelling justification for integrating digital strategies into EFAL instruction. Digital tools, such as interactive e-books, storytelling apps, and gamified literacy platforms, may enhance learner engagement by offering multimedia content that caters to different learning styles (Mpofu & Sibanda, 2022). These tools can transform passive reading activities into interactive and enjoyable experiences, making it easier for learners to transition from learning to reading to reading to learning.

Digital tools offer personalised learning experiences in both rural and urban contexts. Digital platforms can provide learners with opportunities to progress at their own pace, ensuring that the diverse linguistic needs of the classroom are met (Mpofu & Sibanda, 2022). This personalized approach is particularly beneficial in rural schools where resources are scarce and in urban schools where learners' needs vary greatly. By allowing learners to access content tailored to their individual needs, digital strategies can significantly improve engagement and literacy outcomes.

Furthermore, digital strategies can help bridge the gap created by limited resources in rural schools. Mobile learning, for instance, offers scalable solutions that use devices such as smartphones or tablets to deliver educational content, even in resource-poor environments (Spaull et al., 2021). These tools can be pre-loaded with lesson materials, allowing teachers in rural schools to provide high-quality instruction without needing continuous internet access. Digital strategies also offer the advantage of real-time formative assessments, enabling teachers to identify and address learning gaps immediately, thus improving support for struggling learners (Mpofu & Sibanda, 2022).

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In conclusion, exploring digital strategies in EFAL pedagogy is necessary and timely. Digital tools offer the opportunity to overcome the limitations of traditional methods by increasing engagement, providing personalized learning experiences, and addressing resource shortages in rural schools. As the educational landscape evolves, integrating digital strategies into EFAL instruction will better prepare learners for success in an increasingly digital world.

1.2 RATIONALE OF THE STUDY

Studies show that many Grade 4 learners in rural South African schools struggle with reading fluency and comprehension due to limited access to quality EFAL instruction and learning resources (Pretorius & Spaull, 2016; Spaull et al., 2021). Digital tools such as e-books, audio resources, and gamified learning platforms have demonstrated their potential to enhance learner engagement and support literacy development when effectively implemented (Chuang & Jamiat, 2023; Castillo-Cuesta, 2022). It is important to note that, despite these promising benefits, digital strategies remain underutilised in rural classrooms due to infrastructural constraints, limited curriculum alignment, and a lack of ongoing teacher training (Czerniewicz & Brown, 2020; Mpofu & Sibanda, 2022). Moreover, teacher perceptions, digital confidence, and technological literacy significantly influence the successful adoption of these tools (Bennell & Akyeampong, 2020).

1.3 STATEMENT OF THE PROBLEM

Despite various government initiatives to improve literacy rates, South African learners, particularly those in rural areas, need to improve in international reading assessments such as the Progress in International Reading Literacy Study (PIRLS) (Seanego, 2022). In the Thohoyandou Cluster, EFAL learners in Grade 4 face specific difficulties in reading comprehension, fluency, and vocabulary

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acquisition (Seanego, 2022). These difficulties are compounded by the lack of digital resources, limited teacher training, and the socio-economic constraints that many learners face. While the studies conducted in the preceding subsections have highlighted the benefits of integrating digital strategies into language teaching, there is limited empirical evidence on the effectiveness of these tools in the South African context, particularly in rural areas. Hence, the researcher explored the study on the current digital strategies used to support EFAL reading instruction in the Thohoyandou Cluster, assessing their impact on learners' reading comprehension, fluency, and vocabulary acquisition. The study further examined teachers' difficulties in implementing these strategies and provided insights into best practices for effectively integrating digital tools in rural South African classrooms.

1.4 AIM OF THE STUDY

This study aims to explore the digital strategies employed by Grade 4 teachers in teaching English First Additional Language (EFAL) reading, with a specific focus on schools within the Thohoyandou Cluster. The study seeks to understand how these strategies are implemented, their effectiveness, and the difficulties teachers face in rural educational contexts.

1.5 RESEARCH OBJECTIVES

The following objectives guide this study:

- To determine if Grade 4 teachers have difficulties teaching EFAL reading in the Thohoyandou Cluster.
- To establish the types of digital strategies for grade 4 teachers to use when teaching EFAL reading in the Thohoyandou Cluster.

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- To evaluate the effectiveness of digital strategies in enhancing reading comprehension and learner engagement among Grade 4 EFAL learners.
- To explore Grade 4 teachers' perceptions of using digital strategies for EFAL reading instruction in rural schools.

1.6 RESEARCH QUESTIONS

This study is guided by the need to understand how digital strategies are being used by Grade 4 teachers to teach English First Additional Language (EFAL) reading in rural schools. The study wants to determine how these tools are implemented in everyday classroom practice and how they influence learner engagement and comprehension. Therefore, the study will investigate the types of digital strategies employed in EFAL classrooms and the difficulties teachers face applying them, particularly in under-resourced environments (Castillo-Cuesta, 2022; Czerniewicz & Brown, 2020). Hence, the study will assess the effectiveness of these digital tools in enhancing reading comprehension and learner participation among Grade 4 learners (Chuang & Jamiat, 2023). As a result, the study will also test how these strategies align with curriculum goals and contribute meaningfully to literacy development in rural South African contexts (Pretorius & Spaull, 2016; Mpofu & Sibanda, 2022).

The following research questions guide this study:

- What difficulties do Grade 4 teachers encounter when teaching EFAL reading in the Thohoyandou Cluster?
- What digital strategies do grade 4 teachers use when teaching EFAL reading in the Thohoyandou Cluster?
- How effective are these digital strategies in improving reading comprehension and engagement for Grade 4 learners?
- How do teachers perceive the use of digital strategies in rural schools?

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1.7 SIGNIFICANCE OF THE STUDY

This study's significance lies in its effort to bridge this knowledge gap by investigating how digital strategies are currently used for EFAL reading instruction in rural contexts like the Thohoyandou Cluster. By capturing teachers' lived experiences and identifying effective practices and barriers, the study provides practical insights that can assist policymakers in developing context-sensitive digital education policies, support teachers with evidence-based strategies, and inform broader education stakeholders on improving digital resource integration in rural schools.

1.8 DELIMITATION OF THE STUDY

This study explores digital strategies for teaching EFAL reading to Grade 4 learners in the Thohoyandou cluster in the Limpopo Province, South Africa. The study was delimited to examine the use of digital strategies in teaching EFAL reading to Grade 4 learners in the Thohoyandou Cluster, Vhembe District, Limpopo Province.

1.9 DEFINITIONS OF KEY CONCEPTS

Digital Strategies for EFAL Reading are tools or platforms like e-books, educational apps, and gamified platforms designed to improve EFAL reading skills among Grade 4 learners. These strategies personalise learning experiences, enhance engagement, and improve outcomes for learners in rural contexts with limited resources (Chuang & Jamiat, 2023). Teacher Training in Digital Literacy equips teachers with the skills and confidence to integrate digital tools effectively in classrooms. A lack of digital literacy among teachers limits the adoption and success of digital strategies in rural areas (Darling-Hammond, Hyler, & Gardner, 2017).

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Gamification in EFAL Reading uses game-like elements such as points and leaderboards to make learning interactive and engaging. It motivates learners and fosters sustained engagement, critical in resource-constrained environments (Castillo-Cuesta, 2022). Infrastructure and Resource Limitations include unreliable internet, a lack of devices, and poor classroom facilities that impede the integration of digital learning tools. Addressing these barriers is essential to ensure equitable access to digital strategies for all learners (Czerniewicz & Brown, 2020).

Learner Engagement through Digital Tools refers to the ability of digital strategies to captivate learners' interest and sustain their motivation during reading activities. Engagement is critical for improving literacy skills, especially in under-resourced settings (Czerniewicz & Brown, 2020). Socioeconomic Barriers are external factors such as poverty and lack of home access to digital devices that impact learners' ability to benefit from digital strategies. Socioeconomic barriers exacerbate educational inequalities, especially in rural areas. (Czerniewicz & Brown, 2020). Curriculum Alignment ensures that digital tools and strategies align with the educational objectives and standards set by the EFAL curriculum.
Misalignment can reduce the effectiveness of digital strategies in achieving desired learning outcomes (Fesi & Mncube, 2021).

1.10 ORGANISATION OF THE STUDY

This thesis is structured as follows:

Chapter 1: Introduction provides the background, rationale, research problem, objectives, and significance of the study.

Chapter 2: Literature review, reviews existing literature on digital strategies, difficulties in EFAL reading, and recent innovations in

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educational technology, with a focus on post-2019 developments.

Chapter 3: Theoretical framework discusses the study's theoretical foundations, including the Technology Acceptance Model (TAM), both a model and a theory, Shulman's Pedagogical Content Knowledge (PCK) Theory, Vygotsky's Sociocultural Theory, Constructivist Learning Theory, and Cognitive Load Theory.

Chapter 4: Research Methodology describes the research design, sampling methods, data collection instruments, and data analysis techniques used in the study.

Chapter 5: Data presentation and analysis presents the quantitative and qualitative data collected and a detailed analysis of the findings.

Chapter 6: Conclusion and recommendations summarise the key findings, offer recommendations for practice and policy, and suggest areas for future research.

1.11 SUMMARY

Chapter 1 provided an overview of the research background, problem statement, objectives, research questions, and significance of the study. It also introduced the theoretical framework and research design and highlighted the ethical considerations and scope of the study. The next chapter examined the literature review, the research question, and the theoretical framework on which the study is anchored.

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CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION

Literature Review provides a comprehensive overview of existing research and theoretical perspectives relevant to the study. The chapter begins with an introduction outlining the purpose and structure of the review. It then presents the theoretical framework, drawing on sociocultural and constructivist theories to contextualize EFAL (English First Additional Language) teaching in rural South Africa. The review explores the status of EFAL in South Africa, including historical background, policy context, and curriculum implementation, particularly in rural areas like the Thohoyandou Cluster. It further examines the challenges in teaching EFAL, categorized into teacher-related issues such as inadequate training and low motivation, learner-related barriers like limited English exposure and language interference, and environmental factors including overcrowded classrooms, poor infrastructure, and lack of resources. The chapter also discusses integrating technology in EFAL teaching, highlighting its potential and the barriers faced in under-resourced settings. In addition, it reviews pedagogical strategies that promote effective EFAL instruction, such as multimodal teaching, code-switching, and interactive methods. The role of education policy and support structures is then examined, emphasizing the gap between policy intentions and practical implementation in rural contexts. The chapter concludes with a summary and identification of research gaps, justifying the need for the current study and its potential contribution to the body of knowledge. The researcher recognises the growing global emphasis on digital strategies in education, particularly following the acceleration of technology-enhanced learning during and after the COVID-19 pandemic (Rapetsoa & Singh, 2017). While international evidence underscores the potential of digital tools to transform literacy instruction, the researcher's review of South African literature highlights a persistent gap: the meaningful integration of such tools into EFAL teaching, especially in rural school contexts, remains under-

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theorised and under-researched. Within the Thohoyandou Cluster, for example, teachers face entrenched difficulties, including limited digital infrastructure, multilingual classroom environments, and the transitional shift learners must make from home languages to English as the language of learning and teaching (LoLT). These contextual complexities amplify the difficulty of cultivating reading fluency a foundational skill linked to broader academic achievement (Rapetsoa & Singh, 2017).

Guided by theoretical understanding and field-based observations, the researcher uses this chapter to unpack these multifaceted educational realities. The intention is not merely to describe prevailing difficulties, but to critically examine how innovative and context-responsive digital strategies might be leveraged to support EFAL reading instruction in resource-constrained settings. Drawing on evidence gathered during school visits, teacher interviews, and classroom observations, the researcher positions this inquiry within a broader effort to advocate for equitable, inclusive, and effective literacy education in South African primary schools. The chapter thus serves as both a scholarly reflection and a call to reimagine EFAL pedagogy through digital innovation that is both culturally and contextually grounded.

2.2 TEACHING DIFFICULTIES IN EFAL READING: A RESEARCHER'S PERSPECTIVE

Teaching EFAL reading in South African primary schools is inherently complex due to learners' diverse linguistic and cultural backgrounds. Many Grade 4 learners in rural areas, including those in the Thohoyandou cluster, speak indigenous languages such as Tshivenda or Xitsonga at home and have minimal exposure to English beyond the classroom (Makgoale, 2022). This limited immersion in English presents a significant obstacle to the development of foundational reading skills, including fluency, vocabulary acquisition, and comprehension. Through interviews and classroom observations conducted during fieldwork, the researcher

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observed that learners frequently struggled to decode texts and construct meaning due to restricted vocabulary and unfamiliarity with the syntactic structures of English.

Cultural and socioeconomic factors further exacerbate these difficulties. Learners are often presented with reading materials that depict foreign or urban-centric contexts, making it difficult for them to connect with the content (Li, Xu, & Xia, 2020). From the researcher's standpoint, this cultural disconnect was particularly evident in classrooms where learners disengaged from texts that did not reflect their everyday realities. The absence of contextual relevance diminished learner motivation and participation during EFAL lessons.

The researcher advocates for a more localised and context-sensitive pedagogical approach in response to these linguistic and cultural mismatches. One practical strategy identified during fieldwork involves the use of multilingual resources. Several teachers noted that bilingual e-books or digital storybooks featuring parallel texts in English and learners' home languages, such as Tshivenda, enhanced comprehension and supported vocabulary development (Tamim, Bernard, Borokhovski, Abrami, & Schmid, 2019; Li et al., 2020). The researcher observed that learners responded more confidently when lessons were supported by materials in familiar linguistic forms, facilitating knowledge transfer and deeper engagement.

Equally vital is the incorporation of culturally relevant reading content. The creation or use of texts, videos, and illustrations rooted in learners' lived experiences, such as rural settings, traditional practices, or local figures, was found to bridge cultural gaps and stimulate interest in reading (Pretorius & Spaull, 2019). Learners demonstrated greater attentiveness when stories mirrored their

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environments. The researcher also observed that when learners were invited to co-create digital stories about their communities using platforms like Canva or Adobe Spark, their linguistic development was paired with cultural pride and creative expression.

Gamified learning experiences emerged as another effective strategy for enhancing EFAL reading. Educational applications that featured culturally relevant themes such as farming, village life, or local celebrations were reported by teachers to be especially engaging for learners. Thematic units, such as “market day” or “South African wildlife,” contextualised EFAL instruction and were enriched by multimedia elements like virtual field trips or audiovisual aids, which helped anchor language in meaningful experiences (Czerniewicz & Brown, 2020). Based on the researcher’s engagement with learners, these interactive formats supported vocabulary retention and stimulated active participation.

Collaborative storytelling tasks were also found to be pedagogically valuable. Learners working in groups to present folktales or family narratives in English using tools like PowerPoint or Flipgrid helped to promote bilingual proficiency, digital literacy, and cooperative learning. According to teachers interviewed during the study, these projects also fostered increased learner confidence and a stronger cultural identity (Czerniewicz & Brown, 2020). The researcher witnessed a notable shift in learner participation when students could share stories rooted in their heritage.

Pronunciation posed a continuing challenge for EFAL learners, particularly where phonological differences between English and local languages, such as Tshivenda, created additional learning barriers. However, using language apps with pronunciation features, such as Duolingo and digital dictionaries, proved helpful. The researcher observed that even informal exposure to such tools outside school improved pronunciation and reading fluency over time (Klassen & Tze, 2019).

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Despite the promise of these digital strategies, numerous infrastructural and professional difficulties persist. Teachers in the Thohoyandou cluster frequently cited unreliable electricity, poor internet connectivity, and a lack of digital devices as obstacles to consistently implementing technology-based instruction (Bennell & Akyeampong, 2020). The researcher further found that many educators lacked the digital literacy and training required to effectively use these tools in EFAL lessons (Darling-Hammond et al., 2017). Socioeconomic disparities also mean that most learners do not have access to digital devices at home, further limiting their opportunity to practise reading beyond the classroom (Czerniewicz & Brown, 2020).

Nevertheless, the resilience and creativity of rural EFAL teachers were notable. During the research, the researcher observed how teachers blended traditional and digital methods, often using their smartphones or improvised resources to enhance instruction within their means. This ingenuity reflects a commitment to literacy development in the face of systemic limitations. The researcher concludes that to improve EFAL outcomes in rural contexts, there is an urgent need for a multi-faceted strategy: increased investment in infrastructure, context-driven teacher training, and the development of accessible, culturally relevant digital tools. This chapter thus affirms that systemic support and pedagogical innovation are essential for fostering equitable and effective literacy education in under-resourced communities.

2.2.1 OVERCROWDED CLASSROOMS AND TEACHER WORKLOAD

Classroom overcrowding presents a persistent and substantial obstacle to effectively teaching EFAL reading, particularly in rural South African schools. Within the Thohoyandou cluster, this issue is deeply entrenched, with Grade 4 EFAL teachers often expected to manage classes of 50 or more learners. From the researcher's field observations, the effects of overcrowding were immediately

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evident: teachers struggled to navigate the classroom space, monitor individual progress, or engage learners in focused and meaningful reading activities. As Gustafsson and Makgetla (2019) confirmed, such environments limit opportunities for personalised support and undermine the responsiveness required to meet diverse learning needs.

The burden imposed on teachers extends beyond sheer numbers to emotional and professional dimensions. During interviews, the researcher encountered teachers who, despite their dedication, conveyed feelings of frustration, burnout, and helplessness. One teacher reflected, *"Sometimes I want to give individual attention, but the bell rings before I can reach half the class."* This sentiment echoes the findings of Mulaudzi (2021), who noted that managing multiple EFAL classes under resource-constrained conditions significantly increases workload and diminishes instructional quality. In such contexts, teachers are often forced to default to generalised, survival-mode teaching strategies that fall short of addressing learners' literacy levels.

The researcher recognises that personalised instruction is a cornerstone of effective EFAL reading development. Darling-Hammond et al. (2017) assert that individualised support fosters deeper learner engagement and comprehension, yet this aspiration becomes largely unattainable in overcrowded classrooms. Through both direct observation and teacher feedback, the researcher noted that planned reading interventions were often abandoned due to time constraints and the overwhelming nature of classroom management. These pressures stifle pedagogical creativity and contribute to high levels of fatigue, aligning with Bennell and Akyeampong's (2020) findings that large class sizes are closely linked to teacher burnout.

Furthermore, the increasing expectation for teachers to incorporate digital tools into their EFAL instruction, while pedagogically sound in theory, introduces additional complexities. Although digital resources offer innovative solutions for learner engagement and

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differentiated instruction, their practical implementation in overcrowded classrooms is severely limited. Teachers in the study expressed concerns about insufficient access to devices, lack of time for training, and the difficulty of managing technology in already strained settings. These difficulties affirm the argument by Fesi and Mncube (2021) that digital integration requires both technical support and pedagogical reorientation resources often unavailable to teachers operating in under-resourced environments. Hanushek and Woessmann (2020) similarly emphasise that digital transformation cannot succeed without sustained support for the teaching workforce.

The consequences for learners in such conditions are equally troubling. Pretorius and Spaull (2019) have shown a direct link between class size and learner literacy outcomes, a pattern the researcher consistently observed across classrooms in the Thohoyandou cluster. Grade 4 learners transitioning to EFAL as the language of learning and teaching (LoLT) require regular feedback and close instructional guidance to develop foundational reading skills. However, individualised attention becomes impractical in overcrowded classrooms, and learners who fall behind often remain unnoticed. Van der Berg et al. (2020) highlight that without strong reading foundations, learners are likely to struggle across all subjects, perpetuating cycles of educational inequality.

From the researcher's perspective, addressing the dual difficulties of overcrowded classrooms and unsustainable teacher workloads demands more than school-level solutions. Systemic interventions are essential. One promising approach observed during fieldwork was using teaching assistants or student mentors to support classroom management and facilitate small-group instruction. Additionally, reducing teacher-learner ratios and investing in targeted infrastructure must be prioritised, particularly for digital integration. The researcher supports the recommendations of Czerniewicz and Brown (2020), who advocate for collaborative teacher networks as platforms for professional learning and emotional resilience, especially in rural and resource-constrained settings.

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In conclusion, meaningful reform must centre not only on technological and infrastructural upgrades but also on teachers' professional well-being and empowerment. As the researcher observed, even the most innovative pedagogical tools will falter without adequate support for the educators who are expected to implement them. Strengthening EFAL reading instruction in rural contexts thus requires a holistic strategy that values teachers as critical agents of change and equips them to succeed in challenging educational landscapes.

2.2.2 RESOURCE LIMITATIONS AND CURRICULUM GAPS

The lack of adequate teaching resources, ranging from textbooks and digital devices to reliable internet connectivity, poses a serious barrier to effectively teaching English First Additional Language (EFAL) reading. Hanushek and Woessmann (2020) assert that equitable access to educational resources directly influences learner achievement and long-term educational outcomes. Within the context of this study, rural schools in the Thohoyandou cluster were found to be particularly disadvantaged, often operating with outdated textbooks, minimal digital infrastructure, and a scarcity of age-appropriate reading materials in both print and digital forms (Pretorius & Spaull, 2019).

Through classroom observations, the researcher noted how teachers are frequently required to compensate for systemic shortcomings through resourcefulness and personal sacrifice. In many classrooms, educators reported using their own smartphones and purchasing data bundles to access online content, while others depended on photocopied worksheets or legacy materials misaligned with current curriculum demands. The researcher found that these workarounds, although commendable, reveal the extent to which educational inequity persists and hinder the consistent adoption of innovative, learner-centred instructional methods.

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Digital tools, when accessible offer transformative possibilities for personalised learning, active engagement, and enhanced literacy outcomes. However, the stark digital divide between rural and urban schools remains a formidable obstacle. As Czerniewicz and Brown (2020) emphasised, unequal access to digital infrastructure perpetuates structural disparities in learning opportunities. The researcher observed firsthand how stable internet access prevented teachers from using interactive reading platforms, multimedia tools, and educational games that could otherwise support vocabulary and comprehension (Van der Berg et al., 2020). This digital exclusion deprives rural learners of multimodal, immersive reading experiences increasingly integral to 21st-century education.

A further challenge lies within the EFAL curriculum, which currently lacks clear and practical guidelines for integrating digital learning strategies. During interviews, many teachers expressed uncertainty about how to incorporate digital tools in a way that aligns with learning objectives and assessment criteria. Fesi and Mncube (2021) and Mulaudzi (2021) highlight that this lack of curricular coherence results in fragmented and inconsistent classroom practices. The researcher's analysis found that in the absence of a national framework or model examples, many teachers default to traditional, text-heavy approaches approaches that may not meet the needs or interests of digitally native learners.

Addressing these limitations requires a deliberate, multi-dimensional strategy. The first imperative is a significant investment in rural digital infrastructure, including cost-effective, durable devices and dependable internet access. The researcher advocates for partnerships between government agencies, NGOs, and the private sector to support deploying mobile learning platforms and offline-compatible digital libraries (Darling-Hammond et al., 2017; Czerniewicz & Brown, 2020). Field data indicated that such interventions would not only enhance learner engagement but also relieve the burden on educators who are currently expected to innovate without adequate tools.

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Secondly, comprehensive curriculum reform is urgently needed. Detailed guidance on effectively embedding digital pedagogy into EFAL instruction must be incorporated into curriculum documents. The researcher supports Kim and Li's (2021) position that professional development should be practical, locally relevant, and grounded in classroom realities. Interviews with educators highlighted a strong preference for hands-on workshops over generic ICT training sessions. Such training should be continuous and closely linked to the curriculum, enabling teachers to see clear connections between digital tools and learning outcomes.

Furthermore, the researcher observed that learners responded more positively to culturally and linguistically relevant digital content. Digital resources such as interactive storybooks, gamified reading activities, and locally produced audio materials that reflect learners' everyday lives were more effective in sustaining interest and enhancing comprehension (Castillo-Cuesta, 2022; Fesi & Mncube, 2021). Including familiar themes, characters, and environments created an immediate sense of relevance, which the researcher found essential in fostering intrinsic motivation among learners.

In conclusion, the researcher contends that the scarcity of educational resources and the vagueness of curriculum guidance constitute significant barriers to EFAL reading development in rural schools. If digital strategies are to fulfill their transformative potential, systemic changes are required, specifically targeted infrastructure investment, comprehensive curricular reform, and context-aware teacher support. Addressing these foundational issues makes it possible to level the playing field and provide all learners, regardless of their geographic or socioeconomic background, with meaningful opportunities to acquire strong literacy skills.

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2.2.3 LACK OF TEACHER TRAINING AND SUPPORT

Despite the Department of Basic Education (DBE)'s continued efforts to enhance teaching quality through professional development workshops, many educators report that these initiatives are not sufficiently equipping them with the practical skills necessary to integrate digital strategies into EFAL instruction. As Darling-Hammond et al. (2017) explain, one-size-fits-all training models often delivered through sporadic, centralised workshops rarely translate into meaningful pedagogical change, particularly in under-resourced settings. The researcher observed this disconnect first-hand during fieldwork in the Thohoyandou cluster, where teachers expressed a lack of confidence and preparedness when using digital tools effectively in their classrooms (Mulaudzi, 2021).

The researcher further acknowledges that the fast-paced evolution of digital technologies intensifies this challenge. Teachers are not only expected to master new platforms but also to align them with learning outcomes, something that demands both technical proficiency and pedagogical content knowledge. As Van der Berg et al. (2020) and Czerniewicz and Brown (2020) assert, professional development must go beyond technical orientation to include sustained, classroom-embedded learning experiences. Based on interviews and classroom visits, the researcher noted that teachers desired more hands-on training rooted in their own teaching contexts training that prioritises experimentation, feedback, and reflective practice over generic instruction.

Mentorship and professional learning communities (PLCs) emerged as critical enablers of teacher growth in this study. Teachers who participated in peer support structures described them as practical, encouraging, and aligned with their realities. According to Kim and Li (2021), PLCs enable knowledge-sharing, collaboration, and the co-construction of context-specific solutions elements that the researcher identified as missing in most formal training initiatives. Similarly, Darling-Hammond et al. (2017) emphasise that model

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classrooms and peer-led coaching can demystify digital pedagogy, offering concrete strategies that teachers can adapt to their settings. The researcher supports this view, observing that exposure to real-life examples of digital integration increased teacher confidence and sparked creative implementation ideas.

Another important insight from the research was the need for differentiated professional development. Teachers do not enter training with equal levels of digital literacy; some require foundational digital skills, while others need advanced support in applying tools like gamification or digital storytelling to improve learner engagement (Fesi & Mncube, 2021). The researcher noted a misalignment between teacher needs and training content, with many participants indicating that sessions were too broad or too technical to be useful. Professional development must be tailored to accommodate different skill levels and classroom realities for teacher buy-in and effective implementation.

The role of teacher self-efficacy also surfaced as a recurring theme. As Pretorius and Spaull (2019) argue, educators who feel competent in their use of digital tools are more inclined to innovate, persist through difficulties, and create dynamic learning environments. The researcher found this true in classrooms where confident teachers were more likely to adapt, experiment, and use digital tools beyond the minimum expectations. Thus, professional development must aim to transfer technical skills and foster a culture of professional agency and growth. Darling-Hammond et al. (2017) contend that such growth-oriented mindsets, grounded in inquiry and reflection, are crucial to sustainable digital transformation in EFAL reading instruction.

In conclusion, the researcher argues that the lack of robust, differentiated, and context-sensitive training hinders the effective integration of digital strategies in rural EFAL classrooms. Addressing this issue requires a systemic and sustained approach to

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professional development that values mentorship, collaborative learning, and practical application within real classroom environments. When teachers are empowered through relevant and responsive support systems, they are more likely to implement digital tools confidently and effectively, ultimately enhancing literacy outcomes for EFAL learners in rural settings.

2.2.4 Socioeconomic Barriers Impacting Learners

Socioeconomic difficulties remain a profound barrier to learner engagement with English First Additional Language (EFAL) reading in rural South African contexts. Based on the researcher's classroom observations and interactions with teachers in the Thohoyandou cluster, it became evident that many learners come from home environments that lack the infrastructural and material support required for regular and meaningful reading practice. These learners often reside in households with limited or no access to digital devices, stable internet connections, or reliable electricity (Czerniewicz & Brown, 2020). The researcher argues that this lack of access limits digital exposure and has significant implications for literacy development, particularly in terms of fluency and comprehension skills that are foundational to academic progress across the curriculum.

Through fieldwork, the researcher noted that the digital divide extends beyond mere technological disparity; it reflects and reinforces more profound structural inequities within the education system. Learners in under-resourced schools are placed at a distinct disadvantage compared to their urban counterparts, who typically have better access to digital tools and educational resources. While observing EFAL classrooms and consulting with teachers, the researcher found that learners' restricted access to technology outside the classroom significantly constrained their ability to build digital literacy and benefit from technology-enhanced learning

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opportunities. These findings are consistent with existing literature that calls for urgent, multi-level interventions to address the digital and educational divide (Darling-Hammond et al., 2017; Czerniewicz & Brown, 2020).

The researcher contends that meaningful and lasting change requires collaborative efforts involving government agencies, private stakeholders, and local communities. Initiatives such as subsidised learning devices, rural broadband infrastructure, and the creation of community-based technology hubs could help close the gap. Such measures would provide learners with greater access to digital learning resources and offer support structures outside the formal school setting, enabling extended reading practice in safe and supportive environments.

During the study, the researcher observed the creative ways in which rural educators were utilising available technology to supplement limited classroom resources. For example, some teachers downloaded YouTube videos to model fluent reading or teach phonics and pronunciation. These resources helped bridge the gap left by the absence of adequate print materials. Learners responded positively to video content, particularly when replayed for reinforcement, supporting vocabulary development and comprehension. However, as Czerniewicz and Brown (2020) caution, YouTube's effectiveness is restricted in areas without stable internet access. The researcher supports the argument that offline access and contextually curated content are essential to ensure continuity and equity in digital learning across rural schools.

Unexpectedly, TikTok also emerged as a tool of pedagogical interest. While commonly associated with entertainment, the researcher found that some educators were exploring its potential to deliver short, engaging language lessons. Teachers reported that learners enjoyed watching short-form TikTok videos reinforcing vocabulary and sentence construction through music, visuals, and humour.

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These observations align with Castillo-Cuesta (2022), who acknowledges the platform's potential for engagement while cautioning that its brevity may limit deeper interaction with textual content. The researcher notes, however, that TikTok lacks assessment mechanisms, which poses difficulties for evaluating learning progress. Nevertheless, its educational potential could be significantly expanded through curriculum-aligned content and the incorporation of interactive features.

Another valuable resource identified in this study was the e-book. In several classrooms across the Thohoyandou cluster, teachers adopted e-books as an affordable and flexible alternative to traditional reading materials. The researcher observed that features such as audio narration, embedded questions, and illustrative content made e-books particularly effective in supporting reading fluency and critical thinking (Huang et al., 2020). Teachers noted that e-books enhanced learner autonomy and engagement. However, technical issues such as poor device compatibility and inconsistent software performance frequently disrupted lessons. These limitations reflect concerns Makransky and Mayer (2022) raised regarding the need for user-friendly design and contextual adaptation. The researcher asserts that culturally grounded e-books, which incorporate local languages, settings, and characters, could significantly enhance learner connection to texts and promote literacy in a more relevant and meaningful way.

In conclusion, the findings of this research underscore the complex and multifaceted impact of socioeconomic barriers on EFAL reading development in rural South Africa. These difficulties are not merely logistical but deeply rooted in systemic inequality. However, the evidence also reveals that digital tools such as YouTube, TikTok, and e-books can offer promising avenues for enhancing reading instruction, provided they are tailored to rural realities. The researcher argues that the path forward lies in increasing access to technology and ensuring that digital interventions are equitable, context-sensitive, and supported by an infrastructure that enables consistent and meaningful use. Through sustained collaboration and strategic investment, the education

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system can move closer to providing all learners, regardless of their socioeconomic status, with the opportunity to thrive in EFAL reading and beyond.

2.3. DIGITAL STRATEGIES FOR ENGLISH FIRST ADDITIONAL LANGUAGE READING

Integrating digital strategies into EFAL reading instruction is no longer a supplementary enhancement. It has become a pedagogical imperative, particularly with limited resources and persistent literacy difficulties. Drawing from field observations and empirical findings, the researcher argues that digital tools offer a pathway to transforming traditional reading practices by delivering multisensory, learner-centred experiences tailored to the realities of 21st-century education. In rural schools such as those within the Thohoyandou cluster, where physical infrastructure and teaching resources remain constrained, the thoughtful integration of digital platforms presents both a practical and innovative solution (Ertmer & Ottenbreit-Leftwich, 2013).

The researcher's classroom engagements revealed that digital tools are most effective when they foster learner autonomy and interactivity. Unlike static print texts, interactive e-books and multimedia applications support multiple modes of learning—visual, auditory, and kinaesthetic thereby enhancing reading development in diverse learners. For example, interactive e-books that feature audio narration, animated visuals, and clickable vocabulary items were observed to help learners revisit and reinforce complex concepts independently. These findings align with the broader literature and affirm that learners in under-resourced environments benefit significantly from self-paced, technology-supported learning models, especially without consistent teacher guidance (Huang et al., 2020).

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Gamification emerged as another impactful strategy during the study. Teachers frequently used platforms like Quizlet and Kahoot to reinforce vocabulary and comprehension skills in a playful, competitive manner. The researcher observed increased learner motivation and participation during such activities. However, a critical insight from the study is ensuring that engagement does not supersede educational value. As Mpuangnan, Mngomezulu, and Govender (2024) noted, gamified activities must be designed with clear pedagogical goals to maximise cognitive benefits. The researcher cautions that without intentional alignment to learning objectives, such tools risk promoting shallow engagement rather than meaningful skill development.

Digital storytelling also proved to be a highly effective and contextually resonant approach. Using Canva and Adobe Spark platforms, learners were encouraged to produce multimedia narratives based on their own lives and communities. From the researcher's perspective, digital storytelling extends beyond literacy. It supports the development of critical thinking, creativity, and collaboration while anchoring learning in culturally relevant experiences. The data collected demonstrated that learners showed notable improvements in reading fluency and comprehension when the content was drawn from familiar, lived realities (Kim & Li, 2021).

Another key finding was using collaborative platforms such as Google Classroom and Microsoft Teams. These tools shifted EFAL reading activities from isolated tasks to socially interactive processes, enabling peer feedback, real-time discussions, and shared learning resources (Pratiwi et al., 2021). The researcher observed that learners who engaged in these collaborative environments displayed greater confidence, particularly in oral reading and spoken interaction. Furthermore, audio-based tools such as read-aloud podcasts were found to reinforce pronunciation and auditory processing, which are especially beneficial in EFAL contexts (Vlachopoulos & Makri, 2019).

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However, the study also highlights that the effective implementation of digital strategies remains highly dependent on teacher readiness and infrastructural capacity. In the Thohoyandou cluster, many educators expressed concerns about unreliable internet, insufficient devices, and a lack of digital training. The researcher noted that while enthusiasm for technology was evident among teachers, the absence of structured professional development and mentoring opportunities often limited effective integration. This finding aligns with Darling-Hammond et al. (2017), who argue that sustained teacher support through mentorship, digital literacy development, and continuous capacity-building is essential for successful and sustained digital transformation in schools.

In conclusion, the researcher asserts that when grounded in context and informed by pedagogy, digital strategies hold transformative potential for EFAL reading instruction. However, realising this potential requires a holistic approach that includes thoughtful tool selection, alignment with curriculum objectives, targeted teacher empowerment, and a strong focus on learner-centred design. With such a foundation, digital integration can shift EFAL reading from a passive and constrained exercise to one dynamic, interactive, and empowering, particularly for learners in rural, resource-constrained settings.

2.3.1 Interactive E-books and Digital Texts

Among the various digital strategies explored in this study, interactive e-books and digital texts have proven to be particularly impactful in EFAL classrooms. These tools are not merely digital versions of print materials; they are immersive, multimedia-rich learning environments that support vocabulary acquisition, comprehension, and learner autonomy (Chuang & Jamiat, 2023). From the perspective of the researcher, interactive e-books offer a scalable and contextually appropriate solution for resource-constrained

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environments, mainly when they include features such as audio narration, animated vocabulary, and embedded assessments. These tools align with the goals of inclusive, differentiated instruction that addresses the diverse needs of learners in rural classrooms.

During fieldwork in the Thohoyandou Cluster, the researcher observed that learners engaged positively with e-books, particularly when they had the autonomy to navigate the content at their own pace. In several classrooms, teachers reported that self-pacing allowed learners to revisit complex sections, reinforcing comprehension without limited classroom time constraints. The researcher noted that this independence cultivated metacognitive awareness; learners became more conscious of their reading processes and developed the ability to self-monitor understanding. These skills are foundational for academic success, especially when one-on-one teacher support is often limited.

Moreover, teachers in the study highlighted that audio-narrated texts were particularly effective in improving learners' fluency and pronunciation. These digital features provided repeated exposure to language models and allowed learners to hear appropriate intonation and stress patterns, which they could imitate (Van der Berg et al., 2020). The researcher recognised that for many learners in the Thohoyandou Cluster, such tools filled a crucial gap created by limited access to fluent English language input in their home environments.

However, the study acknowledges significant difficulties implementing e-books in rural EFAL classrooms. A major constraint observed was limited access to compatible devices, such as tablets or laptops, which restricts equitable access to these digital tools. Furthermore, the researcher found that many teachers lacked the training to integrate e-books effectively into their lessons. Without targeted professional development, even the most sophisticated e-books risk being underutilised or misaligned with instructional

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goals (Pretorius & Spaull, 2019). As Darling-Hammond et al. (2017) suggested, professional development should empower teachers to evaluate, select, and adapt digital resources to meet specific learner needs and classroom contexts.

Another critical insight from this research concerns the cultural relevance of digital content. The researcher observed that learners were more engaged and showed higher levels of comprehension when stories reflected their lived experiences, languages, and local environments. This finding reinforces the need for localised content development in digital texts, a theme consistently emphasised by teachers during interviews. When learners see themselves reflected in the texts they read, their motivation and confidence in using English as an additional language increase.

The interactive features embedded in many e-books, such as highlighting, annotating, and in-text glossaries, further promote active reading and critical engagement with texts. The researcher identified these features as particularly beneficial for supporting learners with varying proficiency levels, as they allow for immediate clarification and scaffolding (Li, Xu & Xia, 2020). Some advanced e-books even employ adaptive technologies that adjust content difficulty based on learner performance. From the researcher's perspective, this capacity for personalisation holds excellent promise for diverse EFAL classrooms, where learners progress at different paces.

In terms of long-term sustainability, e-books' cost-effectiveness and portability make them attractive alternatives to printed materials, particularly in rural schools. The researcher recognises their potential to overcome logistical barriers such as textbook shortages. However, difficulties such as limited offline functionality and device-sharing policies must be addressed to ensure equitable access and consistent usage (Castillo-Cuesta, 2022).

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The researcher asserts that interactive e-books and digital texts represent a powerful convergence of accessibility, engagement, and instructional flexibility. For EFAL learners in the Thohoyandou Cluster and similar rural contexts, these tools can significantly bridge literacy gaps if their implementation is supported by adequate infrastructure, professional training, and culturally responsive content. As this study has demonstrated, digital texts must transmit knowledge and create spaces for connection, confidence, and critical engagement in reading.

2.3.2 Audio Tools and Podcasts

From the perspective of the current study, audio tools and podcasts represent an innovative and accessible response to the longstanding difficulties of developing oral fluency and reading competence among EFAL learners. These tools offer more than passive listening opportunities. They function as dynamic models of authentic English usage, providing learners with repeated exposure to natural pronunciation, pacing, and intonation. In alignment with the arguments presented by Mpuangnan et al. (2024), the researcher found that such modelling is instrumental in helping learners refine their self-monitoring and pronunciation skills. In particular, storytelling podcasts were observed to support vocabulary acquisition and deeper comprehension strategies through repeated and immersive exposure to narrative structures.

During classroom observations, the researcher noted that when podcasts were used with read-aloud activities, learners benefited from the simultaneous engagement of auditory and visual processing. This dual-channel input was especially effective for those struggling with decoding written texts, a trend that corresponds with findings from Vlachopoulos and Makri (2019). Teachers confirmed

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that podcast-based read-aloud enabled learners to better grasp rhythm and tone, ultimately enhancing fluency and learner confidence.

One of the key strengths of audio tools lies in their accessibility. The researcher observed that these tools are compatible with low-cost, widely available mobile phones, a significant advantage in rural schools like those in the Thohoyandou cluster, where digital infrastructure is often minimal. As Van der Berg et al. (2020) note, the portability and affordability of audio resources make them ideal for low-resourced environments. However, the researcher maintains that while the technological viability of audio tools is promising, their actual pedagogical value depends on how they are used. Audio content, when employed as a stand-alone resource, risks becoming a passive experience. The study thus advocates for integrating interactive follow-up tasks, such as comprehension questions, reflective discussions, or summarising exercises, to ensure active learner engagement and deeper cognitive processing.

Additionally, the researcher's analysis of differentiated instruction reveals the significant potential of podcasts to support learner diversity. By selecting or creating audio content tailored to specific proficiency levels, educators can offer more targeted support for learners at varying stages of English language acquisition (Chuang & Jamiat, 2023). The researcher observed that where audio activities focused on phonemic awareness and listening comprehension, learners demonstrated measurable gains in both fluency and confidence. Moreover, the opportunity for learners to produce their podcasts recording retellings, reflections, or creative stories emerged as a powerful strategy for fostering learner agency, collaboration, and multimodal expression. This repositioning of learners as consumers and content creators aligns with broader principles of learner-centred pedagogy and inclusive digital practice.

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Nevertheless, critical engagement with this strategy reveals its success hinges on alignment with curriculum goals and cultural relevance. As Mulaudzi (2021) and others have argued, materials that are abstract or disconnected from learners' lived experiences tend to elicit limited engagement. The researcher echoes this concern, highlighting the need for localised audio content that resonates with rural South African learners' linguistic and cultural realities. During interviews, teachers stressed the value of hearing accents, contexts, and stories that learners could relate to, an insight that must inform both the development of audio materials and the training of educators.

To this end, the researcher underscores the importance of equipping teachers with the skills to curate, adapt, and meaningfully integrate audio tools into their pedagogy. Professional development programmes must move beyond basic ICT use to include pedagogical strategies that link audio tools with specific learning outcomes, learner needs, and the curriculum. Only through such deliberate alignment can the potential of audio tools be fully realised.

This study finds that audio tools and podcasts hold significant promise for enhancing EFAL instruction, particularly in under-resourced and multilingual contexts. When designed and implemented with intention, these tools support reading fluency, comprehension, learner engagement, and creativity. However, their impact depends on thoughtful integration, teacher readiness, and culturally relevant content. With the right support systems, audio strategies can contribute meaningfully to transforming literacy teaching in rural South African classrooms.

2.3.3 Gamified Learning Platforms

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From the researcher's perspective, gamified learning platforms such as *Kahoot*, *Quizlet*, and *Blooket* signify a transformative shift in the pedagogy of EFAL reading instruction. These platforms, integrating game-like elements such as points, leaderboards, and difficulties, infuse learning environments with energy and motivation (Castillo-Cuesta, 2022). Based on the candidate's reflection on classroom practice, gamification has been shown to enhance learner participation, particularly when reinforcing vocabulary acquisition and reading comprehension. Informed by these experiences, teachers are observed to be increasingly strategic in their use of digital tools, designing interactive quizzes and games that blend education with enjoyment.

In analysing EFAL classrooms, the researcher finds a strong alignment between gamified tools and the principles of digital pedagogy focused on improving reading outcomes. Immediate feedback mechanisms embedded in platforms like *Quizlet* allow learners to identify comprehension gaps in real time, promoting metacognitive awareness and learner autonomy (Mpuangnan et al., 2024). Drawing from classroom observations, the candidate notes that learners respond positively to the opportunity to track their progress and self-correct, fostering a sense of ownership over their reading journey. For example, the use of Quizlet in reinforcing word recognition not only supports skill development but also cultivates sustained learner engagement.

However, the researcher acknowledges that while the motivational benefits of gamification are well established, critical reflection is necessary. Echoing concerns raised by Kim and L (2021), the candidate has observed that an overemphasis on speed and competition may inadvertently undermine deeper comprehension. This insight underscores the importance of adopting a balanced approach integrating gamified tools within sound pedagogical frameworks.

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Crucially, the candidate's engagement with gamified learning underscores the necessity of embedding these tools within structured lesson planning. It has been found that when gamification is used in isolation, its educational value diminishes. Instead, the researcher advocates for a design that explicitly aligns game-based activities with learning objectives such as inference, prediction, and vocabulary application. Through such intentional integration, gamification moves beyond novelty and becomes a meaningful component of literacy instruction.

Another key insight emerging from the candidate's practice is the importance of cultural relevance. Drawing on Pretorius and Spaull (2019), the researcher recognises that many international gamification platforms require adaptation to reflect South African learners' linguistic and cultural contexts. Incorporating local themes, idioms, and narratives into game content enhances learners' connection to the material and supports more meaningful engagement. This contextualisation affirms learners' identities and increases accessibility and inclusivity.

Additionally, the candidate's classroom-based findings highlight the social dimension of gamified learning. Group-oriented activities such as team difficulties and collaborative problem-solving foster social cohesion and peer-supported learning. These practices are particularly beneficial in EFAL settings, where structured peer interaction can significantly enhance language development.

In conclusion, gamified learning platforms present valuable opportunities for enhancing EFAL reading instruction. Their capacity to boost motivation, support vocabulary acquisition, and promote learner agency is well noted. However, the candidate contends that their successful implementation depends on thoughtful integration, contextual relevance, and robust teacher support. As such, the

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researcher recommends ongoing professional development initiatives to equip educators with the skills to align gamification strategies with curriculum goals, thus unlocking their full potential to support literacy advancement.

2.3.4 Digital Storytelling Tools

The researcher recognises digital storytelling as a pedagogically rich and culturally responsive tool that strengthens literacy and nurtures learners' identity and agency. From the candidate's classroom experience, digital storytelling has emerged as a particularly impactful strategy for enhancing EFAL reading instruction. This approach merges traditional literacy development with digital fluency by enabling learners to construct narratives using multimedia elements such as images, videos, and audio recordings (Kim & Li, 2021). The candidate has observed that in contexts where learners' voices have often been marginalised, digital storytelling becomes a medium through which they can reclaim narrative space and express themselves through multimodal means.

Informed by practical implementation, the candidate notes that digital storytelling invites learners to deeper engagement with texts by encouraging them to become both consumers and producers of meaning. For instance, learners in the candidate's classroom have created digital story summaries or reinterpretations of lesson themes, using voiceovers and visuals to articulate their understanding. These activities enhance reading, writing, and comprehension and foster critical thinking and creativity. The researcher notes that such practices support learner-centred pedagogies, with students showing increased investment in learning when they are authors of their content.

One of the most valuable aspects, as experienced by the candidate, is the personalisation of learning. By drawing from their own experiences and cultural contexts, learners make reading more meaningful and relevant. The crafting of digital autobiographies, for

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example, has allowed learners in the candidate's setting to integrate prior knowledge with language learning, an approach that aligns with Vygotskian theories of social constructivism (Chuang & Jamiat, 2023). The researcher supports this perspective, arguing that including personal narratives enhances comprehension, engagement, and learner identity.

The candidate also finds digital storytelling a powerful tool for differentiated instruction. Its flexibility allows teachers to scaffold tasks based on learners' proficiency levels. In practice, the candidate has used tiered assignments, where beginners create visual storyboards with simple captions, while advanced learners engage in more complex tasks involving video editing, sound layering, and the integration of interactive features. The researcher affirms that this adaptability supports inclusive education and promotes both academic growth and essential 21st-century digital competencies (Darling-Hammond et al., 2017).

Furthermore, the candidate's application of group-based digital storytelling has revealed its collaborative potential. Learners plan, script, and produce stories together, developing teamwork, communication, and peer feedback skills. This collaborative approach is particularly valuable in multilingual classrooms, where shared storytelling fosters an inclusive environment and affirms cultural diversity (Castillo-Cuesta, 2022). The researcher argues that incorporating Indigenous knowledge systems and local narratives into these stories strengthens learners' cultural identity and enhances their English proficiency, which is a particularly vital consideration in the South African EFAL context.

Despite these pedagogical affordances, the candidate has encountered difficulties linked to limited access to digital tools, especially in under-resourced rural schools. The researcher, therefore, stresses that meaningful implementation of digital storytelling requires policy-level support, including investments in infrastructure, connectivity, and devices (Pretorius & Spaull, 2019). Based on firsthand

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teaching experiences, the candidate also highlights a gap in teacher preparedness. Professional development programmes must address digital storytelling's technical and instructional dimensions to ensure it complements existing literacy curricula (Mpuangnan et al., 2024).

The candidate cautions that digital storytelling should not overshadow traditional literacy practices. In classroom implementation, the candidate ensures that storytelling tasks are grounded in critical literacy outcomes. For example, learners may be required to conduct text-based analyses of character development, plot structure, or theme before creating digital adaptations. The researcher supports this approach, noting that integrating analytical tasks preserves the academic rigour of reading instruction while leveraging the creative affordances of digital tools.

In summary, digital storytelling is a dynamic and learner-centred approach to EFAL reading instruction. Based on classroom experience, the candidate argues its success lies in thoughtful integration, cultural contextualisation, and robust teacher support. The researcher concludes that when digital storytelling is aligned with literacy goals and implemented within inclusive pedagogies, it bridges traditional and digital literacies and cultivates cognitive, emotional, and cultural engagement in EFAL learners.

2.3.5 Digital Dictionaries and Language Tools

From a research standpoint, digital dictionaries and language tools are vital to digitally mediated EFAL instruction, particularly in supporting vocabulary acquisition, comprehension, and pronunciation. Tools such as *Merriam-Webster* and the *Oxford Learner's Dictionaries* offer learners real-time access to definitions, contextual usage, and audio pronunciation, enabling them to build language proficiency independently (Vlachopoulos & Makri, 2019). Drawing from classroom-based experience, the candidate has observed

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how learners become more engaged and confident when they can immediately access word meanings while reading, demonstrating how digital tools enable just-in-time learning during text engagement.

Promoting mobile dictionaries and language apps has marked a pedagogical shift from teacher-centred vocabulary delivery to learner autonomy in the candidate's practicse. This shift aligns with constructivist learning theories, which emphasise active, self-directed knowledge construction. The candidate has witnessed learners independently using digital dictionaries to decode unfamiliar vocabulary during silent reading periods. This process expands their lexicon and engages them in deeper cognitive processing, which the researcher affirms contributes to improved retention and comprehension.

Digital dictionaries' immediacy and interactivity set them apart from traditional resources. Learners in the candidate’s EFAL classrooms respond positively to features such as audio pronunciation, synonym suggestions, contextual sentence examples, and gamified vocabulary exercises. These multisensory supports, the researcher argues, resonate with the principles of Universal Design for Learning (UDL) by offering multiple means of representation and engagement, catering to the diverse learning needs present in EFAL classrooms (Sefara et al., 2021).

From the candidate’s perspective, digital dictionaries have also enabled differentiated instruction. By tailoring vocabulary activities to suit varying proficiency levels, the candidate has used curated word lists, interactive platforms, and embedded dictionaries within e-books to personalise learning. This seamless integration allows learners to access support in real time, without interrupting reading flow a particularly effective strategy for those at foundational stages of English acquisition. The researcher notes that this approach supports inclusivity while maintaining the academic rigour of literacy instruction (Darling-Hammond et al., 2017).

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However, the candidate has encountered barriers to effective implementation through teaching in diverse contexts. In under-resourced schools, particularly rural areas, access to digital tools and stable internet remains a significant challenge. The researcher emphasises that bridging this digital divide requires systemic investment in infrastructure and equitable technology policies (Czerniewicz, Trotter & Haupt, 2019). In addition, the candidate strongly advocates for teacher training programmes that introduce these tools and guide educators on how to integrate them meaningfully within existing literacy frameworks.

The candidate also highlights the need to embed digital dictionaries within structured vocabulary instruction. Observations have shown that their comprehension deepens when learners are encouraged to use vocabulary journals, engage in context-based exercises, or participate in oral language activities alongside dictionary use. The researcher supports this view, noting that passive interaction with word definitions often leads to surface-level understanding, while guided and contextualised use fosters meaningful vocabulary development (Mpuangnan et al., 2024).

Importantly, the pronunciation support offered by digital dictionaries plays a crucial role in developing reading fluency. In the candidate's practice, learners frequently listen to audio examples before attempting oral reading. This exposure to correct phoneme articulation, stress patterns, and intonation improves confidence and accuracy. The researcher considers this especially beneficial in environments where learners have limited access to fluent English speech models, making digital pronunciation tools a valuable supplement to instruction (Sefara et al., 2021).

In conclusion, digital dictionaries and language tools can potentially transform EFAL reading instruction by supporting autonomy, differentiation, and multisensory learning. However, as the candidate's experience shows, their success depends on thoughtful

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implementation, equitable access, and targeted teacher training. The researcher argues that when integrated into structured literacy routines and grounded in sound pedagogy, these tools can significantly enhance learners' language development and empower them to become confident, independent readers.

2.3.6 Annotation and Highlighting Tools

As digital pedagogies reshape contemporary classroom practices, annotation and highlighting tools such as *Adobe Reader* and *Microsoft OneNote* have gained increasing relevance in EFAL reading instruction. These tools, once considered supplementary, are now embedded into structured literacy routines to cultivate active and critical engagement with texts. Research by Li, Xu, and Xia (2020) highlights the pedagogical value of digital annotation in helping learners highlight key passages, insert comments, and annotate digital texts. Drawing on direct classroom experience, the candidate has observed that such tools fundamentally shift reading from a passive act to an interactive process, particularly in settings where print resources are scarce. From the researcher's perspective, this interactivity scaffolds critical reading skills and fosters deeper learner engagement.

In practice, the candidate has seen how annotation and highlighting compel learners to slow down and think more critically about the content. Highlighting encourages identifying main ideas, while annotation supports metacognitive strategies such as questioning, summarising, and inference-making. Chuang and Jamiat (2023) affirm this view, and the researcher's findings indicate that learners who regularly annotate texts demonstrate improved comprehension and retention. Through activities such as identifying unfamiliar vocabulary or paraphrasing difficult paragraphs, learners internalise strategies that move them beyond surface-level decoding and

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toward meaning-making. This is particularly impactful in EFAL contexts where learners often struggle to engage with dense academic texts.

The candidate further argues that the collaborative functions of annotation tools add another dimension to reading instruction. In classrooms with shared digital platforms, learners can view and respond to one another's annotations. From the researcher's viewpoint, this fosters peer interaction, critical thinking, and co-construction of meaning, all essential elements of dialogic learning. In the candidate's experience working with rural EFAL teachers, collaborative annotation has proven especially promising, allowing learners to negotiate interpretations and pose questions in a social learning space. Teachers can build on this by designing assignments that involve group analysis of texts, thereby embedding collaboration into literacy instruction.

From a personalised learning perspective, annotation tools allow learners to develop visual and organisational strategies tailored to their preferences. The candidate has found that learners with working memory difficulties benefit from colour-coded highlighting and spatially organised notes, an approach that aligns with Pretorius and Spaull's (2019) emphasis on visual literacy strategies. The researcher supports using these tools for differentiated instruction, especially in multilingual EFAL classrooms with diverse learning needs. In addition, teachers can use learners' digital annotations as formative assessment evidence, providing real-time feedback and tracking progression over time.

However, the candidate acknowledges that resource disparities often limit these benefits. In under-resourced schools particularly in Limpopo Province, where the candidate's teaching is situated access to digital devices remains inconsistent. Often, teachers rely on outdated personal smartphones, and learners lack the technological infrastructure needed for consistent tool use. From the

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researcher's standpoint, these systemic inequalities mirror broader concerns raised by Czerniewicz, Trotter, and Haupt (2019), who warn that digital innovation without equitable access can exacerbate educational disparities. The candidate asserts that policy-level investment and institutional support are essential if digital annotation is to be more than a privileged practice in well-equipped schools.

Moreover, the candidate contends that effective use of annotation tools depends on access and pedagogical intentionality. Learners require explicit instruction on how to annotate meaningfully. The researcher supports structured exercises such as guided annotation for predicting outcomes, analysing cause-and-effect relationships, or tracking character development as practical strategies to build inferential comprehension (Vlachopoulos & Makri, 2019). The candidate has used reflective writing tasks in tandem with annotation activities, finding that this combination deepens learners' textual engagement and encourages analytical thinking.

Importantly, annotation tools offer exciting possibilities for assessment. Teachers can review annotations to monitor comprehension, address misconceptions, and scaffold learning. Digital platforms that store annotated texts can function as learner portfolios, documenting growth in reading and critical thinking. As the candidate has implemented it in her classroom, this allows for longitudinal tracking of literacy development, supporting both formative and summative assessment practices.

In conclusion, annotation and highlighting tools are more than digital enhancements. They are transformative pedagogical instruments that promote active, collaborative, and differentiated reading instruction. The candidate's experience confirms their potential to empower EFAL learners by equipping them with the tools to navigate complex academic texts confidently and safely. However, the researcher cautions that realising this potential depends on sustained teacher training, curriculum alignment, and

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equitable digital access. When these conditions are met, annotation tools can catalyse deeper learning in what learners read and how they understand, interpret, and interact with texts.

2.3.7 Educational Apps in English First Additional Language Instruction

Through direct engagement with EFAL classrooms and reflective teaching practice, the candidate has observed a marked increase in educational apps such as *Duolingo*, *LingQ*, and *Khan Academy* as tools for supporting reading and language development. These mobile learning platforms offer learners personalised instruction, real-time feedback, and adaptive content delivery, all features that allow for self-paced progression. The candidate contends that this responsiveness is particularly relevant in EFAL contexts where learner abilities and exposure to English vary widely. These observations align with Huang et al. (2020), who found that educational apps support differentiated learning trajectories, offering learners agency and autonomy over their learning processes.

In the candidate's teaching context, specifically rural schools in Limpopo, educational apps present a practical solution to infrastructural and curricular difficulties. While access to advanced digital tools remains uneven, smartphones and tablets are increasingly available in learners' households. The candidate has successfully incorporated mobile apps into after-school tasks, vocabulary reinforcement, and informal reading activities, noting increased learner motivation and participation. From the researcher's perspective, these tools serve as low-barrier entry points into digital learning environments, especially when app content is accessible offline, a crucial feature in bandwidth-constrained settings, as also noted by Czerniewicz, Trotter, and Haupt (2019).

According to the candidate, one of the most salient features of these apps is their capacity for real-time adaptation based on learner performance. For example, Duolingo automatically calibrates task difficulty, tailoring learning experiences and fostering

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independence and metacognitive awareness. This is particularly valuable in under-resourced classrooms, where teacher support may be stretched thin. Castillo-Cuesta (2022) reinforces this view, arguing that adaptive learning environments promote self-regulation, a skill the candidate considers vital for EFAL learners navigating a second-language curriculum with limited home support.

The gamified elements embedded in many educational apps, such as rewards, leaderboards, and progress tracking, resonate with learners. The candidate has noted that learners often perceive these tasks as less intimidating than traditional assessments, which encourages regular engagement. This is consistent with Mpuangnan et al. (2024), who assert that gamification fosters a sense of accomplishment and makes learning more enjoyable. However, the researcher cautions that such engagement must be pedagogically anchored to ensure that fun does not come at the expense of depth.

Despite their accessibility and appeal, the candidate raises important concerns about curriculum relevance. Most popular educational apps are not designed with the South African CAPS-aligned EFAL curriculum in mind. As a result, while these tools can enhance language exposure and basic literacy, their direct instructional value is sometimes limited. The researcher argues that without linguistic and contextual localisation, apps risk reinforcing generic language skills that may not align with the academic and cultural needs of EFAL learners in South Africa. This insight underscores the candidate's position that digital tools must be critically selected and adapted rather than uncritically adopted.

Furthermore, the candidate emphasises the need for sustained teacher professional development. While some educators demonstrate enthusiasm for app integration, many lack the digital pedagogical skills to do so effectively. The researcher observes that professional development should go beyond technical training to include strategies for incorporating apps into lesson design,

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managing digital behaviour, and aligning app use with literacy outcomes. Discussions with EFAL teachers have also surfaced concerns around excessive screen time, data privacy, and digital well-being areas that must be addressed to ensure the ethical and sustainable use of mobile learning tools.

In conclusion, educational apps offer transformative possibilities for EFAL instruction, particularly in under-resourced and multilingual classrooms. The candidate asserts that when these tools are used intentionally, supported by teacher capacity and aligned with curriculum goals, they can extend learning opportunities, promote learner agency, and foster deeper engagement with English. However, the researcher insists that apps should not function as standalone interventions. Their success depends on thoughtful integration into a broader, context-sensitive pedagogy that centres the learner and acknowledges the constraints and possibilities of local teaching realities.

2.3.8 Interactive Whiteboards and Touchscreens

The candidate's reflective practice and classroom engagement in EFAL settings, particularly in under-resourced schools within the Thohoyandou Cluster, have revealed the uneven adoption of interactive whiteboards (IWBs) and touchscreen technologies. While infrastructural and budgetary limitations remain significant barriers, the candidate has observed that they deliver meaningful pedagogical benefits where such tools are available. These technologies enable multimodal teaching, blending visual, auditory, and kinaesthetic inputs, which the candidate finds especially impactful in EFAL classrooms, where learners are grappling with new content and learning in an additional language. These observations are consistent with Talim et al. (2021), who argue that IWBs support differentiated instruction and increased learner engagement.

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The candidate contends that when used effectively, interactive tools create dynamic learning environments that stimulate learner participation. In observed lessons where teachers fully utilised IWBs, learners displayed heightened enthusiasm and deeper involvement with reading tasks. Theoretically, this aligns with Vygotsky's sociocultural theory, which advocates for mediated learning within the Zone of Proximal Development (ZPD). The researcher notes that IWBs offer a scaffolded platform for guided discovery, allowing learners to manipulate text, images, and sound in real time a practice that supports peer collaboration and interactive language development.

However, the candidate strongly asserts that access alone does not ensure meaningful educational outcomes. Despite IWBs in a few schools, several teachers interviewed expressed a lack of confidence in using the technology beyond basic projection. This echoes findings by Major and Watson (2023), who warn that IWBs are frequently underutilised due to inadequate training and limited pedagogical integration. The researcher has observed this phenomenon firsthand, where the technology was treated as a static display rather than an interactive teaching tool. The candidate argues that unless teachers receive technical and pedagogical support, the transformative potential of IWBs will remain unrealised.

A core concern raised by the candidate is the alignment between IWB activities and EFAL curriculum goals. While interactive features such as drag-and-drop vocabulary tasks, pronunciation playback, or collaborative text annotation are engaging, they must be grounded in well-defined learning outcomes. Mavrou and Meletiou-Mavrotheris (2020) caution that IWBs may encourage shallow engagement rather than deep comprehension without intentional instructional design. This view resonates with the candidate's reflections, particularly in lessons where the tool's novelty overshadowed the depth of language instruction. As such, the researcher advocates for structured lesson planning that leverages IWB features in service of specific reading strategies and language outcomes.

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The candidate also highlights the potential of IWBs to support formative assessment. Teachers can assess learners ' comprehension and vocabulary knowledge on the spot through interactive features such as quizzes, instant polls, and real-time feedback tools. The researcher has documented examples where such practices led to improved learner confidence and more focused reading responses. However, these benefits are not uniformly experienced. Many teachers, especially those in resource-constrained settings, lack the pedagogical training to design such interactive assessments. The candidate contends that for IWBs to reach their full potential, professional development must address digital fluency and instructional strategy.

Equity remains a pressing issue. The candidate notes with concern that while urban schools often enjoy access to IWBs and digital touchscreens, schools in rural areas like Thulamela Municipality are left behind. The researcher echoes Czerniewicz and Brown (2019) in arguing that any digital education strategy must confront systemic inequalities. If not carefully implemented, educational technologies risk reinforcing, rather than redressing, historical disparities in learning opportunities.

In conclusion, the candidate maintains that interactive whiteboards and touchscreen technologies can play a valuable role in enhancing EFAL reading instruction—particularly by fostering multimodal engagement, real-time feedback, and collaborative learning. However, the researcher emphasises that these benefits are conditional. Without intentional integration into lesson design, ongoing teacher training, and equitable access across diverse educational contexts, these tools may offer only superficial gains. A strategic, equity-driven approach is therefore essential—one that empowers teachers as instructional designers and positions technology as a meaningful support for second-language literacy development.

2.3.9 Synchronous and Asynchronous Online Discussions

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Drawing from practical engagement and classroom-based inquiry in the Thohoyandou Cluster, the candidate contends that digital platforms such as WhatsApp and Google Classroom offer valuable, context-sensitive opportunities for enhancing EFAL reading instruction. These tools supporting synchronous (real-time) and asynchronous (delayed) interactions reshape the traditional learning environment, enabling learners to participate in extended reading discussions beyond the school walls. The candidate strongly argues that this expansion of pedagogical time and space is critical in multilingual EFAL classrooms, where learners benefit from multiple and flexible opportunities to process language-rich content.

From the researcher's observation, synchronous discussions facilitate immediacy and spontaneous language use. For example, real-time vocabulary clarification or opinion-sharing activities have been shown to boost learner engagement and confidence. As Pratiwi et al. (2021) suggest, synchronous interactions help establish a dialogic rhythm that mirrors natural speech, an important step for EFAL learners developing oral fluency. Conversely, the candidate notes that asynchronous platforms are equally valuable, offering learners the time to reflect and craft more considered responses particularly beneficial for those who may be hesitant or struggle with on-the-spot articulation.

In line with the candidate's position, asynchronous tools serve as levellers in the language classroom. Learners who might be silent in face-to-face settings often become more vocal and expressive in text-based environments. The researcher recorded several instances where previously quiet learners actively participated in Google Classroom threads, confidently responding to reading prompts or asking clarifying questions. This supports Vlachopoulos and Makri's (2019) assertion that online forums can democratise classroom dialogue by giving voice to all learners. The candidate argues that such participation, when scaffolded by open-ended and well-structured prompts, has the potential to deepen learners' comprehension and sharpen their critical reading skills.

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Messaging platforms like WhatsApp add an informal yet impactful dimension to EFAL instruction. In the researcher's fieldwork, teachers used WhatsApp to share voice notes, post vocabulary quizzes, or facilitate brief reading comprehension check-ins. The candidate observes that this created a dynamic learning culture extending beyond formal class hours and fostered a sense of academic community among learners. These low-bandwidth, mobile-friendly platforms prove especially effective in under-resourced schools, where access to more sophisticated technologies may be limited. Multimedia capabilities such as images, GIFs, and audio clips reinforce multimodal learning, which the candidate maintains is essential in sustaining learner interest and contextual vocabulary development.

Crucially, the candidate foregrounds the digital literacy gains that accompany these practices. As learners engage in online discussions, they not only practise EFAL-specific language skills but also develop competencies in online etiquette, academic tone, and respectful peer feedback. This, the candidate believes, positions learners as active participants in their literacy journey and prepares them for the demands of 21st-century learning environments. From a socio-constructivist perspective, the researcher notes that such environments support peer-to-peer co-construction of meaning, an essential ingredient for deeper language acquisition.

However, the candidate cautions that the success of these platforms hinges on pedagogical intentionality. During school visits, the researcher observed forums that failed to sustain learner attention due to vague instructions or lack of accountability mechanisms. This aligns with Czerniewicz, Trotter, and Haupt's (2019) concern that digital strategies can falter in the absence of proper scaffolding or where access is inconsistent. The candidate highlights the importance of striking a balance between flexibility and structure, ensuring that learners have both autonomy and clear expectations.

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Another dimension raised by the candidate is teacher preparedness. While most platforms are accessible, their instructional potential is only fully realised when teachers possess the skills to design content-rich discussions, facilitate digital collaboration, and monitor learning outcomes. The researcher found that teachers with prior exposure to blended or online learning frameworks were more confident and creative in leveraging these tools. This underscores Pretorius and Spaull's (2019) point that professional development must move beyond technical training to include pedagogical design and digital facilitation skills. The candidate argues that empowering teachers in this way is essential if digital platforms are to meaningfully support EFAL reading development rather than becoming passive communication channels.

The candidate posits that synchronous and asynchronous online discussions represent powerful tools for expanding the literacy landscape of EFAL classrooms. When implemented with clear instructional intent and pedagogical care, they promote inclusivity, deepen reading comprehension, and build essential digital communication skills. However, their impact depends on teacher agency, structured implementation, and equitable access, all of which must be foregrounded in any sustainable digital literacy strategy.

2.3.10 Video Resources and Multimedia Content

The candidate contends that the strategic integration of video resources and multimedia content holds transformative potential for EFAL reading instruction, particularly in contexts where learners face linguistic and cognitive barriers. Drawing on research and classroom observations in the Thohoyandou Cluster, the candidate asserts that video content is not merely a supportive aid but a pedagogical necessity—especially for fostering engagement, contextual understanding, and language retention in under-resourced schools.

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From the researcher's interactions with EFAL educators, it became evident that platforms such as YouTube, BBC Learning, and other open educational video repositories are frequently used to deliver lessons that target vocabulary development, pronunciation, and reading fluency. These tools allow for multimodal exposure, which combines auditory and visual stimuli, reinforcing comprehension and supporting diverse learning styles. The candidate argues that this multimodal dimension is crucial for EFAL learners, who often benefit more from context-rich, visual representations than from decontextualised, text-heavy instruction.

A particularly compelling aspect of video content, as emphasised by the candidate, is its capacity to model authentic language use. Learners are exposed to natural speech patterns, intonation, rhythm, and stress, which are difficult to teach effectively through print alone. The researcher observed that repeated exposure to such content enhanced learners' confidence not only in reading but also in speaking tasks. Teachers were seen pausing videos to engage learners with prediction tasks, pronunciation drills, and vocabulary identification, thereby integrating formative assessment into the viewing experience.

Furthermore, the candidate maintains that video-based instruction is pivotal in contextualising abstract language. A short clip of a market interaction, for instance, provides a concrete setting in which vocabulary is used meaningfully. According to Pratiwi et al. (2021), this type of contextual learning is especially important for EFAL learners who require tangible references to grasp abstract language forms. The researcher found that such videos, when used alongside guided activities like graphic organisers or vocabulary logs, helped solidify learners' grasp of new structures and encouraged application in their own speech and writing.

The candidate also foregrounds the motivational benefits of multimedia content. Animated stories, interactive read-aloud, and song-based lessons were particularly effective in maintaining learner attention and enthusiasm. According to Castillo-Cuesta (2022),

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engaging content is essential for sustaining interest in language learning, a view echoed by teachers the researcher interviewed, many of whom reported that reluctant readers became more responsive when videos formed the core of the reading lesson. The candidate further argues that multimedia tasks such as recording oral book reviews or retelling stories through digital storytelling foster learner autonomy, creativity, and expressive language use.

However, the candidate strongly cautions that the pedagogical value of video resources depends on thoughtful integration into the curriculum. The researcher observed that in some classrooms, unstructured or overly lengthy videos diminished learner focus and contributed to cognitive overload. This supports the findings of Kim and Li (2021), who warn that poorly scaffolded multimedia content can distract rather than enhance learning. The candidate insists that teachers must frame each video with explicit learning outcomes and follow-up activities that prompt reflection, discussion, or synthesis.

Equity and contextual relevance are also central to the candidate's argument. While urban schools may have reliable internet access, many rural schools in Limpopo including those visited in the Dzindi and Thohoyandou Circuits, struggle with connectivity issues, limited devices, and insufficient digital training. The researcher documented how teachers often downloaded videos in advance or used offline methods to ensure continuity. The candidate advocates for creating culturally responsive multimedia content that reflects learners' linguistic and social realities. Such resources, the candidate believes, not only support comprehension but also validate learner identities and promote a sense of belonging.

To optimise the benefits of multimedia content, the candidate emphasises the need for targeted teacher professional development. Teachers must be empowered to source, edit, and embed multimedia resources into coherent instructional plans that support

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curriculum goals. Furthermore, learner-generated multimedia projects can serve as dual-purpose tasks enhancing language proficiency while building essential digital literacy skills aligned with 21st-century competencies.

In conclusion, the candidate argues that video resources and multimedia content should be central, not peripheral, to EFAL reading pedagogy. When carefully selected and aligned with clear instructional goals, they enhance learner engagement, contextual understanding, and language acquisition. However, their transformative potential is only realised when issues of access, relevance, and teacher preparedness are fully addressed. Thus, the candidate calls for a deliberate and equity-focused approach to multimedia integration, one that not only enriches reading instruction but reimagines it as an interactive, learner-centred, and culturally affirming process.

2.3.11 Virtual Field Trips and Simulations

The candidate argues that virtual field trips and simulations present a powerful but underutilised opportunity to reimagine EFAL reading instruction in South African classrooms. These immersive tools, when carefully integrated, offer learners a bridge between the abstract world of texts and the tangible realities they depict, an essential step for deepening comprehension and fostering learner engagement. From a critical pedagogical perspective, the candidate contends that such strategies disrupt traditional, print-bound conceptions of literacy by incorporating visual, spatial, and emotional dimensions into reading experiences.

Findings from interactions with EFAL teachers in the Thohoyandou Cluster support this stance. The researcher observed that teachers who used virtual tools, even in limited ways saw improvements in learners' ability to visualise settings, empathise with characters, and internalise complex vocabulary. Simulations such as animated farm visits or virtual museum tours allowed learners

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to make emotional and cognitive connections to the texts they were reading. This aligns with Marquardt et al. (2021), who emphasise the affective and motivational value of immersive learning environments. The candidate views this shift toward experiential engagement as a critical lever for language acquisition, particularly in contexts where learners may lack the prior knowledge or lived experience to relate to reading material.

The candidate strongly positions virtual field trips as more than digital novelties—they are, instead, pedagogically grounded tools rooted in constructivist principles. Learners build knowledge not by passively receiving content but by actively interacting with text and environment in tandem. For instance, a virtual tour of a rainforest not only reinforces thematic vocabulary but enables learners to observe, infer, and describe using concrete visual references. The researcher documented instances where such experiences helped learners produce more descriptive writing and engage in richer group discussions, affirming the value of simulation-based learning for EFAL development.

Nevertheless, the candidate does not overlook the structural difficulties that limit the full realisation of these strategies. Schools in the Dzindi and Thohoyandou Circuits, as the researcher noted, are often hamstrung by poor internet connectivity, outdated devices, and limited technical support. The candidate argues that these infrastructural inequities are not just logistical hurdles they are socio-educational injustices that reinforce digital exclusion. As Van der Berg et al. (2020) and Czerniewicz et al. (2019) contend, without equitable access, even the most innovative tools risk entrenching existing disparities.

Given this, the candidate advocates for prioritising low-cost, high-impact alternatives such as 360-degree videos, which can run on basic smartphones and still offer immersive value. Teachers in the study expressed a preference for locally relevant content that

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reflects the cultural and linguistic backgrounds of their learners. The candidate supports this call, asserting that culturally responsive simulations not only increase learner comprehension but also affirm identity and belonging as essential elements in a linguistically diverse classroom.

Beyond engagement, the candidate emphasises that simulations offer fertile ground for developing higher-order thinking. Activities such as navigating a virtual marketplace, solving a story-based problem, or participating in a simulated dialogue challenge learners to apply reading comprehension in real-world contexts. This is particularly valuable for EFAL learners, who need meaningful exposure to functional English in interactive and purposeful settings. The researcher noted that learners responded well to such tasks, often showing improvements in inference-making, critical reflection, and oral fluency.

However, the candidate warns against uncritical adoption. The transformative potential of virtual tools depends on pedagogical coherence. Virtual field trips should not displace foundational reading instruction but rather extend and deepen it. Drawing from classroom observations and teacher interviews, the researcher found that simulations were most effective when paired with structured pre- and post-activities. The candidate recommends pre-viewing tasks that introduce vocabulary or activate schema, followed by reflective journaling, discussion, or creative writing to consolidate learning a sequence supported by Kim and Li (2021).

To ensure sustained impact, the candidate calls for comprehensive teacher development. Teachers must be trained not only in how to use simulations but also in how to design inquiry-driven tasks that align with curriculum objectives. The researcher's findings suggest that where teachers had prior exposure to blended or digital pedagogies, they demonstrated greater confidence and creativity in using simulations to enrich literacy instruction.

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In conclusion, the candidate maintains that virtual field trips and simulations, when thoughtfully deployed, offer a radical reconfiguration of the EFAL reading experience. They foster emotional connection, contextual understanding, and functional language use, all of which are critical for learners navigating English as an additional language. Yet, their promise will remain unrealised without intentional planning, professional development, and urgent investment in equitable access. For South Africa's rural and township schools, the candidate argues, these tools represent not just innovation but possibility a path toward a more inclusive, multimodal, and learner-centred literacy landscape.

2.3.12 YouTube

The candidate argues that YouTube has become an essential digital resource in the transformation of EFAL reading instruction, not merely because of its vast content offerings but due to its capacity to mediate multimodal, learner-centred engagement. In contexts where traditional methods have struggled to meet the linguistic and cognitive needs of diverse learners, YouTube introduces dynamic avenues for modelling fluent reading, reinforcing phonics instruction, and supporting vocabulary acquisition through audio-visual immersion. From a critical pedagogical standpoint, the candidate contends that YouTube facilitates learning experiences that align with the lived realities and preferences of 21st-century learners visual, auditory, and interactive.

Through classroom observations and engagements with EFAL teachers in the Thohoyandou and Dzindi Circuits, the researcher documented how YouTube was used to bring language to life. Animated stories, read-aloud, and phonics songs were incorporated into lessons to support decoding, pronunciation, and comprehension. Teachers noted that learners, especially in the Foundation and Intermediate Phases, responded enthusiastically to the multisensory nature of the platform. This supports Alumbungu and Mpofu's

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(2023) assertion that YouTube aligns well with multimodal learning theory, engaging both cognitive and affective domains. The candidate views this engagement not as incidental but as foundational to any pedagogy seeking to democratise access to literacy.

Importantly, the candidate emphasises that YouTube's pedagogical power lies not just in the availability of content but in its adaptability. Teachers can curate, adapt, or even co-create videos to suit their classroom contexts addressing differentiated learning needs and embedding cultural relevance. In the researcher's findings, this adaptability was especially valued in multilingual classrooms, where generic English content was often supplemented by teacher-created videos incorporating local references or languages. The candidate posits that this move toward contextualisation is not simply a best practice it is an ethical imperative in ensuring equity and learner relevance in EFAL instruction.

Nevertheless, the candidate does not romanticise digital integration. YouTube's potential is fundamentally constrained by structural and infrastructural inequalities. Data from the field revealed that in many rural schools, teachers face unreliable internet connectivity, limited access to devices, and gaps in digital literacy. As Czerniewicz, Trotter, and Haupt (2019) have noted, these issues exacerbate existing educational disparities, raising critical questions about who benefits from digital innovations and who remains excluded. The researcher encountered several cases where promising video-based lesson plans were abandoned due to technical failures or lack of resources. For the candidate, this reflects a deeper systemic failure: the absence of coordinated policy and infrastructure to support meaningful digital inclusion.

To address these limitations, the candidate advocates for pragmatic, context-sensitive strategies. These include downloading videos for offline use, investing in solar-powered or battery-operated projectors, and initiating teacher-led content creation using mobile

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devices. The researcher found that some educators had already begun experimenting with these approaches, often with little institutional support. The candidate argues that such grassroots innovations deserve recognition and scaling, especially through targeted professional development and peer-learning communities. Furthermore, the creation of locally relevant YouTube playlists featuring stories, vocabulary sets, and cultural references familiar to learners can further transform the platform into a culturally responsive pedagogical space.

Ultimately, the candidate positions YouTube as a powerful enabler of inclusive, engaging, and linguistically rich EFAL instruction but only when it is used intentionally and equitably. It should not be viewed as a universal solution but as one tool in a broader ecosystem of multimodal literacy strategies. The researcher's data indicate that when teachers integrate YouTube videos into well-structured lessons preceded by vocabulary activation and followed by writing, discussion, or creative retelling tasks learners demonstrate improved comprehension and expressive confidence.

In conclusion, the candidate maintains that YouTube holds significant potential to reshape EFAL reading instruction in ways that are multimodal, accessible, and responsive to learners' realities. However, realising this potential depends on a confluence of thoughtful pedagogy, infrastructural support, and culturally grounded content. When used critically and creatively, YouTube becomes more than an entertainment platform it becomes a participatory learning space that reflects, affirms, and extends the literacy journeys of EFAL learners in South Africa's most underserved classrooms.

2.3.13 TikTok

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The candidate argues that TikTok, often dismissed as a frivolous entertainment app, must be reconsidered as a pedagogical tool within EFAL reading instruction, particularly in contexts where traditional methods have failed to engage learners meaningfully. The candidate has difficulties with conventional hierarchies of educational value that privilege print-heavy, linear texts over multimodal, participatory formats. In this view, TikTok's short-form, visually dynamic content offers a compelling opportunity to support literacy development in ways that are immediate, culturally relevant, and learner-driven.

Through observations conducted in EFAL classrooms across the Dzindi and Thohoyandou Circuits, the researcher documented early efforts by teachers to incorporate TikTok into vocabulary building, phonics instruction, and storytelling. These efforts, though modest, revealed a distinct shift toward learner-centred engagement. Learners responded with curiosity, confidence, and creativity mirroring what Mpuangnan et al. (2024) identify as the platform's capacity to support playful, socially situated learning. The candidate interprets this not as anecdotal novelty, but as an emerging practice that signals the pedagogical reorientation needed for 21st-century literacy education.

Central to the candidate's position is the belief that TikTok fosters learner agency. Unlike conventional tools that cast learners as passive recipients, TikTok enables them to become authors of their own learning experiences. The researcher observed learners creating content whether enacting vocabulary skits or retelling stories, thereby taking ownership of language in ways that affirmed their voices and identities. The candidate argues that this aligns powerfully with constructivist and socio-cultural theories of learning, where meaning is constructed through interaction, reflection, and performance. Here, TikTok becomes more than a platform: it becomes a space of linguistic experimentation and identity expression.

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Nonetheless, the candidate introduces a measured critique. While the researcher documented moments of engagement, the unfiltered nature of TikTok content poses significant pedagogical risks. The platform can easily become a site of distraction or superficial engagement if not purposefully integrated. The candidate cautions that digital enthusiasm must not eclipse educational intention. Educators must play a curatorial role in designing scaffolded tasks, establishing linguistic outcomes, and embedding TikTok within a broader pedagogical framework. Without this, as Sefara et al. (2020) and Klu (2000) suggest, digital tools risk reinforcing rather than disrupting ineffective teaching practices.

Furthermore, the candidate contends that TikTok's success in EFAL contexts cannot be disentangled from broader issues of access and inequality. The researcher found that schools in rural areas struggled with data constraints, device shortages, and low levels of teacher digital fluency. While TikTok is data-light and mobile-optimised, its educational potential remains inaccessible without targeted investment in teacher training and infrastructure. The researcher's findings confirm that teachers with greater digital confidence were more inclined to experiment with TikTok, designing localised content and integrating it into curriculum-aligned reading tasks. The candidate, therefore, emphasises the urgent need for professional development that moves beyond technical training to address critical digital pedagogy.

The candidate also has difficulties with the traditional notion of what counts as "serious" educational content. In the candidate's view, learner enthusiasm for TikTok is not a distraction it is pedagogical capital. When learners are allowed to bring their digital literacies into the classroom, education becomes more relevant, inclusive, and dynamic. The researcher's data supports this: learner engagement was highest when content was locally resonant, visually rich, and culturally meaningful. In this way, TikTok becomes a site for both language learning and cultural affirmation.

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In conclusion, the candidate contends that TikTok is not a gimmick but a disruptive force with the potential to reimagine EFAL instruction, provided it is used with strategic intent. The researcher's evidence shows that when thoughtfully integrated, TikTok can enrich reading instruction by strengthening vocabulary, enhancing fluency, and supporting multimodal comprehension. It invites learners to speak, perform, and co-construct meaning, making reading a socially and culturally grounded act. Ultimately, the candidate positions TikTok as a tool of possibility, one that can bridge the gap between learners' lived digital experiences and their classroom literacy practices.

2.3.15 WhatsApp

The researcher argues that WhatsApp, as a ubiquitous communication tool in South Africa, holds untapped potential for transforming EFAL classrooms, particularly in under-resourced rural contexts. Drawing from experience and field engagement, The researcher contends that the application is not merely a messaging platform but a pedagogical tool capable of supporting differentiated instruction, especially in oral language development. In her view, WhatsApp addresses both logistical and pedagogical gaps in the teaching of reading by allowing learners to engage with content beyond the classroom walls, thus promoting continuity in learning.

From a research perspective, WhatsApp's educational value lies in its ability to support both real-time and asynchronous communication, bridging the gap between school and home while fostering resource-sharing among teachers, learners, and parents. Its voice note functionality is particularly noteworthy, as it enables authentic language use and provides an avenue for meaningful feedback critical components in enhancing reading fluency and pronunciation (Castillo-Cuesta, 2022). Fieldwork conducted in the

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Thohoyandou Cluster reveals that teachers perceive the platform as a confidence-building tool, offering learners a private and less intimidating space for practising oral language skills and receiving personalised input.

The researcher reflects that WhatsApp's practical integration in rural classrooms illustrates how low-tech solutions, when used intentionally, can drive pedagogical innovation. Despite infrastructural limitations, WhatsApp's widespread availability and user familiarity render it a highly accessible and inclusive digital tool. Learners can access reading texts, record and submit responses, and even engage in metacognitive reflection, all without the need for sophisticated devices or extensive data. These practices align with socio-constructivist principles, which emphasise interaction, dialogue, and co-construction of knowledge as central to the learning process.

However, the researcher raises critical concerns about the platform's limitations, particularly access and equity. As supported by Spaull and Pretorius (2020), findings indicate that device sharing at home, inconsistent data access and unreliable connectivity remain persistent barriers for many learners. This reality highlights the risk of reinforcing digital divides if access issues are not addressed proactively. The researcher argues that for WhatsApp to become a truly inclusive learning tool, intervention strategies such as data subsidies shared school-owned devices, and partnerships with local stakeholders must be embedded within its implementation model.

In conclusion, the researcher maintains that WhatsApp's strength lies in its adaptability and contextual relevance. When supported with adequate teacher training and instructional content aligned with curriculum standards, WhatsApp emerges as a dynamic and sustainable tool for enhancing EFAL reading instruction. Its role in promoting learner engagement, enabling formative assessment,

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and supporting literacy development outside the classroom underscores its potential as a meaningful component of digital pedagogy in South Africa's diverse educational landscape.

2.3.16 Smartboards

The researcher contends that smartboards, while often viewed as high-end educational technology, can be powerful pedagogical assets in EFAL classrooms if they are grounded in sound instructional design and ongoing support. Her perspective is shaped by classroom observations and reflections shared by teachers in the Thohoyandou Cluster, who regard smartboards as display tools and catalysts for active, multimodal learning. The researcher believes that smartboards can transform passive reading instruction into interactive literacy engagements when effectively used, especially for Grade 4 learners transitioning into more complex English reading tasks.

From a research standpoint, smartboards enhance EFAL instruction by combining conventional literacy and digital interactivity. Teachers describe them as "a bridge between textbook content and learner participation," enabling the projection of texts, annotation of key vocabulary, and orchestration of collaborative activities. In observed classroom practices, shared reading sessions become more engaging when passages are displayed on smartboards, with colour-coded annotations helping to unpack sentence complexity. Learners, in turn, are invited to identify unfamiliar words or decode highlighted terms, thus promoting active involvement in the reading process.

The researcher underscores that this interactivity aligns with her constructivist view of learning, where visual, auditory, and kinaesthetic elements coalesce to support deeper comprehension. For instance, teachers reported that smartboards enhanced group

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activities such as phonics exercises, vocabulary games, and word-building tasks. One teacher reflected, “It is easier for the Grade 4 learners to grasp phonics when they see and hear the breakdown of syllables on the smartboard. It makes the reading process feel alive.” Such multimedia experiences reinforce decoding skills and foster learner enthusiasm and participation.

Furthermore, the researcher highlights the potential of smartboards to support differentiated learning. Teachers can design interactive tasks like drag-and-drop exercises or vocabulary-matching games that cater to varied learner abilities. These affordances are especially beneficial in large or mixed-ability classrooms, where scaffolding is essential. Teachers confirmed that even less vocal learners become actively engaged when invited to interact with the smartboard, thus promoting inclusive participation and confidence-building.

Nevertheless, the researcher is critical of such technologies' inequitable distribution and underutilisation in rural contexts. Data from fieldwork in the Thohoyandou Cluster revealed that several schools possess unused smartboards due to technical faults, lack of maintenance, or insufficient training. One teacher lamented, “Our school received a smartboard two years ago, but it has not worked properly in months. We do not have anyone to fix it, and we have no training to use it correctly.” These accounts illuminate the systemic difficulties that often accompany the rollout of educational technology in under-resourced settings.

To address these issues, The researcher advocates for targeted capacity-building initiatives. Teachers have called for professional development workshops to integrate smartboard use with curriculum-aligned EFAL strategies, including e-books, pronunciation tools, and gamification apps. She also emphasises the importance of partnerships between the government, the private sector, and schools

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to subsidise technology costs and establish sustainable maintenance systems. She argues that smartboards risk becoming symbolic resources rather than transformative tools without such support structures.

In conclusion, the researcher affirms that smartboards possess significant potential to enrich EFAL instruction by, enhancing interactivity, collaboration, and learner motivation. However, this potential can only be realised through strategic implementation, continuous teacher training, and infrastructural support. As one teacher aptly noted, “A smartboard is only as smart as the way we are trained to use it,” a sentiment The researcher echoes as a call for more inclusive and context-sensitive digital pedagogies in South African classrooms.

2.4 Effectiveness of Digital Strategies

The researcher asserts that the effectiveness of digital strategies in enhancing EFAL reading outcomes cannot be measured by tool availability alone but must be understood through the lens of classroom realities, teacher agency, and learner access. From her engagement with EFAL teachers in the Thohoyandou Cluster, it is evident that while digital tools such as interactive e-books, gamified reading platforms, and audio-visual content offer exciting possibilities for learner engagement, their impact is shaped by how meaningfully they are integrated into daily instructional practices. She believes effectiveness should not be equated with novelty but contextual responsiveness and sustainability.

From a research perspective, scholars such as Chuang and Jamiat (2023) emphasise the potential of digital technologies to personalise learning, improve comprehension, and deepen learner engagement. Tools like adaptive reading software, which adjusts content complexity based on learner performance, and interactive platforms that provide instant feedback have been shown to

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increase learner motivation and improve vocabulary acquisition. These findings align with the researcher's observations, particularly in schools where teachers have received digital literacy training and are confident in blending these tools with the curriculum.

However, the researcher cautions against the assumption that digital tools are inherently transformative. She highlights that infrastructural limitations, limited technical support, and the digital divide often hinder implementation. For example, even the most promising platforms become underutilized in schools with unreliable internet access or outdated devices. This view is supported by Castillo-Cuesta (2022), who argues that digital integration must be context-sensitive, acknowledging local constraints such as data costs, device sharing, and uneven teacher preparedness.

In the Thohoyandou Cluster, the researcher noted that teachers reported varying levels of success with digital strategies, particularly with reading fluency and vocabulary enrichment. Those who used voice recording features on mobile platforms like WhatsApp observed improved pronunciation and confidence among learners. Others who incorporated gamified reading apps into lessons reported higher levels of learner participation. Yet, these successes were often accompanied by frustration due to a lack of consistent access or technical support. The researcher contends that such contradictions underscore the need for teacher-driven innovation supported by responsive policy and infrastructure.

Importantly, she believes that measuring the effectiveness of digital strategies must go beyond test scores and consider learner engagement, confidence, and agency. When learners are excited to read aloud, submit voice notes, or complete interactive quizzes at home, these behaviours signal progress in ways that standardised assessments may overlook. The researcher argues for an

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expanded definition of literacy development that recognises the affective and participatory dimensions of reading fostered by digital tools.

In conclusion, while researchers such as Chuang and Jamiat (2023) and Castillo-Cuesta (2022) provide valuable insights into the pedagogical affordances of digital strategies, The researcher insists that their actual value lies in context-aligned implementation, teacher empowerment, and equitable access. Digital strategies can enhance EFAL reading outcomes if used as extensions of strong pedagogical practices and not substitutes. For The researcher, effectiveness must be defined by how these tools enable all learners to read with confidence, comprehension, and joy regardless of context.

2.4 IMPROVEMENT IN READING FLUENCY

The researcher observes that reading fluency remains one of the foundational barriers to English First Additional Language (EFAL) development among Grade 4 learners in the Thohoyandou Cluster. Her interactions with teachers show that digital tools such as audio recordings, podcasts, and interactive e-books are increasingly used to model correct pronunciation, rhythm, and intonation. These tools have enabled learners to listen repeatedly and mimic fluent reading, which many teachers cite as a breakthrough in improving oral reading skills.

Researchers such as Chuang and Jamiat (2023) confirm that such tools expose learners to fluent reading models and enhance pronunciation and pacing. The researcher notes that while these findings hold in urban schools with strong digital infrastructure, rural schools in her study often struggle to fully utilise such resources due to poor connectivity or a lack of devices. Nevertheless, some teachers have creatively used WhatsApp voice notes and radio lessons to approximate these benefits in low-resource settings.

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The researcher agrees with Vlachopoulos and Makri (2019), who found that audio tools assist learners in self-correcting errors, a skill teachers in her study have noticed emerging when learners compare their recordings with model readings. She stresses, however, that without guided support and consistent access to devices, learners are unlikely to internalise fluent reading habits. Gamified apps like Quizlet have also proven effective, yet the researcher emphasises that unless adapted for offline access, their reach will remain limited in under-resourced classrooms. In her view, improving reading fluency through digital strategies depends on tool selection and the teacher's ability to mediate those tools within the realities of the classroom context.

2.4.1 Enhancement of Reading Comprehension

The researcher maintains that reading comprehension is not merely a product of text exposure but requires purposeful engagement, scaffolding, and feedback. She argues that digital strategies, while potentially transformative, must be embedded in pedagogical practice that actively supports meaning-making. Through classroom observations and interviews, she found that tools like Kahoot and Quizlet, when used to pose inferential and evaluative questions, helped learners think beyond surface-level understanding.

Castillo-Cuesta's research (2022) supports the idea that gamification and interactive tools deepen comprehension by promoting analysis and summarisation. The researcher adds that learners in her study were more eager to respond to such comprehension tasks when presented in game formats, suggesting a shift in engagement and attention. Nevertheless, she cautions that not all learners benefit equally. Without teacher-led mediation, she observed that some learners merely guessed answers to earn points, undermining deeper engagement.

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Annotation tools such as Adobe Acrobat and OneNote were less frequently used in the classrooms the researcher studied, largely due to device sharing and a lack of software training. Bennell and Akyeampong (2020) argue that digital tools must be paired with teacher guidance to develop higher-order thinking skills, a position the researcher strongly supports. She contends that comprehension instruction in EFAL classrooms must blend the cognitive support of the teacher with the motivational appeal of digital tools. In her view, digital tools must be treated as supplements to teaching, not substitutes.

2.4.2 Vocabulary Acquisition and Word Recognition

The researcher acknowledges that vocabulary development is a critical challenge for EFAL learners, many of whom enter Grade 4 with limited exposure to English in their home environments. She affirms that digital dictionaries, language apps, and multimedia texts have offered a new pathway for learners to acquire vocabulary independently. In her study, teachers who encouraged daily use of mobile dictionary apps and audio-supported word games noted improvements in both word recognition and usage.

The literature supports these observations. Vlachopoulos and Makri (2019) identify immediate feedback and contextual learning as strengths of digital vocabulary tools. Similarly, adaptive learning technologies like Duolingo adjust to learners' levels, promoting incremental gains (Huang et al., 2020). The researcher, however, expresses concern that such personalised features are often inaccessible in rural schools where device sharing is common and headphones are scarce.

Her findings also reveal that learners remember vocabulary better when seeing, hearing, and interacting with new words. Interactive e-books that embed definitions and clickable words were particularly useful. Nevertheless, the researcher stresses that vocabulary tools must be accompanied by classroom strategies such as peer dialogue, collaborative activities, and contextualised reading tasks.

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She supports Chuang and Jamiat's (2023) claim that classroom application enhances word retention and usage. The researcher's goal is to move vocabulary learning from isolated digital practice to meaningful communication within the learner's context.

2.4.3 Increased Learner Engagement

The researcher has consistently observed that digital strategies significantly increase learners' enthusiasm toward reading. In her view, the transformation is most visible when learners are given agency and interactive opportunities, whether through voice notes, quizzes, or animated storybooks. She argues that such engagement is not merely a by-product of novelty but a reflection of how learners experience relevance and joy in learning.

Pratiwi et al. (2021) state that gamified platforms and multimedia tools offer immersive experiences that sustain attention and build interest. The researcher saw this firsthand when learners in her study remained focused during virtual storytelling sessions that incorporated video, sound, and movement. Tools like Epic! Reading and Quizlet motivated learners to keep practising by using rewards and difficulties. However, she also notes that the sustainability of this engagement depends on how well the tools match learners' cultural, linguistic, and cognitive realities.

The researcher stresses that simply introducing engaging content is insufficient. Teachers must understand how to tailor these tools to suit learners' interests and developmental levels. Marquardt et al. (2021) highlight the role of virtual simulations in increasing participation in an observation that the researcher echoes in the context of augmented reality-based story settings. However, she believes these innovations may lose their appeal without culturally relevant content and adequate teacher training. For her, authentic engagement emerges when technology connects meaningfully with learners' experiences and aspirations.

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2.4.4 Impact on Learners in Rural Contexts

The researcher is particularly concerned with the equity implications of digital strategies, especially for rural learners who often begin at a technological disadvantage. She asserts that while mobile-friendly and offline platforms offer promise, they remain underutilised due to structural barriers such as limited electricity, scarce resources, and minimal digital training for teachers. Nevertheless, she has witnessed how committed educators in rural schools have embraced tools like Kolibri and Khan Academy Lite to support learners despite these limitations.

Makransky and Mayer (2022) note the value of offline tools in such settings, while Alumbungu and Mpofu (2023) highlight persistent infrastructure gaps that hamper widespread implementation. The researcher found that where schools had even limited access to tablets or projectors, learners responded positively to digital reading tasks. However, rural learners often require additional scaffolding due to limited prior exposure to both English and digital environments.

The researcher supports Fesi and Mncube's (2021) assertion that teachers are central to the success of digital strategies in rural contexts. She argues that policymakers must do more to equip these teachers with ongoing support, localised content, and durable technologies. Her own findings show that when rural teachers are empowered, even basic digital tools can make a measurable difference in learner outcomes. In her view, digital innovation must not widen the gap between rural and urban learners but serve as a bridge for equitable literacy development.

2.4.5 Teacher Perceptions of Digital Strategies' Effectiveness

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Teacher perceptions play a pivotal role in determining the successful integration of digital strategies within EFAL classrooms. The candidate observes that teachers' confidence and willingness to adopt digital tools often shape the effectiveness of these interventions. This resonates with the assertion by Darling-Hammond et al. (2017) that confident teachers are more likely to translate digital integration into improved learner outcomes. However, the candidate notes that such confidence is not uniformly distributed, particularly in rural contexts where teachers frequently cite insufficient training and lack of support as barriers to effective implementation. Fesi and Mncube (2021) echo this concern, highlighting that when teachers are empowered through professional development, the use of digital strategies leads to increased learner participation and comprehension.

Drawing from classroom-based experiences and anecdotal accounts from EFAL teachers in the Thohoyandou Cluster, the candidate underscores the necessity of targeted support and continuous training. Teachers do not merely require access to digital tools. They need contextualised guidance and affirmation to integrate these resources into pedagogy confidently. The literature reviewed confirms that the true success of digital strategies lies not just in their technical affordances but in the structures that nurture teachers' agency and competence (Fesi & Mncube, 2021). The candidate argues that without such enabling environments, even the most advanced digital tools may fail to yield the desired educational impact.

2.4.6 Virtual Field Trips

Virtual field trips represent a promising innovation in EFAL reading instruction, offering learners immersive experiences that bring stories and vocabulary to life. The candidate reflects on how teachers have begun experimenting with these tools to make texts more relatable and contextually grounded. For example, introducing a virtual tour of a farm while reading a story set in rural life helps bridge

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the gap between abstract text and learners' lived experiences. This observation aligns with Czerniewicz and Brown (2020), who contend that virtual experiences support reading comprehension by embedding learning in rich visual and cultural contexts.

Nevertheless, the candidate cautions that the success of such interventions is contingent on infrastructure. In under-resourced schools across the Dzindi Circuit, the lack of access to high-speed internet and advanced devices often limits the feasibility of high-tech immersive tools. Makransky and Mayer (2022) acknowledge this challenge but suggest that alternative formats, such as 360-degree videos, can provide meaningful virtual experiences without requiring expensive equipment. From the candidate's perspective, the effectiveness of virtual field trips depends not only on the tool itself but also on the adaptability of its design to the specific constraints of rural schools. As Marquardt et al. (2021) suggest, scaling these innovations will require a thoughtful balance between technological aspirations and contextual realities.

2.5 TEACHERS' USE OF DIGITAL STRATEGIES

The integration of digital strategies in rural classrooms particularly for teaching EFAL continues to evolve, marked by both significant constraints and creative adaptations. Drawing on evidence from the Dzindi Circuit, the candidate notes that teachers have begun to develop a repertoire of digital practices that respond to local conditions. While systemic difficulties such as overcrowded classrooms and poor infrastructure persist (Gustafsson & Makgetla, 2019), the ingenuity and resilience demonstrated by teachers point to the untapped potential of technology-enhanced instruction in these contexts.

2.5.1 Adoption of Low-Cost Digital Tools

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The candidate identifies adopting low-cost digital tools as a pragmatic response to the digital divide in rural schools. Teachers increasingly use mobile phones, basic tablets, and offline e-learning applications to support EFAL instruction. These tools offer interactive reading activities and differentiate learning opportunities even without reliable internet connectivity. This observation is consistent with the findings of Wilson and Peterson (2021), who advocate for expanding affordable, user-friendly technologies tailored to rural environments.

In the candidate's analysis, the success of such tools hinges on more than just access; they must also be integrated into pedagogically sound strategies that align with teachers' capabilities and classroom needs. Programmes like Bridge IT (Kem, 2022) demonstrate the transformative potential of low-tech interventions when coupled with structured support. The candidate suggests that fostering partnerships between schools and technology providers could enhance the reach and impact of these initiatives. However, she maintains that equitable access must be matched by relevant teacher training to ensure sustainable implementation.

2.5.2 Blended Approaches

Blended approaches have emerged as a preferred strategy among rural EFAL teachers, allowing them to combine the strengths of digital and traditional methods. The candidate has observed that teachers frequently use digital storytelling platforms and interactive e-books with printed texts to cater to learners with varying access levels. This hybrid model ensures that all learners benefit from technology-enhanced instruction during class time, even if they lack digital devices at home. Chuang and Jamiat (2023) affirm the value of such hybrid models, but caution that their effectiveness depends on deliberate pedagogical planning.

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The candidate argues that for blended approaches to be truly practical, teachers must receive robust training that emphasises technical skills and pedagogical strategies for balancing digital and analogue resources. Without this training, there is a risk that digital tools will be used superficially, with minimal impact on reading comprehension. Therefore, the candidate concludes that future policy efforts should prioritise building teacher capacity to implement blended learning in ways responsive to learners' linguistic, social, and technological realities.

2.5.3 Use of Gamification in Rural Classrooms

The candidate observes that gamification has become a transformative digital strategy in teaching EFAL reading in rural classrooms, particularly in fostering learner engagement and motivation. Drawing from observations and discussions with teachers, it is evident that many have integrated game-based elements such as points, badges, and interactive quizzes to stimulate interest in reading tasks. For instance, teachers in the Thohoyandou Cluster reported that platforms like Quizlet have been effective in enhancing vocabulary acquisition and reading comprehension among Grade 4 learners. These anecdotal insights align with Castillo-Cuesta's (2022) findings, highlighting gamification as a tool for maintaining learner attention in under-resourced contexts.

However, the candidate asserts that while gamification is promising, its relevance must be culturally and contextually appropriate. Learners are more likely to engage with content that reflects their lived experiences, language backgrounds, and cultural norms. Pratiwi et al. (2021) similarly emphasise the need for locally adapted content, noting that gamification's effectiveness is significantly enhanced when materials are tailored to the learners' sociocultural realities. The candidate contends that the next step in advancing gamified learning in rural classrooms lies in co-developing such content with local educators.

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2.5.4 Leveraging Offline Educational Content

The candidate argues that in rural schools, where reliable internet access remains inconsistent or absent, offline educational content's value cannot be overstated. Teachers interviewed in the Thulamela Municipality consistently referenced tools such as Khan Academy Lite and Kolibri, which have allowed them to teach core EFAL reading skills without dependence on live internet. These platforms, preloaded with various interactive resources, empower teachers to offer quality instruction even in digitally marginalised contexts.

Makransky and Mayer (2022) support this view, highlighting the accessibility and practicality of offline solutions in underserved areas. The candidate emphasises that further investment in such tools, especially those compatible with older hardware and minimal infrastructure, is essential for bridging the digital divide. For rural teachers to maximise the use of offline platforms, policymakers must prioritise the procurement of devices that support these resources and include offline functionality as a core criterion in digital education planning.

2.5.5 Teachers' Creativity in Digital Strategy Implementation

A significant insight emerging from the candidate's fieldwork is the ingenuity and adaptability demonstrated by rural teachers in implementing digital strategies with minimal resources. Teachers have creatively repurposed available technologies, such as using

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simple video projectors to present multimedia content or employing WhatsApp to distribute reading materials and facilitate remote learning. These practices reveal a pattern of teacher-led innovation, where resource constraints have prompted practical and often effective pedagogical solutions.

Pratiwi et al. (2021) document similar trends, observing that in many rural contexts, teachers turn to creative strategies to integrate digital tools into reading instruction. Likewise, Czerniewicz and Brown (2020) note that while such initiatives are commendable, they are not sustainable without systemic support. The candidate argues that to build on this creativity; institutions must provide regular training, ensure access to a wider range of tools, and recognise the inventive efforts of teachers as foundational to digital integration in low-resource settings.

2.5.6 Teacher Collaboration and Peer Support

Teacher collaboration has emerged as a critical enabler of digital strategy implementation, particularly in environments where formal support structures are limited. The candidate highlights that in the Thohoyandou Cluster, informal peer mentoring and resource-sharing have played a vital role in equipping teachers with practical knowledge and boosting confidence in using digital tools. Such collaborative practices not only promote professional growth but also foster a shared commitment to improving reading outcomes.

Louw and Pretorius (2020) underline the value of peer support in overcoming technological difficulties, noting that experienced teachers often serve as catalysts for broader adoption of digital tools. Similarly, Darling-Hammond et al. (2017) stress that structured collaboration enhances professional development and positively impacts learner achievement. The candidate recommends that schools and education departments formalise teacher collaboration networks, establish digital hubs, and organise ongoing workshops

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to sustain this momentum. Strengthening peer support mechanisms can amplify the collective capacity of educators to deliver digitally enriched instruction, particularly in the context of EFAL reading.

2.5.3 USE OF MOBILE DEVICES AND OFFLINE APPS

The candidate recognises that in rural EFAL classrooms, mobile devices and offline apps have emerged as indispensable tools. From her observations, these technologies offer practical solutions to the persistent challenge of limited internet access. Learners are often provided with preloaded digital materials ranging from eBooks to vocabulary exercises on their phones or tablets, making it possible to practise reading outside of scheduled lessons. This flexibility is crucial in environments where traditional teaching resources are scarce.

Researchers such as Makransky and Mayer (2022) confirm the value of mobile-friendly offline tools like Kolibri and Khan Academy Lite, highlighting their role in supporting personalised and accessible instruction. However, while the literature rightly points to the potential of these apps, the candidate argues that without adequate teacher training and support, the reach and pedagogical value of such tools may remain limited. She aligns with Kem (2022), who calls for deeper investments not only in mobile technology but also in teacher capacity building to ensure sustainable implementation.

2.5.4 INTERACTIVE WHITEBOARDS AND PROJECTION TOOLS

In schools with marginally better infrastructure, the candidate has witnessed the positive impact of interactive whiteboards and projectors on EFAL reading instruction. These tools facilitate the delivery of visual and auditory content, allowing learners to interact

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with digital texts and multimedia resources. This method transforms reading instruction into a dynamic experience that holds learners' attention and encourages participation.

While Neuman and Celano (2020) advocate for the use of such tools to enhance learner engagement, the candidate cautions against over-reliance on technology without attending to contextual realities. In many rural classrooms, power outages, lack of maintenance, and security concerns often render these tools ineffective over time. She asserts that unless infrastructural constraints are addressed alongside digital innovations, the promise of these technologies will remain largely unfulfilled for rural teachers and learners alike.

2.5.5 GAMIFICATION FOR VOCABULARY AND COMPREHENSION DEVELOPMENT

The candidate has found that gamification is one of the most engaging strategies for vocabulary and comprehension development in EFAL. When teachers use tools like Kahoot, Reading Eggs, and Quizlet, learners demonstrate increased motivation and enthusiasm for reading tasks. In her view, these platforms create a learning atmosphere that fosters fun, collaboration, and intrinsic motivation essential ingredients in classrooms where learner disengagement is common.

According to Castillo-Cuesta (2022), gamified environments stimulate active participation through interactive quizzes and reward systems. Pratiwi et al. (2021) and Makransky and Mayer (2022) support the need to customise such tools to suit learners' cultural and linguistic contexts. The candidate affirms this, noting that rural teachers must often adapt gamified content creatively to align with local realities and available devices. She maintains that when gamification is locally relevant and contextually appropriate, it can powerfully support EFAL learning outcomes.

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2.5.6 AUDIO TOOLS AND PODCASTS FOR PRONUNCIATION AND LISTENING SKILLS

The candidate highlights the increasing use of audio tools and podcasts in rural classrooms as a means of improving pronunciation and listening skills. She has observed how learners respond positively to listening to fluent English speakers while following along with written texts. This dual exposure enhances their ability to decode pronunciation, rhythm, and intonation, particularly in contexts where they seldom hear English spoken fluently.

Researchers like Vlachopoulos and Makri (2019) argue that podcasts and audio tools enrich the auditory environment in EFAL classrooms. Pratiwi et al. (2021) further suggest that such tools can bridge language exposure gaps in rural settings. The candidate concurs but insists that the full potential of these tools can only be realised when educators have access to EFAL-specific audio content that reflects the curriculum and learners' lived experiences. She also advocates for increased efforts to provide affordable and user-friendly audio technologies in rural schools, where such resources are often limited or underutilised.

2.5.7 DIGITAL STORYTELLING FOR CREATIVITY AND COMPREHENSION

Digital storytelling has become a transformative pedagogical tool in rural EFAL classrooms, as teachers increasingly explore creative avenues to stimulate learner interest and comprehension. The candidate observed that, despite infrastructural barriers, some teachers harness accessible tools such as Microsoft PowerPoint, Google Slides, and free storytelling apps to facilitate learner-generated narratives. This approach integrates multiple modalities text, imagery, and audio thereby cultivating vocabulary, creativity, and comprehension simultaneously.

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Kim and Li (2021) argue that such multimodal practices deepen learner engagement and foster meaningful connections with the text. The candidate concurs, noting that these practices resonate particularly well in contexts where traditional methods may fail to ignite learner interest. However, while the pedagogical potential of digital storytelling is clear, the candidate's experience in the field also revealed that a lack of structured training often hinders its widespread use. As Kim and Li (2021) point out, equipping teachers with user-friendly tools and technical support could extend the reach of this approach. The candidate believes that when storytelling is culturally rooted and digitally mediated, it has the potential not only to improve literacy but to affirm learner identities a crucial consideration in under-resourced, rural settings.

2.5.8 ADAPTATION OF LOW-COST TOOLS TO RURAL CONTEXTS

In rural classrooms, teachers frequently exhibit resilience and innovation by adapting low-cost digital tools to suit local constraints. Through engagements with teachers during this study, the candidate was struck by the creative use of WhatsApp to share voice notes, reading activities, and feedback, underscoring how digital inclusion can occur even with basic devices. Czerniewicz and Brown (2020) validate this view, emphasising that low-tech solutions remain pivotal in navigating digital inequalities.

The candidate also noted how television sets and inexpensive projectors were repurposed to screen educational videos and animated texts, facilitating visual literacy and reading comprehension. Moreover, the digitisation of folktales in local languages provided culturally relevant content that learners could connect with. While not heavily reliant on advanced infrastructure, these practices embody the core principles of inclusive pedagogy. However, the candidate aligns with Alumbungu and Mpofu (2023), arguing that while these grassroots efforts are commendable, they are not enough. Teachers may struggle to scale their innovations without

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systemic support, such as curated local content and affordable digital kits. The candidate advocates for strategic investment that leverages community strengths while addressing systemic gaps.

2.5.9 COLLABORATIVE AND PEER-SUPPORTED DIGITAL USE

Collaboration emerged as a critical enabler of digital pedagogy in the rural schools studied. The candidate observed how teachers formed informal support networks, sharing audio files, lesson plans, and troubleshooting strategies for using digital resources. This collaborative ethos was pragmatic and empowering, creating a professional community around shared difficulties and solutions. Louw and Pretorius (2020) confirm the importance of such networks, particularly in environments where formal professional development opportunities are scarce.

The candidate found learner-led digital collaboration equally inspiring. In some schools, older or more tech-savvy learners assisted peers with digital tasks, turning the classroom into a dynamic, interdependent learning space. Ertmer and Ottenbreit-Leftwich (2013) describe this as peer-supported digital use, a model that supports digital literacy and strengthens social bonds. From the candidate's perspective, these collaborative practices signify a shift toward a more democratic and participatory classroom culture.

However, sustaining these networks requires more than goodwill. Institutionalising mentorship programmes and providing recognition or incentives for teacher collaboration could enhance these efforts. The candidate, therefore, proposes that education departments consider formal frameworks to support these grassroots innovations, thereby embedding collaboration as a sustainable model for digital integration in rural EFAL contexts.

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2.6 DIGITAL STRATEGIES IN EDUCATION

The candidate recognises the growing consensus that digital strategies are no longer optional in contemporary education but imperative for creating inclusive, engaging, and personalised learning environments. Kaynar and Boichuk (2020) noted that digital tools such as gamified platforms, interactive e-books, and adaptive learning systems redefine the learning experience by responding to individual learner needs. In the rural classrooms observed by the candidate, however, the uptake of such strategies remains uneven, shaped mainly by disparities in access, infrastructure, and training.

Nevertheless, there is evidence of progress. Teachers who have adopted these tools report noticeable gains in learner engagement and comprehension. Chuang and Jamiat (2023) argue that such platforms allow for personalised learning and cater to diverse literacy levels, echoed by the candidate's findings. Vackova et al. (2023) further highlight how multimedia elements in digital texts support deeper cognitive processing, particularly for struggling readers.

The candidate believes that digital strategies' transformative potential lies not merely in their novelty but in their alignment with learner needs and contextual realities. For rural education to benefit fully, however, there must be a deliberate alignment between policy, infrastructure investment, and teacher training.

2.6.1 AI AND ADAPTIVE LEARNING IN ENGLISH FIRST ADDITIONAL LANGUAGE

Artificial Intelligence (AI) and Adaptive Learning Platforms (ALPs) have been positioned as the next frontier in personalised education. The candidate recognises the capacity of tools such as Duolingo, Knewton, and DreamBox to tailor content based on individual

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learner data, thereby enhancing both proficiency and motivation. Vlachopoulos and Makri (2019) note that AI systems can dynamically adjust the complexity of reading tasks, providing feedback in real time a feature that aligns well with the differentiated needs of EFAL learners.

The candidate is particularly intrigued by the role of natural language processing (NLP) in assessing and improving learners' reading fluency, vocabulary usage, and comprehension. However, field experiences suggest that such tools remain aspirational in most rural contexts, where internet access and device availability are limited. Even when tools like Duolingo are known to teachers, there is often a disconnect between awareness and implementation due to a lack of training or institutional support.

Still, the potential is too great to ignore. Huang et al. (2020) advocate leveraging data analytics to personalise learning pathways and track individual progress in, a position the candidate strongly supports. The challenge lies in democratising access to such innovations. The candidate proposes piloting AI tools in selected rural schools, coupled with training and support mechanisms, to assess their viability and impact. Without such initiatives, the digital divide may only widen, reinforcing educational inequities.

2.6.2 Cultural and Linguistic Barriers

Transitioning from mother-tongue instruction to English as the Language of Learning and Teaching (LoLT) in rural South African classrooms presents a substantial barrier to effective EFAL reading instruction. This linguistic shift, often abrupt and inadequately supported, disrupts learners' foundational development in literacy. According to Bennell and Akyeampong (2020), many rural learners encounter English for the first time when they enter the formal schooling system, having spoken only indigenous languages at home.

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This late introduction to English places learners at a linguistic disadvantage and compromises their ability to access the broader curriculum, which is delivered predominantly in English.

The researcher contends that this linguistic dissonance is more than a language issue it is a structural inequity that deepens educational marginalisation. While policies may advocate for additive bilingualism, their implementation often falls short, particularly in resource-poor schools. As observed in the fieldwork, some educators revert to rote memorisation due to their limited fluency in English, inadvertently weakening learners' comprehension and engagement with reading texts.

The shortage of qualified EFAL teachers compounds the problem. Gustafsson and Makgetla (2019) highlight how high learner-to-teacher ratios in rural schools overwhelm teachers, leaving them with little time for individualised support. This claim is echoed by Steyn and Masango (2022), who argue that many rural teachers are underprepared to navigate the complex linguistic landscape of EFAL instruction. The researcher's experience corroborates this: In classrooms visited, it was clear that even the most committed teachers struggled to bridge the linguistic divide without targeted in-service training. Thus, the interplay between linguistic transition, insufficient teacher preparation, and systemic under-resourcing forms a triad of difficulties that inhibit reading development in EFAL.

2.6.3 Teacher Workload and Burnout

The realities of teacher workload and burnout in rural schools cannot be overstated. While literature, such as that of Gustafsson and Makgetla (2019), provides statistical evidence of class sizes exceeding 50 learners, the researcher asserts that these figures only partially reveal the depth of the crisis. Beyond sheer numbers, teachers also contend with administrative duties, socio-emotional support roles, and curriculum delivery expectations, often in under-resourced contexts.

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Although promising, the introduction of digital strategies is perceived as an additional burden rather than a support mechanism. The interviews conducted during the study revealed that teachers are often expected to implement ICT-based learning without receiving adequate time, training, or resources. Burnout becomes not merely a personal issue but a structural consequence of policy-practice misalignment. Unless workloads are managed and professional development is systemically embedded, the potential of digital tools will remain largely untapped in EFAL classrooms.

2.6.4 Socioeconomic Barriers

Socioeconomic inequalities remain a persistent impediment to the equitable implementation of digital strategies in EFAL instruction. Czerniewicz and Brown (2020) point out that fewer than 30% of rural learners can access digital devices at home. The researcher argues that this statistic reflects a deeper digital divide that mirrors and intensifies existing social inequities. In the rural classrooms, even basic infrastructure such as electricity and stable internet connectivity was inconsistent, if present.

This lack of access hinders learning outside the classroom and curtails the development of critical digital literacy skills that are essential in the 21st century. While urban learners often use interactive reading apps and online dictionaries, their rural counterparts rely heavily on outdated print resources. To address this gap, the researcher calls for policy interventions that prioritise infrastructure development in rural schools and community-based access to digital technologies, such as mobile libraries or solar-powered learning hubs.

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2.7 RECENT ADVANCES IN DIGITAL LEARNING (POST-2019)

Despite these difficulties, notable advancements in digital learning tools post-2019 offer promise for EFAL reading development. Platforms that use gamification integrating points, badges, and leaderboards are gaining traction. Castillo-Cuesta (2022) and Bai et al. (2020) demonstrate how these tools enhance learner motivation and comprehension. The researcher notes that learners exposed to such tools during pilot programmes exhibited higher engagement and greater willingness to participate in reading tasks.

Similarly, Augmented Reality (AR) and Virtual Reality (VR) reshape how reading content is delivered. Though their use in rural South Africa remains nascent, early indicators suggest that such technologies, when adapted to context, can deepen learner immersion and comprehension (Makransky & Mayer, 2022). The researcher believes that scalable, offline-compatible versions of AR/VR could revolutionise reading in low-resource settings.

Digital storytelling, as Kim and Li (2021) assert, provides an avenue for learners to merge creativity with literacy. This approach was particularly practical in classrooms where learners could create and narrate personal stories, improving their oral and written language skills. Similarly, mobile learning (mLearning), as demonstrated by the BridgeIT program (Wilson & Peterson, 2021), shows how simple mobile technologies can be powerful tools for reaching underserved communities. The researcher recommends that South Africa explore partnerships with telecommunications providers to develop similar mLearning programmes, using pre-loaded content that requires minimal data access.

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2.8 PEDAGOGICAL SHIFTS IN LANGUAGE LEARNING

A shift in pedagogical practices is essential for digital tools to make a sustainable impact. The traditional emphasis on rote learning increasingly gives way to learner-centred, interactive methods (Amin & Wahyudin, 2022). Digital strategies are not mere add-ons but catalysts for rethinking how language is taught and learned.

The researcher underscores the relevance of the Technology Acceptance Model (TAM), which posits that user attitudes shaped by perceived usefulness and ease of use are key to successful technology adoption (Kem, 2022). From the field, it is clear that unless teachers perceive digital tools as genuinely enhancing their teaching, they are unlikely to adopt them consistently.

The integration of Shulman's Pedagogical Content Knowledge (PCK) and Vygotsky's Sociocultural Theory (Vygotsky, 1978) further supports a move toward content-rich and socially embedded practices. The researcher observed that digital platforms facilitating group work or shared responses encouraged learners to co-construct meaning, consistent with Vygotskian principles (Atmowardoyo, Weda & Sakkir, 2020). However, the shift requires robust professional development and continuous support, especially in rural contexts.

2.9 CRITICAL ANALYSIS OF DIGITAL TOOLS FOR ENGLISH FIRST ADDITIONAL LANGUAGE

Digital tools can potentially transform EFAL instruction, but several systemic difficulties currently constrain their impact. As Neuman and Celano (2001) note, inadequate infrastructure limits the reach and sustainability of digital initiatives. The researcher's site visits

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confirmed this: in many classrooms, teachers lacked the basic tools functioning devices, reliable internet, and technical support to implement digital strategies effectively.

Moreover, the integration of digital and traditional pedagogies remains uneven. Orfanidis (2023) advocates for a hybrid model that combines the strengths of both approaches. The researcher supports this view, arguing that technology should augment, not replace, teacher-led instruction. In classrooms where guided reading was paired with e-book use, learners demonstrated improved vocabulary acquisition and reading fluency.

A further challenge is teachers' digital readiness. Kaynar and Boichuk (2020) emphasise that digital strategies are only as effective as the teachers implementing them. The researcher found that many teachers lacked confidence using educational apps and online platforms. Therefore, she argues for a sustained investment in teacher capacity-building, not just using digital tools but integrating them into meaningful pedagogy. Without this, the promise of technology in EFAL reading will remain unrealised.

2.10 INTERNATIONAL PERSPECTIVE

Digital learning strategies have been effectively leveraged in various global contexts to address educational disparities, particularly in under-resourced rural schools. For example, India’s DIKSHA platform provides free, curriculum-aligned digital content for learners and educators, tailored to overcome infrastructural limitations (Gustafsson & Makgetla, 2019). Similarly, China’s Smart Education Programme incorporates artificial intelligence to offer personalised reading experiences, improving literacy outcomes. These initiatives demonstrate that, with innovation and intentional design, digital tools can transcend infrastructural constraints.

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While these international examples are encouraging, the candidate acknowledges that replicating such models in South Africa without considering the local context may be ineffective. There is a need for context-responsive adaptation rather than wholesale adoption. This study contends that although these global efforts provide a helpful blueprint, their relevance must be critically evaluated against the realities of rural South African schools, particularly in areas like the Thohoyandou Cluster, where socio-economic and infrastructural limitations are stark.

2.11 DIGITAL STRATEGIES IN RURAL CONTEXTS

Despite digital learning's potential to bridge educational gaps, rural South African schools face significant obstacles. Teachers are frequently tasked with using outdated or insufficient digital tools, making meaningful technology integration into EFAL reading instruction challenging. Bennell and Akyeampong (2020) assert that the digital divide remains a significant barrier to improving literacy in these contexts.

The lack of reliable electricity and internet connectivity further impedes the use of online resources such as e-books, literacy apps, and interactive platforms. As Neuman and Celano (2001) argue, digital tools lose their utility without stable infrastructure, highlighting a critical limitation in rural digital learning initiatives. The candidate has observed similar difficulties in the Thohoyandou Cluster, where intermittent power supply and data costs restrict teachers and learners from fully engaging with digital content.

Nonetheless, emerging practices in mobile learning offer a glimmer of hope. Wilson and Peterson (2021) report on the effectiveness of offline, mobile-based solutions in improving reading comprehension in underserved areas. In line with this, the candidate

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recognises the adaptability and scalability of mobile technologies in rural South African schools, especially when content is locally relevant and stored offline for easy access.

Ractham and Firpo (2021) caution that such interventions may lack sustainability without targeted investment in infrastructure and educator training. The candidate argues that a sustainable approach must foreground not only the deployment of technology but also the capacitation of teachers to meaningfully engage with digital tools. In this regard, partnerships involving government, NGOs, and the private sector, such as the "One Laptop per Child" initiative (Krauss, 2022), offer useful models for collaborative support.

The candidate believes that the success of digital strategies in rural areas hinges on an ecosystem approach that addresses material constraints, capacitation needs, and community engagement. Only then can digital interventions move from promise to practice.

2.12 EDUCATIONAL POLICY FRAMEWORK

South Africa's policy landscape reflects a commitment to improving educational quality through digital integration. The Curriculum and Assessment Policy Statement (CAPS) outlines teaching and assessment guidelines, including those for EFAL. However, as Macdonald (2021) critiques, CAPS provides insufficient guidance on how teachers should incorporate digital tools into their instructional practice. From the candidate's perspective, this omission is particularly detrimental in the Fourth Industrial Revolution, where digital competency is increasingly critical for teaching and learning.

Moreover, the White Paper on e-Education (Department of Education, 2004) envisions a technologically integrated education system. However, Mtebe and Raisamo (2020) argue that implementation has been uneven and slow, especially in rural provinces.

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This study finds resonance with this critique in the Thohoyandou Cluster, where policy intentions are not reflected in actual classroom practice due to a lack of adequate infrastructure and support.

The candidate posits that the misalignment between policy and practice undermines teachers' agency. Lebeloane (2022) highlights how rural teachers are left to navigate digital integration with little contextual support. From the candidate's fieldwork, it is evident that many educators feel isolated, underprepared, and overwhelmed by the expectations placed on them without the necessary resources. Therefore, this study argues for a recalibration of educational policy that not only envisions digital transformation but also attends to the conditions necessary for its implementation—particularly in resource-constrained rural settings.

2.13 INFRASTRUCTURAL AND TRAINING DIFFICULTIES

Infrastructure and teacher training are foundational to the success of digital strategies in EFAL instruction. Bennell and Akyeampong (2020) note rural schools' pervasive lack of digital resources, including unreliable electricity, scarce internet connectivity, and outdated equipment. These limitations resonate strongly with the candidate's observations in the field, where some schools in the Thohoyandou Cluster still rely on paper-based systems due to a lack of functional digital tools.

In addition to infrastructural deficits, inadequate training hinders teachers from effectively integrating technology into their pedagogical practices. Steyn and Masango (2022) argue that the absence of continuous professional development opportunities limits teachers' digital fluency. The candidate contends that even where digital devices are available, the absence of meaningful training leads to their underutilisation or misuse, further exacerbating educational inequalities.

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Huang et al. (2020) highlight that technological interventions often fail when not accompanied by appropriate pedagogical support. From this perspective, the candidate underscores the importance of training programmes beyond technical proficiency, including instructional design, digital pedagogy, and content curation. This study advocates for sustained investment in capacity-building programmes tailored to rural teachers' realities, aligning with their specific needs and constraints.

Overall, the candidate argues that addressing infrastructural and training barriers is not a peripheral concern but a central imperative for the equitable integration of digital strategies in EFAL education. Without systemic change in these areas, the digital divide in South African education will persist, deepening existing disparities rather than alleviating them.

2.14 KEY ISSUES ADDRESSED IN THE LITERATURE REVIEW

2.14.1 DIFFICULTIES IN TEACHING EFAL READING

- Linguistic diversity and limited English exposure hinder learner comprehension.
- Overcrowded classrooms and high teacher workloads reduce instructional quality.
- Curriculum gaps and a lack of culturally relevant reading materials negatively impact learner engagement and literacy growth.
- Many teachers lack training in digital pedagogies, limiting their ability to adapt teaching methods.
- Socioeconomic barriers affect learners' access to resources outside of school, widening the literacy gap.

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2.14.2 TYPES OF DIGITAL STRATEGIES FOR EFAL READING

- The literature identifies multiple tools, including:
  - Interactive e-books and multimedia texts.
  - Audio tools and podcasts to support fluency and pronunciation.
  - Gamified learning platforms like Kahoot and Quizlet.
  - Digital storytelling, annotation apps, and interactive whiteboards.
  - Mobile-based tools such as WhatsApp, YouTube, and TikTok are used for instruction in low-resource settings.

2.14.3 EFFECTIVENESS OF DIGITAL STRATEGIES

- Digital tools improve reading fluency, comprehension, and vocabulary.
- Learner engagement increases, especially when interactive tools are adapted to learners' levels.
- Teachers perceive digital strategies as effective but cite implementation challenges such as infrastructure, training, and curricular alignment.

2.14.4 TEACHERS' USE OF DIGITAL STRATEGIES

- Teachers creatively adopt low-cost and offline tools in resource-constrained environments.
- Peer collaboration and informal support networks are key to strategy adoption.
- Blended learning and gamification are emerging as effective motivators for learners.

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2.14.5 RECENT ADVANCES IN DIGITAL LEARNING (POST-2019)

- Innovations include gamified platforms, augmented/virtual reality, and mobile learning solutions.
- These tools aim to bridge digital access gaps, especially in rural areas.

2.14.6 INFRASTRUCTURE AND TRAINING CHALLENGES

- Schools, particularly in rural areas, lack reliable internet, electricity, and devices.
- Teachers receive minimal professional development in digital literacy and pedagogy.
- Even when tools are available, many teachers feel unprepared to use them effectively.

2.14.7 POLICY FRAMEWORK GAPS

- Although policies like CAPS and the White Paper on e-Education (2004) promote ICT integration, there is a significant disconnect between policy and practice.
- Rural schools remain underserved by national ICT implementation strategies.

2.14.8 PEDAGOGICAL SHIFTS IN LANGUAGE LEARNING

- Movement from teacher-centred to learner-centred instruction.
- Emphasis on active, autonomous, and collaborative learning.

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- Theoretical support from the Technology Acceptance Model (TAM), Vygotsky's Sociocultural Theory, Shulman's PCK, and Constructivist Learning Theory underpins this shift.

2.9 SUMMARY

This chapter explored integrating digital strategies for teaching EFAL reading in Grade 4, focusing on the difficulties and opportunities these tools present in rural South African contexts. Key themes included the difficulties in teaching EFAL reading, such as overcrowded classrooms, resource limitations, and a lack of teacher training, alongside the potential of digital tools to address these issues. Various digital strategies, including e-books, gamification, audio tools, and virtual field trips, were reviewed, demonstrating their effectiveness in enhancing fluency, comprehension, vocabulary acquisition, and learner engagement.

The chapter also highlighted the importance of culturally relevant and localised teaching materials to bridge linguistic and cultural disconnects. By addressing the unique needs of rural learners, digital tools can help overcome some of the difficulties associated with EFAL instruction. Furthermore, the discussion emphasised the need for infrastructure development, teacher training, and curriculum alignment to maximise the impact of these tools. Researchers like Kim and Li (2021) suggest that while these digital tools show promise, their successful implementation hinges on creating an enabling environment through policy support and practical infrastructure investment.

Additionally, the chapter underscored the importance of creativity and adaptability among rural teachers who, despite systemic barriers, have found innovative ways to integrate digital tools into their teaching practises. This adaptability is critical in overcoming the resource constraints that many schools face. Overall, this literature review has laid the foundation for understanding the role of

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digital strategies in EFAL instruction and provided valuable insights into the practical and theoretical difficulties of implementing these tools. The following chapters will explore the theoretical frameworks and methodologies underpinning this study, further informing the development of effective digital strategies for EFAL teaching in rural South Africa.

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CHAPTER THREE: THEORETICAL FRAMEWORKS

3.1 INTRODUCTION

This chapter outlines the fundamental theories that underpin the current study: the TAM, Vygotsky's Sociocultural Theory, Shulman's Pedagogical Content knowledge, Constructivist Learning Theory, and Cognitive Load Theory. Together, these theories provide a framework for understanding how digital tools can be adopted and utilised in EFAL instruction. These theories offer insights into the factors that influence the acceptance and use of digital technologies in the classroom, the role of social interaction in learning, and the impact of cultural and contextual factors on educational outcomes.

These theories collectively inform the study by providing a multi-dimensional lens to evaluate the integration of digital strategies in EFAL instruction. TAM informs the acceptance and usability of digital tools, Vygotsky's Sociocultural Theory underscores the value of collaboration and cultural relevance, and Shulman's PCK concept highlights the need for pedagogical alignment. Constructivist Learning Theory supports the design of interactive, learner-driven tools, while CLT ensures that cognitive difficulties are minimised, enabling adequate comprehension and engagement. Together, these frameworks establish a robust foundation for analysing the difficulties and opportunities of digital strategies in EFAL classrooms.

The theoretical frameworks underpinning this study provide a deeper understanding of how these digital strategies can be effectively integrated. For instance:

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- The Technology Acceptance Model (TAM) emphasises the importance of perceived usefulness and ease of use in adopting new technologies in education
- Vygotsky's Sociocultural Theory highlights the role of social interaction and cultural context in learning, which is relevant to how digital strategies can enhance collaborative and engaging learning environments
- Shulman's Pedagogical Content Knowledge (PCK) concept emphasises integrating content knowledge (CK) and pedagogical skills. It claims that effective teaching is not only about knowing the subject matter but also about knowing how to teach it in ways that are accessible and meaningful to learners
- Constructivist Learning Theory supports using learner-centred, interactive digital tools that foster active engagement and self-directed learning in EFAL classrooms
- Cognitive Load Theory (CLT) focuses on the cognitive aspects of learning, guiding the design of digital reading materials that reduce cognitive overload and promote comprehension

3.2 TECHNOLOGY ACCEPTANCE MODEL

The technology acceptance model or theory is an information system theory that models how users accept and use technology (Lai, 2017; Wu & Yu, 2024). The TAM, developed by Davis (1989), is a widely used theory for understanding how users accept and use technology. TAM provides valuable insights into how teachers and learners adopt digital tools and incorporate them into their teaching and learning practises. According to TAM, two key factors influence the acceptance of new technologies: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). These factors determine users' attitudes toward technology and willingness to adopt it.

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The TAM, first developed by Davis in 1989, provides a framework for understanding how users accept and use technology. TAM helps explain the factors influencing teachers' decisions to adopt digital tools in their teaching practises. The model identifies two primary factors:

- Perceived Usefulness of TAM: The degree to which teachers believe using a particular digital tool enhances their teaching performance.
- Perceived Ease of Use of TAM: The degree to which a teacher believes using the tool is effortless.

3.2.1 PERCEIVED USEFULNESS OF TECHNOLOGY ACCEPTANCE MODEL

Perceived usefulness refers to the extent to which a user believes using a particular technology enhances their job performance. In the context of EFAL teaching, this translates to teachers' perceptions of how digital tools can improve reading comprehension, engagement, and learning outcomes. Research by Kem (2022) shows that teachers who believe digital tools effectively improve learner outcomes are more likely to integrate them into their teaching practises. Similarly, learners who perceive digital tools as beneficial to their learning experience have more potential to engage with them actively.

The current study examines the perceived usefulness of digital strategies for EFAL reading. Tools such as interactive e-books, educational apps, and gamified platforms are evaluated based on their impact on reading comprehension, vocabulary acquisition, and learner engagement (Hsu et al., 2019). The findings of this study provide insights into how the perceived usefulness of these tools influences their adoption by teachers and learners in the Thohoyandou Cluster.

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3.2.2 PERCEIVED EASE OF USE

Perceived ease of use refers to the degree to which a user believes using a particular technology is free from effort. In the educational context, this involves teachers' and learners' perceptions of how easy it is to use digital tools in the classroom. Studies have shown that when teachers find digital tools easy to use, they are more likely to incorporate them into their teaching practises (Chuang & Jamiat, 2023). Conversely, if teachers perceive digital tools as complex or time-consuming, they may be reluctant to adopt them, even if they recognise their potential benefits.

In rural schools like those in the Thohoyandou Cluster, perceived ease of use is particularly relevant, as many teachers may have limited experience with digital technologies. Therefore, the success of digital strategies in EFAL instruction depends on the availability of resources and the training and support provided to teachers to help them feel confident in using these tools (Gustafsson & Makgetla, 2019). This study explores the relationship between perceived ease of use and the extent teachers adopt digital strategies in their classrooms.

3.2.3 APPLICATION OF TECHNOLOGY ACCEPTANCE MODEL IN THE CURRENT STUDY

The TAM is central to this study's examination of how digital strategies are implemented in EFAL instruction. By analysing teachers' and learners' perceptions of the usefulness and ease of use of digital tools, this research aims to identify the factors that facilitate or hinder the adoption of these strategies in the Thohoyandou Cluster. Additionally, the study explores how external variables, such as teacher training, digital infrastructure, and socio-economic factors, influence the perceived usefulness and ease of use of digital tools in rural schools.

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TAM is relevant to this study, as it helps to explain why some teachers in the Thohoyandou Cluster may be more inclined to use digital strategies for EFAL reading than others. Teachers who perceive digital tools as beneficial for improving reading comprehension and learner engagement are likelier to adopt them. Conversely, if teachers find these tools difficult, they may resist integrating them into their lessons, even if they recognise the potential benefits.

In rural contexts, factors such as limited access to training and support can negatively impact perceived usefulness and ease of use, which can hinder the adoption of digital strategies (Kay, 2021). This provides a valuable framework for analysing the barriers to technology adoption among EFAL teachers.

The TAM has been widely used to analyse the adoption of digital tools in educational settings. However, in rural contexts like the Thohoyandou Cluster, the model's application must be nuanced to account for teachers' unique difficulties. In addition to the perceived usefulness and ease of use of digital tools, rural teachers must consider factors such as resource availability and technical support. Studies by Venkatesh, Morris, Davis & Davis (2016) suggest that TAM's basic framework can be extended to include contextual variables such as organisational support and infrastructural readiness, which are critical to successfully adopting technology in rural schools.

In applying TAM to the context of rural EFAL instruction, it is essential to extend the model to include additional factors that influence technology adoption in low-resource settings. Venkatesh et al. (2016) propose that facilitating conditions like infrastructure and technical support availability are critical determinants of technology use. In rural South Africa, facilitating conditions play a significant

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role in determining whether or not teachers can adopt digital strategies. Teachers may perceive digital tools as effective without reliable electricity or internet connectivity, even if they recognise their potential benefits.

3.2.4 TEACHER ATTITUDES TOWARD TECHNOLOGY

The Technology Readiness Index (TRI), developed by Parasuraman (2000), complements TAM by offering a framework for assessing teachers' readiness to adopt new technologies. The TRI considers factors such as optimism, innovativeness, discomfort, and insecurity about technology use. In the context of this study, exploring teachers' TRI scores could provide additional insights into the psychological factors that influence their willingness to adopt digital tools in EFAL instruction.

3.3 VYGOTSKY'S SOCIOCULTURAL THEORY

Vygotsky's Sociocultural Theory (1978) emphasises the importance of social interaction and cultural context in learning. According to Vygotsky, learning is inherently a social process, and cognitive development occurs through interactions with more knowledgeable others, such as teachers, peers, and parents. In the context of language learning, Vygotsky's theory highlights the role of social interaction in acquiring language skills, including reading comprehension, vocabulary development, and critical thinking.

Vygotsky’s Sociocultural Theory (1978) emphasises the importance of social interaction and cultural context in learning. According to Vygotsky (1978), learning is heavily influenced by the cultural tools in the learning environment. Central to this theory is the Zone of Proximal Development (ZPD), which refers to the difference between what a learner can do independently and what they can achieve with guidance and support.

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3.3.1 ZONE OF PROXIMAL DEVELOPMENT

One of the critical concepts in Vygotsky's theory is the ZPD, which refers to the gap between what a learner can do independently and what they can achieve with guidance and support from a more knowledgeable other. In the context of EFAL reading, the ZPD can be understood as the range of reading tasks that learners can complete with the assistance of digital tools, such as interactive e-books and educational apps, which provide scaffolding for comprehension and language acquisition (Atmowardoyo et al., 2020).

Digital tools offer unique opportunities to extend learners' ZPD by providing immediate feedback, interactive features, and personalised learning experiences. For example, ALP adjusts the difficulty of reading materials based on learners' performance, enabling them to build their reading skills with appropriate support gradually (Huang et al., 2020). This study examines how digital strategies facilitate learning within the ZPD, particularly regarding reading comprehension and vocabulary development in EFAL learners.

3.3.2 SOCIAL INTERACTION AND LEARNING

Vygotsky's Sociocultural Theory also emphasises the role of social interaction in learning. In the digital age, technology has expanded how learners interact with each other and their teachers. Online discussion forums, collaborative writing platforms, and virtual classrooms provide new opportunities for learners to engage in social interaction and peer learning, which are critical for language development (Kim & Li, 2021).

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In EFAL instruction, digital tools that promote social interaction, such as collaborative reading apps and virtual discussion boards, can enhance learners' engagement and comprehension (Bennell & Akyeampong, 2020). This study explores how social interaction facilitated by digital tools contributes to EFAL reading outcomes in the Thohoyandou Cluster. By analysing the role of peer collaboration and teacher support in digital learning environments, the research provides insights into how social interaction enhances the effectiveness of digital strategies in language learning.

3.3.3 CULTURAL CONTEXT AND LEARNING

Vygotsky's theory also recognises the importance of cultural context in shaping learning experiences. In the context of EFAL reading, learners' cultural backgrounds and experiences play a significant role in engaging with reading materials and digital tools. For example, learners from rural areas may have limited exposure to digital technologies, affecting their ability to engage with digital reading platforms (Bennell & Akyeampong, 2020). Additionally, the content of digital reading materials must be culturally relevant and accessible to learners to be effective.

This study examines the cultural factors influencing the adoption of digital strategies in EFAL instruction. By considering learners' cultural context in the Thohoyandou Cluster, the research explores how digital tools can be tailored to meet the specific needs of EFAL learners in rural South Africa. The findings provide insights into how digital strategies can be culturally responsive and inclusive, ensuring all learners benefit from technology-enhanced learning.

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3.3.4 APPLICATION TO ENGLISH FIRST ADDITIONAL LANGUAGE TEACHING

Sociocultural theory is particularly relevant to EFAL teaching in rural South African classrooms, where learners navigate a new language (English) and new digital tools. Digital strategies can be seen as "cultural tools" that mediate learning by providing learners with interactive and engaging ways to practise reading (Kim, 2021). For example, gamified learning platforms can promote collaboration among learners and scaffold their reading development within the ZPD by offering tasks slightly beyond their current abilities but achievable with support.

Vygotsky's Sociocultural Theory has profound implications for using digital strategies in education, particularly in rural areas where collaborative learning can help overcome the limitations of resource scarcity. According to Lantolf and Thorne (2017), the digital tools used in classrooms serve as cultural artifacts that mediate learning by providing learners with opportunities for interaction and engagement. In rural EFAL classrooms, where face-to-face resources may be limited, digital platforms can facilitate the kind of social interaction that Vygotsky emphasised as essential for learning.

For example, gamified learning platforms that allow for peer-to-peer interaction can help learners develop reading skills collaboratively, even in the absence of a teacher. This aligns with the ZPD concept, where learners achieve more with the support of digital tools or peers than they could achieve independently. In the context of EFAL reading, digital strategies can provide learners with the necessary scaffolding to move from basic decoding skills to more advanced reading comprehension.

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3.3.5 COMMUNITY OF PRACTISE

Vygotsky's Sociocultural Theory emphasises the importance of communities of practise in facilitating learning. In rural South Africa, where resources are scarce, teachers often rely on informal networks of colleagues for support. These communities of practise can play a vital role in helping teachers share knowledge about digital tools, troubleshoot technical problems, and develop innovative teaching strategies. Research by Wenger-Trayner and Wenger-Trayner (2015) shows that communities of practise are particularly effective in environments where formal professional development opportunities are limited.

This study applies the concept of communities of practise to analyse how rural teachers collaborate to overcome the difficulties associated with digital learning. By fostering a culture of collaboration, rural teachers can help one another integrate digital strategies into their EFAL lessons despite their infrastructural limitations. Digital strategies align with Vygotsky's theory, as these tools enable teachers to guide learners through more challenging reading activities, providing the necessary support to help them progress. The interactive nature of many digital tools also encourages social learning, as learners can collaborate, share insights, and learn from each other.

3.4 SHULMAN'S PEDAGOGICAL CONTENT KNOWLEDGE THEORY

Shulman's PCK theory, introduced by Lee Shulman in 1986, emphasises the specialised knowledge teachers need to teach specific subjects effectively. PCK bridges the gap between subject matter knowledge (what to teach) and PK (how to teach), suggesting that effective teaching requires more than expertise. It involves knowing how to convey that subject in ways that make it comprehensible

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to learners. Shulman highlights the importance of integrating content and pedagogy to address learners' diverse needs and difficulties in this theory.

Shulman (1986) defines PCK as “the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organised, represented, and adapted to the diverse interests and abilities of learners.” PCK includes knowing which teaching strategies best suit content areas, understanding learners' common misconceptions, and using appropriate assessments to evaluate learning. PCK goes beyond simply knowing a subject; it involves tailoring content delivery based on learners’ prior knowledge, cultural backgrounds, and learning contexts. EFAL reading means understanding how to use digital strategies to improve learners' fluency, comprehension, and vocabulary while addressing difficulties specific to teaching reading in rural South African schools, such as limited access to resources, linguistic diversity, and socio-economic barriers.

Teachers must integrate digital tools thoughtfully, ensuring that strategies like interactive e-books, gamified platforms, and audio tools engage learners and support differentiated instruction. Furthermore, they must consider the cultural and linguistic relevance of the materials to make learning meaningful. By leveraging PCK, teachers can create inclusive, effective learning environments that improve EFAL reading outcomes while overcoming the systemic difficulties of resource-constrained settings.

3.4.1 CRITICAL COMPONENTS OF SHULMAN’S PCK THEORY

Shulman outlines several vital components that form the foundation of PCK, which include:

- Content Knowledge (CK)

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This refers to a teacher's knowledge of the subject matter they are teaching. In EFAL reading, Content Knowledge (CK) includes understanding the English language (vocabulary, grammar, phonics) and literacy components, such as fluency, comprehension, and word decoding. A teacher must be well-versed in these areas to provide accurate instruction and address learners' misconceptions. In this study, CK is crucial as it underpins teachers' ability to select and integrate appropriate digital tools, such as YouTube videos or e-books, to teach specific reading skills like pronunciation or vocabulary. Teachers with solid CK are better equipped to use these tools effectively to meet EFAL learning outcomes. Therefore, digital literacy skills must complement teachers' CK to maximise the benefits of using digital strategies for EFAL reading in rural areas.

- Pedagogical knowledge (PK)

Pedagogical knowledge (PK) refers to a teacher's understanding of instructional strategies, classroom management, and learners' learning. It includes knowledge of how to create engaging and effective learning environments that support diverse learners. PK is vital in determining how digital strategies, such as gamified platforms or WhatsApp activities, are used in EFAL reading. For instance, teachers must know how to scaffold learning using these tools, starting with more straightforward tasks (decoding words using digital dictionaries) and progressing to more complex activities (summarising texts with YouTube videos). Teachers' ability to align digital strategies with effective pedagogy ensures that these tools enhance rather than hinder the learning process. So, targeted professional development to strengthen teachers' PK in using digital strategies to address learners' needs in EFAL reading.

- Curricular knowledge

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Curricular knowledge refers to a teacher's understanding of the curriculum, including the learning objectives, progression of content, and available resources. It involves aligning teaching practises with curriculum standards and adapting materials to fit the learners' contexts. This study emphasises the importance of aligning digital strategies with the South African EFAL curriculum. For example, virtual trips can be integrated into lessons to meet specific curriculum objectives related to reading comprehension. Similarly, e-books and gamified learning tools can reinforce vocabulary acquisition and fluency, ensuring learners meet curriculum benchmarks. Consequently, teachers must be supported in aligning digital strategies with the EFAL curriculum to ensure these tools enhance, rather than divert from, core learning objectives.

- Knowledge of learners

This component focuses on understanding learners' prior knowledge, interests, abilities, and cultural backgrounds. Teachers must anticipate potential misconceptions and design lessons that cater to diverse learning needs. In the Thohoyandou Cluster, learners' knowledge is critical for tailoring digital strategies to the rural context. For example, teachers must consider learners' limited exposure to English outside the classroom and adapt strategies accordingly. Using audio tools or podcasts to model pronunciation or digital storytelling apps to make reading culturally relevant are examples of how this knowledge can inform teaching practises. Then, incorporating learners' cultural contexts into digital strategies is essential for fostering meaningful engagement and comprehension in EFAL reading.

- Assessment knowledge

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Assessment knowledge involves understanding how to evaluate learners' progress and identify areas for improvement. This includes formative assessments (ongoing checks for understanding) and summative assessments (evaluating mastery of learning objectives). Digital tools such as gamified platforms or WhatsApp can be used for formative assessments in EFAL reading. For example, teachers can use Kahoot quizzes to test learners' vocabulary or WhatsApp voice notes to assess fluency and self-correction skills. Assessment knowledge ensures that teachers use these tools for instruction and monitor and support learners' progress. Thus, digital tools must be integrated with assessment practises to provide real-time feedback and address individual learners' difficulties in EFAL reading.

3.4.2 HOW PEDAGOGICAL CONTENT KNOWLEDGE RELATES TO THIS STUDY

Shulman's Pedagogical Content Knowledge (PCK) theory provides a robust framework for understanding how teachers integrate content knowledge (CK), pedagogical knowledge (PK), and learner-centred approaches in EFAL reading instruction. This theoretical lens is particularly relevant to this study, which explores using digital strategies to enhance the teaching and learning of English reading skills in rural South African schools.

Integrating digital tools, such as YouTube, TikTok, e-books, and podcasts, aligns with PCK by addressing multiple dimensions of effective teaching. These tools enhance CK by providing diverse, multimodal resources for teaching English vocabulary, grammar, and reading skills. For instance, videos and podcasts offer rich content that makes abstract concepts more tangible and engaging for learners.

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Regarding PK, digital tools support interactive and engaging teaching methods tailored to different learning styles. For example, gamified apps and interactive e-books encourage active participation, while YouTube videos demonstrate fluent reading, pronunciation, and intonation, making lessons more dynamic and accessible.

Moreover, these tools align with curricular knowledge by meeting EFAL curriculum outcomes, such as improving reading fluency, comprehension, and word decoding. Digital platforms can be customised to reflect specific learning objectives, ensuring that teaching strategies remain focused on achieving curricular goals.

PCK also emphasises the knowledge of learners, which is reflected in how these digital tools address the unique needs of rural learners in South Africa. These learners often face difficulties such as limited access to resources and varying levels of English proficiency. Digital strategies provide opportunities to bridge these gaps by offering personalised and adaptive learning experiences.

Finally, these tools inform assessment knowledge by enabling real-time feedback and progress tracking. For instance, interactive e-books and gamified platforms provide immediate responses to learners' inputs, helping teachers monitor their progress and adjust instruction accordingly. This aligns with PCK's emphasis on using assessment as a tool for continuous improvement in teaching and learning.

By using Shulman's PCK as a theoretical lens, this study highlights the interplay between teachers' knowledge domains and digital strategies to address EFAL reading difficulties in rural South African classrooms. Hence, Shulman's PCK theory underscores the complexity of teaching, particularly in diverse and under-resourced contexts like the Thohoyandou Cluster. Digital strategies offer innovative ways to bridge gaps in EFAL reading instruction, but their success depends on how well teachers integrate content,

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pedagogy, and learner knowledge. Therefore, empowering teachers with PCK-focused professional development, especially in digital pedagogy, can transform EFAL instruction and improve reading outcomes for rural learners. This approach ensures that digital tools are introduced and effectively utilised in contextually relevant and pedagogically sound ways, ultimately fostering a more engaging and effective learning environment for Grade 4 EFAL students in the Thohoyandou Cluster.

3.4.3 APPLICATION TO ENGLISH FIRST ADDITIONAL LANGUAGE TEACHING

For EFAL teachers, integrating digital tools requires a deep understanding of the English language (CK) and how to teach reading skills (PK). Digital strategies, such as interactive e-books and adaptive learning platforms, can enhance teaching, but only if teachers can effectively integrate these tools into their pedagogical practises. In the context of this study, teachers' PCK influences how they select and implement digital strategies for EFAL reading. For example, a teacher with strong PCK can use an interactive reading platform not just as a supplement to the lesson but as an integral part of the teaching strategy, enhancing learner comprehension through engagement and interaction (Darling-Hammond et al., 2017).

3.5. CONSTRUCTIVIST LEARNING THEORY

Constructivist learning theory defines learning as the active construction of knowledge based on an individual’s experiences, prior understanding, and social context (Vygotsky, 1978). According to this theory, learning occurs when learners actively engage in meaningful activities and reflect on their understanding, often in collaboration. Constructivism is centred on the belief that learners are not passive recipients of information but active participants in creating their knowledge.

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Constructivist learning theory, rooted in the works of scholars like Jean Piaget, Lev Vygotsky, and Jerome Bruner, emphasises that learners construct knowledge actively through experiences, interactions, and reflection. Unlike traditional learning models that focus on passive absorption of information, constructivism posits that learning is a dynamic, personal process influenced by the learner's prior knowledge, cultural background, and environment. Teachers act as facilitators, guiding learners in exploring concepts, solving problems, and discovering meaning. This theory is particularly relevant in education as it advocates for learner-centred approaches, which align closely with integrating digital strategies in EFAL reading instruction.

In EFAL reading, learners must engage with reading materials, digital tools, and collaborative activities to develop skills like fluency, word decoding, comprehension, and self-monitoring. Constructivist approaches encourage the use of interactive platforms, digital storytelling, and peer-based learning to create an engaging

3.5.1 KEY PRINCIPLES OF CONSTRUCTIVIST LEARNING THEORY

The constructivist theory is guided by several fundamental principles shaping learning. These principles include:

3.5.1.1 Active learning

Constructivism asserts that learning is an active process where learners interact with their environment to construct knowledge. Problem-solving, experimentation, and reflection foster a more profound understanding. Active learning is central to using digital strategies in EFAL reading instruction. Tools like e-books and gamified platforms encourage learners to actively engage with reading materials through word-matching games, comprehension quizzes, and phonics exercises. For instance, learners using an interactive

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e-book must decode words, answer embedded questions, and listen to audio narrations, all of which require active participation. So, active learning through digital tools makes reading lessons more meaningful and engaging, especially for EFAL learners in rural contexts like the Thohoyandou cluster.

3.5.1.2 Social interaction

Vygotsky's (1978) concept of social constructivism highlights the role of social interaction in learning. Learners construct knowledge through collaboration, discussions, and interactions with peers, teachers, and their environment. Digital tools such as WhatsApp, virtual trips, and collaborative platforms foster social interaction in EFAL reading. For example, WhatsApp group discussions enable learners to share ideas, pose questions, and collaborate on reading tasks. Similarly, virtual trips allow learners to explore settings in stories collectively, building shared understanding and cultural awareness. Therefore, leveraging social interaction through digital strategies can create inclusive and collaborative learning environments that benefit EFAL learners, particularly in under-resourced rural classrooms.

3.5.1.3 Scaffolding

Scaffolding is a concept developed by Dewey, Montessori, Strzemiński, Piaget, Vygotsky, von Foerster, and Morin (1997), who refer to the support provided by teachers or tools to help learners achieve tasks beyond their current abilities. Scaffolding is gradually reduced as learners gain independence. Digital strategies offer excellent scaffolding opportunities in EFAL reading. Gamified learning platforms provide gradual progression through tasks, starting with more straightforward activities like phonics drills and advancing to complex comprehension exercises. Similarly, digital dictionaries and audio tools scaffold learners' vocabulary acquisition and

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pronunciation skills by providing instant feedback and examples. So, scaffolding through digital tools ensures learners develop confidence and competence in EFAL reading while gradually building autonomy.

3.5.1.4 Real-world contexts

The constructivist theory emphasises the importance of situating learning in authentic, real-world contexts. Learners understand concepts more deeply when relating them to their lived experiences. Real-world contexts are crucial for teaching EFAL reading in rural areas. Digital strategies like virtual trips and storytelling platforms can make learning more relatable by integrating local cultural elements. For instance, digital storytelling tools that feature South African folktales allow learners to connect with the content while developing reading and comprehension skills. So, using digital strategies that incorporate culturally relevant and context-specific content to make EFAL reading more meaningful and engaging for learners in the Vhembe district.

3.5.1.5 Reflection

Constructivist learning involves reflection, where learners evaluate their understanding, identify gaps, and make connections between prior knowledge and new information. Reflection can be integrated into EFAL reading through digital tools like podcasts, which prompt learners to think critically about stories or themes. Additionally, gamified platforms and e-books with built-in feedback systems allow learners to review their progress and reflect on their strengths and areas for improvement. Therefore, incorporating reflection into digital strategies can enhance EFAL learners' self-monitoring and metacognitive skills, enabling them to take ownership of their learning process.

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3.5.2 HOW CONSTRUCTIVIST LEARNING THEORY RELATES TO THIS STUDY

The constructivist framework closely aligns with this study's aim of exploring digital strategies to improve EFAL reading outcomes. The principles of active learning, social interaction, scaffolding, real-world contexts, and reflection directly inform the design and implementation of digital tools in EFAL instruction. Below are specific ways constructivism relates to this study: Constructivism advocates for active learner engagement, achieved through digital tools like YouTube, e-books, and gamified platforms. These tools require learners to decode words, answer questions, and interact with reading materials actively, improving fluency, comprehension, and vocabulary.

The theory's emphasis on social interaction aligns with using WhatsApp and collaborative platforms in EFAL classrooms. These tools facilitate peer discussions, group activities, and collective problem-solving, fostering a sense of community among learners. Digital strategies such as gamified platforms and virtual trips provide scaffolding by guiding learners through tasks of increasing difficulty. This approach supports learners in developing complex reading skills, such as inference-making and critical thinking.

Constructivism's focus on real-world contexts supports the integration of culturally relevant content in EFAL instruction. Digital storytelling and virtual trips enable learners to connect reading activities to their cultural backgrounds, enhancing engagement and comprehension. Digital tools that provide feedback and assessment opportunities, such as podcasts and gamified quizzes, align with constructivism's emphasis on reflection. These tools encourage learners to evaluate their progress and refine their reading skills through self-monitoring and self-correction.

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Therefore, Constructivist learning theory provides a strong foundation for integrating digital strategies into EFAL reading instruction. By emphasising active participation, collaboration, scaffolding, and cultural relevance, constructivism aligns with the educational needs of rural learners in South Africa, particularly in the Thohoyandou cluster. Consequently, adopting a constructivist approach to digital learning can transform EFAL instruction by making it learner-centred, engaging, and contextually relevant. However, successful implementation requires addressing difficulties such as access to resources, teacher training, and curriculum alignment to ensure that digital strategies fulfil their potential to improve reading outcomes.

3.6 COGNITIVE LOAD THEORY

Cognitive Load Theory (CLT), developed by Sweller (1988), examines the limitations of working memory and how instructional design can reduce cognitive overload. Within digital learning, CLT highlights the importance of presenting information in transparent and manageable ways, ensuring learners can process and understand content effectively (Vlachopoulos & Makri, 2019). For EFAL learners, this implies designing digital reading materials that support comprehension without overwhelming them with excessive information.

This study investigates how CLT underpins the development of digital tools for EFAL learners by focusing on their structure and presentation. Specifically, it evaluates how digital tools can be optimised to enhance reading comprehension while managing cognitive load for learners in the Thohoyandou Cluster.

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3.6.1 RELEVANCE OF COGNITIVE LOAD THEORY TO DIGITAL LEARNING

CLT asserts that the human brain has a finite capacity for processing information. Learners struggle to understand and retain material when the cognitive load surpasses this limit (Sweller, 1988). This principle is especially significant in digital learning environments, where poorly designed tools may inundate learners with unnecessary visuals, excessive text, or distracting elements, thereby reducing reading comprehension.

3.6.2 APPLICATION TO ENGLISH FIRST ADDITIONAL LANGUAGE LEARNERS

For EFAL learners, the cognitive load must be carefully balanced to maximise learning outcomes. Research by Vlachopoulos & Makri (2019) indicates that streamlined digital tools with intuitive interfaces, clear organisation, and embedded support features such as definitions and quizzes can reduce cognitive demands. When these tools are designed thoughtfully, learners can focus on critical language concepts without being distracted or overwhelmed. For instance, multimedia features like videos or audio elements can enhance comprehension judiciously and align with the text's objectives.

3.6.3 CONTRIBUTION TO DIGITAL STRATEGIES

This study applies CLT to assess the usability and effectiveness of digital tools in EFAL reading instruction. By examining their design and structure, the research will determine whether these tools effectively balance cognitive demands, promoting comprehension and fluency without overwhelming learners. These findings will inform recommendations for optimising digital tools, especially for rural learners in the Thohoyandou Cluster, many of whom have limited prior exposure to technology.

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Ultimately, integrating CLT into the analysis ensures that digital strategies for EFAL reading deliver content effectively and create an environment conducive to learning and understanding.

3.7 SYNTHESIS OF THEORETICAL PERSPECTIVES

The theoretical perspectives discussed in this chapter are the TAM, Vygotsky's Sociocultural Theory, Shulman's PCK, Constructivist Learning Theory, and Cognitive Load Theory, which provide a comprehensive framework for understanding the adoption and effectiveness of digital strategies in EFAL instruction. Together, these theories offer valuable insights into the factors that influence how teachers and learners use digital tools, the role of social interaction and cultural context in language learning, and the importance of designing digital materials that enhance learning without overwhelming cognitive capacity.

- TAM explains the behavioural aspects of technology adoption, highlighting how perceptions of usefulness and ease of use shape teachers' and learners' willingness to integrate digital tools in EFAL classrooms.
- Vygotsky's Sociocultural Theory emphasises the role of social interaction and cultural relevance in learning, underscoring the need for collaborative, context-sensitive approaches to language instruction using digital tools.
- Shulman's PCK concept emphasises integrating CK and pedagogical skills. It claims that effective teaching is not only about knowing the subject matter but also about knowing how to teach it in ways that are accessible and meaningful to learners.
- Constructivist Learning Theory supports using learner-centred, interactive digital tools that foster active engagement and self-directed learning in EFAL classrooms.

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- CLT focuses on the cognitive aspects of learning, guiding the design of digital reading materials that reduce cognitive overload and promote comprehension.

In the context of this study, these theories collectively inform the exploration of how digital strategies can be effectively implemented to improve EFAL reading outcomes in the Thohoyandou Cluster. By analysing both the social and cognitive dimensions of digital learning, the research aims to provide a nuanced understanding of the difficulties and opportunities presented by digital strategies in rural South African schools.

3.8 SUMMARY

This chapter has outlined the theoretical frameworks that underpin the current study, providing a basis for analysing the adoption and effectiveness of digital strategies in EFAL reading instruction. The TAM, Vygotsky's Sociocultural Theory, Shulman's concept of PCK, Constructivist Learning Theory, and CLT offer complementary perspectives on the factors influencing digital learning in the classroom. These theories guide the research process and help interpret the findings, providing insights into how digital tools can be optimised to enhance reading comprehension, vocabulary acquisition, and learner engagement in EFAL instruction.

The next chapter presents the research methodology, outlining the approach to collecting and analysing data using digital strategies for EFAL reading in the Thohoyandou Cluster.

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CHAPTER FOUR: RESEARCH METHODOLOGY

4.1 INTRODUCTION

This chapter provides a comprehensive overview of the methodologies employed in this study to explore digital strategies for improving EFAL reading among Grade 4 learners in the Thohoyandou Cluster. The methods align with the study's objectives, ensuring a systematic approach to investigating these strategies' practical applications and effectiveness. The research methodology was carefully designed to systematically address the research objectives and questions. By employing a mixed-methods approach, this study sought to combine qualitative and quantitative research strengths to better understand the research problem.

The chapter begins by outlining the research paradigm and design, followed by a detailed explanation of the research approach. The population and sampling methods are then discussed, highlighting the criteria for participant selection. The data collection instruments and procedures are elaborated upon, followed by an explanation of data analysis methods. Finally, validity, reliability, ethical considerations, and quality control measures for qualitative and quantitative data are addressed.

In this study, I investigated how digital strategies are used in EFAL reading instruction by Grade 4 teachers in the Thohoyandou Cluster. To achieve this, I employed a mixed-methods approach using a convergent parallel design, enabling the simultaneous collection and analysis of quantitative and qualitative data. This design allowed for a more comprehensive understanding of the research problem by combining the breadth of survey data with the depth of insights gained from interviews and classroom observations (Creswell & Plano Clark, 2018). The study is primarily exploratory, as it seeks to uncover patterns, experiences, and perceptions related to using digital strategies in a rural educational context where limited prior research exists (Castillo-Cuesta, 2022;

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Czerniewicz & Brown, 2020). This exploratory focus aligns with the aim of understanding the types of digital tools employed and the contextual difficulties and instructional decisions made by teachers. The study is framed by multiple theoretical perspectives, including the Technology Acceptance Model (TAM), Shulman's Pedagogical Content Knowledge, Vygotsky's Sociocultural Theory, Constructivist Learning Theory, and Cognitive Load Theory, which together provide a robust lens through which to interpret the findings.

4.2 RESEARCH PARADIGM

A research paradigm refers to the philosophical framework that guides the inquiry process. This study is grounded in a pragmatic paradigm, which refers to an approach that focuses on practical solutions and real-world applications rather than strictly adhering to a single theoretical framework. It blends qualitative and quantitative methods, emphasising what best addresses a research problem. emphasising using qualitative and quantitative methods to address the research questions comprehensively. Pragmatism prioritises practical solutions and combines various methods to generate actionable insights, making it well-suited for addressing complex educational difficulties like integrating digital strategies in EFAL teaching. Pragmatism focuses on the practical application of research and values outcomes that solve real-world problems.

The pragmatic paradigm is particularly suited to this study, as it accommodates the complexity of investigating digital strategies in EFAL teaching, integrating numerical data from surveys with rich insights from interviews and classroom observations. This alignment ensures that both measurable outcomes and contextual nuances are captured effectively. This study employs a mixed-methods approach underpinned by both positivist and interpretivist paradigms. The positivist paradigm informs the quantitative data collection

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(questionnaires), while the interpretive paradigm informs the qualitative approach, which focuses on interviews and observations (Sahebihagh et al., 2024).

4.3 RESEARCH DESIGN

(Kazdin (2021) defines a study design as an idea or outline of how the researcher intends to conduct the study. Research design refers to the overall strategy or framework that guides the collection, measurement, and analysis of data in a study. It outlines how the research objectives will be addressed, ensuring coherence and alignment with the research questions. This study employs a convergent parallel design, a type of mixed-methods research where qualitative and quantitative data are collected simultaneously, analysed independently, and then integrated (Sahebihagh et al., 2024). This design is particularly effective in providing a comprehensive view of the research problem by leveraging the strengths of both data types, facilitating a robust and balanced analysis. This design is ideal for studies that aim to corroborate findings from different data sources, enhancing the results' depth and breadth.

- Quantitative strand: Surveys were distributed to EFL teachers to gather numerical data on their use and perceptions of digital strategies.
- Qualitative strand: Semi-structured interviews and classroom observations provided more profound insights into teachers' experiences and difficulties in integrating digital tools.

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4.4 RESEARCH APPROACH

Research Approach refers to the process involved in data collection for decision-making (Vanlommel, Van Gasse, Vanhoof & Van Petegem, 2018). The research approach is the plan according to which the researcher approaches the research participants to collect information. A pragmatist research paradigm was used to triangulate, combine, and collate data and collect participants' information. This approach was also used to counterbalance the weakness of one approach with the strength of the other. This study employs the pragmatist paradigm that suits qualitative and quantitative, which is often associated with a mixed-methods approach, as it emphasises the practical application of research methods rather than adhering strictly to positivist (quantitative) or interpretivist (qualitative) traditions to explore digital strategies for teaching English First Additional Language (EFAL) reading to Grade 4 learners in the Thohoyandou Cluster a mixed-methods approach underpinned by both positivist and interpretivist paradigms. The positivist paradigm informs the quantitative data collection (questionnaires), while the interpretive paradigm informs the qualitative approach, which focuses on interviews and observations (Sahebihagh et al., 2024). A research approach entails guidelines and instructions for addressing the research problem (Karunarathna, Gunasena, Hapuarachchi & Gunathilake, 2024).

This study employs a mixed-method approach to explore the use of digital strategies in EFAL instruction. The methodology combines quantitative and qualitative methods to analyse how digital tools are perceived, implemented, and impact learners' outcomes.

4.4.1 QUANTITATIVE RESEARCH APPROACH

The quantitative approach systematically collects and analyses numerical data to identify patterns and test hypotheses. This study's quantitative strand involved administering structured questionnaires to 100 Grade 4 EFAL teachers in the Thohoyandou Cluster. The

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questionnaires included closed-ended questions to capture measurable aspects, such as the frequency of digital tool usage and perceived These surveys captured statistical insights into the frequency of digital tool use, perceived effectiveness, and demographic factors. Quantitative analysis was conducted using Statistical Package for Social Sciences (SPSS) Version 29 to assess trends and correlations, offering a macro-level view of digital strategy implementation.

4.4.2 QUALITATIVE RESEARCH APPROACH

The qualitative approach emphasises understanding phenomena through in-depth exploration of participants' perspectives. This study collected qualitative data through semi-structured interviews and classroom observations with 10 purposively selected teachers. These methods allowed for exploring contextual factors, such as cultural and infrastructural influences, that affect the adoption of digital strategies. The qualitative approach emphasises understanding phenomena through in-depth exploration of participants' perspectives. This study collected qualitative data through semi-structured interviews and classroom observations with 10 purposively selected teachers. These methods allowed for exploring contextual factors, such as cultural and infrastructural influences, that affect the adoption of digital strategies. Qualitative data were analysed using Thematic Analysis, which involved identifying, organising, and interpreting key themes emerging from participants' responses. By combining these approaches, this study leverages the strengths of both methodologies, providing a richer and more nuanced understanding of the research problem.

By combining these approaches, this study leverages the strengths of both methodologies, providing a richer and more nuanced understanding of the research problem.

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4.5 POPULATION AND SAMPLING CRITERION

A population is a group of people upon whom generalisations are made based on a study's findings (Fraenkel & Wallen, 2000; Vasileiou, Barnett, Thorpe & Young, 2018). Population and sampling criteria refer to the process of defining the group of individuals targeted by the study and the methods used to select a representative subset of participants. A clear definition of the population and an appropriate sampling strategy ensure that the findings are generalisable and relevant to the research objectives.

4.5.1 POPULATION

A population is a group of people upon whom generalisations are made based on a study's findings (Karunarathna, Gunasena, Hapuarachchi & Gunathilake, 2024; Laurent, Weidema, Bare, Liao, Maia de Souza, Pizzol & Verones, 2020). The study focused on Grade 4 English First Additional Language (EFAL) teachers from rural public primary schools in the Thohoyandou Cluster within the Vhembe District of Limpopo Province. 100 teachers participated in the quantitative phase through a structured questionnaire, while 10 teachers were purposively selected for the qualitative phase, which included semi-structured interviews and classroom observations. These participants were chosen for their direct role in teaching EFAL reading at a critical stage where learners transition from learning to read to reading to learn.

Teachers not involved in teaching Grade 4 EFAL were excluded from the study. Similarly, educators from urban and peri-urban schools outside the Thohoyandou Cluster were omitted, as the study specifically targeted rural educational contexts where digital integration difficulties are most pronounced.

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The target population for this study comprised all Grade 4 EFAL teachers working in rural public schools within the Thohoyandou Cluster. This group was selected due to their involvement in foundational language instruction at a pivotal point in learners' academic development (Spaull et al., 2021). The research sought to understand their experiences, perceptions, and difficulties in implementing digital strategies to support EFAL reading.

Participants ranged in age from 25 to 60 years and brought a wide range of professional qualifications, teaching experience, and levels of digital literacy. This demographic diversity enriched the study by providing insights from novice and experienced teachers (Bennell & Akyeampong, 2020), offering a more comprehensive understanding of digital strategy use in under-resourced rural classrooms.

4.5.2 Sampling criterion

According to (Unrau, Gabor & Grinnel 2007; Taherdoost, 2016), a sample is "a subset of the population considered for actual inclusion in the study, or a subset of measurements drawn from a population of interest". Ahmadi (2018) defines a sample as "a subset of the population considered for actual inclusion in the study, or a subset of measurements drawn from a population of interest." Simple random sampling, involving the random selection of participants, was used for the quantitative phase. A list of schools offering EFAL at the Grade 4 level was compiled, and 100 teachers were randomly sampled from 150 available teachers in the Thohoyandou Cluster to complete questionnaires. A purposive sampling method was used for the qualitative phase, selecting nine teachers for semi-structured interviews to ensure relevant expertise and experience.

A combination of random sampling (for the quantitative strand) and purposive sampling (for the qualitative strand) was employed:

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- Quantitative Sampling: A sample of 100 teachers was randomly selected to ensure representativeness and generalisability.
- Qualitative Sampling: Ten teachers were purposively selected based on years of teaching experience, access to digital tools, and willingness to participate in interviews and observations.

The sampling strategy ensured that statistical representation and depth of insights were achieved.

4.6 DATA COLLECTION

Data collection refers to the systematic process of gathering information from participants to address the research objectives and answer the research questions. It involves selecting appropriate instruments, ensuring their validity and reliability, and administering them effectively to capture meaningful data.

This study's data collection focused on gathering information related to the use, effectiveness, and perceptions of digital strategies in English First Additional Language (EFAL) reading instruction. The aim was to explore how these strategies are implemented in rural Grade 4 classrooms, understand their impact on learner engagement and reading outcomes, and identify teachers' difficulties (Castillo-Cuesta, 2022; Mpofu & Sibanda, 2022).

A mixed-methods approach was employed to collect both quantitative and qualitative data. Quantitative data were obtained through structured questionnaires distributed to 100 Grade 4 EFAL teachers, while qualitative data were gathered via semi-structured interviews and classroom observations involving 10 purposively selected teachers. This convergent parallel design allowed for data triangulation and enriched the findings' validity (Creswell & Plano Clark, 2018).

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The tools used for data collection included a comprehensive survey questionnaire to assess teacher practices and perceptions (Bennell & Akyeampong, 2020), an interview guide designed to explore qualitative insights in more depth, and a structured observation checklist aligned with EFAL reading practices to capture real-time classroom dynamics (Spaull et al., 2021).

This data was collected to evaluate the effectiveness of digital strategies in promoting reading comprehension and engagement and to document teachers' experiences and barriers in integrating technology into their lessons (Chuang & Jamiat, 2023). The study also aimed to generate practical recommendations for future policy and instructional improvement.

The research was conducted in rural public primary schools in the Thohoyandou Cluster of the Vhembe District in Limpopo Province. This setting was chosen because it exemplifies environments where digital integration is limited, yet urgently needed to support equitable literacy development (Czerniewicz & Brown, 2020).

4.6.1 QUANTITATIVE DATA COLLECTION

Quantitative data collection systematically gathers numerical information to measure variables and test hypotheses. They serve as a structured tool that enables researchers to obtain specific information and insights from individuals or groups (Brace, 2018). This approach uses structured instruments, such as surveys or questionnaires, to ensure consistency and objectivity in the data. Focusing on measurable outcomes allows for statistical analysis and generalisation of findings.

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In this study, structured questionnaires were used to collect quantitative data. These questionnaires included Likert-scale questions to measure teachers' perceptions, usage frequency, and the perceived impact of digital strategies on learners' reading outcomes. The instruments were pilot tested to ensure clarity and reliability before full deployment.

4.6.1.1 Steps Taken Before and During Data Collection

To ensure ethical integrity and the credibility of findings, the researcher followed specific steps for each data collection tool: surveys, interviews, and observations. These steps included obtaining ethical clearance, securing permissions, scheduling data collection, and ensuring informed consent from participants (these are explained hereunder).

- Procedure for Surveys, Interviews and Observations

  Before Data Collection:

- Ethical clearance was obtained from the University of Venda Research Ethics Committee. (ANNEXURE D)
- Permission to administer the survey was requested and granted by the Department of Basic Education and relevant school principals in the Thohoyandou Cluster. (ANNEXURE E)
- An informed consent form was prepared and shared with all prospective participants.(ANNEXURE J)
- The survey was designed using simple, clear language and distributed via Google Forms and printed copies, depending on the availability of digital access. (ANNEXURE A)

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During Data Collection:

- The survey was administered to Grade 4 EFAL teachers across selected rural schools.
- Participants received a brief explanation of the study's purpose, their rights, and the voluntary nature of participation.
- Data collection took place over a two-week period, during teachers' free periods or after school hours to avoid instructional disruptions.
- Participants either completed the surveys on-site (in a quiet space allocated by the school) or remotely (via mobile phone or computer).
- All completed surveys were securely stored for analysis.

4.6.2 QUALITATIVE DATA COLLECTION

Qualitative data collection involves gathering non-numerical information to explore participants' experiences, perceptions, and contexts in depth. This approach emphasises open-ended and flexible methods, such as interviews and observations, to capture rich and detailed insights into the research problem. It allows researchers to uncover nuances and complexities often missed by quantitative methods. These questions shall serve as a guide during the interview. Still, there shall be room for flexibility to probe

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further, ask follow-up questions, or explore new avenues of discussion based on the participant's responses (Ruslin, Mashuri, Rasak, Alhabsyi & Syam, 2022).

In this study, qualitative data were collected through two primary methods:

- Semi-Structured Interviews: Conducted with 10 teachers to explore their experiences, difficulties, and successes using digital strategies. These interviews provided a platform for teachers to share detailed narratives, offering insights into the contextual factors influencing their use of digital tools.

4.6.2.1 Steps Taken Before and During Data Collection

Interview Procedure

Before Data Collection:

- Teachers who had participated in the survey were invited for semi-structured interviews to gain deeper insights.
- Informed consent was obtained through a signed form, detailing the purpose of the interview, confidentiality, and the option to withdraw at any time.

(ANNEXURE K)

- Interview schedules were arranged in consultation with participants to minimise disruption to their teaching responsibilities.

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- Interviews were scheduled between 14:30 and 16:00 on weekdays, usually in an empty staffroom or a designated quiet room within the school premises.
- Permission was sought to audio-record the sessions for transcription accuracy.

During Data Collection:

- Interviews were conducted face-to-face, lasting approximately 30–45 minutes.
- A semi-structured interview guide was used, allowing flexibility for participants to elaborate on their experiences. (ANNEXURE B)
- The researcher created a comfortable and non-judgemental environment to encourage openness.
- All responses were recorded with participants' permission and later transcribed verbatim for thematic analysis.
- Field notes were also taken to capture non-verbal cues and contextual observations.

4.6.2.2 Development of Themes

The process of thematic analysis followed the widely accepted model by Mpofu & Sibanda (2022 & Castillo-Cuesta, 2022), which outlines six systematic phases for identifying, analysing, and reporting patterns (themes) within qualitative data. This method was selected for its flexibility and suitability in exploring the nuanced experiences of teachers involved in EFAL reading instruction using digital strategies.

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Step 1: Familiarisation with the Data

The researcher began by immersing in the data through repeated readings of the interview transcripts and observation notes. This step involved active reading and annotation to better understand the content (Nowell et al., 2017). Listening to recorded interviews also allowed me to grasp tone, pauses, and emphasis, enriching the interpretative process.

Step 2: Generating Initial Codes

Data were coded manually by identifying meaningful phrases or segments that aligned with the research objectives. This process was inductive, allowing themes to emerge naturally from the data rather than being imposed a priori (Braun & Clarke, 2019). Codes such as “lack of suitable reading texts,” “use of WhatsApp,” and “internet connectivity issues” were noted.

Step 3: Searching for Themes

Similar codes were clustered into broader categories or potential themes. This involved sorting and collating all relevant coded data extracts under each candidate theme, such as grouping “device shortages” and “network problems” under “Difficulties of Digital Integration.”

Step 4: Reviewing and Refining Themes

Themes were reviewed in relation to both the coded extracts and the entire data set to ensure internal homogeneity and external heterogeneity (Braun & Clarke, 2006). Themes that were too narrow or overlapping were revised, merged, or discarded.

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Step 5: Defining and Naming Themes

Each theme was defined and named to reflect its essence. The researcher refined the specifics of each theme and the overall narrative the data told in relation to the research questions and theoretical framework (Vygotsky, 1978), ensuring a meaningful story of the data.

Step 6: Producing the Report

Themes were woven into the findings chapter, supported by verbatim quotes from participants. Each theme was linked to existing literature and theoretical assumptions, providing an in-depth and contextualised understanding of the teachers' lived experiences (Nowell et al., 2017; Braun & Clarke, 2019).

4.6.3 OBSERVATION AS A DATA COLLECTION TOOL

In this study, observation was used as a qualitative data collection method to gain firsthand insights into the teaching of English First Additional Language (EFAL) reading in Grade 4 classrooms.

Steps taken before data collection

Before conducting classroom visits, the researcher undertook several preparatory steps to ensure the process adhered to ethical research standards. First, formal ethical clearance was obtained from the university's ethics review committee. Subsequently, the Department of Basic Education and the participating schools within the Thohoyandou Cluster granted permission to conduct

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research. Prior to conducting observations, the researcher met with participating teachers to explain the purpose and nature of the observations. Participants were informed that they would be observed during their EFAL reading lessons, and their voluntary participation was emphasised. Written informed consent was obtained from all teachers, including their permission to take notes and audio-record segments of the lessons where applicable. Participants knew of the observation. The researcher clarified that the observations were non-evaluative and were solely intended for academic purposes.

To minimise disruption, the researcher sat unobtrusively in the classroom during the observation sessions. An observation checklist and field notes were used to document key aspects such as teacher-student interaction, instructional strategies, learner engagement, and use of digital or traditional resources. Where recording was approved, audio data were used to supplement and validate field notes. The process ensured that all participants knew of their rights and that confidentiality, privacy, and ethical integrity were upheld throughout the research.

Data collection was conducted over three months, allowing for a thorough and systematic gathering of qualitative and quantitative data. This timeline ensured the capture of diverse insights while accommodating the logistical complexities of engaging with participants across different schools.

4.6.3.1 Observation Procedure

- Before Data Collection:

  Ethical Clearance and Gatekeeper Permission:

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- The researcher completed the ethical clearance application forms, which were approved prior to seeking approval from other stakeholders, where the researcher was required to present the ethical clearance certificate. Ethical approval was first secured from the University Research Ethics Committee. (ANNEXURE D). The Ethical Clearance Certificate was then presented to the Vhembe District Department of Education to obtain formal permission to conduct the research in selected schools. (ANNEXURE E)

School-Level Approval:

- Meetings were held with principals and school governing bodies to explain the purpose and procedures of the study.
- The school authorities granted written permission for the researcher to observe Grade 4 EFAL lessons. (ANNEXURE F)

Teacher Consent and Learner Assent:

- Informed consent forms were given to all participating teachers, outlining the observation process, voluntary participation, and their right to withdraw at any time. (ANNEXURE L)
- Consent was also obtained from learners' parents or guardians, and assent was sought from the learners themselves since observations involved their presence in the classroom.

Planning and Scheduling:

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- Observation dates and times were scheduled with the teachers to minimise classroom disruption.
- Observations were set during regular EFAL reading periods to capture authentic teaching practises.

Preparation of Tools:

- An observation checklist was developed, aligned with the study's research questions and objectives. (ANNEXURE C)
- Field note templates were prepared for recording detailed descriptions of classroom activities, teacher-learner interactions, and use of digital or traditional reading tools.

During Data Collection:

Non-Intrusive Positioning:

- The researcher maintained a passive, non-participatory presence in the classroom to avoid disrupting the learning environment.
- A respectful distance was kept to ensure that the natural flow of the lesson was not affected.

Data Recording:

- Detailed field notes were taken during each session, focusing on teaching methods, learner engagement, use of digital tools, and observable outcomes.
- Where permission was granted, parts of the lesson were audio-recorded to complement the field notes.

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Contextual Observation:

- The physical and technological classroom environment was noted (e.g., the availability of projectors, tablets, and internet access).
- Teacher demeanour, learner responsiveness, and instruction dynamics were documented holistically.

- After Data Collection:

Debriefing with Teachers:

- After each observation, informal debriefing discussions were held with teachers to clarify observed practises and gather reflective insights.
- Teachers were invited to share their views on how digital strategies impacted their lessons and learner participation.

Data Consolidation:

- Observation notes and recordings were reviewed and transcribed promptly to ensure accuracy and completeness.
- Data were organised thematically, using a coding framework consistent with that used for interview analysis.

Data Security and Confidentiality:

- All notes and recordings were stored securely in password-protected digital folders.
- Anonymity was maintained by using codes instead of participants' real names.

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4.6.3.2 Development of Themes from Observation Data

Thematic analysis was applied to the observation data to identify recurring patterns in classroom practises, teacher-learner interactions, and the integration of digital strategies in EFAL reading lessons. This approach followed the six-phase model that Braun and Clarke (2006) proposed, ensuring systematic identification, organisation, and interpretation of key themes.

- Familiarisation with Observation Notes

The observation data included detailed field notes and audio-supported transcripts from multiple EFAL Grade 4 classrooms. The researcher thoroughly reviewed and re-read these notes to develop a strong understanding of the teaching contexts, instructional behaviours, and learner responses.

- Generating Initial Codes

Initial coding involved marking specific actions, practises, or occurrences relevant to EFAL instruction and digital strategy use. For example:

- “Use of projector for story reading”
- “Low learner participation during traditional reading”
- “YouTube video used for vocabulary reinforcement”

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- “Lack of digital tools in class” These codes helped break the data into manageable units of meaning.

  Searching for Themes

  Similar codes were grouped into broader categories. This involved identifying repeated instructional behaviours and contextual factors across different classrooms. Examples of clustered codes include:

- *Creative use of low-cost technology* (such as mobile phones, WhatsApp)
- *Learner disengagement in non-digital lessons*
- *Teacher struggles with ICT navigation*

Reviewing Themes

The preliminary themes were reviewed to ensure they accurately reflected the raw data and aligned with the research questions. Themes that overlapped or lacked sufficient supporting data were refined or merged.

- Defining and Naming Themes

  Themes were defined with precise descriptions and supported by direct observations from the field notes. The final themes from the observation data included:

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- Creative Integration of Digital Tools

  Despite limited infrastructure, teachers used projectors, mobile phones, and preloaded videos to support EFAL instruction.

- Cultural and Content Disconnect

  Some observed reading materials lacked contextual relevance, resulting in low learner engagement.

- Learner Engagement and Participation

  Lessons with digital elements (videos, animated stories) elicited more enthusiasm, focus, and learner interaction.

- Infrastructural Constraints

  Observations frequently noted power outages, shared digital resources, and lack of Wi-Fi, affecting lesson delivery.

- Varied Teacher Confidence and Competence

  We observed differences in how teachers navigated digital tools. Some were confident and innovative, while others avoided or underused available tools.

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- Producing the Report

Themes were used to triangulate data from interviews and surveys, providing a rich, contextualised account of classroom realities. Observational evidence added credibility and supported the interpretation of teacher-reported practises.

The themes developed from classroom observations offered valuable insights into the real-world application of digital strategies in rural EFAL classrooms. They also illuminated the gap between teacher intentions and classroom realities, shaped mainly by infrastructural limitations and teacher preparedness.

4.7 DATA ANALYSIS

Data analysis refers to systematically examining and interpreting data to uncover patterns, relationships, and insights relevant to the research objectives. It involves organising raw data, applying analytical techniques, and synthesising findings to answer the research questions effectively.

The study analysed quantitative and qualitative data to explore the use of digital strategies, perceptions, and impact on English First Additional Language (EFAL) reading instruction. This mixed-methods analysis provided a comprehensive understanding of how digital tools are being integrated into Grade 4 classrooms within a rural context.

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Quantitative data collected through questionnaires were analysed using SPSS Version 29, focusing on descriptive statistics and frequency distributions to identify trends and patterns in teachers' responses. In contrast, the qualitative data—obtained from semi-structured interviews and classroom observations—were analysed using thematic analysis, which involved identifying recurring patterns, categories, and themes in the participants' narratives (Braun & Clarke, 2006).

The researcher conducted the data analysis, with the support of a qualified statistician for the quantitative component. The qualitative data were independently coded using both manual and computer-assisted methods to ensure accuracy and minimise bias.

The tools used in this analysis included SPSS for handling quantitative data and the Braun and Clarke (2006) thematic analysis framework for interpreting qualitative findings. These tools were selected to ensure methodological rigour and consistency across data types.

This approach allowed for triangulation of data, enhancing the credibility of the findings by integrating multiple sources and methods. It enabled the study to draw deeper insights into measurable trends and teachers' lived experiences. Additionally, triangulation helped strengthen the validity and reliability of the research by comparing quantitative outcomes with qualitative narratives (Creswell & Plano Clark, 2018).

4.7.1 QUANTITATIVE DATA ANALYSIS

Quantitative data analysis involves applying statistical techniques to organise, summarise, and interpret numerical data. This process aims to uncover data patterns, relationships, and trends to test hypotheses and answer research questions. Key methods include

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descriptive statistics, data summaries, and inferential statistics, which allow generalisations and hypothesis testing. This is because it offers a range of data visualisation tools that enable users to create charts, graphs, and other visual representations of their data (Walny, Huron, & Carpendale, 2015).

4.7.2 QUALITATIVE DATA ANALYSIS

Qualitative data analysis involves systematically examining non-numerical data to uncover patterns, themes, and insights that help address the research questions. Qualitative data shall be analysed through an inductive thematic analysis approach, which involves deriving meaning and generating themes from data without preconceptions (Crosley, 2021). This approach emphasises understanding the depth and complexity of participants' experiences, perceptions, and contexts. Coding, thematic development, and narrative analysis are commonly used to interpret qualitative data.

Qualitative data were analysed using thematic analysis, which involves coding the data, identifying key themes, and interpreting the findings. NVivo software managed and organised the data, ensuring systematic and rigorous analysis.

The qualitative data obtained from semi-structured interviews and classroom observations were analysed using Thematic Analysis. This approach allowed for identifying key patterns and themes from participants' responses.

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4.7.2.1 Thematic Analysis Key Themes Process

To ensure a systematic and rigorous approach to analysing qualitative data, the study followed Braun and Clarke's (2006) six-phase framework for thematic analysis:

- Familiarisation with Data

  - Transcriptions of interviews and classroom observations were thoroughly reviewed.
  - The researcher repeatedly read through the transcripts to gain an in-depth understanding of participants' perspectives.

- Generating Initial Codes

  - Key phrases and significant concepts related to EFAL reading difficulties, digital tools, and teaching strategies were identified.
  - Data were systematically coded, with each code representing a recurring idea or pattern.

- Searching for Themes

  - The generated codes were categorised into broader themes based on their similarities.
  - Emerging themes reflected difficulties, benefits, and barriers associated with digital reading strategies.

- Reviewing Themes

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- Themes were refined, merged, or restructured to ensure clarity and relevance.
- The researcher cross-checked the themes with raw data to confirm their accuracy and representation of participants' views.

- Defining and Naming Themes

- Each theme was defined in relation to the research objectives and existing literature.
- Themes were named to reflect the core issues they represented, such as “Difficulties that Grade 4 Teachers Encounter When Teaching EFAL Reading”.

- Writing the Report

- The final themes were presented and supported with direct quotations from participants.
- The discussion linked findings to relevant literature and theoretical frameworks, ensuring academic depth.

This systematic thematic analysis provided a structured framework for interpreting the qualitative data, allowing for a deeper exploration of the difficulties and opportunities in implementing digital strategies for EFAL reading instruction.

The analysis of the collected data revealed that using digital strategies significantly enhances learner engagement and improves reading comprehension in Grade 4 English First Additional Language (EFAL) classrooms. Teachers reported that tools such as e-books, educational apps, and interactive learning platforms increased learner motivation and participation. However, several

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difficulties were identified in implementing these digital strategies. These included limited infrastructure, a lack of adequate teacher training, and inconsistent access to digital tools, all of which hindered the full integration of technology into EFAL instruction.

A total of 100 Grade 4 EFAL teachers completed the quantitative questionnaire, providing a substantial dataset for statistical analysis. For the qualitative phase, 10 teachers were purposively selected to participate in semi-structured interviews and classroom observations. These participants were sampled from rural public primary schools within the Thohoyandou Cluster, reflecting the study's focus on under-resourced educational settings. Notably, no participants withdrew from either phase of the study, ensuring continuity and consistency in the data collection process.

The quantitative component of the data was analysed using SPSS Version 29, which enabled the generation of descriptive statistics and frequency distributions. The qualitative data from interviews and observations were analysed using thematic analysis following the framework of Braun and Clarke (2006), which helped identify meaningful patterns and recurring themes within the participants' responses.

This approach was chosen to enable data triangulation, combining numerical and narrative evidence to create a richer, more comprehensive understanding of the research problem. It also validated the findings across data strands, increasing the reliability of the study's conclusions.

The analysis's outputs showed that 85% of teachers agreed that digital strategies motivate learners, while 70% highlighted the need for more professional training and better access to curriculum-aligned digital resources. These findings underscore that while digital

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tools are promising to improve EFAL reading outcomes, addressing systemic barriers is crucial to achieving complete and sustainable integration in rural schools.

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FINDINGS

Findings	Theories	Relevance to the Study	Connection to Research Questions	Matched Research Question(s)
Inadequate and culturally irrelevant materials (Pretorius & Spaull, 2016; Murris, 2016)	Lev Vygotsky (1978) – Sociocultural Theory	Learning is most effective when tools and content are culturally and linguistically relevant. The lack of such materials hinders EFAL learners' development.	Teachers may see digital tools as a solution to culturally irrelevant materials.	RQ1, RQ2
Creative use of digital tools – WhatsApp, YouTube, e-books (Mpofu & Sibanda, 2022)	Jean Piaget (1973) – Constructivist Learning Theory	Learners build understanding actively. Teachers' creative digital strategies support interactive learning.	Highlights the specific tools and methods used in EFAL classrooms.	RQ1
Engagement improved with digital content, but limited by access (Mphahlele, 2021)	Fred Davis (1989) – Technology Acceptance Model (TAM)	Teachers recognise the value of digital tools, but limited infrastructure prevents full use.	Engagement is evident but constrained.	RQ3

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FINDINGS				
Assessment via apps helped with monitoring (Niemann & Makalela, 2020)	Lee Shulman (1987) – Pedagogical Content Knowledge (PCK)	Shows how digital tools enhance formative assessment and instructional decision-making.	Apps aid in tracking learner progress.	RQ1, RQ3
Access and infrastructure remain a barrier (Spaull et al., 2021)	Fred Davis (1989) – TAM & Lev Vygotsky (1978) – Sociocultural Theory	Technology use is shaped by external conditions like school infrastructure and community support.	Highlights practical difficulties.	RQ2, RQ4
Increased use of digital tools like e-books, apps, and platforms	Fred Davis (1989) – TAM & Jean Piaget (1973) – Constructivist Theory	Indicates growing acceptance and perceived usefulness of digital strategies for learning.	Shows expansion of digital methods.	RQ1, RQ3

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FINDINGS				
85% of teachers agreed digital strategies motivated learners	Jean Piaget (1973) – Constructivist Theory & Lev Vygotsky (1978) – Sociocultural Theory	Learner motivation improves through interaction, social tools, and contextual learning.	Indicates enhanced learner engagement.	RQ3
70% indicated a need for more training and curriculum-aligned resources	Lee Shulman (1987) – PCK & Fred Davis (1989) – TAM	Highlights the gap in teacher preparedness and access to appropriate materials.	Reflects teacher difficulties and needs.	RQ2, RQ4
Systemic barriers must be addressed for full integration	Lev Vygotsky (1978) – Sociocultural Theory & Fred Davis (1989) – TAM	For digital strategies to succeed, systemic factors like training, access, and policy must be improved.	Digital strategy effectiveness depends on broader conditions.	RQ4

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4.8 MEASUREMENT OF QUALITY CONTROL

Measurement of quality control refers to the processes and criteria used to ensure the accuracy, consistency, and credibility of data collected and analysed during research. It involves implementing strategies to verify quantitative and qualitative data's validity, reliability, and trustworthiness. To attain valid and reliable data, the researcher must ensure that the measurement procedures and instruments have acceptable levels of validity and reliability before implementing the study (Van der Berg, de Vos, & Louw, 2020). Therefore, validity and reliability are the two vital concepts in measurement.

4.8.1 QUALITY CONTROL FOR QUANTITATIVE DATA

Quality control for quantitative data ensures that the data collected are accurate, consistent, and capable of producing reliable results. Two key aspects of quality control in quantitative research are validity and reliability.

4.8.1.1 Validity

According to William (2024), validity refers to the extent to which an empirical measure accurately reflects the concept it intends to measure. Therefore, in this study, the researcher ensured the validity of empirical measures when interpreting the findings and preconceptions of the survey. It refers to the accurate measurement of the instruments in research, while reliability entails the stability and consistency of the study. According to Amirzadeh, Rasouli, and Dargahi (2024), reliability and validity are the fundamental features

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in evaluating the measurement instrument or tool for good research. Therefore, they are used to ensure that measurement procedures and instruments have acceptable levels beforehand to avoid bias.

Comprehending the questionnaire items with the research objectives achieved content validity. This alignment ensured the instrument comprehensively covered all aspects of the study's key variables, leaving no critical area unaddressed. By grounding the questionnaire in the research objectives, the study guaranteed that the data collected would be relevant and representative of the intended constructs.

Construct validity was established through an expert review of the research instruments. Specialists examined the questionnaire and other tools to confirm that they effectively measured the theoretical constructs central to the study. Their feedback helped refine the instruments, ensuring clarity, coherence, and appropriateness for the research context. These combined efforts reinforced the validity of the instruments, providing confidence in the accuracy and credibility of the findings.

- There are several types of validity:
  - Content Validity: Ensures that the research instrument covers all relevant aspects of the studied concept.
  - Construct Validity: Evaluates whether the instrument truly measures the theoretical construct it is intended to assess.
  - Criterion-Related Validity: Examines how well the instrument's results correlate with an external criterion, often divided into concurrent validity (current performance) and predictive validity (future performance).
  - Face Validity: The extent to which the instrument appears effective at a superficial level, often judged by experts or participants.

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4.8.1.2 Reliability

Reliability refers to how consistent instances that have been assigned to the same category are, as observed by different observers or by the same observer at other times (Silverman, Kurtines, Ginsburg, Weems, Rabian & Serafini, 1999; Schwartz, Albin & Gerberich, 2019). This study ensured reliability by supplementing data obtained from a voice recorder during interviews with shorthand notes. Hence, in this study, the reliability of the written tasks was obtained by administering a pilot study to the participants, and the actual tasks were administered. It is the consistency of an instrument in measuring a construct over time, ensuring that the results obtained are stable and dependable under similar conditions. This study assessed reliability through two key approaches: Cronbach's alpha and inter-rater reliability.

Cronbach's alpha was used to evaluate the internal consistency of the questionnaire. This statistical measure determines the extent to which the items within the questionnaire are interrelated and collectively measure the same construct. A high Cronbach's alpha value indicates that the questionnaire items are consistent and reliable, ensuring that the responses accurately represent the intended dimensions of the research.

Inter-rater reliability was ensured during the qualitative data analysis phase by involving multiple researchers in the coding process. By having several researchers independently analyse the qualitative data, the study minimised the potential for individual bias and enhanced the coding consistency. Any discrepancies in interpretations were resolved through discussion and consensus, further reinforcing the reliability of the qualitative findings. These measures ensured the study's instruments were robust and yielded consistent results across different contexts and applications.

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- Key types of reliability include:
  - Test-Retest Reliability: Assesses consistency by comparing results from the same instrument administered at two different points in time.
  - Inter-Rater Reliability: Evaluates agreement among different observers or raters assessing the same phenomenon.
  - Internal Consistency: Measures the degree to which items in a test or instrument are consistent with each other, often assessed using Cronbach's alpha.
  - Parallel-Forms Reliability: Compares the results of two equivalent instruments designed to measure the same concept.

4.8.2 RELATIONSHIP BETWEEN VALIDITY AND RELIABILITY

While reliability is a prerequisite for validity (an instrument cannot be valid if it is unreliable), it can be reliable without being valid. For example, a clock that always runs 5 minutes fast is trustworthy because it consistently gives the same result but is not valid because it does not reflect the correct time. Validity ensures the research measures the proper concept, while reliability ensures consistency.

Reliability pertains to the consistency of the measurement instruments. It was assessed by calculating Cronbach's alpha, a statistical measure of internal consistency. High Cronbach's alpha values indicated that the questionnaire's items reliably measured the same underlying construct. This ensured that the data gathered could be consistently reproduced under similar conditions.

By combining these measures, the study achieved a high-quality control standard for quantitative data, enhancing the credibility and dependability of the findings.

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4.8.3 QUALITY CONTROL FOR QUALITATIVE DATA

Quality control in qualitative research ensures the validity, reliability, and trustworthiness of data collected and analysed. Unlike quantitative studies, qualitative research relies on non-numerical data, such as interviews, observations, and textual analysis, which require rigorous techniques to maintain data integrity.

To achieve quality control, researchers employ triangulation, which involves using multiple data sources, methods, or theories to corroborate findings. For example, combining interview data with observational notes ensures a more comprehensive understanding of the research context. Additionally, researchers perform member checks, where participants review the findings or interpretations to confirm accuracy, thereby validating the data against the participants' perspectives.

Another critical aspect is the audit trail, where researchers maintain detailed records of all methodological decisions, data collection processes, and analytical steps. This documentation enables transparency, allowing others to assess the study's rigour and consistency. Similarly, peer debriefing provides an external perspective, helping researchers identify biases or alternative interpretations.

4.9 TRUSTWORTHINESS OF THE QUALITATIVE DATA

The trustworthiness of qualitative data depends on several factors, including the rigour of the research design, the credibility of the data sources, and the transparency of the data collection and analysis process (Shufutinsky, 2020). Several measures for trustworthiness will be considered:

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To enhance the study's trustworthiness, principles such as credibility, dependability, confirmability, and transferability were integrated into the research process:

4.9.1 CREDIBILITY

In qualitative research, credibility refers to the extent to which the findings and interpretations of a study are valid, trustworthy, and believable (Anney, 2014). It is essential to ensure the quality and rigour of qualitative research. Credibility focuses on establishing confidence in the truthfulness and accuracy of the data, analysis, and conclusions drawn from the study. The researcher shall share the findings with participants and seek their feedback to enhance credibility. This will allow participants to confirm or clarify their views and experiences, providing an opportunity for researchers to validate their interpretations.

4.9.2 DEPENDABILITY

Dependability refers to the stability, consistency, and reliability of the research process and findings (Kyngäs, Kääriäinen & Elo, 2020). It focuses on establishing the trustworthiness and repeatability of the study, ensuring that the research can be conducted consistently and reliably and that the findings are consistent and can be replicated. To enhance dependability in this study, a detailed description of the research design will be provided, including the aim, research questions, data collection methods, and data analysis procedures.

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4.9.3 CONFIRMABILITY

Confirmability refers to the objectivity and neutrality of the research findings, interpretations, and conclusions (Bengtsson, 2016). It relates to the extent to which the data collected, and the analysis conducted are grounded in the participants' perspectives and experiences rather than being influenced by the biases, values, or preconceptions of the researcher. To enhance confirmability, the researcher will critically reflect on their biases, assumptions, and values that may influence the research process and interpretations. By acknowledging and addressing subjectivity, the potential for bias will be minimised.

4.9.4 TRANSFERABILITY

Transferability refers to the extent to which the findings of a study can be applied or generalised to other contexts or settings beyond the specific study (Maxwell, 2021). It concerns whether the findings hold or are relevant in different situations or populations. Unlike quantitative research, where generalisability is often emphasised, qualitative research focuses more on in-depth understanding and exploration of a particular phenomenon within a specific context.

Transferability recognises that qualitative research findings may not be statistically generalisable to a larger population, but they can still provide insight, knowledge, and understanding relevant and applicable in similar contexts (Skinner, Edwards & Smith, 2020). To enhance transferability, the researcher will reflect on their biases, assumptions, and perspectives and how these may have influenced the research process and findings.

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Shufutinsky (2020) asserts that trustworthiness is the extent to which a study is worth attention and the extent to which the findings can be trusted and accurately express the experiences of the participants in the study. The trustworthiness of qualitative data depends on the thoroughness of the research design, the credibility of the data sources, and the transparency of the data collection and analysis process (Azman, Hamzah, Razak & Zulkifli, 2024). Several measures will be taken to ensure trustworthiness and enhance qualitative data regarding learners' written essays.

Ensuring trustworthiness also involves prolonged engagement and persistent observation within the research setting. By spending adequate time with participants, researchers build rapport and gain a deeper understanding of the phenomena under investigation. They also use reflexivity, which requires reflecting on their potential biases and influence on the research process, ensuring that personal perspectives do not unduly shape findings.

Ultimately, maintaining ethical standards such as obtaining informed consent, ensuring anonymity, and handling data confidentially reinforces the integrity of qualitative data. By implementing these quality control measures, researchers ensure their qualitative findings are credible, dependable, and transferable.

4.10 ETHICAL CONSIDERATIONS

Ethical principles were fundamental to this study, serving to uphold the rights, dignity, and welfare of all participants, while also reinforcing the study's credibility and trustworthiness. The research adhered to the ethical standards established by the University's Ethics Committee, as well as the guidelines from the Department of Education in the Vhembe District. The process began with securing an official Ethical Clearance Certificate from the researcher's institution, which granted permission to proceed with data

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collection. Once obtained, this certificate was presented to the Thohoyandou Cluster Regional Office of Education, circuit managers, school principals, and relevant stakeholders, who subsequently approved the research. Each step demonstrated transparency and ethical integrity in engaging with educational communities.

The ethical dimensions addressed in this study include informed consent, anonymity and confidentiality, minimising harm, and justice, as discussed below.

4.10.1 INFORMED CONSENT

Informed consent is a critical component of ethical research, grounded in the principle of autonomy and the right to self-determination (Cohen, Manion, & Morrison, 2007; Allen, Earp, Koplin & Wilkinson, 2024). Participants were thoroughly informed about the purpose, scope, procedures, risks, and potential benefits of the study. The voluntary nature of participation was emphasised, and respondents were assured that they could withdraw at any point without consequence.

Consent was formally obtained in writing through signed consent forms. These were designed in accessible language and tailored to the participants' literacy levels to ensure comprehension. Additional permissions were secured from the Department of Education, school principals, and, where applicable, parents or guardians for learners involved in the study.

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4.10.2 RIGHT TO PRIVACY: ANONYMITY AND CONFIDENTIALITY

To safeguard the privacy of participants, the study upheld strict standards of anonymity and confidentiality. Anonymity was ensured by assigning unique codes to participants and schools instead of using personal identifiers (Amirzadeh et al., 2024). Confidential information was never disclosed without prior permission. Data were securely stored in password-protected digital formats and locked physical files accessible only to the researcher.

This approach aligns with ethical standards recommended by Fraenkel, Wallen, and Hyun (2012), as well as Zimmer (2010), who stress the importance of protecting identity to allow participants to engage openly and honestly in research without fear of judgement or exposure.

4.10.3 MINIMISING HARM

This research adhered to the principle of non-maleficence, by ensuring no participant was subjected to harm physical, emotional, or psychological (Chaucer, 2024; Resnik, 2016). All data collection tools, including interviews and observations, were designed to be non-intrusive and culturally sensitive. Participants were observed in their natural educational environments without interference, and researchers remained alert to any signs of discomfort, halting the process if necessary.

The researcher took care to establish a respectful and comfortable atmosphere during interviews and classroom observations, creating an environment in which participants felt safe and valued.

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4.10.4 JUSTICE

The study was committed to the principle of justice, ensuring that participation was fair, inclusive, and free from coercion (Iseselo & Tarimo, 2024). No incentives or pressure were used to influence involvement. Instead, efforts were made to include a diverse range of participants across schools in the Thohoyandou cluster, recognising the importance of equitable representation.

The research also took into account the socio-economic and cultural contexts of the schools, ensuring that all research materials and interactions were respectful, contextually appropriate, and inclusive.

4.11 ETHICAL CLEARANCE AND PERMISSIONS

Before commencing any data collection activities, the first step was to obtain formal approval from the university's Research Ethics Committee, which is responsible for safeguarding the rights, dignity, and welfare of all research participants. A detailed proposal was submitted outlining the study's purpose, research questions, methodology, data collection instruments, and strategies for ensuring ethical compliance such as informed consent, confidentiality, and minimising harm. Upon review and approval, the committee issued an Ethical Clearance Certificate, which served as the official authorisation to proceed with the research.

Once ethical clearance was secured, the researcher sought additional permissions from key stakeholders. This included submitting the Ethical Clearance Certificate, along with a formal request letter and a summary of the study, to the Vhembe District Department of Education. Approval was granted to access schools within the Thohoyandou Cluster. Further, individual school principals were

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approached to explain the study's objectives and procedures in detail. Written permission was obtained from each participating school, allowing the researcher to conduct observations, interviews, and distribute surveys to Grade 4 EFAL teachers.

In cases where learners were present during classroom observations, parental consent and learner assent were also obtained through standardised consent forms, ensuring that ethical standards were upheld in all aspects of the research process. These permissions were essential for legitimising the study, ensuring stakeholder trust, and upholding the ethical integrity of the research.

4.12 RESEARCH SETTING

The natural or artificial environment in which the research endeavour is conducted is called the "research setting" (Ramm, Werwie, Otto, Gloor & Salingaros, 2024). It is the location from which scientific data is gathered. The study was conducted in the Thohoyandou Cluster, situated in the Vhembe District of Limpopo Province, South Africa. This region represents a predominantly rural context, marked by limited infrastructure, overcrowded classrooms, and restricted access to digital resources (Mpofu & Sibanda, 2022). These characteristics make it an ideal location for investigating the difficulties and opportunities surrounding the integration of digital strategies in English First Additional Language (EFAL) instruction.

The research excluded schools located in urban or peri-urban areas, as well as all teachers who do not teach Grade 4 EFAL. Learners and other non-teaching staff were also excluded from direct participation, although learners were indirectly involved during classroom observations. The exclusion criteria ensured that the study remained focused on the specific instructional dynamics of rural Grade 4 EFAL classrooms.

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The target population for this study consisted of all Grade 4 EFAL teachers in rural public primary schools within the Thohoyandou Cluster. These teachers were selected because they are directly involved in supporting learners during a critical stage of language development, where students transition from their home language to English as the Language of Learning and Teaching (LoLT) (Spaull et al., 2021).

Data collection commenced in January 2024 and involved multiple methods, including questionnaires, semi-structured interviews, and classroom observations. These tools were used to measure the nature and frequency of digital tool usage, teacher perceptions of digital strategies, integration into EFAL instruction, and the observed levels of learner engagement.

Ultimately, the study seeks to examine how digital strategies are used in rural classrooms, determine their effectiveness in supporting EFAL reading, and test how contextual barriers such as infrastructure and training influence digital integration (Castillo-Cuesta, 2022; Czerniewicz & Brown, 2020). The research aims to generate practical insights that can inform future policy, teacher training, and resource allocation in similar educational contexts.

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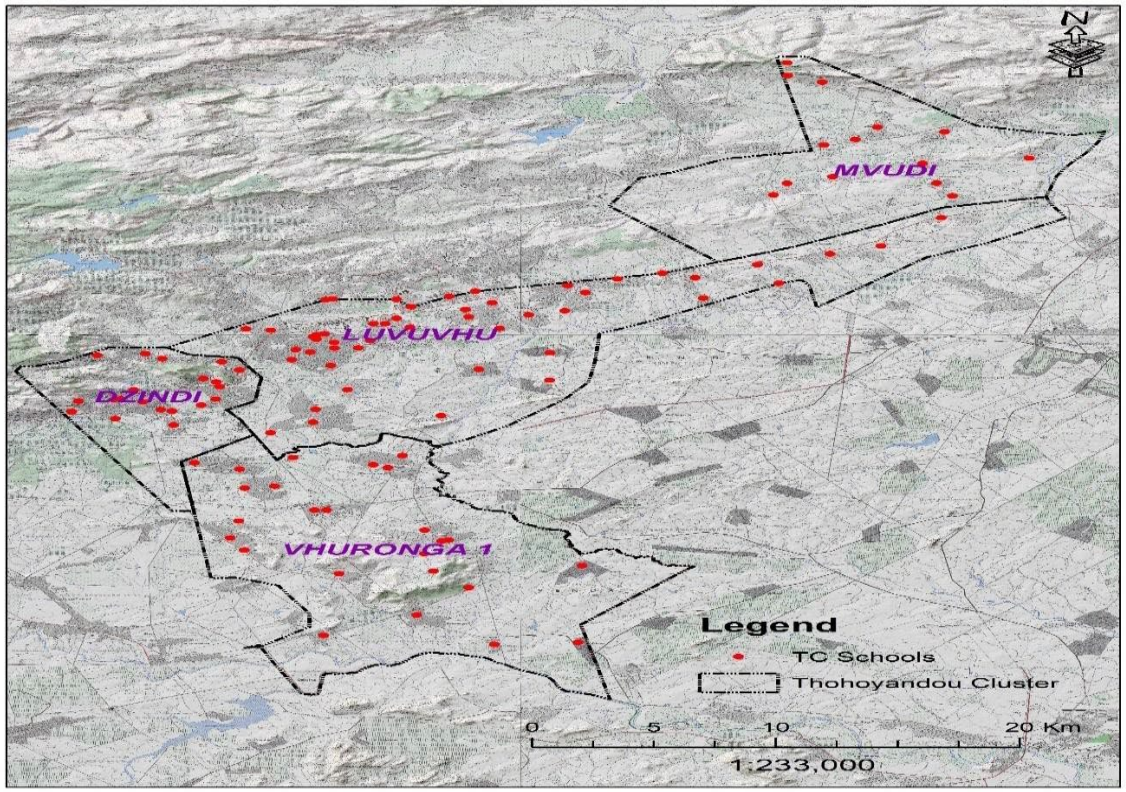


Figure 4.1 Research setting map: Thohoyandou Cluster (Roefs, 2001).

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4.13 PILOT STUDY

A pilot study refers to a preliminary trial run of the primary research to be conducted in advance. A pilot study aims to identify and eliminate potential difficulties regarding the instrument's suitability and ensure the instrument's validity and clarity of instructions and items (Ali, Ibrahim, Rahim & Zumrah, 2024). Thus, it guarantees the credibility of the research, gives a chance for making corrective changes before collecting the data, suggests meaningful approaches, and evaluates the instrument's capacity to collect the desired data.

A pilot study was conducted to assess the reliability and validity of the research instruments, involving seven participants, with 71% (five participants) engaged in the quantitative approach and 29% (two participants) in the qualitative approach. The quantitative component tested the clarity and effectiveness of the survey questionnaire, while the qualitative component evaluated the semi-structured interview guide. The results from the pilot study, along with participants' feedback, were used to refine and enhance the research instruments before their final distribution. However, the participants in the pilot study were excluded from the main investigation to maintain the integrity of the research findings.

4.14 SUMMARY

This chapter has outlined the research design and methodology used in the study, including the sampling techniques, data collection methods, and data analysis procedures. A mixed-methods approach was employed to provide a comprehensive understanding of how digital strategies are used in EFAL instruction in the Thohoyandou Cluster. The next chapter presents the data collected from the surveys and interviews and provides a detailed analysis of the findings and discussions.

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CHAPTER FIVE: DATA PRESENTATION AND ANALYSIS

5.1 INTRODUCTION

This chapter presents the key findings of the study, providing a detailed analysis of the qualitative and quantitative data collected. It begins with an overview of the main themes identified in the qualitative data, followed by a discussion of the statistical trends observed in the quantitative findings. The chapter is structured into several sections: first, the presentation of findings, which outlines the major results aligned with the study objectives. This is followed by a thematic analysis, where qualitative data is categorised into key themes emerging from participant responses. Next, the interpretation of results is provided, linking the findings to relevant literature and theoretical frameworks. Finally, the chapter concludes with a summary of key insights, highlighting the significance of the findings in addressing the research problem.

5.2. DEMOGRAPHIC PROFILE OF PARTICIPANTS

The demographic profile of the participants in this study provides context for understanding the diversity and characteristics of EFAL teachers participating in the research. Demographic variables collected include age, gender, teaching experience, and educational qualifications. These factors are essential for interpreting the findings, as they may influence teachers' perspectives and the effectiveness of digital strategies in EFAL instruction.

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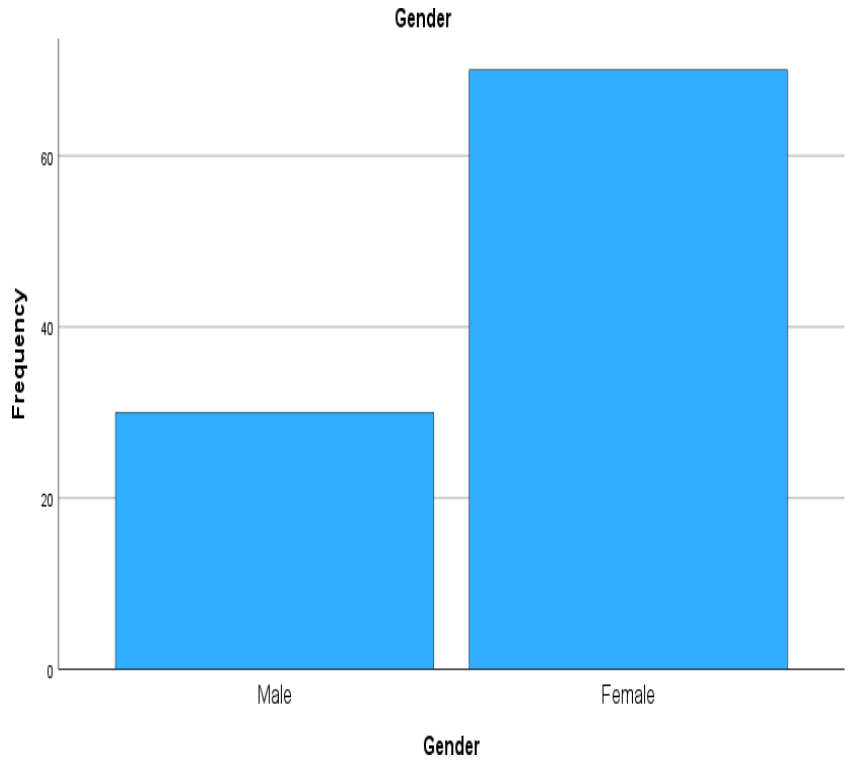


Figure 5.2.1 Participants by gender (n=100)

In Figure 5.2.1, most participants (70%) were female, whereas 30% were males. This supports the observable reality that female teachers are deployed in most primary schools in the Thohoyandou Cluster. This also supports the general trend in South Africa and

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other countries, where teaching is a predominantly female profession, especially at the primary school level. Approximately 72% of primary school teachers in South Africa are women, following a trend seen in many countries where women are more likely to occupy teaching positions, particularly in early childhood and primary education (Polity, 2018; UNESCO, 2020). Nevertheless, this gender imbalance in the teaching workforce influences classroom dynamics and might reflect deeper societal and cultural norms that shape career choices for men and women in education.

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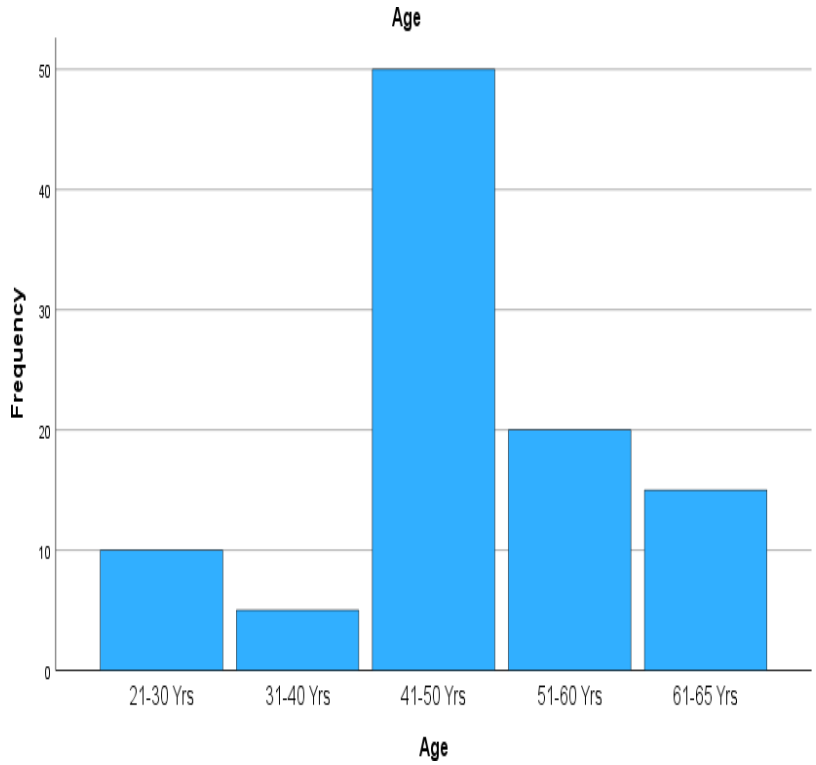


Figure 5.2.2. Participants by age (n=100)

Figure 5.2.2 confirms that 50% of participants were from 41-50 years, 20% from 51-60 years, 15% from 61-65 years, 10% from 21-30 years and 5% from 31-40 years. This implies that 85% of participants were over 40 years of age. This age distribution is standard

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in the Thohoyandou Cluster primary schools, where the majority have the necessary experience and skills. Based on the findings, 85% of participants in the Thohoyandou Cluster were over 40 years of age. The study findings on the age demographics of the participants support the observations made by Nkambule (2022) and Steyn and Masango (2022), who posit that research on the age demographics of teachers in rural South African primary schools demonstrates a high proportion of older teachers, linked to challenging working conditions and a shortage of young teachers willing to work in these areas.

Studies indicate that younger teachers often avoid rural placements due to limited resources, insufficient support, and fewer opportunities for career development. Moreover, older teachers, on the other hand, typically stay in rural posts due to strong community connections and a commitment to their learners, even though this contributes to an ageing workforce within these schools (Nkambule, 2022; Steyn & Masango, 2022). However, 50% of participants were from 41-50 years, 20% from 51-60 years, 15% from 61-65 years, 10% from 21-30 years and 5% from 31-40 years. This implies that 85% of participants were over 40 years of age. This age distribution is standard in the Thohoyandou Cluster primary schools, where the majority have the necessary experience and skills. Based on the findings from Figure 5.2, 85% of participants in the Thohoyandou Cluster were over 40 years of age.

The study's findings align with research by Nkambule (2022) and Steyn and Masango (2022), which highlights the predominance of older teachers in rural South African primary schools. This trend is attributed to difficult working conditions and a lack of young teachers willing to take up positions in these areas. Younger teachers often seek opportunities elsewhere due to inadequate resources, limited professional support, and restricted career advancement prospects. In contrast, older teachers tend to remain in

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rural schools, driven by strong community ties and a deep commitment to their learners, despite contributing to an ageing workforce.

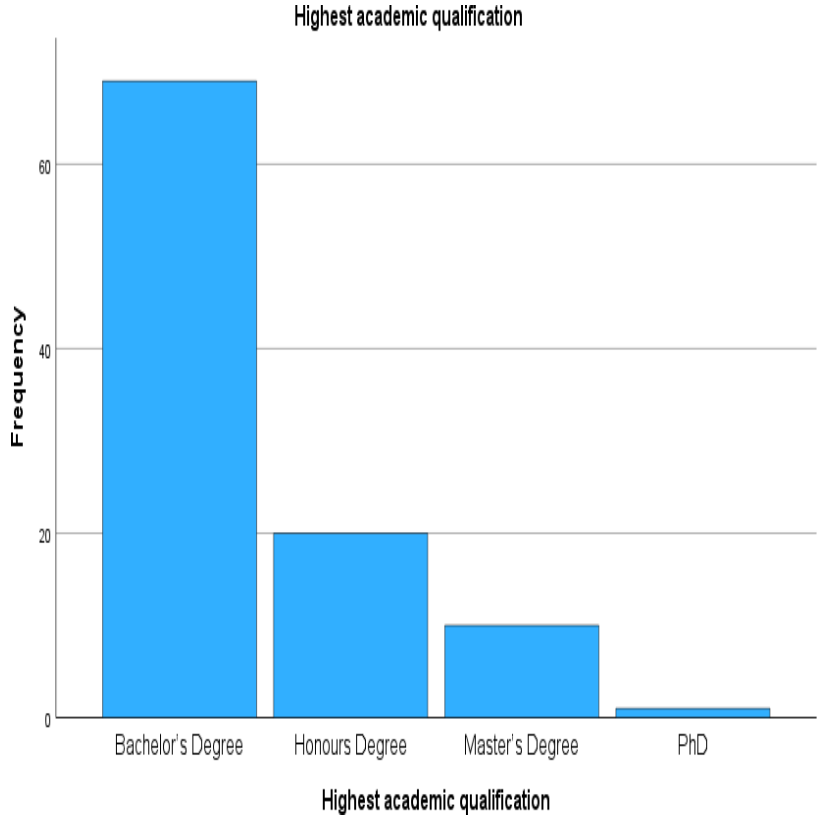


Figure 5.2.1 Participants by academic qualification (n=100)

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Figure 5.2.3 depicts that 69% of participants had a bachelor's degree, 20% an Honours degree, 10% a Master's degree and 1% a PhD. The participants were qualified in their respective fields of study. These findings support the views of authors who emphasise the presence of a well-qualified teaching workforce. Gustafsson and Makgetla (2019) claim that a higher level of qualification among teachers contributes positively to the educational outcomes and effectiveness of teaching. It may be assumed that teachers inclined to study and self-enrichment, like the participants in this study, would be more willing to accommodate getting empowered by facilitating digital strategies for their learners.

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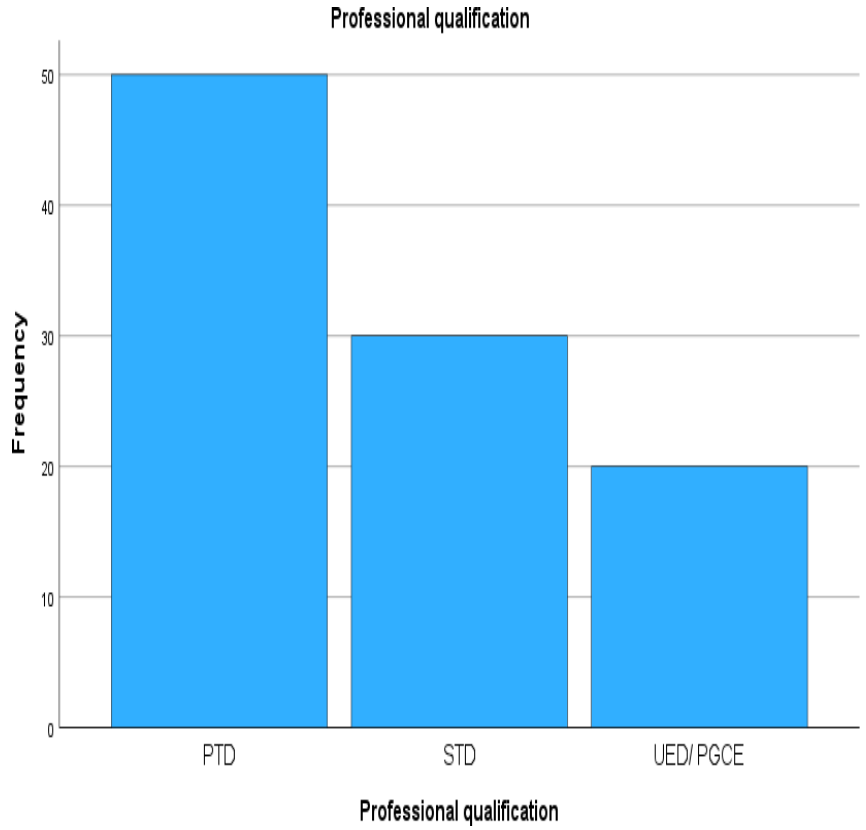


Figure 5.2.2 Participants by professional qualification (n=100)

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Figure 5.2.4 confirms that 50% of the participants had a Primary Teachers' Diploma (PTD), 30% had a Secondary Teachers' Diploma (STD), and 20% had UED/PGCE. Most participants might be expected to have skills and knowledge of the traditional manner of teaching EFAL reading. Based on the findings that 50% of participants had a Primary Teachers' Diploma (PTD), 30% had a Secondary Teachers' Diploma (STD), and 20% had UED/PGCE, the study suggests that most participants have traditional teacher training qualifications. Therefore, the finding supports the authors' view that teachers with traditional qualifications tend to possess skills and knowledge aligned with conventional teaching methods, particularly in EFAL reading.

Bennell and Akyeampong (2020) assert that many teachers in developing countries, especially those with traditional qualifications, often rely on established teaching methods due to their training background. Given their professional qualifications, this study's findings support their argument, indicating that most teachers may be more comfortable with traditional teaching practises. On the other hand, some authors, like Trust, Krutka, and Carpenter (2021), claim that newer qualifications, such as those emphasising digital literacy and technology integration, are becoming more common and necessary for effective teaching. This study unravels the involvement of teachers with a firm foundation of conventional EFAL teaching in using digital technology to teach EFAL reading.

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5.2.1 PARTICIPANTS PROFILES AND THEIR RELEVANCE TO THE STUDY

Table: Participant Profiles and Their Relevance to the Study

Demographic Variable	Description	Relevance to the Study	Supporting Literature
Age	Age range of participants (e.g., 25–60 years)	A teacher's age may influence openness to digital tools. Younger teachers may embrace technology more readily, while older ones may prefer traditional methods. Helps explain variation in digital strategy adoption.	Creswell & Poth (2018); Lincoln & Guba (1985)
Years of Teaching Experience	Teaching experience ranged from novice (1–3 years) to veteran (15+ years) educators	More experienced teachers often demonstrate higher pedagogical confidence and have developed adaptive strategies. Less experienced teachers may be more flexible but need support. Experience shapes perceptions and instructional choices.	Creswell & Poth (2018)

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Demographic Variable	Description	Relevance to the Study	Supporting Literature
Qualifications	Professional background including diplomas, B.Ed., postgraduate studies, and ICT/language specialisations	Teachers with higher or specialised qualifications are more likely to apply theoretical knowledge and integrate digital tools effectively in EFAL reading. Qualification level informs instructional design and differentiation.	Lincoln & Guba (1985); Creswell & Poth (2018)

Analytical Purpose:

- Participant profiles were included to contextualise perceptions, practices, and difficulties reported during interviews and observations.
- Analysing demographics helped identify patterns or contradictions across participant responses for example, how age or qualification influenced engagement with digital tools.
- This approach contributes to the credibility, transferability, and depth of the qualitative findings.

SECTION A: QUANTITATIVE DATA ANALYSIS

5.3. QUESTIONNAIRE

Caveat: The graphic representation of the data in this section does not reflect all the levels in the Likert scale in all the instances. This is because the graphs are SPSS-generated, and SPSS depicts only levels selected by participants. If a level, for instance, “strongly disagree,” is not selected by any participant, it gets excluded from the graphic representation.

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Discussion for each entry thus focuses on levels that are graphically represented, and all those that do not appear in the graphs have a 0% nomination by participants and do not form part of the discussion.

5.3.1 DIFFICULTIES IN TEACHING ENGLISH FIRST ADDITIONAL LANGUAGE READING

Teaching EFAL reading presents several difficulties, particularly in under-resourced educational settings. These difficulties stem from various factors, including the number of Grade 4 classes that impact the difficulty of teaching EFAL reading. Inadequate curriculum guidance is a source of difficulty in teaching EFAL reading and Managing classroom behaviour during EFAL reading lessons presents difficulties.

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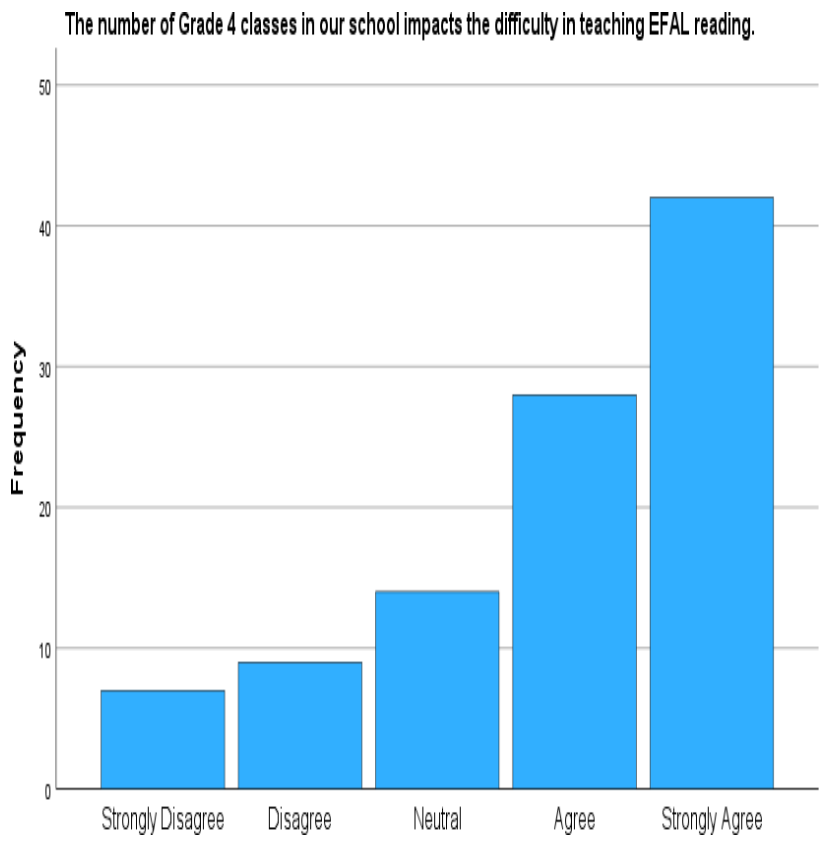


Figure 5.3.1 Our school's high number of Grade 4 classes impacts the difficulty of teaching EFAL reading.

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In Figure 5.3.1, the majority (70%) of participants agreed that the high number of Grade 4 classes negatively impacted the teaching of EFAL reading. 14% were neutral, and 16% of participants felt that the number of Grade 4 classes did not affect the difficulty they experienced in teaching EFAL reading. The finding supports the research by Gustafsson and Makgetla (2019) and Bennell and Akyeampong (2020), who discussed the negative impacts of high numbers of classes and workloads on resource allocation, teacher morale, and the quality of instruction. Therefore, both authors are supported by the findings, as they align with the observed difficulties of teaching EFAL reading in environments with high numbers of Grade 4 classes.

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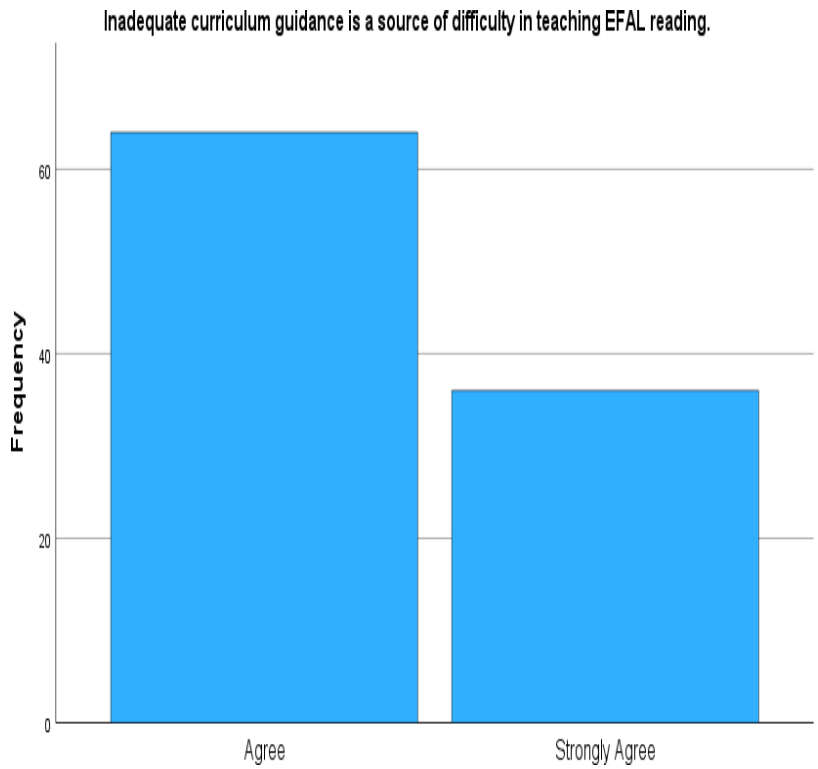


Figure 5.3.2 Inadequate curriculum guidance is a source of difficulty in teaching EFAL reading.

Figure 5.3.2 shows that 64% of participants agreed that inadequate curriculum guidance is a source of difficulty in teaching EFAL reading, and the response represents them as agreeing. On the other hand, 36% support the research by Fesi and Mncube (2021),

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Darling-Hammond, Hyler and Gardner (2017) and Van der Berg et al. (2020). These authors highlight the difficulties caused by inadequate curriculum guidance in teaching EFAL reading. This aligns with the study's findings that 100% of participants identified this issue as a source of difficulty as it demonstrates significant gaps in this alignment, with many teachers reporting that digital tools often failed to meet the curriculum’s specific objectives.

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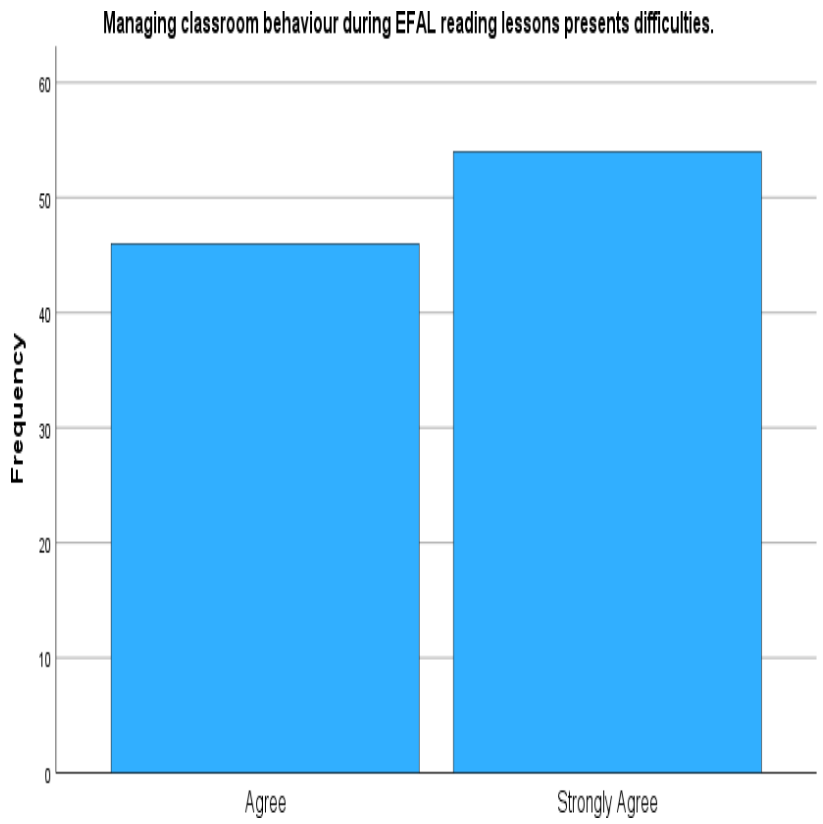


Figure 5.3.3 Managing classroom behaviour during EFAL reading lessons presents difficulties.

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Figure 5.3.3 indicates that 100% of the participants agreed that managing classroom behaviour during EFAL reading lessons presents difficulties. The findings support the research by Klassen and Tze (2019), who emphasise teachers' significant problems in managing classroom behaviour, particularly during EFAL reading lessons. Therefore, this challenge reflects the complex dynamics in EFAL classrooms, where varying learner abilities, language barriers, and resource limitations often intensify behavioural issues. These findings highlight the need for targeted interventions and support systems to equip teachers with effective classroom management strategies tailored to the unique demands of EFAL reading instruction.

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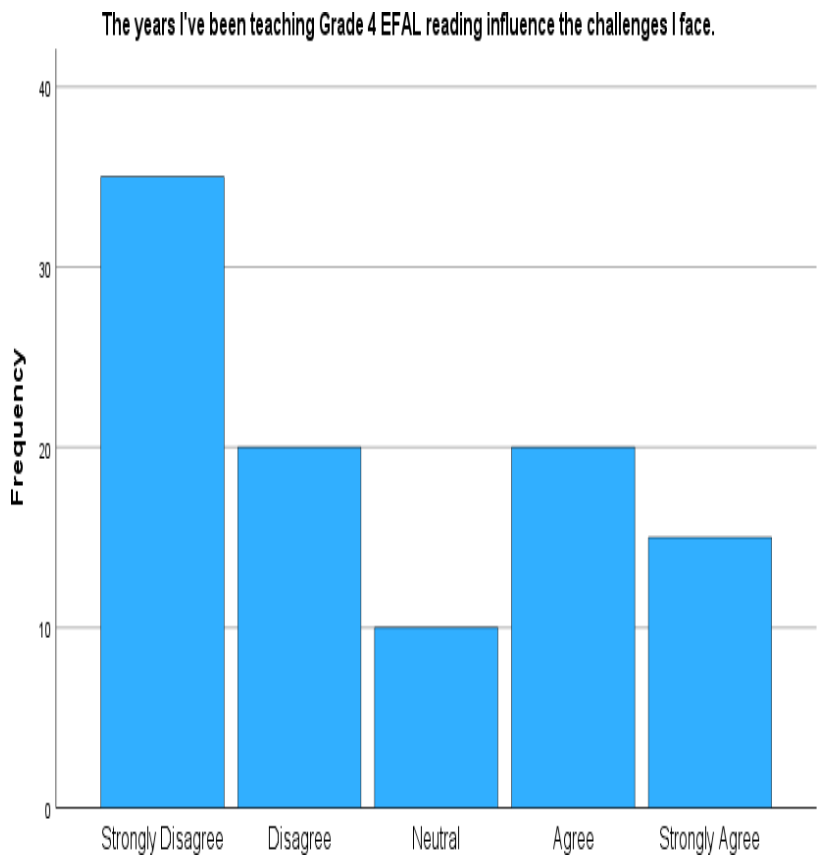
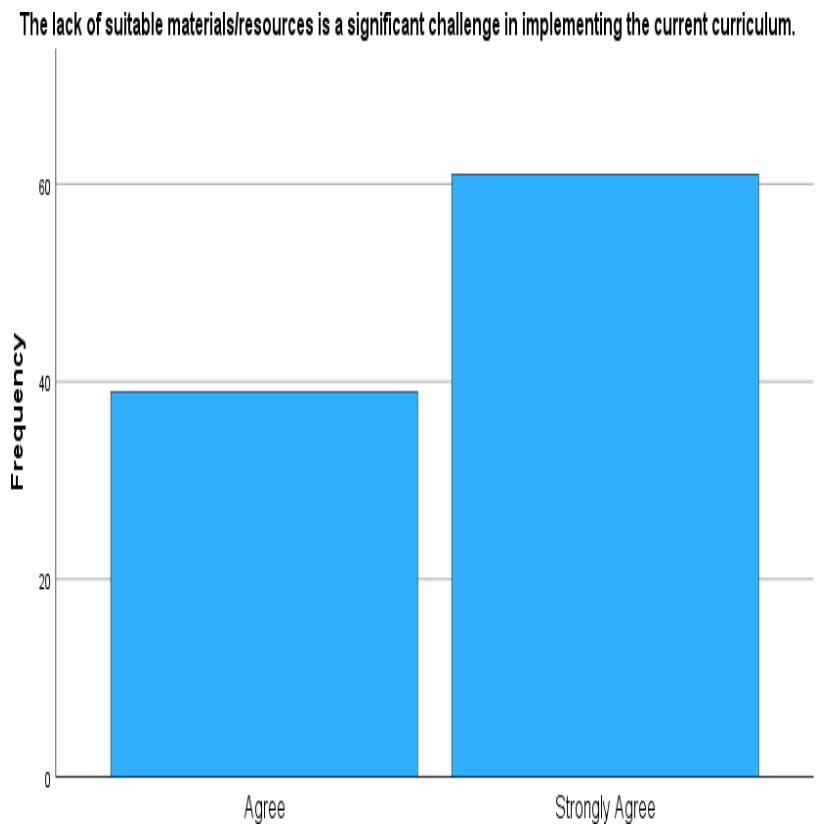


Figure 5.3.4 Teaching experiences' influence on difficulties faced

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In Figure 5.3.4, most participants (55%) indicated that their years of experience did not affect the difficulties in teaching Grade 4 learners. In comparison, 10% were neutral on the issue, and 35% of the participants agreed that their years of teaching experience contributed to their difficulties. The 35% of the participants who agreed that their years of teaching experience contributed to their difficulties support Darling-Hammond's (2017) and Berg's (2018) perspectives. Darling-Hammond (2017) emphasises that teacher experience is crucial in navigating classroom difficulties and fostering learner achievement. This aligns with the 55% of participants who indicated that their years of experience did not influence their difficulties in teaching Grade 4 learners. Berg (2018) highlights the need for additional support for inexperienced teachers, resonating with the likelihood of the 35% being comprised of inexperienced participants, who acknowledged that their lack of experience contributed to the difficulties faced by teachers.

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5.3.5 The lack of suitable materials/resources is a challenge in implementing the current curriculum.

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In Figure 5.3.5, 100% of the participants agreed that the lack of suitable resources posed a challenge in implementing the current curriculum. The findings support and align with the perspectives of Hanushek and Woessmann (2020), Tamim et al. (2019) and Darling-Hammond et al. (2017), who emphasise the critical role of resources in education. Hanushek and Woessmann (2020) highlight the direct correlation between resource allocation and learner performance, while Tamim et al. (2019) focus on the importance of technological resources in enhancing learning outcomes. Darling-Hammond et al. (2017) stress the need for adequate resources for teachers, including access to professional development and teaching aids, for effective curriculum delivery.

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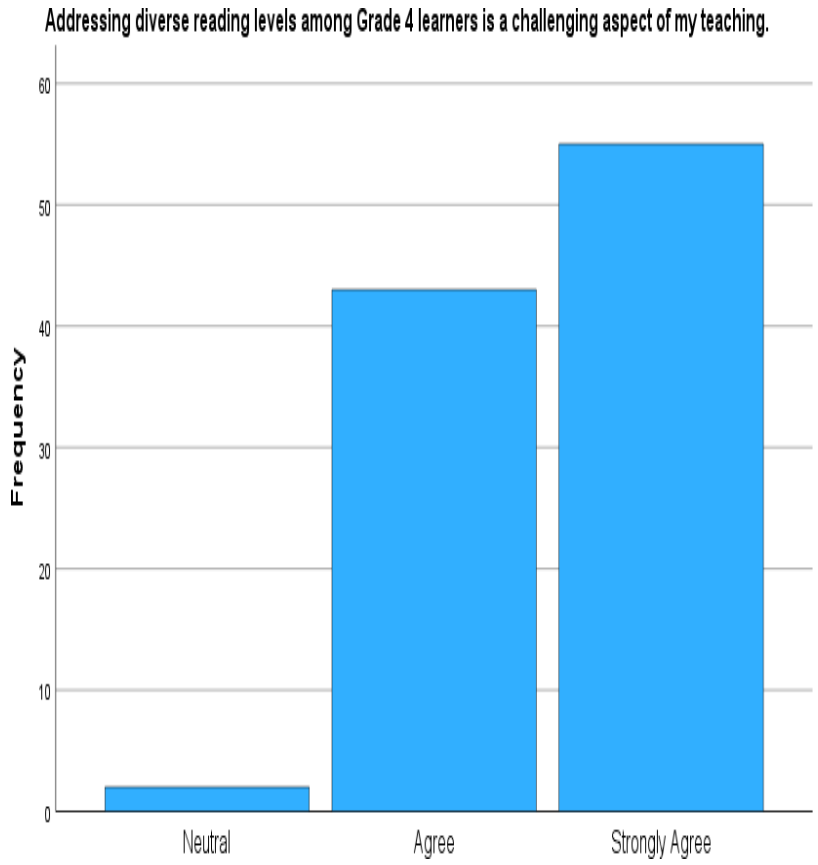


Figure 5.3.6 Addressing diverse reading levels among Grade 4 learners is challenging for my teaching.

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Figure 5.3.6 shows that most (98%) participants agreed that addressing diverse reading levels among Grade 4 learners is challenging for their teaching. The findings support the views of Spaull and Pretorius (2019), who claim that the diversity in reading levels among Grade 4 learners necessitates differentiated instruction strategies. 98% of participants agree that differentiated instruction is necessary to address diverse reading levels but find it hard to do so because of overcrowded classrooms, for instance, in the Thohoyandou Cluster. Digital strategies can be a feature of this struggle because they provide teachers with tailored teaching approaches to accommodate varying learner needs.

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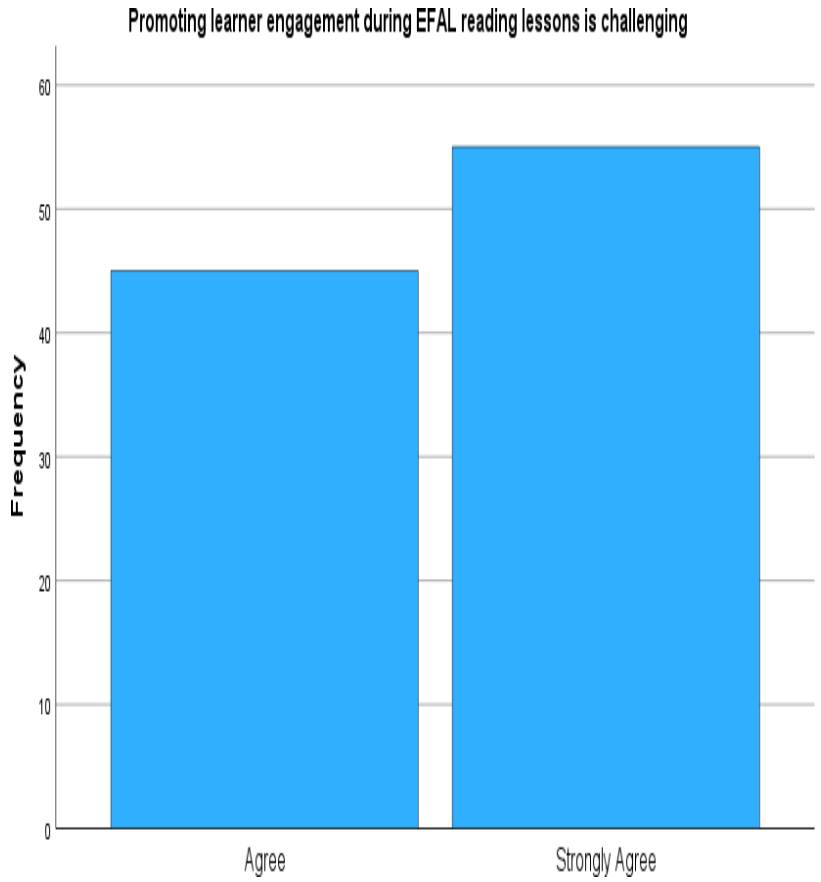


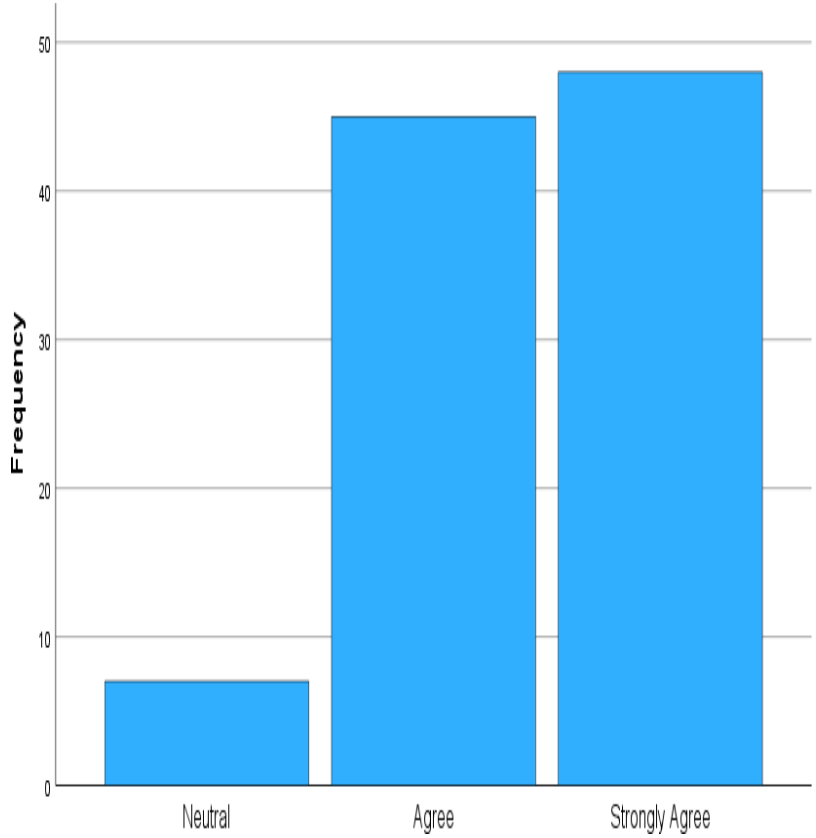
Figure 5.3.7 Promoting learner engagement during EFAL reading lessons is challenging

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In Figure 5.3.7, 100% of the participants agreed that promoting learner engagement during EFAL reading lessons is challenging. These findings support the views of Spaull and Pretorius (2019), who claim that learners, especially those from non-English-speaking backgrounds, often find EFAL reading tasks daunting and disengaging, requiring additional effort and strategies from the teachers. The challenge of fostering engagement is deeply tied to the need for innovative and learner-centred strategies. The consistent difficulty reported by participants underscores the importance of integrating engaging digital tools, such as gamified learning platforms, into EFAL lessons to create a more interactive and motivating learning environment. The findings contradict Chuang and

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Jamiat (2023), who assert that multimedia tools like YouTube and gamified platforms boost learner engagement and motivation by providing visual and auditory cues.



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Figure 5.3.8 Maintaining a positive learning environment is challenging during EFAL reading sessions

Figure 5.3.8 depicts that 93% of participants agreed that maintaining a positive learning environment during EFAL reading sessions is challenging. The findings that maintaining a positive learning environment during EFAL reading sessions is challenging support the views of Spaull and Pretorius (2019). They claim that linguistic diversity among learners can lead to feelings of alienation or being overwhelmed, negatively impacting motivation and participation. The difficulties identified in the study, such as large class sizes and insufficient instructional materials, further align with their assertion that these factors hinder maintaining a positive learning environment. Collaborative online projects can lure the learners' attention and active participation during EFAL reading sessions.

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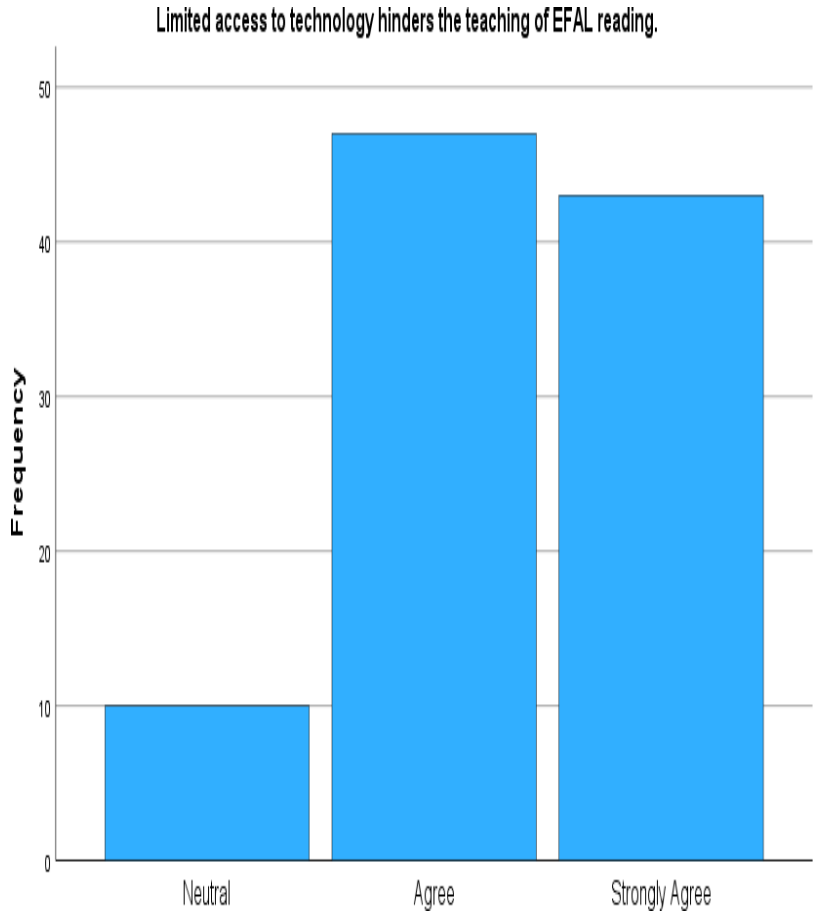


Figure 5.3.9 Limited access to technology hinders the teaching of EFAL reading.

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Figure 5.3.9 indicates that a majority (90%) of the participants agreed that limited access to technology hinders the teaching of EFAL. Only 10% of participants were neutral on the issue. The findings confirmed that restricted access to technology hinders the teaching of EFAL, aligning with the research of Hervey (2020) and Sefara et al. (2021). These scholars emphasise the importance of digital tools in enhancing learner engagement, developing digital literacy skills, and fostering a positive attitude toward learning English. The consensus among these authors highlights how limited technological access negatively impacts educational outcomes, aligning with the study's findings. Schools should try to install Wi-Fi and request donations for old computers from universities or tablets from other private institutions. This would lay a good foundation for the implementation of digital strategies.

A significant finding from the questionnaires revealed that 64% of participants were neutral about the positive impact of digital strategies on learner outcomes. This reflects a lack of confidence among teachers in thoroughly assessing or leveraging digital strategy. Many teachers cited difficulties related to inadequate curriculum guidance and limited resource access. These findings align with Rapetsoa and Singh (2017), who note that EFAL teachers in rural South Africa often face resource constraints that hinder their ability to implement innovative teaching methods.

Additionally, most teachers indicated that addressing diverse reading levels among learners was a significant challenge, which supports Vackova et al. (2023). The authors claim that differentiated instruction is critical in EFAL classrooms but often requires tools and strategies many teachers lack access to in under-resourced schools. While Chuang and Jamiat (2023) and Vlachopoulos and Makri (2019) highlight that digital tools can effectively bridge gaps in learner diversity by offering personalised and adaptive learning, the findings suggest that such benefits are not yet fully realised in the Thohoyandou Cluster. Teachers' lack of access to sophisticated adaptive tools and limited digital literacy partially disprove this claim.

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Only 35% of participants agreed that additional training opportunities would enhance their ability to integrate digital strategies (Figure 5.28), with 65% remaining neutral. This finding aligns with Ertmer and Ottenbreit-Leftwich (2013), who stress the importance of ongoing, focused training to build teachers' confidence in integrating technology. Teachers' limited confidence may stem from lacking a structured professional development programme in the cluster. However, the neutrality of responses could indicate a disconnect between training initiatives and effective classroom needs. While Darling-Hammond et al. (2017) and Vackova et al. (2023) claim that a well-designed training programme can transform teaching practises, the lack of alignment between theoretical training and on-ground application disproves this assumption in the Thohoyandou Cluster context.

5.3.2 TYPES OF DIGITAL STRATEGIES

Digital strategies have transformed the landscape of EFAL instruction, providing tools that cater to diverse learner needs and enable differentiated instruction. These strategies include platforms and resources to enhance reading fluency, comprehension, vocabulary development, and learner engagement. The types of digital strategy employed in this study focus on tools such as interactive e-books, gamified platforms, adaptive learning systems, and multimedia content from video-sharing platforms like YouTube and TikTok.

The figures presented in this section illustrate the range and effectiveness of these tools in addressing the unique difficulties faced by EFAL learners in rural South Africa. They highlight how these strategies align with curriculum goals and support teaching practises tailored to individual learner needs. By leveraging these tools, teachers can provide more interactive, engaging, and effective reading

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instruction. These figures also underscore the importance of aligning digital tools with the specific contexts and resources available in rural classrooms, ensuring their accessibility and usability.

This section explores the identified digital strategies' characteristics, benefits, and difficulties, providing insights into their application in enhancing EFAL reading outcomes.

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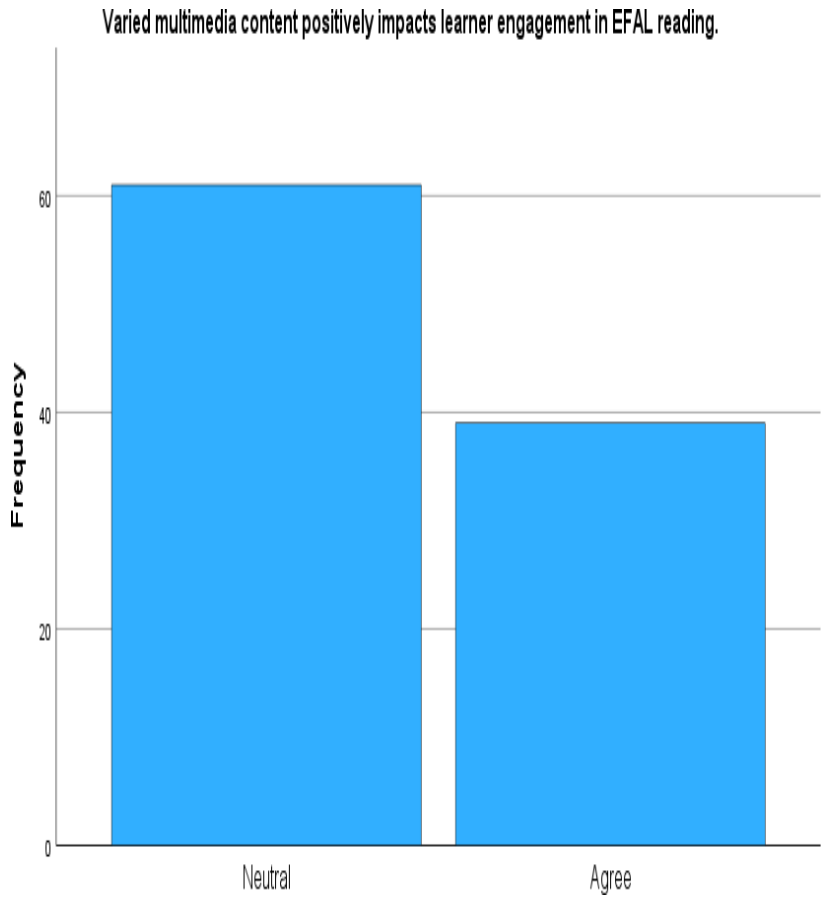


Figure 5.3.10 Varied multimedia content positively impacts learner engagement in EFAL reading.

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Figure 5.3.10 depicts that 39% of participants agreed that varied multimedia content positively impacts learner engagement in EFAL reading, whereas 61% were neutral. The 39% of participants who agreed that varied multimedia content positively impacts learner engagement in EFAL reading supports the research (Chuang & Jamiat, 2023). These scholars support that multimedia resources enhance learner engagement, maintain interest, and cater to different learning styles, aligning with the finding that multimedia content can positively impact learner engagement. While YouTube provides vast resources that support differentiated instruction, its reliance on internet access poses a challenge in under-resourced rural schools in the Thohoyandou Cluster (Czerniewicz & Brown, 2020; Castillo-Cuesta, 2022). The fact that the minority shares this understanding is probably due to a lack of exposure to varied multimedia content in the Thohoyandou Cluster among teachers. This shows a significant increase in learner engagement and comprehension when digital strategies such as gamified tools and multimedia platforms are used.

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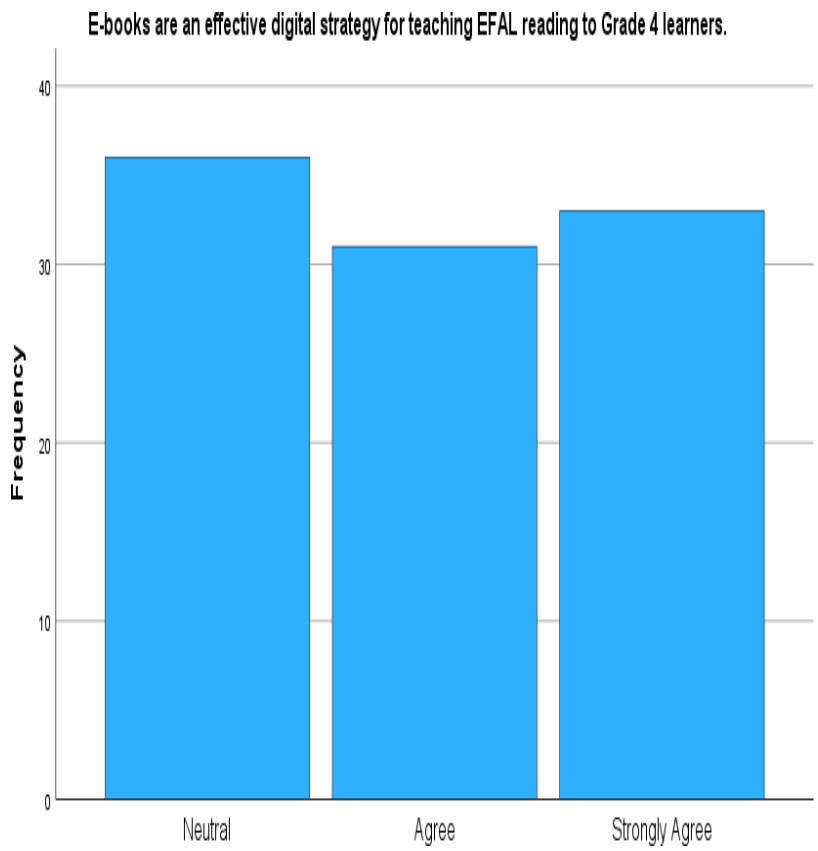


Figure 5.3.11 E-Books are an effective digital strategy for teaching EFAL reading to Grade 4 learners.

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Figure 5.3.11 shows that 64% of participants agree that e-Books are an effective strategy for teaching EFAL reading. 36% of participants were neutral on the issue. 64% of participants agreed that e-books are an effective strategy for teaching EFAL reading support studies by Kucirkova and Flewitt (2019), Vlachopoulos and Makri (2019), Brown (2020), and Huang, Liang, and Chiu (2020). These scholars support and align that e-books can enhance reading skills and engagement and provide scaffolding through interactive features like audio narration and animations. Additionally, e-books support differentiated instruction by offering texts at various reading levels, catering to diverse learner needs.

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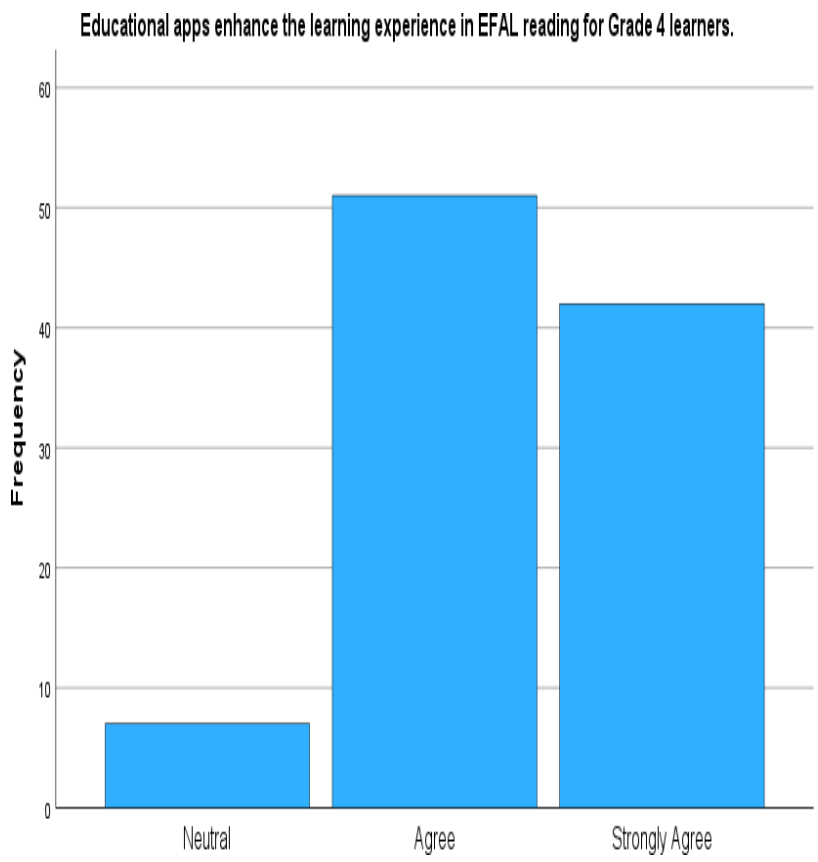


Figure 5.3.12 Educational Apps enhance the learning experience in EFAL reading for Grade 4 learners.

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In Figure 5.3.12, an overwhelming majority (93%) of the participants agreed that educational Apps enhance the learning experience in EFAL reading for Grade 4 learners. Only 7% of participants were neutral on the issue. 93% of the participants support the studies (Kaynar & Boichuk, 2020; Chuang & Jamiat, 2023; Vackova et al., 2023). These scholars emphasise that educational apps can significantly enhance learner engagement, motivation, and outcomes by offering interactive and personalised learning experiences. Educational apps make a valuable contribution to the teaching of EFAL reading, bridging the gap not covered by conventional teaching methods.

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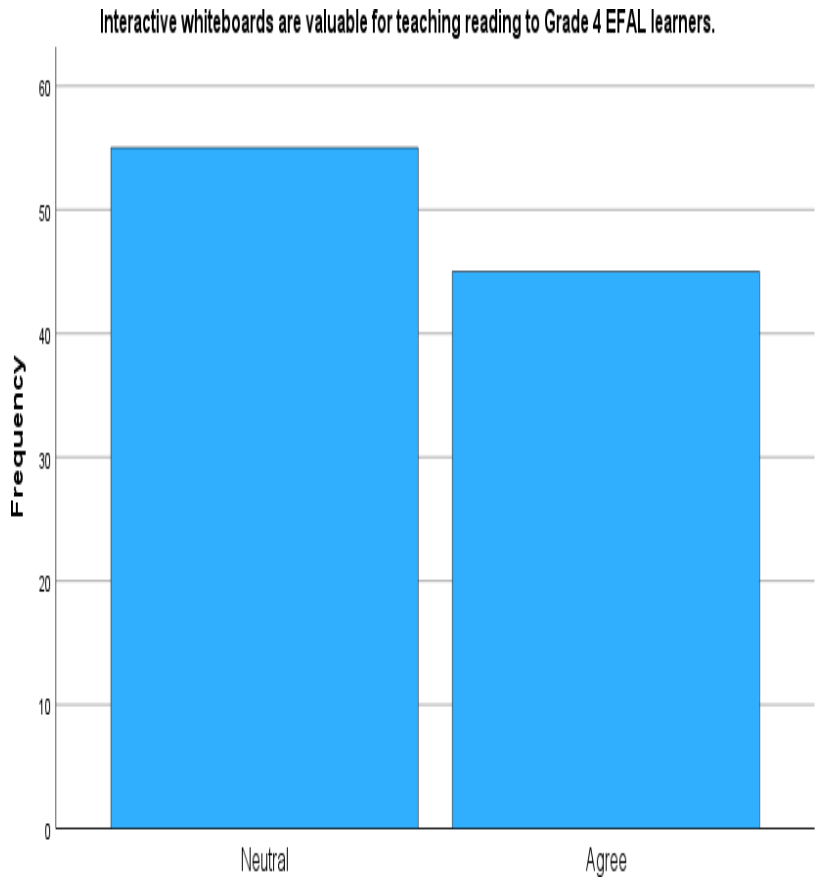


Figure 5.3.13 Interactive whiteboards are valuable for teaching reading to Grade 4 EFAL learners.

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Figure 5.3.13 shows that 55% of participants were neutral on the value of interactive whiteboards (IWBs) for teaching reading to Grade 4 EFAL learners, whereas 45% agreed that IWBs are valuable for teaching reading to Grade 4 EFAL learners. The 45% who agreed that IWBs are valuable for teaching reading to Grade 4 EFAL learners support Neuman and Celano (2020), who claim that Interactive whiteboards allow learners to interact with the text, highlight key ideas, and practise pronunciation through audio-visual prompts; this can significantly enhance learner engagement and improve learning outcomes by integrating multimedia resources and facilitating interactive lessons. Inadequate exposure to interactive whiteboards is the likely reason that the minority of participants in this study support IWBs.

The questionnaire findings revealed that teachers use digital strategies to support EFAL reading, including YouTube videos, e-books, gamified learning platforms, virtual trips, WhatsApp, and digital dictionaries. Each strategy offers unique benefits but presents difficulties, particularly in rural contexts like the Thohoyandou Cluster.

5.3.3 PERCEPTIONS OF EFFECTIVENESS

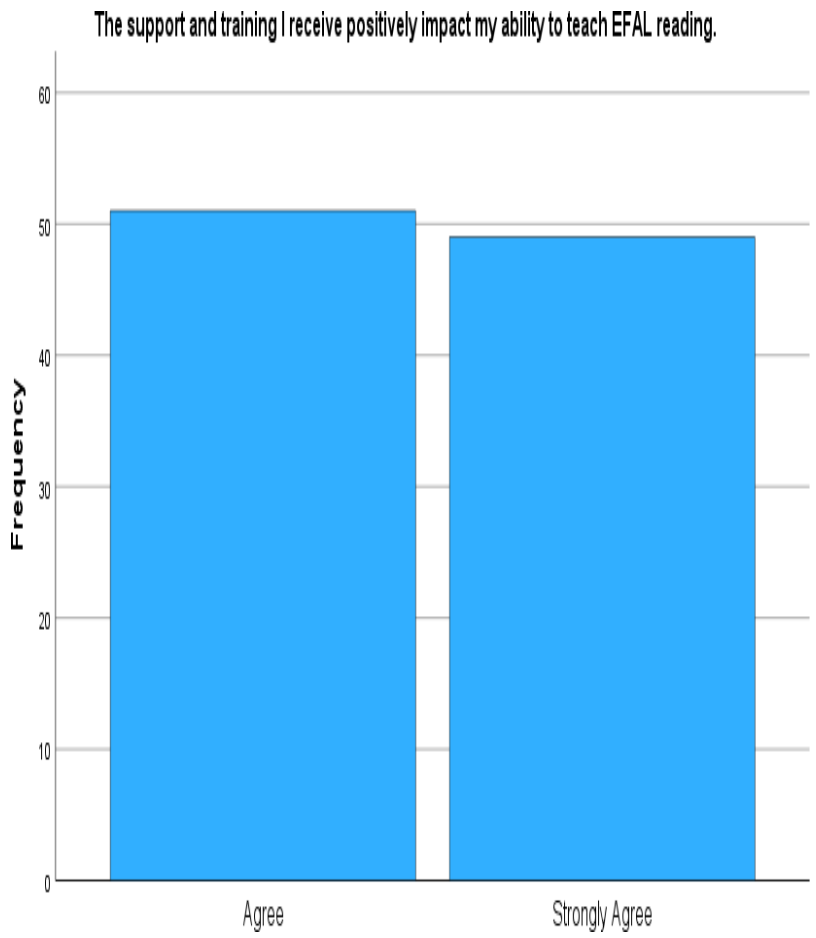
Teachers' perceptions of the effectiveness of digital tools in EFAL reading instruction vary based on factors such as learner engagement, comprehension improvement, and resource accessibility. While many teachers view digital tools as beneficial for enhancing EFAL instruction, their effectiveness is often seen as contingent upon proper implementation, adequate resources, and the suitability of the tools to meet diverse learning needs.

The following are discussed under findings: The support and training the researcher receives positively impact the ability to teach EFAL reading, Gamified learning activities effectively enhance reading comprehension in EFAL, Collaborative online projects are

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valuable for promoting learner engagement in EFAL reading, Virtual field trips related to reading content contribute to effective EFAL instruction, Digital strategies align well with EFAL curriculum objectives, Immediate feedback from digital strategies enhances learner engagement in EFAL reading, Personalised learning experiences through digital strategies contribute to increased learner engagement, Learner performance assessments effectively measure the effectiveness of digital strategies in improving English reading outcomes and Additional training opportunities would enhance the ability to integrate digital strategies effectively.

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Figure 5.3.14 The support and training I receive positively impact the ability to teach EFAL reading.

In Figure 5.3.14, all the participants agreed that the support and training they received positively impacted their ability to teach EFAL reading, with almost 50% apiece strongly agreeing and agreeing (49% strongly agree, whereas 51% agree). The findings support Steyn and Masango (2022) and Vackova, Cermakova and Kucirkova (2023), who emphasise the positive impact of robust support, including access to quality resources and professional development, on teachers' effectiveness. This aligns with the finding that all participants agreed on the positive impact of the support and training received. That highlights the importance of mentorship and coaching, consistent with the participants' agreement on the value of support in enhancing their ability to teach EFAL reading. Skills may only be perfected through appropriate training. When the relevant authorities facilitate and make skills-development programmes possible for teachers, they open a door for more effective tuition for learners.

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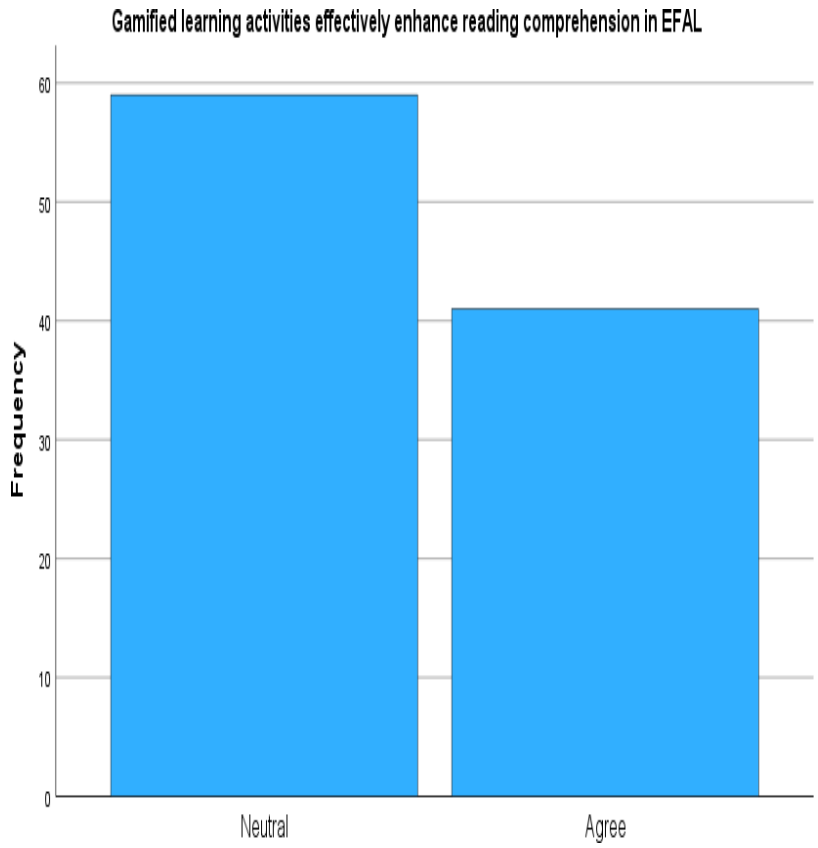


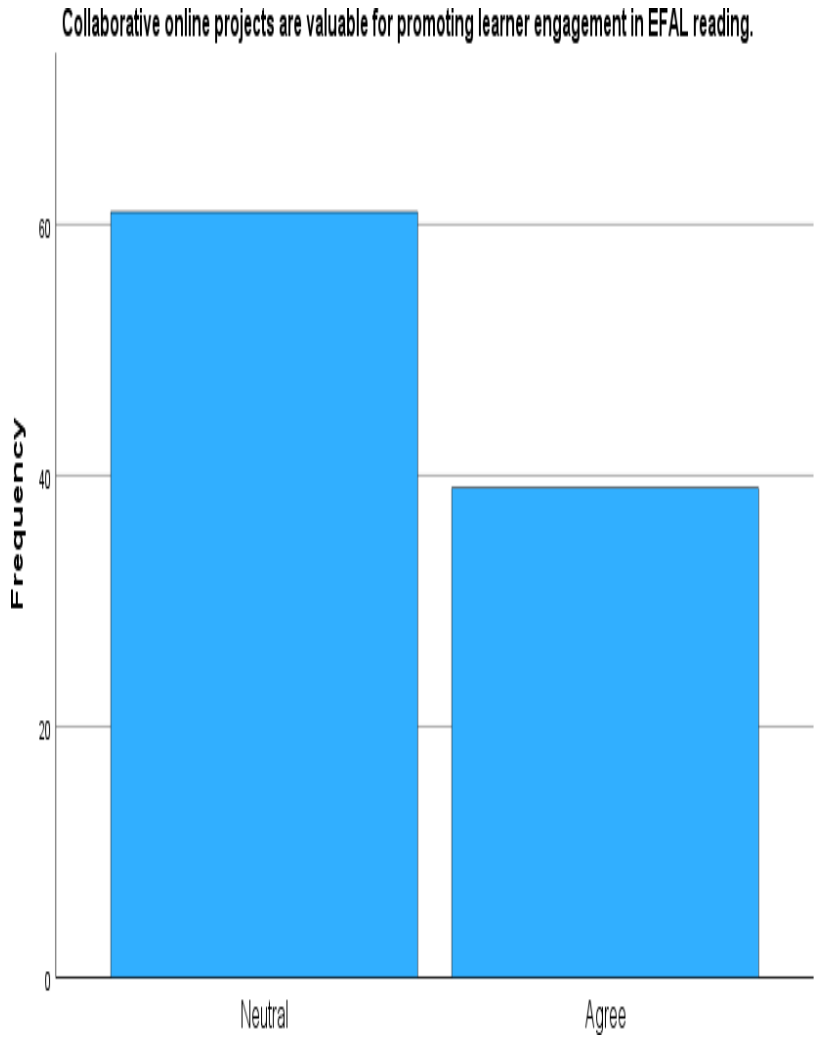
Figure 5.3.15 Gamified learning activities effectively enhance reading comprehension in EFAL

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Figure 5.3.15 depicts that 41% of participants agreed that gamified learning activities effectively enhance reading comprehension in EFAL. 59% of participants were neutral on the issue. The 41% of participants who agreed that gamified learning activities effectively enhance reading comprehension in EFAL support Kaynar & Boichuk, (2020), Huang et al. (2020), Castillo-Cuesta (2022) and Mpuangnan et al. (2024), who indicate that gamification can significantly impact reading comprehension by increasing learner motivation and participation. 41% of participants agreed that gamified learning activities enhance reading comprehension align with this view. The high percentage of neutral responses (59%) in the study suggests that many participants did not use gamified learning activities and could not comment on the value of their teaching, showing a significant increase in learner engagement and comprehension when digital strategies such as gamified tools and multimedia platforms are used.

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Figure 5.3.16 Collaborative online projects are valuable for promoting learner engagement in EFAL reading

Figure 5.3.16 depicts that 39% of the participants agreed that collaborative online projects are valuable for promoting learner engagement in EFAL reading. However, most participants (61%) were neutral on the issue. 39% of participants agreed that collaborative online projects are valuable for promoting learner engagement in EFAL reading and support Ertmer and Ottenbreit-Leftwich (2013), Louw and Pretorius (2020), and Pretorius and Spaull (2020) suggest that online projects promote a sense of community and shared responsibility, increasing motivation and engagement in reading activities, thus enhancing reading comprehension. The 39% of participants who agreed that collaborative online projects enhance learner engagement align with their research. The high percentage of neutral responses (61%) suggests the lack of exposure to collaborative online projects for most participants.

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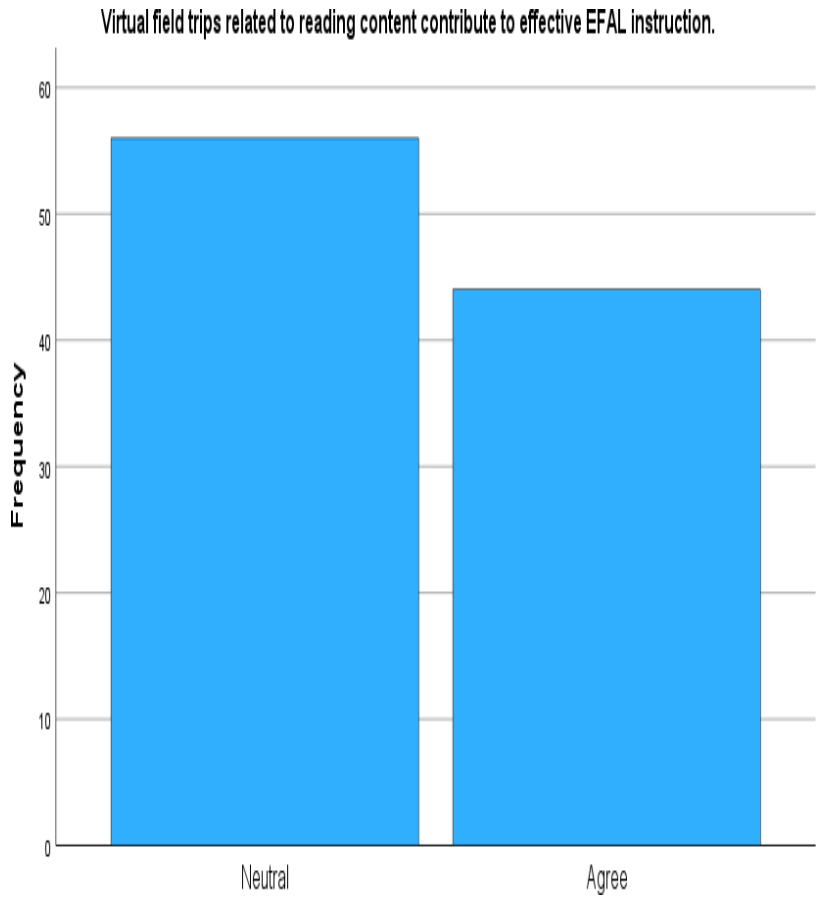


Figure 5.3.17 Virtual field trips related to reading content contribute to effective EFAL instruction

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Figure 5.3.17 depicts that 44% of participants agree that virtual field trips related to content contribute to effective EFAL instruction, whereas 56% are neutral on this assertion. 44% of participants agreed that virtual field trips provide adequate EFAL instruction support. Marquardt et al. (2021) and Makransky and Mayer (2022) suggest that virtual field trips can enhance learners' understanding and retention of reading material by bridging the gap between textual content and real-world experiences and enhancing learner engagement and motivation. The 56% of participants who were neutral on the assertion suggest that most of the teachers in the Thohoyandou Cluster do not use virtual field trips.

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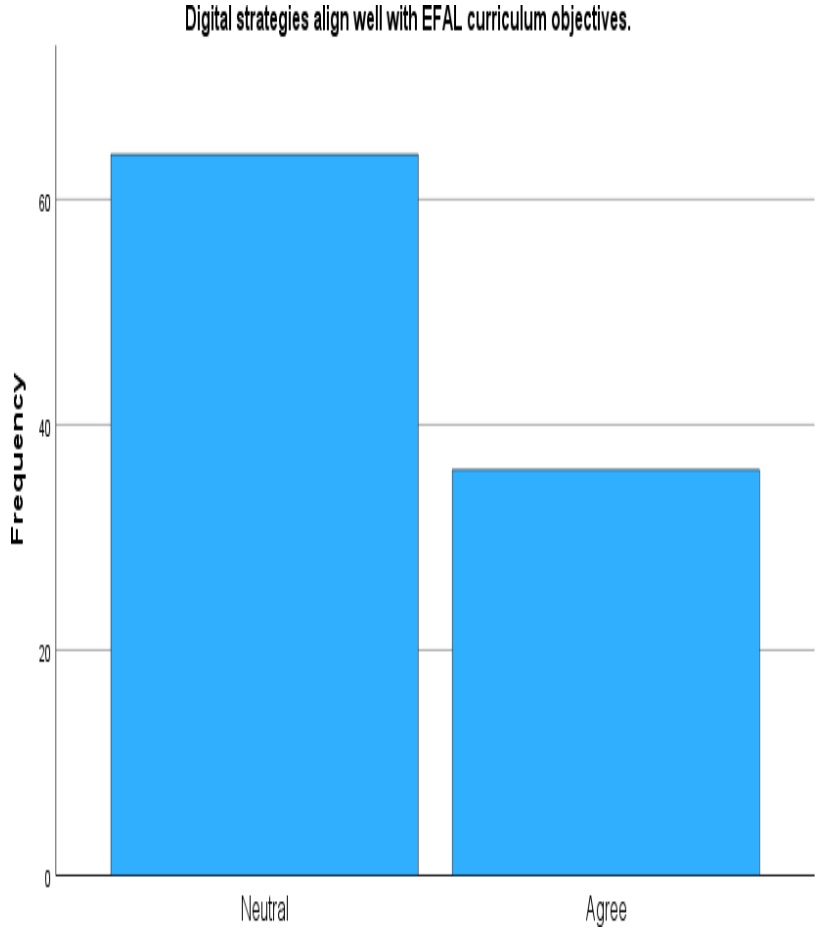


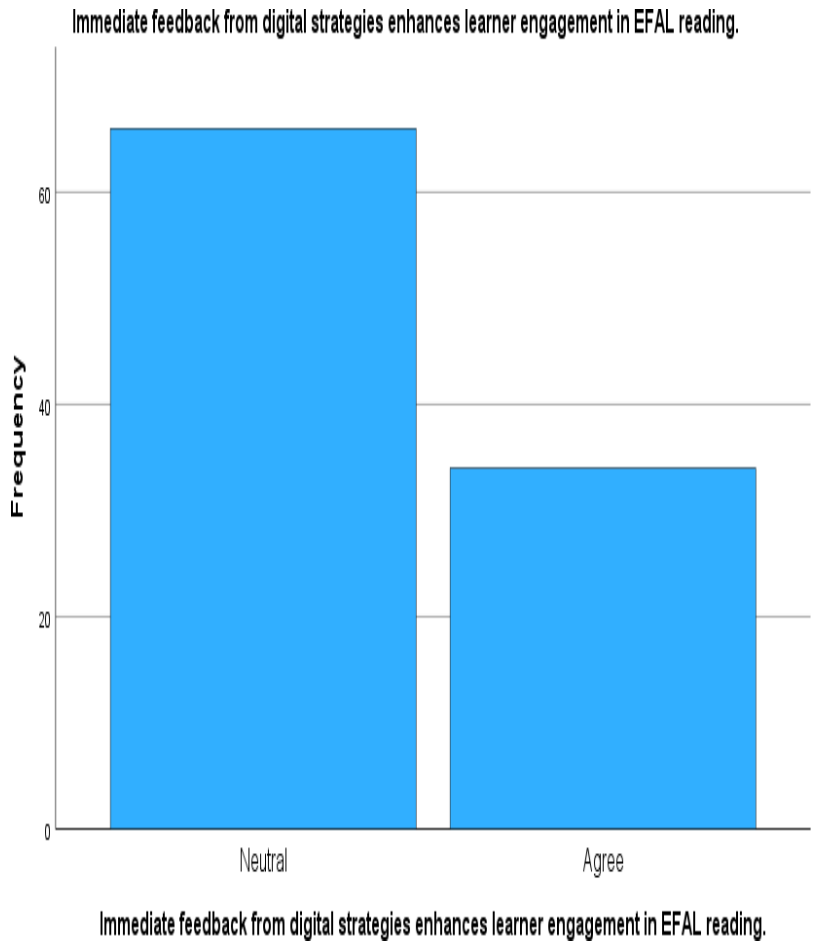
Figure 5.3.18 Digital strategies align well with EFAL curriculum objectives

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Figure 5.3.18 depicts that 36% of participants agreed that digital strategies align well with EFAL curriculum objectives, whereas 64% were neutral. Digital strategies have become integral in modern educational environments, mainly teaching EFAL. The 36% of participants who agreed that digital strategy align well with EFAL curriculum objectives support Spaull and Pretorius (2019), Czerniewicz and Brown, (2020) and Sefara, Zwane, Gama, Sibisi, Senoamadi & Marivate, (2021), who suggest that digital tools such as language learning apps, interactive e-Books, and online exercises can align with EFAL curriculum objectives by fostering language skills through interactive and engaging platforms.

The high percentage of neutral responses (64%) suggests that most participants could not tell whether digital strategies aligned with EFAL curriculum objectives. This may happen where there is no interest in establishing what the curriculum states about using digital strategies.

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Figure 5.3.19 Immediate feedback from digital strategies enhances learner engagement in EFAL reading

Figure 5.3.19 indicates that 34% of participants agreed that immediate feedback from digital strategies enhances learner engagement in EFAL reading, whereas 66% were neutral on the issue. This supports Huang et al. (2020) and Kim & Li (2021), who believe that immediate feedback through digital platforms enhances learner engagement and perseverance in reading tasks. The 34% of participants who agreed that immediate feedback enhances learner engagement aligns with this perspective.

The high percentage of neutral responses (66%), by inference, suggests that many participants do not give immediate feedback and are thus unable to know its impact on learner engagement. Therefore, while immediate feedback can play a critical role in sustaining learner motivation and focus, the large proportion of participants remaining neutral on this issue suggests limited exposure to or understanding of how digital feedback mechanisms function in practise. This highlights the need for targeted training to help teachers implement digital tools that provide immediate feedback to maximise learner engagement during EFAL reading lessons.

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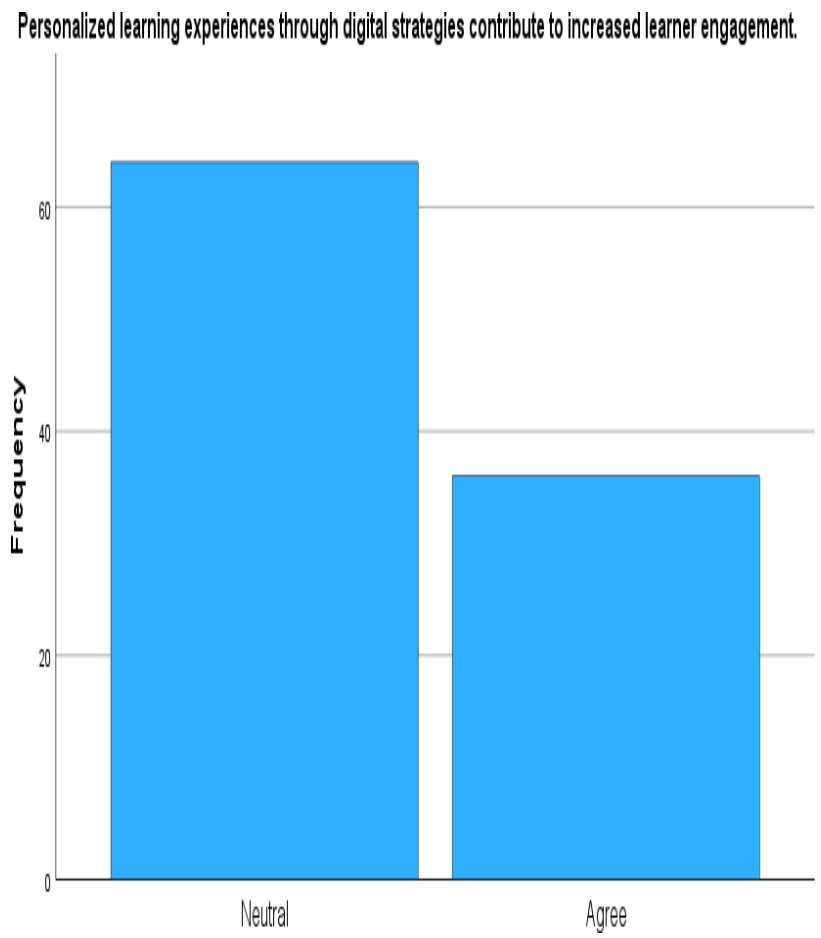


Figure 5.3.20 Personalised learning experiences through digital strategies contribute to increased learner engagement.

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Figure 5.3.20 depicts that 36% of participants supported the idea that personalised learning experiences through digital strategies contribute to increased learner engagement, whereas 64% were neutral. The 36% of participants who agreed that personalised learning experiences contribute to increased learner engagement align with the views of Kaynar and Boichuk (2020) and Vlachopoulos and Makri (2019), who posit that personalised learning experiences have been widely recognised for their positive impact on learner engagement, as they cater to individual learning needs and preferences, which fosters a deeper connection with the learning material.

The high percentage of neutral responses (64%) suggests that many participants did not offer personalised learning experiences to their learners and could thus not have a definite stance on the issue. However, this neutrality likely reflects limited exposure to or access to digital tools capable of delivering personalised learning experiences. This finding highlights the need for professional development and resource allocation to empower teachers with the skills and tools to implement personalised digital strategies in EFAL reading instruction effectively.

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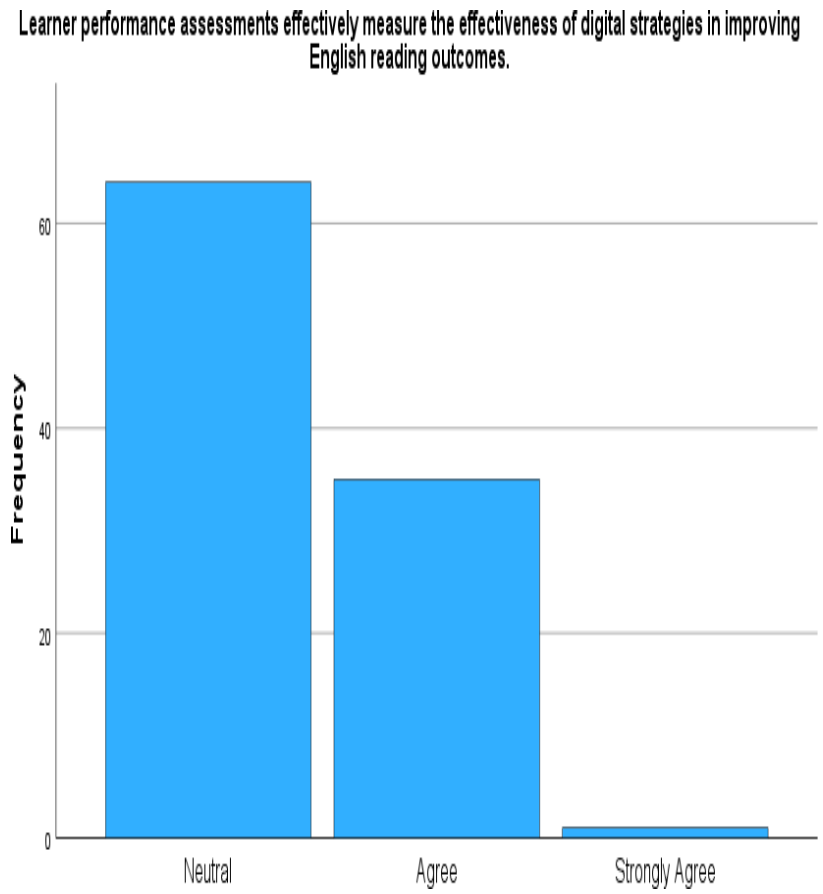


Figure 5.3.21 Learner performance assessments effectively measure the effectiveness of digital strategies in improving English reading outcomes.

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In Figure 5.3.21, 36% of participants agree that learner performance assessments effectively measure the effectiveness of digital strategies in improving English reading outcomes. This percentage comprises 35% who approve, 1% strongly agree, and 64% of participants neutral. The 36% of participants who agree that learner performance assessments effectively measure the effectiveness of digital strategies in improving English reading outcomes support Ahmadi (2018) and Huang et al. (2020), who emphasise the importance of learner performance assessments in evaluating the effectiveness of digital strategies for improving reading outcomes.

Specifically, they highlight how performance assessments can provide empirical data, insights into individual progress, and validation of digital interventions, which aligns with the 36% of participants who agreed that learner performance assessments effectively measure the impact of digital strategies. The high percentage of neutral responses (64%) suggests that many participants could not attest that learner performance assessments truly reflect the effectiveness of digital techniques for teaching EFAL reading. This can be attributed to the fact that most participants are still inclined to the traditional method and could thus not measure the contribution made by digital strategies.

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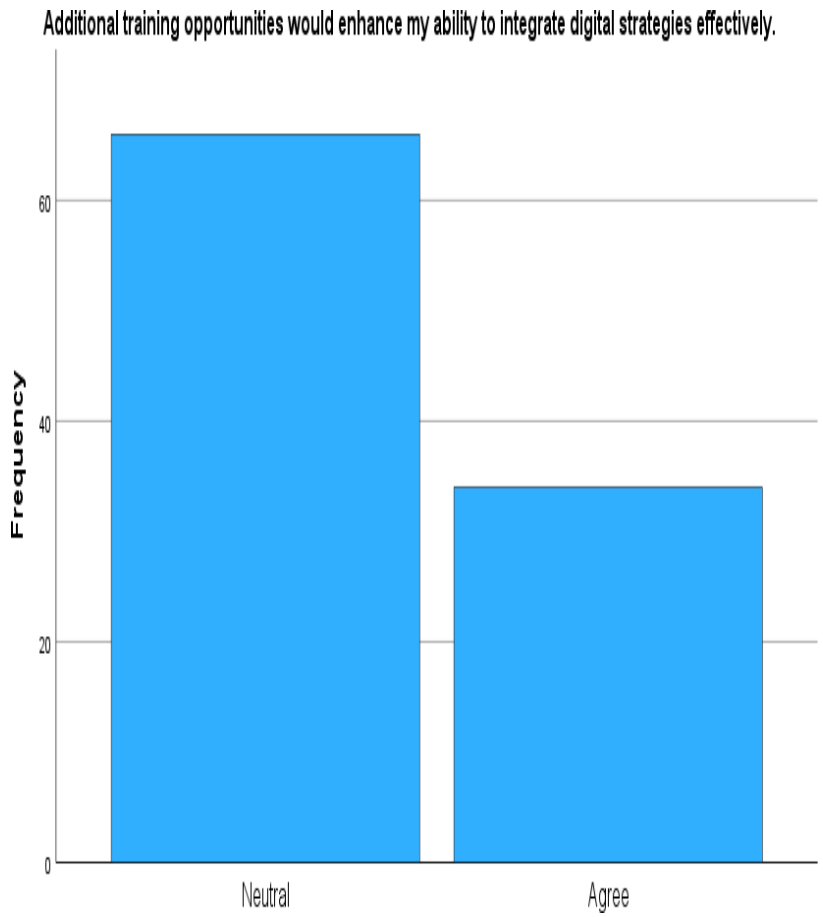


Figure 5.3.22 Additional training opportunities would enhance the ability to integrate digital strategies effectively

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Figure 5.3.22 shows that 35% of participants agreed that additional training opportunities would enhance their ability to integrate digital strategies effectively. 65% were neutral on the issue. The 35% of participants who agreed that additional training opportunities would improve their ability to incorporate digital strategies effectively support Neuman and Celano (2001), Ertmer and Ottenbreit-Leftwich (2013), Neuman and Celano (2001), Hsu et al. (2019), Vlachopoulos and Makri (2019) and Kim and Li (2021), who found that additional training for teachers in integrating digital strategies has enhanced teaching efficacy and learner engagement, mainly when training is focused, ongoing, and aligned with teachers' needs.

Furthermore, the 65% of neutral participants suggests that many participants have not started integrating digital strategies in their lessons and could thus not talk about the enhancement of something that is not there. The findings revealed mixed perceptions about the effectiveness of digital techniques. While teachers acknowledged the potential of tools like gamified platforms and YouTube to enhance engagement and motivation, they expressed uncertainty about their impact on reading comprehension. This partially supports Chuang and Jamiat (2023), who claim that digital tools foster cognitive and emotional engagement while highlighting the need for additional support to maximise their impact on comprehension.

5.3.4 TEACHERS' USE OF DIGITAL STRATEGIES FOR ENGLISH FIRST ADDITIONAL LANGUAGE READING

EFAL teachers increasingly incorporate digital tools into their reading instruction to enhance engagement, improve comprehension, and support language acquisition. However, the effectiveness and frequency of digital tool use vary widely based on resource availability, teacher familiarity with technology, and perceived benefits for learners. This section explores how teachers use digital

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tools in EFAL reading classrooms, focusing on their instructional approaches, the benefits observed, and the difficulties faced. The following findings were highlighted: Using digital strategies for teaching English reading to Grade 4 EFAL learners contributes to problems; the researcher has observed a positive impact on learner reading outcomes.

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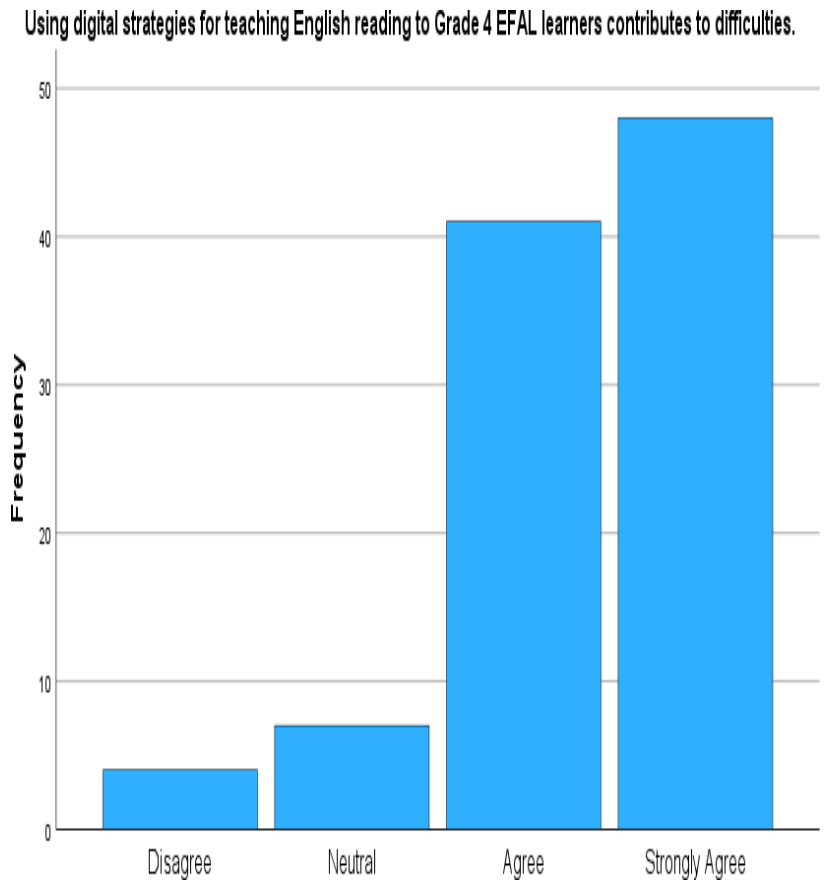


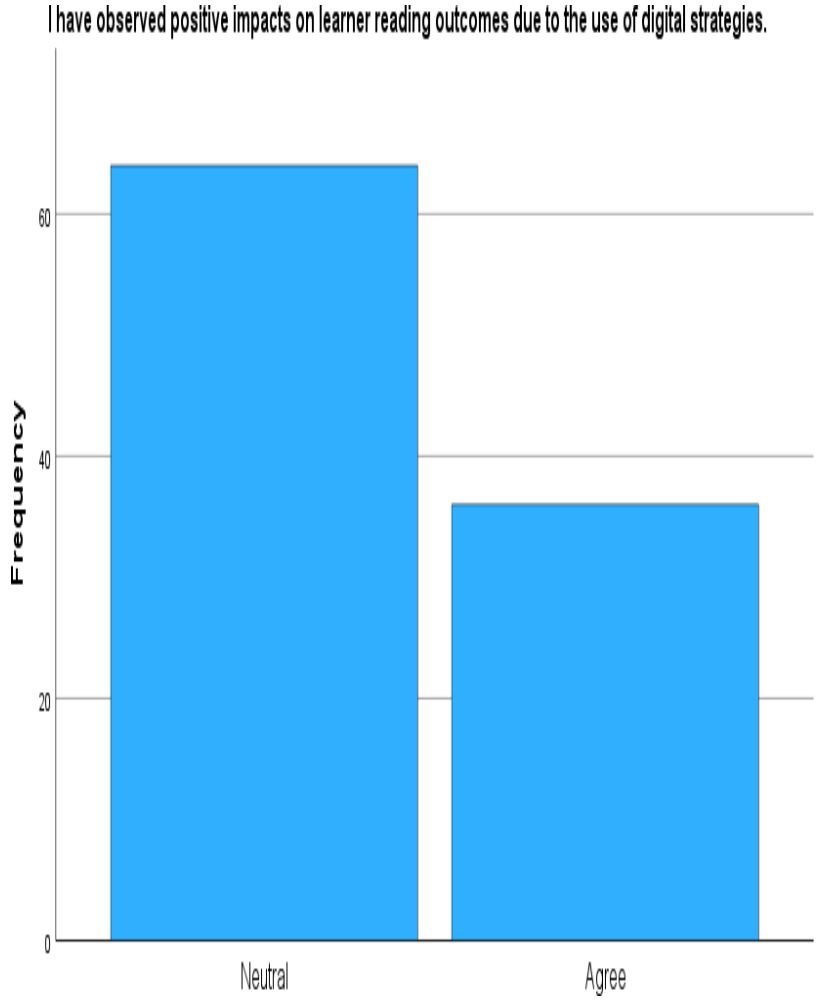
Figure 5.3.23 Using digital strategies for teaching English reading to Grade 4 EFAL learners contributes to difficulties.

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In Figure 5.3.23, 89% of participants agree that digital strategies for teaching English reading to Grade 4 learners contribute to difficulties. 7% of participants were neutral, whereas 4% of participants disagreed with the statement. The 89% of participants who agree that using digital strategies for teaching English reading to Grade 4 learners contributes to difficulties support Spaull and Pretorius (2019). They support that the digital divide, which includes limited access to technology and internet connections, can aggravate problems in implementing digital strategies effectively, especially for learners from disadvantaged backgrounds. This causes teachers from underprivileged backgrounds and communities, like the Thohoyandou Cluster in this study, to struggle to use digital strategies to teach EFAL.

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Figure 5.3.24 I have observed a positive impact on learner reading outcomes due to using digital strategies.

Figure 5.3.24 shows that 64% of participants were neutral about whether they had observed a positive impact on learner reading outcomes due to digital strategies. In comparison, 36% indicated that they had observed a positive effect. The 36% who stated that they had observed a positive impact support the study by Hsu et al. (2019), Kim and Li (2021), Castillo-Cuesta (2022) and Makransky and Mayer (2022), which found that learners using digital reading tools demonstrated improved vocabulary and reading comprehension skills compared to traditional print materials.

The summary findings on types of digital strategies revealed significant variability in teachers' use of digital strategy for EFAL reading, reflecting differences in access, training, and confidence levels. While some teachers reported regular use of tools like YouTube and digital dictionaries, others indicated sporadic use due to limited resources and lack of training. This aligns with Ertmer and Ottenbreit-Leftwich (2013), who claim that teacher confidence and digital literacy significantly influence technology integration into classrooms. Teachers with greater familiarity with digital tools tended to use them more effectively and consistently.

Teachers emphasised adapting digital tools to address learners' varying proficiency levels. For example, ALP was instrumental in tailoring reading tasks to individual learners, supporting Vlachopoulos and Makri (2019), who highlight the role of personalised feedback in enhancing learner outcomes. However, teachers noted that many tools, such as WhatsApp and virtual trips, lacked features to support differentiated instruction, partially disproving Castillo-Cuesta (2022), who asserts that digital tools inherently accommodate diverse learner needs.

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Teachers frequently cited infrastructural and systemic difficulties, such as inadequate access to digital resources, unreliable electricity, and insufficient training opportunities. These findings align with Rapetsoa and Singh (2017), who highlight the persistent resource gaps in rural South African schools. Moreover, the lack of professional development tailored to EFAL digital strategies contradicted Fesi and Mncube (2021), who suggest that teacher training initiatives are increasingly influential in addressing such gaps.

5.3.5 ANALYSIS OF TYPES OF DIGITAL STRATEGIES

5.3.5.1 YouTube and multimedia tools

Many teachers reported using YouTube to enhance learner engagement and fluency. The visual and auditory elements of YouTube videos provide a rich, multimodal learning experience that aligns with Chuang and Jamiat (2023), who highlight the effectiveness of multimedia in improving fluency and comprehension. For example, learners often mimic the pacing and intonation of narrators in videos, which helps improve their reading expression and accuracy. However, some teachers noted difficulties with internet access and the need for pre-curation of suitable content, which partially contradicts the assertion by Vackova et al. (2023) that multimedia tools are universally accessible and beneficial.

5.3.5.2 E-Books

E-books were another commonly cited digital strategy, valued for their ability to provide interactive reading experiences through features like text highlighting and embedded audio. These tools help learners build vocabulary and self-correct errors, supporting

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findings by Castillo-Cuesta (2022). However, teachers pointed out that limited access to devices, such as tablets or e-readers, restricts the widespread use of e-books, especially in rural schools, challenging the assumption that e-books are readily implementable in all contexts.

5.3.5.3 Gamified learning platforms

Gamified platforms were recognised for their motivational benefits, particularly in engaging reluctant readers. Teachers observed that learners responded positively to competitive elements such as point systems and rewards. This aligns with Chuang and Jamiat (2023), who claim that gamification fosters active participation and sustained attention. However, the findings also highlighted a lack of alignment between gamified content and the EFAL curriculum, suggesting that these platforms require customisation to meet specific learning objectives.

5.3.5.4 WhatsApp and virtual trips

While WhatsApp was noted for its ease of use and accessibility, teachers found its impact on reading comprehension limited due to the absence of interactive features. Similarly, virtual trips were described as engaging but not sufficiently integrated into structured reading activities. These findings partially contradict Chuang and Jamiat (2023), who emphasise the potential of digital tools to enhance comprehension, indicating that the effectiveness of such strategies depends on careful implementation and teacher facilitation.

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Types of digital strategies and their use underscore the diverse applications of technology in EFAL reading. While tools like YouTube, gamified platforms, and e-books offer significant benefits, systemic difficulties often hinder their effectiveness, including infrastructure gaps and limited teacher training. The findings align with much of the literature in Chapter 2, particularly regarding the potential of digital tools to enhance engagement and fluency, but also reveal contradictions, highlighting the need for context-specific solutions in rural schools.

SECTION B QUALITATIVE DATA ANALYSIS

Organising and presenting data by categorising it into themes according to how connected the information is known as qualitative data analysis reading (Nephawe & Lambani, 2022; Sahebihagh et al., 2024). There are numerous ways to accomplish this. To best interpret the participants' beliefs, the researcher attempted to give shape to the collected data during this stage by making sense of what the participants said and connected their voices and gestures. The researcher also employed thematic analysis for the qualitative data collected from the observations. A data analysis procedure was used in this study.

The qualitative data was collected through semi-structured interviews with 10 EFAL participants purposively selected for their experience with digital strategies. The interviews focused on teachers' perceptions of the difficulties and benefits of using digital tools and their recommendations for improving the integration of digital strategies in EFAL instruction. Re-examining every interaction the researcher had with participants during the interview stage of data collection was the first step toward data analysis.

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All responses were transcribed at this point and arranged by the study questions. The answers from the participants were categorised based on the questions. The actual words of the participants were also recorded and shown as exact quotes. This was also done to record the participants' attitudes, sentiments, and perceptions.

5.4 SEMI-STRUCTURED INTERVIEWS' ANALYSIS

5.4.1 PRESENTATION OF FINDINGS, RESULTS AND DISCUSSION

The answers provided by the participants to the first section of the question are depicted in Annexure H. The information obtained from the participants supports the idea that reading is a crucial component of the English language. Every participant supported digital reading strategies and provided compelling arguments for their beliefs, some of which are documented as follows:

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Table: Grouped Themes from Interview Responses

Theme	Summary of Grouped Responses
1. Inadequate and Culturally Irrelevant Reading Materials	Teachers voiced concerns about the scarcity of suitable, culturally relevant, and age-appropriate EFAL reading materials. Many resources are outdated or too complex or simplistic (Spaull et al., 2021).
2. Diverse and Creative Use of Digital Strategies	Participants described using e-books, WhatsApp, YouTube, animations, gamified platforms (such as Kahoot), virtual libraries, and interactive whiteboards (Moodley & Dube, 2022).
3. Effectiveness of Digital Tools in Enhancing Engagement and Learning	Tools were reported to improve comprehension and motivation, but their effectiveness was hindered by inconsistent access and learner diversity, (Niemann & Makalela, 2020).
4. Assessment and Monitoring Using Digital Tools	Teachers monitor learners' progress with digital dashboards, standardised tests, and comprehension/vocabulary assessments. Instant feedback aids instruction, (Niemann & Makalela, 2020).
5. Difficulties of Digital Integration (Access and Infrastructure)	Many teachers reported poor internet connectivity, insufficient devices, and inadequate infrastructure, limiting the consistent use of digital strategies, (Mpofu & Sibanda, 2022).

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Theme	Summary of Grouped Responses
6. Teacher Perceptions and Professional Development Needs	While some teachers felt supported through training and collaboration, others cited a lack of ongoing professional development and technical support (Darling-Hammond et al., 2017)

Theme 1: Inadequate and Culturally Irrelevant Reading Materials

A dominant theme emerging from the data was the lack of suitable and culturally relevant EFAL reading materials for Grade 4 learners. Teachers consistently expressed concern that the reading texts currently available are either outdated, linguistically too complex, or too simplistic and often do not reflect the learners' cultural context or lived experiences.

- One participant highlighted this gap by stating:

  "The learners are expected to read stories without connection to their environment or background. They struggle to relate to characters and settings in the materials provided."

- Another echoed similar sentiments:

  "Sometimes the reading books are too difficult for their level, or they are just boring. The children lose interest quickly because they do not see themselves in the stories."

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These responses align with findings by Pretorius and Spaull (2016), who argue that literacy development is hindered when learners engage with texts that are not age-appropriate or contextually meaningful. In many rural schools, EFAL resources do not adequately consider the learners' multilingual backgrounds and socioeconomic realities, thereby alienating them from the learning process.

Furthermore, research by Murris (2016) supports the idea that cultural relevance in learning materials increases learner engagement, comprehension, and motivation. Learners are likelier to become active readers when the content reflects familiar settings, cultural practises, and relatable characters.

The shortage of diverse and relatable materials limits the teacher's ability to implement differentiated instruction. As one teacher put it:

"I end up using the same material for all learners because there is not enough to cater for different reading levels or interests."

This finding reflects the broader systemic issue in South African education, where rural schools often receive limited support and resources, as noted by Spaull (2019). The lack of contextually relevant materials affects learner performance and puts undue pressure on teachers to improvise or create their own content.

- Link to Research Questions

This theme responds to Research Question 1:

"What difficulties do teachers face teaching EFAL reading to Grade 4 learners?"

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It highlights that one major challenge is the lack of culturally relevant and level-appropriate reading materials, which undermines effective instruction and learner engagement.

Theme 2: Diverse and Creative Use of Digital Strategies

Teachers described various digital tools and platforms they incorporate into their EFAL reading instruction. These ranged from e-books, WhatsApp voice notes, and YouTube storytelling videos to more advanced tools like Kahoot, interactive whiteboards, and virtual libraries.

- One teacher shared:

“I use WhatsApp to send audio clips and short reading tasks. It helps when learners are at home or can’t attend school regularly.”

- Another noted:

“Kahoot and storytelling apps make reading fun. Learners become more curious and interactive when we use animations.”

These examples demonstrate teachers’ creativity in adapting technology to suit their teaching environments. The digital tools served not only as instructional aids but also as means of engagement, particularly in resource-constrained classrooms.

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These findings align with studies by Mpofu and Sibanda (2022), who reported that South African teachers increasingly use innovative digital methods to supplement reading instruction. Moreover, integrating technology encourages multisensory learning, which is supported by social constructivist theory (Vygotsky, 1978), where learners build knowledge through interactive tools and collaboration.

- Theme 3: Effectiveness of Digital Tools in Enhancing Engagement and Learning

While the digital strategies varied, most teachers observed improved learner engagement and, in some cases, enhanced reading comprehension. They noted that learners were more attentive and excited during reading lessons that involved multimedia content.

- As one participant mentioned:

“With YouTube videos or animated stories, learners sit up and listen. They even remember more compared to when we read from a textbook.”

However, others highlighted limitations, especially when learners struggled with basic digital literacy or when internet access was unstable:

“Sometimes the learners do not understand how to navigate the app, or it takes too long to load, and they get distracted.”

The findings reflect those of Mphahlele (2021), who emphasised that digital tools are most effective when they are consistently accessible and when learners are adequately supported. The engagement benefit is undeniable, but sustained learning outcomes depend on regular usage, training, and appropriate content selection.

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Theme 4: Assessment and Monitoring Using Digital Tools

Several teachers explained how they used digital tools to assess learners' progress in reading. Common strategies included using online quizzes, comprehension activities, and feedback dashboards to track learner performance.

- One teacher stated:

"We use e-assessments that show the learners' scores instantly. They can see who needs help immediately."

- Another shared:

"Reading apps like [XYZ] have voice recording options, so I can listen to their pronunciation and fluency anytime."

These responses reflect a shift from traditional paper-based assessments to more dynamic, real-time evaluation tools supporting formative assessment practises. According to Niemann and Makalela (2020), digital formative assessment can enhance timely intervention, foster learner autonomy, and support data-informed teaching.

Theme 5: Difficulties of Digital Integration (Access and Infrastructure)

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Despite their willingness to adopt technology, teachers frequently pointed out infrastructural barriers, including unreliable internet, insufficient devices, and frequent power outages. These difficulties were more pronounced in rural schools, where learners often lacked home access to technology.

- A participant highlighted:

“We only have one projector, and sometimes we must share it between classrooms. It is frustrating.”

- Another shared:

“There is no Wi-Fi in the school, so I use my data, but it is expensive and unsustainable.”

These findings mirror those of Spaull et al. (2021), who found that infrastructural inequality remains a critical barrier to effective digital learning in South Africa. Although digital strategies hold great promise, their impact is limited without the necessary infrastructure.

Theme 6: Teacher Perceptions and Professional Development Needs

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Teachers' attitudes towards digital strategies were primarily positive, but their confidence and competence varied. Many expressed a need for more targeted training, especially on effectively integrating technology into the curriculum.

- As one teacher explained:

"We had one workshop, but it was not enough. I still do not know how to use some apps properly."

- Another said:

"I am trying my best, but I need more help. It is not easy learning on your own."

The data indicate that teachers are eager to innovate but often lack sustained professional support. This echoes the findings of Botha and Herselman (2020), who argue that ongoing digital pedagogy training is essential to equip teachers with the skills and confidence needed for effective integration.

5.5 CLASSROOM OBSERVATIONS

5.5.1 OBSERVATION FINDINGS

This observation-based study sought to explore the benefits of digital strategies used by teachers in teaching EFAL reading to Grade 4 learners in the Thohoyandou Cluster. Ten teachers were observed employing different digital tools, including YouTube, TikTok, e-Books, gamified learning, WhatsApp, virtual field trips, smartboards, adaptive learning systems, digital dictionaries, and

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audio/podcasts. Key aspects such as fluency, word decoding, comprehension, self-monitoring, and early reading skills were examined to assess the efficacy of these tools in improving reading outcomes, hence the repetition. The findings are critically compared to the literature review to determine whether they align with prior research.

Teacher 1

The researcher observed Teacher 1's classroom, which had 45 learners. They read the story *Frog and Crow.* I noticed how they engaged with reading through using YouTube as a digital strategy. The projected screen displayed a *story*, and learners actively participated in reading the story aloud, demonstrating varying levels of proficiency in crucial reading skills.

5.5.1.1 Fluency

The learners' fluency was evident as they read the story with adequate attention to punctuation. They paused appropriately at full stops and commas, which allowed their reading to flow naturally. This supports Chuang and Jamiat (2023), who claim that multimedia tools like YouTube enhance fluency by offering auditory and visual reinforcement that learners can mimic. The pacing of their reading and attention to punctuation highlighted how the combination of text and sound contributed to their reading development.

5.5.1.2 Word Decoding

Regarding word decoding, the learners exhibited moderate ability to break words into parts. While they could segment simpler words effectively, more complex vocabulary presented difficulties that required teacher intervention. This finding partially supports Castillo-Cuesta (2022), who emphasises the interactive nature of digital platforms in reinforcing word recognition. However, the lack of direct

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interactivity in YouTube videos might have limited learners' ability to fully decode unfamiliar words, highlighting the need for additional scaffolding during lessons.

5.5.1.3 Self-Correcting and Monitoring

The learners demonstrated adequate self-correcting and monitoring skills. They quickly noticed mismatches between spoken and written words, often pausing to reread and correct themselves. For instance, when learners misread a word, they compared it with the context provided by the video narration and self-corrected. This aligns with Vlachopoulos and Makri (2019), who state that digital tools with clear visual and auditory cues support learners in self-monitoring their reading accuracy.

5.5.1.4 Comprehension

Comprehension was fair, as learners struggled to locate specific information in the text to support their answers. While they understood the general flow of the story, they pinpointed details such as the frog's reaction as he was in terrible danger. This finding aligns with Vackova, Cermakova and Kucirkova (2023), who note that digital resources like YouTube and videos can enhance comprehension often require supplementary teacher input to guide learners in deeper textual analysis.

The findings from this observation strongly support Chuang and Jamiat (2023) regarding fluency and Vlachopoulos and Makri (2019) on self-monitoring. However, the moderate decoding and fair comprehension outcomes suggest partial alignment with (Castillo-Cuesta, 2022; Vackova et al., 2023). While YouTube effectively engages learners and enhances some aspects of reading, its lack of

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interactivity may limit its effectiveness in fostering more profound word recognition and textual analysis without additional teacher support.

YouTube proved effective for developing fluency and self-monitoring among Teacher 1's class learners. However, it revealed limitations in promoting advanced word decoding and comprehension. These findings highlight the importance of pairing digital tools with teacher-led interventions to address the full spectrum of EFAL reading skills.

Teacher 2

As I observed Teacher 2's classroom, I saw 50 learners fully engaged in learning how to read using a YouTube video of *The Hare and the Tortoise*. The story was projected onto the screen, synchronising the text and narration. This combination of audio and visual elements significantly influenced the learners' reading skills regarding fluency, word decoding, self-correcting and monitoring, and comprehension.

- Fluency

The learners demonstrated fluency as they read at an effective and appropriate pace, following the narrator's rhythm in the video. Their pacing was consistent and mirrored the intonation and pauses modelled by the YouTube narration. This supports Chuang and Jamiat (2023), who assert that multimedia tools like YouTube can improve reading fluency by providing auditory guidance and reinforcing reading patterns.

- Word Decoding

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The learners exhibited moderate word-decoding skills, often using the sentence's meaning to figure out unfamiliar words. For example, when learners encountered the word "determination," they relied on the context of the sentence and the visual cues in the video to infer its meaning. This finding partially supports Castillo-Cuesta (2022), who highlights the ability of digital tools to improve word recognition. While YouTube provided helpful context, its lack of interactive features limited the depth of decoding support, which would typically allow for immediate clarification or reinforcement.

Learners were proficient in using high-frequency words to self-correct and monitor their reading. As they encountered familiar words, they read them effortlessly, and when mistakes occurred, they corrected themselves using their prior knowledge. This aligns with Vlachopoulos and Makri (2019), who note that digital tools with structured and repetitive content can strengthen self-monitoring by reinforcing the recognition of high-frequency words.

- Comprehension

The learners displayed strong comprehension skills, particularly in connecting the story and personal experiences. For instance, during a discussion following the reading, a learner compared the frog's fear of terrible danger to a time they underestimated a challenge in their own life. This observation supports Chuang and Jamiat (2023), who claim that multimedia content enhances comprehension by engaging learners cognitively and emotionally, allowing them to relate to the material personally.

The observed improvements in fluency and comprehension align with Chuang and Jamiat (2023), who emphasise the benefits of multimedia tools in enhancing reading outcomes. The proficiency in self-correcting corroborates Vlachopoulos and Makri (2019), who highlight the role of digital tools in reinforcing high-frequency word recognition. However, moderate word decoding suggests only

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partial support for Castillo-Cuesta (2022), as YouTube's lack of interactive features may have limited its potential for developing more excellent decoding skills.

In Teacher 2's class, YouTube effectively improved fluency, comprehension, and self-monitoring in EFAL reading. However, its impact on word decoding was limited, suggesting additional instructional support or complementary strategies were needed. These observations underscore the value of multimedia tools in creating engaging and meaningful reading experiences while highlighting areas for enhancement in their application.

Teacher 3

As I observed Teacher 3's classroom, I watched 56 learners engaging in reading activities supported by TikTok. The teacher used TikTok videos that included short clips of animated stories, such as *Why Mapula did not come to school*, paired with subtitles. This interactive and engaging approach appeared to influence the learners' fluency, word decoding, and comprehension.

- Fluency

The learners demonstrated compelling fluency while reading the subtitles in the TikTok videos. They maintained an appropriate pace and mimicked the rhythm of the narration in the video, which provided an auditory model. The learners also used the subtitles to match the spoken words with their written form, which helped them pace their reading effectively. This aligns with Pratiwi, Ufairah,

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and Sopiah (2021), who highlight TikTok's potential to enhance fluency by combining audio and visual aids. The observation confirms that TikTok can be a valuable tool in reinforcing fluency through its engaging and fast-paced format.

- Word Decoding

Learners displayed moderate ability in word decoding, using the meaning of sentences to infer the pronunciation or meaning of challenging words. For example, when a learner encountered the word “brigade” in the story, they relied on the context of the brigade’s actions to understand its meaning. This finding partially supports Castillo-Cuesta (2022), who notes that gamified and interactive platforms improve decoding through engagement and repeated exposure to new vocabulary. However, TikTok’s short, fast-paced nature limited deeper exploration of decoding skills, as learners had minimal time to process unfamiliar words.

- Comprehension

The learners showed strong comprehension by connecting the story with personal experiences. After watching the video and reading the subtitles, several learners shared moments when they felt like Mapula rescued her little brother, Thami, who was sent to preschool to stay out of trouble. This observation aligns with Chuang and Jamiat (2023), who claim that digital tools like TikTok facilitate

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comprehension by encouraging emotional engagement and personal connections with the content. The brevity of the videos helped learners quickly grasp the story's moral and relate it to their lives, making the reading experience more impactful.

The findings support several claims from the literature reviewed in Chapter 2. The improvement in fluency aligns with Pratiwi, Ufairah and Sopiah (2021), who emphasise TikTok's role in modelling reading pace and rhythm. Similarly, the comprehension outcomes corroborate Chuang and Jamiat (2023), who highlight the value of digital tools in fostering connections between learners and text. However, the moderate word-decoding skills partially support Castillo-Cuesta (2022), as TikTok's design lacks the interactivity needed to deeply reinforce decoding strategies, limiting its effectiveness in this area.

In Teacher 3's classroom, TikTok emerged as a dynamic tool for enhancing fluency and comprehension, making reading enjoyable and relatable for learners. However, its fast-paced and non-interactive nature limited its potential to fully support word decoding. These findings suggest that while TikTok can be an engaging supplement for EFAL reading, it should be paired with additional strategies to address decoding difficulties and ensure a comprehensive approach to literacy development.

Teacher 4

The researcher observed Teacher 4's classroom, where 39 learners actively read an e-Book version of *Michael Gets a Pet*. The e-Book was projected onto a screen, including features like highlighted text and synchronised audio narration. The digital format allowed learners to follow along visually and audibly, supporting essential reading skills such as comprehension, self-correcting and monitoring and fluency.

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- Comprehension

The learners displayed strong comprehension skills, especially in connecting the text and personal experiences. During a discussion, one learner compared the boy's foolishness in the story to their determination to complete a difficult task at home. The e-Book's visual elements, such as pictures of Michael wondering how the guinea pig's eyes could fall out, helped learners interpret the story's moral and apply it to their lives. This aligns with Vackova, Cermakova and Kucirkova (2023), who claim that e-Books with multimedia elements enhance comprehension by fostering engagement and personal connections to the text. The findings support this claim, as the digital format enabled learners to interact with the story on both a cognitive and emotional level.

- Self-Correcting and Monitoring

Learners were proficient in applying their knowledge of high-frequency words to self-correct errors during reading. For example, when learners misread the word "slowly," they quickly recognised the mistake, using their familiarity with high-frequency vocabulary and the context of the sentence to self-correct. The e-Book's synchronised audio provided additional support, reinforcing accurate word recognition. This observation aligns with Vlachopoulos and Makri (2019), who note that digital tools offering auditory and visual reinforcement promote self-monitoring and error correction. The findings demonstrate that the e-Book format effectively supported learners' ability to self-correct while maintaining confidence in their reading abilities.

- Fluency

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Learners read effectively, maintaining an appropriate pace and rhythm that matched the narration in the e-Book. They paused at punctuation marks and read with expression, particularly during the father's and Michael's dialogue. This supports Chuang and Jamiat (2023), who state that digital tools like e-Books help learners develop fluency by providing synchronised audio and visual cues. The e-Book's combination of highlighted text and narration guided learners in maintaining proper pacing and intonation throughout the reading activity.

The findings from this observation strongly support several claims on comprehension improvement that align with Vackova, Cermakova and Kucirkova (2023), who emphasise the role of e-Books in fostering personal connections and deeper understanding. Similarly, proficiency in self-correcting supports Vlachopoulos and Makri (2019), who highlight the benefits of multimedia tools in reinforcing high-frequency word recognition. The observed fluency outcomes are consistent with Chuang and Jamiat (2023), who advocate using e-Books to enhance pacing and expression through synchronised narration.

In Teacher 4's classroom, the e-Book proved to be an effective tool for enhancing comprehension, fluency, and self-monitoring skills in EFAL reading. The multimedia features helped learners connect with the text, read confidently, and self-correct errors. These findings underscore the potential of e-Books to provide engaging and supportive reading experiences, making them a valuable resource for EFAL instruction.

Teacher 5

As the researcher observed Teacher 5's classroom, 42 learners engaged with *The Lion and the Mouse* through gamified learning activities. The teacher used an interactive platform that included reading tasks, such as matching words to their meanings, solving

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word puzzles, and answering comprehension questions for points and rewards. The gamified approach encouraged active participation and motivation while targeting critical reading skills such as fluency, word decoding, self-correcting, and comprehension.

- Fluency

Learners demonstrated adequate fluency, especially in attending to punctuation. They paused appropriately at full stops and commas, though their pace occasionally fluctuated during longer sentences. The gamified activities provided audio feedback for correctly reading sentences and helped reinforce proper intonation and pacing. This aligns with Castillo-Cuesta (2022), who emphasises the role of gamified platforms in promoting fluency through interactive and engaging activities. The findings support this claim, as learners improved their fluency through consistent feedback and practise.

- Word Decoding

Regarding word decoding, learners showed moderate ability to break words into parts, such as identifying prefixes or suffixes. For example, when encountering the word “unpredictable,” some learners relied on breaking it into “un-” and “predictable” to infer its meaning. However, more complex words posed difficulties, and learners required teacher assistance to decode them fully. This

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partially supports Castillo-Cuesta (2022), who notes that gamified learning can enhance word recognition and decoding skills through repetition and context. However, the observed outcomes suggest additional scaffolding is needed during challenging tasks.

- Self-Correcting and Monitoring

The learners were adequate in noticing mismatches between spoken and written words, particularly when their spoken responses were compared to on-screen feedback. For instance, when a learner mispronounced “squeaked,” they identified the error after hearing the correct pronunciation provided by the platform and promptly self-corrected. This observation aligns with Vlachopoulos and Makri (2019), who claim that digital tools offering immediate feedback help learners monitor and refine their reading. The findings support this, as the gamified approach fostered self-correcting behaviour through interactive feedback.

- Comprehension

Learners demonstrated fair comprehension, particularly in locating information within the text to answer questions. While some learners could identify the main idea, such as how the tiny mouse helped the trapped lion, others struggled with finding specific details without additional guidance. The competitive nature of the gamified tasks motivated learners to attempt multiple answers, eventually improving their comprehension of the story. This partially supports Chuang and Jamiat (2023), who emphasise that digital tools enhance comprehension by fostering engagement and focus. However, the findings suggest that gamified platforms may require supplementary teacher-led discussions for deeper textual understanding.

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The findings from this observation support several authors cited in Chapter 2. The improvement in fluency aligns with Castillo-Cuesta (2022), who highlights the benefits of gamified platforms in building reading proficiency. Similarly, the self-correcting behaviour supports Vlachopoulos and Makri (2019), who emphasise the role of feedback in promoting monitoring skills. However, the moderate word decoding and fair comprehension outcomes partially support Castillo-Cuesta (2022) and Chuang and Jamiat (2023), suggesting that while gamified learning is engaging, it may require additional instructional strategies to develop these skills fully.

In Teacher 5's classroom, gamified learning effectively enhanced fluency, self-correcting, and monitoring skills while moderately supporting word decoding and comprehension. The interactive activities motivated learners to engage actively with the text and provided valuable feedback for improvement. These findings highlight the potential of gamified learning as a tool for EFAL reading instruction while underscoring the need for teacher involvement to address more complex reading difficulties.

Teacher 6

Teacher 6's classroom had 52 learners engaged in a reading activity using WhatsApp as the primary tool. The teacher shared *Mandu's running shoes* as a text file in the WhatsApp group, accompanied by voice notes, where the teacher read parts of the story aloud. Learners were tasked with reading the text independently, comparing their spoken reading with the teacher's voice notes, and answering comprehension questions in the group chat. WhatsApp provided a platform for collaborative and flexible learning, focusing on self-correcting, monitoring, and comprehension.

- Self-Correcting and Monitoring

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Learners demonstrated adequate self-correcting and monitoring skills while using WhatsApp. Many learners noticed mismatches between the teacher's spoken version in the voice notes and their pronunciation of certain words. For example, when learners mispronounced "practised," they replayed the voice note and self-corrected by imitating the teacher's pronunciation. This behaviour supports Vlachopoulos and Makri (2019), who emphasise the role of digital tools in providing immediate auditory feedback to enhance self-monitoring. WhatsApp's flexibility in replaying voice notes enabled learners to reflect on their errors and improve their reading accuracy, demonstrating the tool's value in fostering independent learning.

- Comprehension

The learners showed fair comprehension, as they could locate basic information from the text to answer questions but struggled with more detailed or inferential questions. For instance, when asked why Mandu won the race, most learners could point to Mandu's running shoes contributing to her winning as the legs were no longer swelling. However, they had difficulty elaborating on the qualities of the shoes, such as overcoming her fear. This partially supports Chuang and Jamiat (2023), who claim that digital tools can enhance comprehension by engaging learners with accessible and familiar formats. However, WhatsApp text-sharing's limited interaction and static nature made it less effective in promoting deeper comprehension than tools with multimedia or interactive elements.

Improving self-correcting supports Vlachopoulos and Makri (2019), who highlight the value of auditory reinforcement in digital tools for fostering self-monitoring. The fair comprehension outcomes partially align with Chuang and Jamiat (2023), as WhatsApp provides an accessible platform for reading but lacks the interactive features needed for complex textual analysis. Unlike more multimedia-rich platforms like YouTube, WhatsApp's simplicity limits its effectiveness in enhancing advanced comprehension.

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In Teacher 6's classroom, WhatsApp was an effective tool for promoting self-correcting and monitoring skills. Learners benefited from the replayable voice notes in noting and correcting mismatches between spoken and written words. However, its effectiveness in improving comprehension was limited, as learners struggled with more detailed aspects of the text. These findings suggest that while WhatsApp can support foundational reading skills in EFAL instruction, it may need to be supplemented with more interactive tools to address higher-order comprehension difficulties.

Teacher 7

- Virtual Field Trips

Teacher 7's classroom had 47 learners immersed in a virtual field trip as part of their reading activity. The teacher used a digital platform to take learners on a virtual journey related to *Shadow Girl to the rescue*. The virtual trip included visuals of the children at New Town School, who were glad to see Lindi Myeza paired with text passages from the story. Learners engaged with these visuals and text excerpts to practise word decoding and comprehension.

- Word Decoding

Learners displayed moderate skills in breaking words into parts, relying on the visual context from the virtual trip to decode unfamiliar words. For example, when they encountered the word "disappear," some learners broke it into smaller parts, such as "dis ap-pear," while relating it to the stolen phones shown in the visuals. Although the virtual trip offered meaningful context, decoding remained challenging for longer or abstract words, requiring teacher intervention. This finding partially supports Castillo-Cuesta (2022), who

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claims that interactive and gamified tools can enhance word recognition and decoding skills. However, the virtual trip lacked interactive features like audio prompts or clickable definitions, which could have further supported decoding.

- Comprehension

The learners showed fair comprehension, particularly when locating information within the text to support their answers. For instance, when asked why Shadow Girl gets angry, learners could identify parts of the text highlighting the disappeared cell phones. However, they struggled to connect this with the man offering a grade 1 learner a ride and a bar of chocolate without additional guidance.

The virtual trip provided a visual representation of the story's events, which helped learners grasp the general idea, but more detailed textual connections were more challenging to identify. This finding aligns partially with Chuang and Jamiat (2023), who note that multimedia tools enhance comprehension by engaging learners with visual and contextual cues. However, as with decoding, the absence of interactive elements limited the tool's effectiveness in promoting deeper comprehension.

The observations support specific claims while highlighting limitations. The moderate word decoding aligns partially with Castillo-Cuesta (2022), as the virtual trip offered context but lacked the interactivity needed for more effective decoding. The fair comprehension outcomes align with Chuang and Jamiat (2023), who emphasise the role of digital tools in providing visual aids for understanding. However, the results indicate that virtual trips alone may not fully support higher-order comprehension without teacher facilitation.

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The virtual trip in Teacher 7's classroom was a creative and engaging way to support learners' word decoding and comprehension skills. While learners benefited from the visual context in breaking down words and understanding fundamental aspects of the story, the tool's interactivity and textual depth limitations made it less practical for more complex reading difficulties. These findings suggest that virtual trips are valuable to EFAL instruction but should be complemented by teacher-guided activities and interactive features to maximise their impact.

Teacher 8

Teacher 8's classroom had 40 learners engaged in reading activities facilitated by a smartboard. The teacher used the smartboard to project the story. It happened because it incorporated interactive features such as highlighting keywords, tapping on images for explanations, and displaying phonetic breakdowns of challenging words. The smartboard created an engaging, dynamic learning environment that allowed learners to practise early reading skills, word decoding, and comprehension.

- Early Reading Skills

The learners demonstrated adequate early reading skills, such as recognising high-frequency words and reading simple sentences. The smartboard's interactive design, which allowed learners to touch and interact with the text, supported their ability to identify familiar words and practise sentence structures. For instance, learners actively engaged with the highlighted words "rode" and "road," reinforcing their understanding of the story's key concepts. This supports Neuman and Celano (2001), who claim that smartboards improve literacy by providing visual and tactile learning opportunities.

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- Word Decoding

The learners showed moderate ability to break words into parts, mainly when supported by the smartphone's phonetic features. For example, when learners encountered the word "furiously," the teacher used the smartboard to break it into syllables (“fu-ri-ous-ly”), helping learners decode the word more quickly. However, decoding longer or less familiar words still posed difficulties, requiring additional teacher assistance. This partially supports Castillo-Cuesta (2022), who highlights the role of digital tools in enhancing word recognition and decoding skills. While the smartboard offered helpful visual aids, the learners' reliance on direct teacher intervention limited its impact on decoding.

- Comprehension

Comprehension skills were fair, as learners could locate basic information in the text but struggled with more detailed or inferential questions. For instance, learners successfully identified that the tortoise won the race but required guidance to explain why New Town School lost the match. The smartboard's visuals, such as images of the Nomsa pushing the bike along the road, helped learners grasp the story's main ideas.

However, teacher input requires a more profound comprehension of the text’s morals. This aligns partially with Chuang and Jamiat (2023), who assert that visual and interactive digital tools support comprehension by engaging learners. However, the results suggest that smartboards may need to be paired with teacher-led discussions to achieve a more profound understanding.

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The findings from this observation support several authors cited in Chapter 2. The development of early reading skills aligns with Neuman and Celano (2001), who emphasise the role of smartboards in fostering interactive learning environments that promote literacy. The moderate word decoding outcomes partially support Castillo-Cuesta (2022), as the smartboard provided visual scaffolding but lacked features like audio prompts or gamified reinforcement to address decoding difficulties fully. Fair comprehension aligns with Chuang and Jamiat (2023), though the findings indicate that smartboards alone may not promote higher-order comprehension skills.

In Teacher 8's classroom, the smartboard effectively supported early reading skills and provided moderate word decoding and comprehension assistance. Learners benefited from its interactive and visual features, which created an engaging and supportive reading environment. However, the tool's limitations in fostering independent decoding and deeper comprehension suggest the need for teacher-led support and supplementary activities. These findings highlight the potential of smartboards in EFAL instruction while emphasising the importance of pairing them with structured guidance to maximise their effectiveness.

Teacher 9

When *The Goats Eat Gogo's Garden* was read in Teacher 9's classroom, learners engaged with an adaptive learning system. This platform tailored reading tasks to the learners' needs, providing targeted exercises based on their reading levels. The adaptive system allowed learners to progress independently while focusing on word decoding, self-monitoring, and comprehension.

- Word Decoding

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The learners demonstrated moderate skills in breaking words into parts, particularly with support from the adaptive learning system. For example, when encountering the word "delicious," the system prompted learners to break it into syllables ("de-li-cious"), helping them understand its pronunciation and meaning. However, some learners struggled with more complex or unfamiliar words, requiring additional teacher intervention. This partially supports Castillo-Cuesta (2022), who emphasises that digital tools enhance word recognition and decoding through interactive and personalised tasks. While the adaptive system provided tailored exercises, its impact on decoding complex words was limited without supplementary guidance.

- Self-Monitoring and Self-Correcting

Learners were functional in applying their knowledge of high-frequency words to self-monitor their reading. The adaptive system highlighted errors and provided immediate feedback, prompting learners to recognise and correct their mistakes. For instance, when a learner misread “neighbourhood,” the system flagged the error and displayed the correct pronunciation, allowing the learner to self-correct. This observation aligns with Vlachopoulos and Makri (2019), who assert that adaptive tools promote self-monitoring by offering individualised feedback and reinforcement. The findings support that adaptive learning systems encourage learners to take ownership of their progress and make corrections independently.

- Comprehension

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Learners showed fair comprehension, particularly in locating specific information within the text to support their answers. For example, when asked how the goats ate in Gogo's garden, learners could identify the relevant part of the text but struggled to connect it to broader themes, such as telling the truth. The adaptive system's multiple-choice format helped learners focus on critical details but lacked opportunities for deeper textual analysis or inferential thinking. This partially supports Chuang and Jamiat (2023), who highlight the role of digital tools in fostering comprehension through structured exercises. However, the system's focus on basic recall limited its ability to support advanced comprehension skills.

The findings align with several authors. Improving self-monitoring and self-correcting supports Vlachopoulos and Makri (2019), who emphasise the value of adaptive tools in providing personalised feedback. The moderate outcomes in word decoding partially align with Castillo-Cuesta (2022), as the system effectively supported basic decoding but required additional teacher involvement for more complex tasks. Similarly, the fair comprehension outcomes align partially with Chuang and Jamiat (2023), suggesting that while adaptive tools enhance foundational comprehension, they may not fully address deeper cognitive engagement without supplementary teacher support.

Teacher 10

Having observed Teacher 10's classroom, 50 learners read the story *"My Cousin's Wedding"* and engaged in reading activities using a combination of a digital dictionary and audio podcasts to support their learning. The digital dictionary provided word definitions, pronunciation guides, and sentence examples, while the podcasts presented an auditory version of the story. This multimodal

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approach helped learners develop critical reading skills, including fluency, early reading abilities, word decoding, self-correcting, and comprehension.

- Fluency

Learners demonstrated adequate fluency, reading with an appropriate pace and rhythm that matched the audio podcast. They paused correctly at punctuation marks and used intonation to express emotions within the text, such as ancestors, loincloth and ceremony. This aligns with Chuang and Jamiat (2023), who claim that audio tools enhance fluency by modelling proper pacing and expression. The findings confirm the value of auditory input in helping learners improve their fluency.

- Early Reading Skills

The learners displayed moderate early reading skills, particularly in following the left-to-right progression of the text. While most learners consistently tracked text from left to right, a few needed reminders from the teacher to maintain focus. The digital dictionary's visual layout, which showed word definitions and examples, supported this skill by reinforcing the sequential nature of reading. This partially supports Neuman and Celano (2001), who emphasise that digital tools improve early literacy skills through visual aids. However, the moderate performance indicates that learners may benefit from more structured guidance in this area.

- Word Decoding

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The learners demonstrated moderate word-decoding skills, often relying on the sentence context to determine unfamiliar words' meanings. For example, when encountering the word "groom," learners used the wedding context to decode its meaning with some support from the digital dictionary's sentence examples. This observation partially supports Castillo-Cuesta (2022), who highlights the role of digital tools in enhancing decoding through contextual and visual reinforcement. However, the moderate outcomes suggest that while the digital dictionary provided valuable support, it lacked interactive features that could have further deepened decoding skills.

- Self-Correcting and Monitoring

Learners were proficient in self-correcting and monitoring their reading, particularly by applying their knowledge of high-frequency words. For instance, when learners mispronounced "slowly," they referred to the podcast's pronunciation and quickly self-corrected. The digital dictionary also reinforced this skill by providing pronunciation guides, helping learners recognise and rectify errors independently. This supports Vlachopoulos and Makri (2019), who assert that digital tools offering immediate feedback promote self-monitoring. The findings highlight the effectiveness of combining auditory and textual feedback in fostering self-correction.

- Comprehension

The learners exhibited strong comprehension skills, especially in connecting the text and personal experiences. During a discussion, one learner related the wedding celebration to a time they persisted in learning a new skill, such as riding a bicycle. The podcast's

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narration and the digital dictionary's example sentences helped learners link the text to real-life situations. This aligns with Chuang and Jamiat (2023), who emphasise that digital tools enhance comprehension by encouraging personal engagement with the text.

The findings from this observation support several authors cited in Chapter 2. The improvement in fluency and comprehension aligns with Chuang and Jamiat (2023), who highlight the benefits of audio tools and digital aids in fostering expressive and meaningful reading. Proficiency in self-correcting supports Vlachopoulos and Makri (2019), who emphasise the value of immediate feedback in promoting monitoring skills. The moderate outcomes in early reading skills and word decoding partially support Neuman and Celano (2001) and Castillo-Cuesta (2022), suggesting that while digital dictionaries and podcasts provide proper scaffolding, they require supplementary teacher-led strategies to address gaps.

In Teacher 10's classroom, combining a digital dictionary and audio podcasts effectively supported fluency, self-correcting, and comprehension while moderately aiding early reading skills and word decoding. Learners benefited from the multimodal approach, which engaged them visually, auditorily, and contextually, fostering an interactive and supportive learning environment. These findings underscore the potential of integrating digital dictionaries and podcasts into EFAL instruction while emphasising the importance of additional guidance to address areas of moderate performance.

5.6 DISCUSSION OF OBSERVATION FINDINGS

Teachers 1–10 observations illustrate the diverse applications of digital strategies in teaching EFAL reading. Each teacher employed a unique digital tool, including YouTube, TikTok, e-books, Gamified Learning platforms, WhatsApp, Virtual trips, Smartboards, Adaptive learning systems, Digital Dictionaries, and Audio Podcasts, which provided varied results in fluency, word decoding, self-

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correcting, and monitoring, comprehension and Early reading skills. The findings reveal significant insights into the strengths and limitations of these digital strategies while offering a comparison to the literature reviewed in Chapter 2.

- Fluency

The use of YouTube (Teacher 1), gamified learning (Teacher 5), and audio podcasts (Teacher 10) were highly effective in promoting fluency. Learners in these classrooms demonstrated appropriate pacing, attention to punctuation, and expressive reading. These findings strongly support Chuang and Jamiat (2023), who emphasise the benefits of multimedia tools in modelling correct pronunciation, pacing, and rhythm for learners. Similarly, the gamified platform provided immediate feedback, encouraging learners to read with fluency, which aligns with Castillo-Cuesta (2022), who highlights the motivational and repetitive nature of gamified learning for reading proficiency.

In contrast, TikTok (Teacher 3) provided limited support for fluency, as its fast-paced format and lack of structured guidance made it harder for learners to sustain consistent reading patterns. This partially disproves Pratiwi, Ufairah and Sopiah (2021), who advocate for TikTok's role in promoting fluency, suggesting that its effectiveness depends on careful instructional design and pacing.

- Word Decoding

Word decoding was moderately supported by digital tools such as adaptive learning systems (Teacher 6), gamified learning (Teacher 5), and digital dictionaries (Teacher 10). These tools provided scaffolding for learners to break words into parts and use contextual clues for meaning. For example, the adaptive learning system offered personalised syllable breakdown exercises, supporting Castillo-

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Cuesta (2022), who highlights the role of adaptive tools in promoting word recognition and decoding. Similarly, digital dictionaries provided sentence examples that helped learners infer word meanings, aligning with Atmowardoyo et al, (2020), who emphasise the importance of context in vocabulary building.

However, tools like WhatsApp (Teacher 6) and virtual trips (Teacher 6) were less effective in supporting decoding. The static text on WhatsApp lacked interactive features, and the visuals in virtual trips were insufficient for breaking down complex words, which partially disproves Castillo-Cuesta (2022). This suggests that while digital tools can aid decoding, their impact depends on the availability of interactive and adaptive features.

- Self-Correcting and Monitoring

The ability to self-correct and monitor reading was strongly supported by tools that offered immediate feedback, such as adaptive learning systems (Teacher 6), gamified learning (Teacher 5), and digital dictionaries (Teacher 10). Learners in these classrooms applied their knowledge of high-frequency words to correct errors, often guided by feedback from digital tools. These findings align with Vlachopoulos and Makri (2019), who emphasise the value of input in fostering self-monitoring. For example, adaptive systems highlighted mistakes and suggested corrections, reinforcing learners' ability to identify and rectify errors independently.

On the other hand, TikTok (Teacher 3) and WhatsApp (Teacher 6) provided limited support for self-correction. Their lack of real-time feedback made it difficult for learners to notice and address errors effectively, partially disproving Vlachopoulos and Makri (2019). These tools were engaging but lacked the structure necessary to support independent monitoring.

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- Comprehension

Comprehension outcomes varied significantly across tools. YouTube (Teacher 1), e-books (Teacher 4), and audio podcasts (Teacher 10) enabled learners to make connections between the text and their personal experiences, fostering a deeper understanding of *The Hare and the Tortoise*. These findings support Chuang and Jamiat (2023), who highlight that multimedia tools enhance comprehension by cognitively and emotionally engaging learners. For example, YouTube's visuals and audio narration helped learners connect the tortoise's perseverance with their persistent experiences, aligning with the authors' claim.

However, WhatsApp (Teacher 6) and virtual trips (Teacher 6) showed weaker comprehension outcomes, as learners struggled with inferential questions and connecting details from the text. This partially disproves Chuang and Jamiat (2023), indicating that static or minimally interactive tools may not sufficiently support deeper textual engagement. While these tools helped learners locate basic information, they lacked features to promote higher-order thinking.

The study highlights the varied impact of digital tools on EFAL reading skills, with tools like YouTube, podcasts, and adaptive systems showing the strongest alignment with supporting literature. While some tools partially disproved the claims in Chapter 2 due to their lack of interactivity or structure, the overall findings emphasise the potential of digital strategies to enhance reading when thoughtfully implemented. These observations underscore the importance of selecting tools that align with specific learning objectives and combining them with teacher-led instruction for maximum effectiveness.

The study's findings align with and diverge from the literature reviewed in Chapter 2, offering nuanced insights into integrating digital strategies for EFAL reading in the Thohoyandou Cluster. Below is a synthesis of these findings across key themes.

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RESULTS AND FINDINGS SUMMARY

Demographic Variable	Description	Relevance to the Study	Theoretical Framework	Related Research Question	Supporting Literature	
Age	Age range of participants (e.g., 25–60 years)	Age may influence digital literacy, willingness to adopt technology, and comfort with innovation. Younger teachers may be more digitally fluent, while older teachers may	Technology Acceptance Model (TAM): Perceived ease of use varies with age. Vygotsky's Sociocultural Theory: Experience and cultural context shape practices.	RQ2: What are teachers' perceptions of using digital strategies?	Creswell & Poth (2018 (1989); Lincoln & Guba (1	

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Demographic Variable	Description	Relevance to the Study	Theoretical Framework	Related Research Question	Supporting Literature	
		rely on traditional approaches.				
Years of Teaching Experience	Participants ranged from novice (1–3 years) to experienced (15+ years) teachers	Experience affects pedagogical confidence, classroom management, and adaptation to challenges. Veteran teachers may have	Shulman's Pedagogical Content Knowledge (PCK): Experience builds pedagogical depth. Sociocultural Theory: Learning	RQ2: What are teachers' perceptions? RQ4: What challenges are encountered?	Shulman (1987); Creswell & Poth (2018); Vygotsky (1978)	

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Demographic Variable	Description	Relevance to the Study	Theoretical Framework	Related Research Question	Supporting Literature	
		established practices, while novice teachers may explore new methods.	and adaptation are situated in experience.			
Qualifications	Educational qualifications included diplomas, B.Ed., postgrad degrees, and ICT/language specialisations	Qualification level informs instructional design, content differentiation, and digital integration. Teachers with	PCK Framework: Deep content knowledge enables differentiated instruction. TAM: Higher	RQ1: What digital strategies are used? RQ3: How effective are these strategies?	Shulman (1987); Davis (1989); Lincoln & Guba (1985)	

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Demographic Variable	Description	Relevance to the Study	Theoretical Framework	Related Research Question	Supporting Literature	
		ICT/language training show greater strategy diversity.	education may affect technology acceptance.			

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Findings	Theories	Relevance to the Study	Connection to Research Questions	Matched Research Question(s)
Inadequate and culturally irrelevant materials (Pretorius &	Lev Vygotsky (1978) – Sociocultural Theory	Learning is most effective when tools and content are culturally and linguistically relevant. The	Teachers may see digital tools as a solution to culturally irrelevant materials.	RQ1, RQ2

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Spaull, 2016; Murris, 2016)		lack of such materials hinders EFAL learners' development.		
Creative use of digital tools – WhatsApp, YouTube, e-books (Mpofu & Sibanda, 2022)	Jean Piaget (1973) – Constructivist Learning Theory	Learners build understanding actively. Teachers' creative digital strategies support interactive learning.	Highlights the specific tools and methods used in EFAL classrooms.	RQ1
Engagement improved with digital content, but limited by access (Mphahlele, 2021)	Fred Davis (1989) – Technology Acceptance Model (TAM)	Teachers recognise the value of digital tools, but limited infrastructure prevents full use.	Engagement is evident but constrained.	RQ3
Assessment via apps helped with monitoring (Niemann & Makalela, 2020)	Lee Shulman (1987) – Pedagogical Content Knowledge (PCK)	Shows how digital tools enhance formative assessment and instructional decision-making.	Apps aid in tracking learner progress.	RQ1, RQ3

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Access and infrastructure remain a barrier (Spaull et al., 2021)	Fred Davis (1989) – TAM & Lev Vygotsky (1978) – Sociocultural Theory	Technology use is shaped by external conditions like school infrastructure and community support.	Highlights practical challenges.	RQ2, RQ4
Increased use of digital tools like e-books, apps, and platforms	Fred Davis (1989) – TAM & Jean Piaget (1973) – Constructivist Theory	Indicates growing acceptance and perceived usefulness of digital strategies for learning.	Shows expansion of digital methods.	RQ1, RQ3
85% of teachers agreed digital strategies motivated learners	Jean Piaget (1973) – Constructivist Theory & Lev Vygotsky (1978) – Sociocultural Theory	Learner motivation improves through interaction, social tools, and contextual learning.	Indicates enhanced learner engagement.	RQ3
70% indicated a need for more training and curriculum-aligned resources	Lee Shulman (1987) – PCK & Fred Davis (1989) – TAM	Highlights the gap in teacher preparedness and access to appropriate materials.	Reflects teacher challenges and needs.	RQ2, RQ4

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• Systemic barriers must be addressed for full integration	Lev Vygotsky (1978) – Sociocultural Theory & Fred Davis (1989) – TAM	For digital strategies to succeed, systemic factors like training, access, and policy must be improved.	Digital strategy effectiveness depends on broader conditions.	RQ4

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5.7 SUMMARY

In summary, this chapter presented a detailed analysis of the key findings derived from the interview data, highlighting significant themes such as resource scarcity, digital strategy use, learner engagement, assessment practises, infrastructure difficulties, and ongoing teacher development in EFAL reading instruction. These findings were interpreted in relation to the study's research questions, literature, and theoretical frameworks. The insights gained offer a deeper understanding of the contextual factors shaping EFAL instruction in Grade 4 classrooms within the Vhembe District.

The emerging themes not only reveal critical difficulties but also point towards potential strategies for improving reading instruction. These insights serve as a foundation for the next chapter, which draws conclusions from the findings and presents practical recommendations aimed at enhancing EFAL teaching practises. Chapter 6 will also reflect on the study's contributions to knowledge, its limitations, and avenues for future research.

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CHAPTER SIX: SUMMARY, CONCLUSIONS, CONTRIBUTIONS, AND RECOMMENDATIONS

6.1 INTRODUCTION

This chapter consolidates the study's findings, summarising key insights, concluding, and offering practical recommendations for improving the integration of digital strategies in teaching EFAL reading to Grade 4 learners in the Thohoyandou Cluster. The discussion begins with summarising the study's main findings, revisiting the research objectives and the extent to which they were achieved. Conclusions derived from these findings highlight the implications for educational policy, teaching practise, and future research. The chapter concludes with recommendations designed to optimise digital strategies and address systemic barriers that hinder their practical implementation in rural schools.

6.2 SUMMARY OF THE STUDY

This study investigated the use of digital strategies in EFAL reading instruction, focusing on their impact, difficulties, and potential in rural schools within the Thohoyandou Cluster. A mixed-methods approach, encompassing questionnaires, semi-structured interviews, and classroom observations, provided a comprehensive understanding of teachers' practises, perceptions, and difficulties. The findings underscore the interplay between the potential benefits of digital tools and the systemic barriers limiting their adoption in resource-constrained settings.

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6.2.1 QUESTIONNAIRES

Questionnaires revealed widespread difficulties among teachers attempting to integrate digital strategies. Most participants cited limited access to digital devices, unreliable internet connectivity, and insufficient training as significant barriers. Although teachers recognised the potential of digital tools to foster engagement and enhance reading outcomes, practical constraints often undermined these benefits. The survey responses also highlighted disparities between schools, with some educators having access to primary digital resources while others lacked essential infrastructure.

6.2.2 SEMI-STRUCTURED INTERVIEWS

Semi-structured interviews offered a more profound perspective from teachers who actively used digital strategies. These participants reported positive outcomes, including improved learner engagement, vocabulary acquisition, and reading fluency. For example, teachers described using gamified platforms like Kahoot to build vocabulary and e-books to enhance comprehension through interactive features such as embedded quizzes and audio narration. However, they also highlighted persistent difficulties, such as a lack of technical support and the need for culturally relevant digital content aligned with the EFAL curriculum.

6.2.3 CLASSROOM OBSERVATIONS

Classroom observations provided practical insights into how digital tools address specific reading skills. Ten teachers were observed employing different digital tools, including YouTube, TikTok, e-Books, gamified learning, WhatsApp, virtual field trips, smartboards, adaptive learning systems, digital dictionaries, and audio/podcasts. Key aspects such as fluency, word decoding, comprehension,

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self-monitoring, and early reading skills were examined to assess the efficacy of these tools in improving reading outcomes to support vocabulary development.

Observations revealed that these tools were particularly effective in fostering learner engagement and self-monitoring. However, their use was often inconsistent, reflecting gaps in teacher preparedness and resource availability. For instance, while one teacher successfully used virtual field trips to contextualise reading materials, another struggled to implement similar strategies due to a lack of devices and technical expertise.

These findings illuminate the opportunities and difficulties of using digital strategies in EFAL instruction. They underscore the need for systemic interventions to address infrastructural and training gaps while supporting teachers in leveraging technology to enhance learner outcomes.

6.3 REVISITING RESEARCH QUESTIONS

This study was guided by four key research questions, each addressing a critical aspect of integrating digital strategies in EFAL reading instruction. The questions are revisited below, and a comprehensive response is provided for each.

- What difficulties do Grade 4 teachers encounter when teaching EFAL reading in the Thohoyandou Cluster?
- What types of digital strategies are teachers using to teach EFAL reading?
- How effective are these digital strategies in improving reading comprehension and engagement for Grade 4 learners?
- How do teachers perceive the use of digital strategies in rural schools?

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WHAT DIFFICULTIES DO GRADE 4 TEACHERS ENCOUNTER WHEN TEACHING ENGLISH FIRST ADDITIONAL LANGUAGE READING IN THE THOHOYANDOU CLUSTER?

Teachers employed a variety of digital tools to support EFAL reading, including interactive e-books, gamified learning platforms, messaging apps like WhatsApp, and multimedia resources such as YouTube and TikTok. These tools addressed specific reading skills, such as fluency, comprehension, and vocabulary acquisition. For instance, e-books provided audio narration and interactive quizzes to enhance understanding, while gamified platforms like Kahoot engaged learners through competitive vocabulary-building activities. However, adopting these tools was inconsistent, reflecting disparities in resource availability and teacher readiness.

WHAT TYPES OF DIGITAL STRATEGIES ARE TEACHERS USING TO TEACH ENGLISH FIRST ADDITIONAL LANGUAGE READING?

Teachers employed a variety of digital tools to support EFAL reading, including interactive e-books, gamified learning platforms, messaging apps like WhatsApp, and multimedia resources such as YouTube and TikTok. These tools addressed specific reading skills, such as fluency, comprehension, and vocabulary acquisition. For instance, e-books provided audio narration and interactive quizzes to enhance understanding, while gamified platforms like Kahoot engaged learners through competitive vocabulary-building activities. However, adopting these tools was inconsistent, reflecting disparities in resource availability and teacher readiness.

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HOW EFFECTIVE ARE THESE DIGITAL STRATEGIES IN IMPROVING READING COMPREHENSION AND ENGAGEMENT FOR GRADE 4 LEARNERS?

The study revealed that digital strategies effectively enhanced reading comprehension and learner engagement, though their impact varied based on implementation and contextual factors. Tools like gamified platforms fostered active participation by incorporating interactive quizzes and rewards, which motivated learners and sustained their interest in reading tasks. Similarly, multimedia resources such as YouTube provided engaging visual and auditory content that supported comprehension by making abstract concepts more relatable.

Observational data indicated that learners were more attentive and interactive during lessons incorporating digital tools, suggesting that these strategies effectively promoted engagement. However, the effectiveness was often limited by the lack of alignment between these tools, the EFAL curriculum, and teachers' varying expertise.

6.3.1 HOW DO TEACHERS PERCEIVE THE USE OF DIGITAL STRATEGIES IN RURAL SCHOOLS?

Teachers held mixed perceptions of digital strategies in rural schools. Many acknowledged their potential to improve learner engagement and reading outcomes, particularly in fostering fluency and vocabulary acquisition. However, these positive perceptions were tempered by frustration over systemic barriers that limited their ability to use these tools effectively.

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Teachers emphasised the need for more significant support, including improved infrastructure, training, and culturally relevant content tailored to rural contexts. Despite these difficulties, teachers who successfully implemented digital strategies expressed optimism about their transformative potential, highlighting the need for targeted interventions to overcome barriers.

This chapter is comprehensively reviewed using digital strategies in teaching EFAL reading. It examined key theoretical frameworks, including the Technology Acceptance Model (TAM), both a model and a theory, Shulman's Pedagogical Content Knowledge (PCK) Theory, Vygotsky's Sociocultural Theory, Constructivist Learning Theory, and Cognitive Load Theory, emphasised the importance of interactive, learner-centred approaches in fostering language acquisition and literacy development. These frameworks guided the understanding of how digital tools can enhance engagement, comprehension, and skill-building in EFAL instruction.

The literature highlighted the benefits of digital strategies, such as YouTube, gamified learning platforms, adaptive systems, and e-books, in improving fluency, word decoding, comprehension, and self-monitoring. Researchers like Chuang and Jamiat (2023) emphasise multimedia tools' motivational and cognitive benefits, while Castillo-Cuesta (2022) underscores the potential of gamified and interactive platforms in fostering active participation and vocabulary building. Additionally, personalised feedback provided by adaptive systems enhanced self-regulation and learner confidence (Vlachopoulos & Makri, 2019).

However, the study highlighted difficulties in implementing digital tools, particularly in rural contexts. These include infrastructural barriers, such as limited access to technology and unreliable internet, as Rapetsoa and Singh (2017) noted. Furthermore, insufficient teacher training and curriculum misalignment emerged as significant obstacles to successfully integrating digital strategies (Amin & Wahyudin, 2022). While digital tools offer substantial promise for improving EFAL reading outcomes, their effectiveness depends on teacher proficiency, resource availability, and alignment with educational objectives. The review provided a strong foundation for the

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study by contextualising digital strategies within rural South Africa and identifying gaps in the literature that this research seeks to address.

Chapter 3 outlined the research methodology employed to investigate the use of digital strategies in teaching EFAL reading in the Thohoyandou Cluster. The study adopted a mixed-methods approach, combining quantitative and qualitative data collection methods to provide a comprehensive understanding of the research problem. The rationale for this approach was to ensure a balanced perspective on teachers' perceptions, experiences, and the observed impact of digital tools in EFAL reading instruction.

The chapter detailed the research design, which included surveys (questionnaires), semi-structured interviews, and classroom observations. Questionnaires were distributed to 100 EFAL teachers to capture their views on digital strategies' difficulties, benefits, and frequency. Semi-structured interviews with 10 teachers provided more profound insights into their lived experiences and the difficulties they experienced in integrating digital tools into EFAL reading lessons. Classroom observations offered an opportunity to evaluate the real-time application and effectiveness of specific digital strategies, such as YouTube, gamified platforms, adaptive learning systems, and e-Books.

The study's target population included EFAL teachers in rural primary schools within the Thohoyandou Cluster, with participants selected using purposive sampling to ensure the representation of diverse experiences and school contexts. Data were analysed through descriptive statistics for the quantitative component and thematic analysis for qualitative data, ensuring that emerging themes were thoroughly examined. The chapter also addressed ethical considerations, including informed consent, confidentiality, and voluntary participation, ensuring that participants were treated with respect and integrity throughout the research process.

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This chapter established the methodological framework for the study, ensuring that the data collection and analysis methods were appropriate for addressing the research objectives. The mixed-methods approach allowed for a nuanced exploration of the research questions, providing a solid foundation for the findings and discussions in subsequent chapters.

Chapter four detailed the study's context, focusing on the Thohoyandou Cluster, where the research was conducted. It outlined the area's geographic, social, and educational background, offering insights into the unique difficulties and opportunities that primary school teachers and learners face. The chapter highlighted rural South African schools' infrastructural and resource limitations, including unreliable electricity, limited access to digital tools, and inadequate internet connectivity. These contextual difficulties were linked to broader systemic issues, such as the unequal distribution of resources and the underrepresentation of rural schools in national education policy priorities.

The chapter also described the target population, which included EFAL teachers working in primary schools within the Thohoyandou Cluster. These teachers addressed significant literacy difficulties, often in overcrowded classrooms and under-resourced environments. Despite these constraints, many teachers demonstrated resilience and a willingness to adopt innovative strategies, including digital tools, to improve reading outcomes.

The chapter provided an overview of the educational policies and curriculum frameworks guiding EFAL instruction in South Africa, with particular reference to the use of technology in teaching and learning. While the curriculum emphasises the development of

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foundational literacy skills, the lack of specific guidelines for integrating digital strategies was identified as a gap that impacts the effective adoption of these tools in rural contexts.

The chapter established the contextual foundation for the study by situating the research within the socio-economic and educational realities of the Thohoyandou Cluster. This context was critical for understanding the findings and implications of the study, as it highlighted the systemic barriers and opportunities influencing the integration of digital strategies in EFAL reading instruction.

Chapter five presented the findings from the questionnaires, interviews, and classroom observations, providing comprehensive insights into integrating digital strategies in teaching EFAL reading in the Thohoyandou Cluster. The findings highlighted critical themes related to the difficulties, benefits, and perceptions of teachers and the observed impact of digital tools on learners' reading skills, including fluency, word decoding, comprehension, and self-monitoring. The questionnaire results revealed mixed perceptions among teachers regarding the effectiveness of digital strategies.

While some teachers recognised the potential of tools like YouTube, e-Books, and gamified learning platforms to enhance learner engagement, others remained neutral, citing difficulties such as limited access to digital resources, insufficient training, and a lack of alignment between these tools and the EFAL curriculum. These findings reinforced teachers' systemic barriers in rural schools, including infrastructural limitations and inadequate professional development opportunities. The interviews provided more profound insights into teachers' experiences, revealing a solid willingness to adopt digital tools despite significant difficulties.

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Teachers desired more tailored training and resources to better integrate technology into EFAL reading lessons. They also highlighted the role of digital strategies in motivating learners, mainly when tools provided personalised feedback and interactive features. The classroom observations demonstrated the varying effectiveness of digital tools in real-time learning environments. Tools like YouTube and adaptive learning systems were observed to enhance fluency, comprehension, and self-monitoring by providing multimodal and individualised learning experiences. However, their limited interactivity made tools such as WhatsApp and virtual trips less effective in supporting complex reading skills.

These findings highlighted the importance of teacher facilitation in maximising the potential of digital strategies. The chapter provided a nuanced understanding of the use of digital strategies in EFAL reading instruction. It revealed both the promise and limitations of these tools, emphasising the need for targeted interventions to address systemic difficulties and optimise their implementation. The findings served as a foundation for the discussions and recommendations in subsequent chapters, highlighting the importance of context

Chapter 6 provided an in-depth discussion of the findings from the questionnaires, interviews, and classroom observations presented in Chapter 5. The discussion focused on synthesising these findings with the literature reviewed in Chapter 2, highlighting alignment, divergence, and new insights into using digital strategies for teaching EFAL reading in the Thohoyandou Cluster. The chapter emphasised the effectiveness of digital tools such as YouTube, gamified learning platforms, and adaptive learning systems in enhancing key reading skills, including fluency, comprehension, and self-monitoring.

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These tools were found to engage learners through multimodal features, personalised feedback, and interactive activities, aligning with literature from Chuang and Jamiat (2023) and Vlachopoulos and Makri (2019), which emphasise the benefits of multimedia and adaptive strategies. However, the findings also revealed limitations in tools like WhatsApp and virtual trips, which lacked interactivity and were less effective in supporting advanced reading skills, partially contradicting claims from Castillo-Cuesta (2022) regarding the universal benefits of digital tools.

The chapter also discussed the systemic barriers hindering the effective integration of digital tools in rural schools. Difficulties such as inadequate infrastructure, limited internet access, and insufficient teacher training emerged as significant obstacles, aligning with Rapetsoa and Singh (2017) and Amin and Wahyudin (2022), who highlight the global difficulties faced by rural schools. The lack of curriculum alignment with digital strategies was also a critical gap, reflecting broader structural issues in South African education. Teachers' perceptions and experiences highlighted the importance of professional development and support in enhancing digital strategies. While some teachers were confident in integrating these tools, others needed more targeted training to effectively incorporate technology into their EFAL reading lessons. This aligned with Ertmer and Ottenbreit-Leftwich (2013), who emphasise the role of teacher confidence and skills in technology adoption.

Chapter 6 synthesised the study's findings with existing literature, providing a comprehensive understanding of the potential and limitations of digital strategies for EFAL reading. It underscored the need for context-specific interventions, including better infrastructure, curriculum alignment, and teacher training, to address the difficulties faced by rural schools and maximise the benefits of digital tools.

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The findings of this study lead to several important conclusions:

First, digital strategies can significantly improve EFAL reading outcomes, fostering learner engagement and enhancing critical reading skills. Tools such as e-books, gamified platforms, and virtual field trips demonstrated their ability to address difficulties in EFAL instruction, including improving fluency, comprehension, and vocabulary acquisition. However, their effectiveness depends on consistent implementation and alignment with the curriculum.

In addition, teachers in rural schools face persistent difficulties in integrating digital strategies. Infrastructural deficits, limited training opportunities, and curriculum misalignment are significant barriers that hinder implementing technology in EFAL instruction. These difficulties are compounded by socioeconomic disparities that restrict learners' access to digital resources, both in and out of the classroom.

Further, addressing these barriers requires systemic changes. Investments in digital infrastructure targeted professional development, and the development of culturally relevant digital content is critical to supporting teachers and ensuring equitable access to technology. Bridging the digital divide is essential for fostering inclusive and effective educational opportunities for all learners.

The study examined the use of digital strategies in teaching EFAL to Grade 4 learners in the Thohoyandou Cluster, focusing on teachers' experiences, perceptions, difficulties, and the impact of these tools on learners' reading skills. The findings revealed that while teachers encountered significant difficulties in integrating digital strategies, they also recognised the potential benefits these tools offered in improving EFAL reading instruction.

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Teachers faced several difficulties in adopting digital strategies for EFAL reading. A vital issue was classroom behaviour management, as 100% of participants agreed that managing classroom behaviour during EFAL reading lessons was difficult (Figure 5.7). This was particularly challenging in large, diverse classrooms with varying learner abilities. In addition, teachers reported resource constraints, with limited access to technology, unreliable internet, and a lack of devices. These infrastructural limitations were a significant barrier to the consistent use of digital tools.

Furthermore, curriculum misalignment was another obstacle, with 64% of teachers noting that the EFAL curriculum lacked clear guidelines for integrating digital strategies. This misalignment made it difficult for teachers to incorporate digital tools in a way that aligned with learning objectives. Limited teacher training was also a major challenge, as many teachers felt unprepared to use digital tools effectively. The high number of neutral responses regarding the effectiveness of strategies like personalised learning and immediate feedback reflected this lack of preparation. These difficulties underscore the systemic barriers that hinder the effective integration of digital tools in rural South African school environments.

Despite the difficulties, the study demonstrated that digital strategies significantly impacted EFAL reading instruction. Digital tools such as gamified learning platforms and YouTube were particularly effective in increasing learner engagement. Teachers noted that these tools made lessons more interactive and enjoyable, which helped sustain learner interest. Additionally, adaptive learning systems and e-Books provided valuable support in developing foundational reading skills, including word decoding, self-monitoring, and comprehension.

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These tools, for example, offered individualised feedback that helped learners identify and correct their errors, thus enhancing their confidence and reading abilities. Moreover, digital tools supported fluency development by modelling correct pronunciation and pacing, helping learners improve their reading expression. These findings align with literature suggesting that digital tools foster engagement and support skill development when implemented effectively.

The study revealed varying levels of capability among teachers to use digital strategies. Teachers with prior exposure to digital tools demonstrated more confidence and were able to use platforms like YouTube, gamified systems, and adaptive learning tools effectively. However, many teachers faced difficulties due to a lack of experience and training, which limited their ability to use these tools to their full potential. The high percentage of neutral responses, especially regarding personalised learning experiences, indicated that many teachers were not utilising digital tools that could offer such tailored learning experiences. This suggests that with the proper training and support, teachers could develop the necessary skills to integrate these digital strategies more effectively into their EFAL reading lessons.

While the study highlighted several difficulties, it also emphasised the positive potential of digital strategies in EFAL reading instruction. Digital tools offer significant opportunities to engage learners, provide personalised feedback, and support skill development, particularly in rural areas. Tools like adaptive learning systems, gamified platforms, and e-Books were shown to foster engagement and improve fluency, comprehension, and word decoding. The positive impact of these tools demonstrates their potential

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to enhance EFAL instruction, provided they are integrated effectively into the teaching and learning process. However, these tools must complement teacher facilitation and align with curriculum objectives to maximise effectiveness.

The study found that while teachers in the Thohoyandou Cluster face significant difficulties in integrating digital strategies due to resource limitations, curriculum misalignment, and lack of training, the potential benefits of these tools are undeniable. Digital strategies can enhance learner engagement, improve reading skills, and foster self-regulation in EFAL reading. To unlock the full potential of these tools, targeted interventions are needed, including better access to resources, curriculum support, and sustained professional development for teachers. With these changes, digital strategies can become a powerful tool for transforming EFAL reading outcomes in rural South African classrooms.

6.4 LIMITATIONS OF THE STUDY

While this study provides valuable insights into the use of digital strategies for EFAL reading instruction, several limitations should be noted:

- Sample Size: The quantitative component of the study involved 100 participants, which may not fully represent all EFAL teachers in rural South Africa. Future studies with larger sample sizes could provide more generalisable findings.
- Self-Reported Data: The survey data relied on teachers' self-reports, which may be subject to bias, as participants may overstate their use of digital tools or their perceptions of effectiveness.

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- Limited Time Frame: The study was conducted over a limited period, which may not have captured the long-term impact of digital strategies on EFAL reading outcomes. Longitudinal studies are needed to assess the sustained effects of these tools.
- Learners' involvement: Leaners should have been included as participants since they were present in class during the observation as the study involved both teachers and learners, but the process of obtaining consent from parents on behalf of the children who are minors was going to be impossible as the study was conducted over a limited period.

While this study provided valuable insights into using digital strategies for teaching EFAL reading in the Thohoyandou Cluster, several limitations must be acknowledged. These limitations influenced the scope and generalisability of the findings and should be considered when interpreting the results.

6.4.1 SAMPLE SIZE AND GENERALISABILITY

One of the study's primary limitations was the relatively small sample size. The study focused on a specific group of 100 EFAL teachers and 59 learners from the Thohoyandou Cluster. While this sample provided detailed insights into the experiences and perceptions of teachers in this region, it may not fully represent the broader population of teachers and learners across South Africa, particularly in urban or more resource-rich areas. Therefore, the findings may not be generalisable to other provinces or schools with different contexts, access to resources, or infrastructural difficulties.

6.4.2 CONTEXTUAL LIMITATIONS

The study was conducted in a rural setting, where resource constraints and infrastructural difficulties are more pronounced. While these difficulties reflect many rural South African schools, they do not necessarily apply to all schools. The findings, therefore, reflect

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the realities of rural education in the Thohoyandou Cluster but may not capture the experiences of teachers in urban or suburban areas, where resources and digital infrastructure may be more readily available. This limits the broader applicability of the conclusions drawn about the effectiveness of digital strategies in diverse educational contexts.

6.4.3 LIMITED SCOPE OF DIGITAL TOOLS EXAMINED

The study focused on specific digital tools, such as YouTube, gamified learning platforms, adaptive learning systems, e-books, WhatsApp, and virtual trips. While these tools were selected based on their common usage in the Thohoyandou Cluster, they represent only a fraction of the digital strategies available for teaching EFAL. Other potentially effective tools, such as interactive whiteboards, educational apps, or mobile learning platforms, were not explored in-depth. The exclusion of these tools means that the study may have overlooked other strategies that could significantly enhance EFAL reading instruction.

6.4.4 TEACHER PERCEPTIONS VERSUS ACTUAL IMPLEMENTATION

Another limitation was the reliance on teachers' self-reported perceptions of the effectiveness and impact of digital strategies. While the study collected data through questionnaires and interviews to gain teachers' insights, these responses might not entirely reflect the implementation and outcomes of these strategies in the classroom. There may be a discrepancy between what teachers believe works and the real impact of digital tools on student outcomes, which can influence the interpretation of the effectiveness of digital strategies.

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6.4.5 INCONSISTENT DATA ON LEARNER OUTCOMES

Although classroom observations provided valuable insights into how digital strategies impacted learners' reading skills, the data on learner outcomes were somewhat inconsistent. While tools like adaptive learning systems and e-Books were found to support self-monitoring and comprehension, there were variations in how learners interacted with these tools, particularly regarding advanced reading skills. This variability made it challenging to draw definitive conclusions about the overall impact of digital strategies on learners' reading outcomes. Future studies could benefit from more comprehensive and longitudinal data on learner performance to provide a clearer picture of the long-term effects of digital tools on reading proficiency.

6.4.6 TEACHER EXPERIENCE AND TRAINING VARIABILITY

Finally, the study acknowledged the variation in teacher experience and training, which played a significant role in digital tools' use and perceived effectiveness. Teachers with more experience or prior exposure to digital technologies were likelier to use them effectively, while others struggled due to a lack of training and support. This variation introduced a level of bias in the findings, as the study did not control for the influence of individual teacher expertise on the outcomes. A more diverse sample of teachers with varying levels of experience and training would provide a more balanced perspective on the role of digital strategies in EFAL instruction.

While the study offers valuable insights into using digital strategies for EFAL reading instruction in a rural context, the limitations outlined above highlight areas for improvement in future research. A more extensive and diverse sample, a broader range of digital

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tools, and a more nuanced understanding of the actual implementation of these strategies could provide a more comprehensive view of how digital tools can be leveraged to improve EFAL reading outcomes across different educational settings.

6.5 CONTRIBUTIONS TO THE BODY OF KNOWLEDGE

Contribution to Knowledge in the Field

- The study provides valuable insights into integrating digital tools in EFAL instruction within Thohoyandou and across South Africa and the broader SADC region.
- It offers a roadmap for closing the digital divide, especially between urban and rural schools.
- The study's advocacy for government-level policy support strengthens its relevance and potential impact.

6. 6 CONCLUSION

Digital strategies hold transformative potential for EFAL reading instruction, particularly in rural schools where traditional methods often fail to address learners' diverse needs. E-Books, gamified platforms, and adaptive learning systems can enhance learner engagement, fluency, and comprehension. However, systemic barriers such as infrastructural deficits, limited teacher training, and socioeconomic disparities must be addressed for successful implementation.

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Teachers play a pivotal role in effectively leveraging these tools. Building their digital literacy and pedagogical skills through continuous professional development is critical. Policymakers must invest in technology, align curricula with digital tools, and provide equitable access to resources. Addressing the digital divide is an educational imperative and a moral responsibility to ensure quality education for all learners. Through targeted interventions and collaborative efforts, digital strategies can significantly improve literacy outcomes and foster inclusive education in South Africa. This study offers a roadmap for achieving this vision, providing insights into bridging the gap between policy and practise in rural EFAL classrooms. It emphasises the need for ongoing teacher support, resource allocation, and curriculum alignment to maximise the potential of digital tools.

6.7 RECOMMENDATIONS

Based on this study's findings and limitations, several recommendations can be made to enhance the integration and effectiveness of digital strategies in teaching EFAL reading, particularly in rural schools like those in the Thohoyandou Cluster. These recommendations aim to address the study's difficulties and optimise using digital tools to improve EFAL instruction.

6.7.1 IMPROVED ACCESS TO TECHNOLOGY AND INFRASTRUCTURE

To overcome the barriers posed by resource limitations, it is crucial to invest in the infrastructure of rural schools. This includes providing reliable internet access, modern devices such as tablets or laptops, and uninterrupted electricity to ensure the consistent use of digital tools. Partnerships with government and private sector stakeholders could facilitate funding and logistical support to

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address these infrastructural difficulties. This would create a more conducive environment for effectively integrating digital tools into EFAL teaching.

6.7.2 TARGETED PROFESSIONAL DEVELOPMENT AND TRAINING

Teachers expressed the need for more targeted training to use digital tools effectively. Professional development programmes should be designed to provide teachers with the necessary skills and confidence to integrate digital strategies into their EFAL lessons. These programmes should include theoretical knowledge and hands-on experience with various digital tools. Additionally, ongoing support should be provided through mentorship and collaborative networks where teachers can share best practises and troubleshoot difficulties. This ensures that teachers are well-equipped to implement digital strategies effectively, enhancing their teaching and improving learner outcomes.

6.7.3 CURRICULUM ALIGNMENT AND INTEGRATION

There is a need for a more aligned curriculum that clearly outlines how digital tools can be integrated into EFAL teaching. Curriculum developers should work closely with educators to create guidelines that facilitate the use of digital tools in a way that supports learning objectives. These guidelines should incorporate interactive and multimodal resources that engage learners in diverse and effective ways. Providing structured guidance on how digital strategies can be used to enhance reading comprehension, fluency, and self-monitoring helps teachers align their digital tool usage with educational goals and maximise the impact of these strategies.

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6.7.4 EXPANSION OF DIGITAL TOOL AVAILABILITY AND VARIETY

The study highlighted that while tools like YouTube, gamified platforms, and adaptive learning systems were beneficial, other digital tools, such as interactive whiteboards, mobile apps, and educational games, were not explored in-depth. Future initiatives should aim to diversify the types of digital strategies available to teachers, ensuring they have access to a range of tools that address different aspects of EFAL instruction. Additionally, digital platforms should be tailored to meet the specific needs of learners in rural areas, with content that reflects their cultural contexts and language backgrounds.

6.7.5. FOCUS ON PERSONALISED LEARNING

Given the positive impact that personalised learning can have on learner engagement, as noted by 36% of participants in the study (Figure 5.26), more emphasis should be placed on providing tools that cater to individual learning needs. Adaptive learning systems, for example, should be more widely adopted as they can offer learners personalised reading tasks based on their progress and proficiency levels. This personalised approach fosters self-regulation and independent learning, enabling students to progress at their own pace and providing immediate feedback to reinforce learning.

6.7.6 ENCOURAGE COLLABORATION AND PEER LEARNING

Teachers in the study emphasised the importance of collaborative learning in improving learner engagement, mainly using digital tools like collaborative online projects. To further promote this, schools should encourage peer learning activities that involve digital tools, allowing learners to work together on digital reading tasks. Additionally, teacher collaboration should be promoted, where

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educators share experiences and strategies for effectively integrating digital tools into the classroom. This can be achieved through regular professional learning communities (PLCs), or workshops focused on collaborative approaches to teaching with technology.

6.7.7 MONITORING AND EVALUATING DIGITAL TOOL EFFECTIVENESS

To ensure the continued improvement of digital strategies in EFAL reading instruction, it is essential to establish monitoring and evaluation systems that assess the impact of digital tools on student learning. Regular assessments of learner progress and teacher feedback should be collected to evaluate the effectiveness of digital strategies. These evaluations provide valuable data on what is working, what needs improvement, and how tools can be adapted to better meet the needs of learners.

6.7.8 POLICY ADVOCACY AND GOVERNMENT SUPPORT

Finally, it is critical to advocate for more robust policy support at the governmental level to increase funding and resources for rural schools. Policymakers should prioritise integrating digital learning strategies in rural education, recognising the need for technology to improve reading skills and overall literacy. Government initiatives could include funding for digital infrastructure, teacher training programmes, and developing relevant educational content tailored to rural school contexts. This would ensure that rural schools are not left behind in the digital transformation of education.

By addressing the difficulties identified in this study and implementing these recommendations, it is possible to harness the full potential of digital strategies to improve EFAL reading instruction. With improved access to technology, targeted training, and a more integrated curriculum, digital tools can become a transformative resource for teachers and learners in rural South Africa. Through

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collaborative efforts from educators, policymakers, and stakeholders, digital strategies can enhance reading outcomes and close the literacy gap in rural communities.

6.7.9 IMPROVED ACCESS TO TECHNOLOGY AND INFRASTRUCTURE

Policymakers should prioritise investments in digital infrastructure to equip rural schools with the necessary resources. This includes providing devices such as laptops, tablets, and smartboards, expanding broadband access, and implementing alternative energy solutions, such as solar power, to address electricity shortages.

6.7.10 TARGETED PROFESSIONAL DEVELOPMENT AND TRAINING

Teacher training programmes should focus on building digital literacy and equipping educators with the skills to integrate technology into EFAL instruction. Ongoing professional development and peer mentorship networks can support teachers in navigating the complexities of digital pedagogy and sharing best practises.

6.7.11 CURRICULUM ALIGNMENT AND INTEGRATION

The EFAL curriculum should be revised to include explicit guidelines for incorporating digital strategies. This consists of the development of culturally relevant digital resources. Developing a curriculum that integrates digital strategy is crucial for addressing the misalignment identified in the study. Teachers need clear guidance on effectively incorporating these tools into lesson plans.

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Culturally relevant content tailored to learners' linguistic and social contexts in rural areas should be prioritised. For example, digital storytelling platforms and e-books featuring local themes and familiar cultural references can make learning more engaging and relatable. Additionally, curriculum designers should include specific modules on digital literacy to prepare learners to engage with technology effectively.

6.7.12 EXPANSION OF DIGITAL TOOL AVAILABILITY

To ensure inclusivity, priority should be given to developing offline tools that cater to rural schools with limited internet connectivity. For instance, preloaded digital learning resources on tablets or USB drives can offer access to multimedia content without requiring continuous internet access. Collaborative efforts with local educators and developers can help create curriculum-aligned tools that address the unique needs of learners in the Thohoyandou Cluster. By making such resources widely available, teachers may have a broader range of options to support EFAL instruction.

6.7.13 MONITORING AND EVALUATION

Ongoing monitoring and evaluation of digital strategies are essential for understanding their effectiveness and areas for improvement. Policymakers should establish frameworks for assessing the impact of digital tools on reading outcomes, focusing on metrics such as fluency, comprehension, and learner engagement. Teachers' and learners' feedback should be systematically collected and analysed to inform the refinement of digital tools and instructional strategies. For instance, conducting regular workshops where educators share insights and difficulties can foster collaborative problem-solving and continuous improvement.

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Schools should try to install Wi-Fi and request donations of old computers or tablets from universities or other private institutions. This would lay a good foundation for implementing digital strategies.

E-Books are an effective way to bypass the shortfalls, such as poor reading skills and lack of learner engagement, associated with traditional methods of teaching EFAL reading.

Educational apps make a valuable contribution to the teaching of EFAL reading, bridging the gap not covered by conventional teaching methods.

6.8 SUGGESTIONS FOR FUTURE RESEARCH

Future research on digital strategies for teaching EFAL reading should address several key areas identified as limitations or gaps in this study. These recommendations further deepen our understanding of technology's role in EFAL instruction, particularly in rural contexts, and explore how digital tools can be effectively integrated to improve literacy outcomes.

- Include Learners as Participants
  Future research should involve learners directly to understand better how digital strategies impact their engagement, reading development, and learning preferences.

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- Obtain Parental Consent Early
  Plan for ethical clearance and parental consent procedures in advance to facilitate learner participation, especially when working with minors.
- Compare Learner and Teacher Perspectives
  Collect teacher and learner data to triangulate findings and identify any disconnects between teaching intentions and learner experiences.

- Incorporate Learner Performance Metrics
  Use assessments, reading scores, or digital engagement analytics to measure how specific tools influence comprehension and fluency over time.

- Explore Peer-to-Peer Digital Collaboration
  Investigate how digital platforms support collaborative learning among learners and its effects on EFAL acquisition.

6.8.1 LONGITUDINAL STUDIES ON THE IMPACT OF DIGITAL TOOLS ON LEARNER OUTCOMES

One area that warrants further investigation is the long-term impact of digital tools on learners' reading skills. This study primarily focused on immediate feedback and teacher perceptions of the tools. However, future research could track the sustained impact of digital strategies on learners over a more extended period. Longitudinal studies could provide insights into how digital tools affect

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reading comprehension, fluency, and other literacy skills over time, helping to establish a clearer understanding of their effectiveness in promoting long-term academic success.

6.8.2 EXPANDING THE RANGE OF DIGITAL TOOLS EXPLORED

This study focused on digital tools such as YouTube, gamified platforms, and adaptive learning systems. However, numerous other digital tools and platforms could be explored to determine their effectiveness in EFAL reading instruction. For example, mobile apps, virtual classrooms, interactive e-Books, and augmented reality tools could provide new perspectives on how technology can support diverse learning needs. Future research should include a broader spectrum of digital tools, especially those that are widely accessible, to evaluate which tools are most effective for rural schools with limited resources.

6.8.3 INVESTIGATING THE ROLE OF TEACHER TRAINING IN DIGITAL INTEGRATION

Another critical area for future research is exploring teacher training and its direct impact on the successful integration of digital tools in EFAL classrooms. While this study highlighted the difficulties teachers face due to insufficient training, it would be valuable to investigate how specific training programme and professional development workshops improve teachers' confidence and competence in digital strategies. Research could focus on comparing the effectiveness of formal training versus peer-led workshops, or the role of continuous support networks for teachers. Understanding the most effective training models could lead to a better professional development programme tailored to rural educators’ needs.

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6.8.4 EXPLORING DIGITAL TOOLS FOR DIFFERENTIATED INSTRUCTION

Differentiated instruction is critical in classrooms with diverse learning needs. Future research could explore how digital strategies can better support differentiated instruction in EFAL reading, particularly in rural classrooms with varying levels of language proficiency. Research could examine whether personalised learning features of adaptive tools and gamified platforms can cater to the needs of struggling readers and more advanced learners. Such studies could explore whether digital tools provide adequate scaffolding for learners at different levels and how these tools can be customised to meet individual learners' needs.

6.7.5 INVESTIGATING THE ROLE OF DIGITAL TOOLS IN PROMOTING CRITICAL THINKING AND HIGHER-ORDER COMPREHENSION

While this study explored the impact of digital tools on foundational literacy skills like fluency and word decoding, future research should also focus on how these tools can support higher-order thinking and comprehension in EFAL. Research could explore how interactive tools, such as those incorporating questioning techniques or problem-solving scenarios, enhance critical thinking and comprehension skills beyond basic recall. The study could investigate whether specific digital platforms are more effective in fostering deep, analytical engagement with the text, particularly for learners who have mastered basic literacy skills but need support with deeper comprehension.

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6.8.6 EXAMINING THE ROLE OF DIGITAL STRATEGIES IN MULTILINGUAL CONTEXTS

Given that South African classrooms often feature learners from diverse linguistic backgrounds, future research should examine the role of digital tools in supporting multilingual learners in EFAL reading. Research could investigate whether digital platforms incorporating translation features, multilingual support, or culturally relevant content can help learners bridge the gap between their home languages and English. This would provide valuable insights into how digital tools can facilitate language acquisition in multilingual classrooms and support learners' development of both EFAL and their home languages.

6.8.7 BROADER RESEARCH IN OTHER RURAL CONTEXTS

Finally, while this study focused on the Thohoyandou Cluster, future research could expand to other rural regions in South Africa or other countries with similar educational contexts. Comparing how digital strategies are used in rural classrooms with differing resources and infrastructures could provide a broader understanding of the potential and difficulties of technology integration in EFAL reading instruction. This would also allow researchers to identify best practises and scalable solutions that could be implemented globally in other rural educational settings

These recommendations for future research aim to build on this study's findings and address the gaps identified in the current body of literature. By exploring these areas further, researchers can gain a more comprehensive understanding of how digital strategies can effectively be utilised in teaching EFAL, particularly in under-resourced rural settings. The outcomes of such studies could contribute to more targeted interventions and policy recommendations, ultimately improving literacy outcomes for learners in rural South Africa and beyond.

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Future research should address gaps identified in this study and expand the understanding of digital strategies' role in EFAL instruction. Longitudinal studies are needed to assess the long-term impact of digital tools on learner outcomes. These studies could explore how sustained use of strategies like gamification or adaptive learning platforms influences reading proficiency over time.

Research on professional development is also critical. Investigating the effectiveness of various training models for equipping teachers with digital pedagogy skills would provide valuable insights for designing professional development programmes. Additionally, studies on differentiated instruction can explore how digital tools cater to diverse learning needs, particularly in multilingual and multicultural classrooms.

Another promising area for future research is the role of digital strategies in fostering higher-order reading skills, such as critical thinking, analysis, and synthesis. Understanding how these tools can be leveraged to promote deeper comprehension would contribute to the broader discourse on literacy education. Finally, examining the implementation of digital strategies in contexts similar to the Thohoyandou Cluster can offer comparative insights and inform best practises for

6.7.8 ENHANCING UNDERSTANDING OF DIGITAL TOOL INTEGRATION IN ENGLISH FIRST ADDITIONAL LANGUAGE

This study contributes to understanding how digital tools such as YouTube, gamified learning platforms, e-Books, adaptive learning systems, and WhatsApp support EFAL reading instruction. By focusing on a specific rural context, the research offers a detailed exploration of the types of tools teachers use and how these tools can enhance fundamental reading skills such as fluency, comprehension, and word decoding. It fills a gap in the existing literature by providing empirical evidence on the effectiveness of digital tools in rural primary schools, where infrastructural difficulties often hinder technology integration.

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6.7.9 ADDRESSING TEACHER PERCEPTIONS AND DIFFICULTIES

The study highlights teachers' difficulties integrating digital strategies into their EFAL lessons, particularly in resource-constrained environments. It underscores the importance of professional development and adequate infrastructure for successfully adopting digital tools. By documenting teachers' perceptions, the study provides valuable insights into how teachers view the role of technology in their classrooms and the factors that influence their decision to use or refrain from using digital tools. These findings contribute to the broader discussion on how teacher training and curriculum alignment can improve the integration of digital tools in education.

6.7.10 UNDERSTANDING THE ROLE OF DIGITAL TOOLS IN LEARNER ENGAGEMENT AND SKILL DEVELOPMENT

The study contributes to understanding how digital tools can positively impact learner engagement and skill development in EFAL reading. By observing digital tools in the classroom, the study demonstrates that digital strategies help improve basic literacy skills and encourage independent learning and self-correction. The research expands upon the existing literature by providing real-world examples of how digital tools can support differentiated learning and individualised feedback, fostering learner autonomy and promoting active participation.

6.7.11 CONTEXTUALISING THE USE OF DIGITAL STRATEGIES IN RURAL SOUTH AFRICAN SCHOOLS

A significant contribution of this study is its focus on the rural context of the Thohoyandou Cluster. The research provides an in-depth look at the difficulties unique to rural South African schools, such as limited access to digital resources, poor infrastructure, and large class sizes. This contextualised perspective allows for a better understanding of the barriers to technology integration in these

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settings. It highlights the need for targeted interventions that address rural teachers' and learners' difficulties. The study's findings can inform policies and strategies to improve the quality of education in rural areas.

6.7.12 EFFECTIVE RECOMMENDATIONS FOR IMPROVING DIGITAL STRATEGY INTEGRATION

Based on the findings, the study offers several practical recommendations for improving the integration of digital strategies in EFAL instruction. These recommendations focus on enhancing access to digital resources, providing targeted professional development for teachers, aligning digital tools with the curriculum, and fostering a supportive classroom environment to use technology effectively. The recommendations can be used by policymakers, educators, and educational planners to guide future initiatives to integrate digital tools into EFAL instruction, especially in rural schools.

6.7.13 PROVIDING FOUNDATION FOR FUTURE RESEARCH

The study contributes to future research on using digital strategies in EFAL education. The study opens avenues for further exploration into how digital tools can be leveraged to improve EFAL teaching outcomes by identifying critical gaps in teacher training, curriculum integration, and resource access. Future research can build on this study by exploring the long-term impact of digital tools on learner outcomes, comparing different types of digital strategies, and investigating the role of digital tools in supporting multilingual learners in EFAL classrooms.

This study contributes to understanding how digital tools can enhance EFAL reading instruction in rural South African schools. By addressing teachers' difficulties and exploring the benefits and limitations of various digital tools, the study provides valuable insights

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for educators, policymakers, and researchers looking to improve literacy outcomes in these settings. The findings and recommendations from this study can inform future efforts to integrate digital strategies into EFAL instruction, ultimately contributing to improving education in rural South Africa and other similar contexts.

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ANNEXURES

ANNEXURE A: QUESTIONNAIRE

Israel Creleanor Mulaudzi <Israel.Mulaudzi@univen.ac.za>

TOPIC: Exploring digital strategies for English First Additional Language reading by Grade 4 learners: a case study of Thohoyandou Cluster

Dear Participant

Israel Creleanor Mulaudzi is my name. I am a researcher at the University of Venda's Department of Professional and Curriculum Studies. My research topic is ‘Investigating digital techniques for Grade 4 EFAL reading by learners: a Thohoyandou Cluster case study’. I would appreciate it if you could fill out this questionnaire. Your answers might shed important light on the following:
What difficulties do Grade 4 teachers in the Thohoyandou Cluster face when teaching EFAL reading? What digital techniques do teachers employ while teaching Grade 4 EFAL learners in the Thohoyandou Cluster in English reading? How much do teachers in the Thohoyandou Cluster utilise digital tools to teach reading to EFAL learners in Grade 4? To what extent do digital strategies contribute to the reading instruction of Grade 4 EFAL learners in the Thohoyandou Cluster? We will respect and maintain the confidentiality of your information.

Instructions

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Please read carefully through each item and respond honestly to all the questions below. Tick the options that best relate to your opinion with a CROSS ‘X’.

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BIOGRAPHICAL INFORMATION

Gender

Male		Female	

Age

21 – 30		31 – 40		41 –50		51–60		61–65	

Highest academic qualification

Bachelor's Degree		Honours Degree		Master's Degree	PhD	

Professional qualification

PTD		STD		UED/ PGCE		Other (Specify)	

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DIFFICULTIES THAT GRADE 4 TEACHERS ENCOUNTER WHEN TEACHING

READING IN THE THOHOYANDOU CLUSTER

Kindly CROSS your agreement level with the following statements (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree):

DIFFICULTIES ENCOUNTERED WHEN TEACHING GRADE 4 EFAL READING	Agreement Levels				
	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
The number of Grade 4 classes in our school impacts the difficulty in teaching EFAL reading.					
Inadequate curriculum guidance is a source of difficulty in teaching EFAL reading.					

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Managing classroom behaviour during EFAL reading lessons presents difficulties.					
The years I have been teaching Grade 4 EFAL reading have influenced the difficulties I face.					
Lack of suitable materials/resources is a significant challenge in implementing the current curriculum.					
Addressing diverse reading levels among Grade 4 learners is a challenging aspect of my teaching.					
Promoting learner engagement during EFAL					

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reading lessons is challenging					
Maintaining a positive learning environment is challenging during EFAL reading sessions.					
Limited access to technology hinders the teaching of EFAL reading.					

TYPES OF DIGITAL STRATEGIES FOR TEACHING ENGLISH FIRST ADDITIONAL LANGUAGE READING TO GRADE 4 LEARNERS IN THE THOHOYANDOU CLUSTER

Kindly CROSS your agreement level with the following statements (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree):

TYPES OF DIGITAL STRATEGIES USED	Agreement Levels				
	1	2 Disagree	3 Neutral	4 Agree	5

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	Strongly Disagree				Strongly Agree
Varied multimedia content positively impacts learner engagement in English reading for Grade 4 EFAL.					
E-Books are an effective digital strategy for teaching EFAL reading to Grade 4 learners.					
Educational apps enhance the learning experience in EFAL reading for Grade 4 learners.					
Interactive whiteboards are beneficial in teaching					

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EFAL reading to Grade 4 learners.					

4. TEACHERS' USE OF DIGITAL STRATEGIES FOR TEACHING READING TO GRADE 4 ENGLISH FIRST ADDITIONAL LANGUAGE LEARNERS

Kindly CROSS your agreement level with the following statements (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree):

Digital strategies currently used for teaching English reading in Grade 4 EFAL

TEACHERS' USE OF DIGITAL STRATEGIES	Agreement Levels				
	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
Years of using digital strategies for teaching English reading to Grade 4 EFAL learners are					

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influenced by various factors					
Positive impacts on learner reading outcomes due to the use of digital strategies.					

4. THE EFFECTIVENESS OF DIGITAL STRATEGIES FOR TEACHING ENGLISH READING TO GRADE 4 EFAL LEARNERS

Please CROSS your agreement level with the following statements (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree):

The support and training I receive positively impacts my ability to teach EFAL reading					
Gamified learning activities effectively					

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enhance reading comprehension skills in English for Grade 4 EFAL learners					
Collaborative online projects contribute to improved English reading outcomes in Grade 4 EFAL.					
Virtual field trips related to reading content positively impact the effectiveness of English reading instruction for Grade 4 EFAL.					
Digital strategies align well with EFAL curriculum objectives in					

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improving English reading outcomes.					
Immediate feedback from digital strategies enhances learner engagement in English reading for Grade 4 EFAL.					
Personalised learning experiences through digital strategies contribute to increased learner engagement					
Learner performance assessments effectively measure the effectiveness of digital strategies in improving					

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English reading outcomes					
Additional training opportunities would enhance my ability to integrate digital strategies effectively					

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ANNEXURE B: SEMI-STRUCTURED INTERVIEW QUESTIONS

1. Are there specific difficulties you encounter related to the availability or suitability of EFAL reading materials and resources?

1. Could you share some examples of the digital strategies you currently use for teaching EFAL reading to Grade 4 learners?
2. Can you elaborate on how you incorporate digital strategies to foster reading comprehension and language development in Grade 4 EFAL?
3. What difficulties, if any, have you encountered in using digital strategies for teaching English reading to Grade 4 EFAL learners?
4. In what ways do you feel supported or unsupported in your efforts to use digital strategies effectively for Grade 4 EFAL reading?

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ANNEXURE C: OBSERVATION CHECKLIST

	Type of digital strategy	Benefits in reading	
Teacher 1	YouTube	Fluency:	Adequate in attending to punctuation
		Word decoding:	Moderate in breaking the words into parts
		Self-correcting and monitoring:	Adequate in noticing mismatch between spoken

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		Comprehension:	and written words Fair in locating information in the text to support
Teacher 2	YouTube	Fluency: Word decoding:	Effective in reading with appropriate pace

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		Self-correcting and monitoring:	Moderate in using the meaning of the sentence to decode Proficient in applying knowledge of high frequency words

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		Comprehension:	Comprehensive in making connections between self and text
Teacher 3	TikTok	Word Decoding: Comprehension: Fluency:	Moderate Fair Adequate
Teacher 4	E-Book	Fluency:	Adequate

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		Self-Correcting and Monitoring : Comprehension:	 Proficient Comprehensive
Teacher 5	Gamified Learning	Word Decoding: Comprehension: Fluency: Self-correcting and Self-monitoring	Moderate Developing Reasonable Functional

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Teacher 6	WhatsApp	Self-monitoring and Self-correcting Comprehension:	Emerging Fair
Teacher 7	Virtual trips	Word decoding: Comprehension:	Moderate Fair
Teacher 8	Smartboard	Early reading skills: Word Decoding: Comprehension:	Adequate Moderate Fair

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Teacher 9	Adaptive learning system	Self-monitoring and self-correcting: Comprehension: Word decoding:	 Proficient Moderate Comprehensive
Teacher 10	Digital Dictionary	Fluency: Early reading skills: Comprehension:	Effective in reading with appropriate pace Moderate in reading left to right

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			Fair in making connections between two or more text
	Audio and Podcast	Word Decoding: Self-Correcting and Monitoring:	Moderate in sounding words out letter by letter Functional in applying knowledge of high frequency words

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		Comprehension:	Fair in the story including main events

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ANNEXURE D: ETHICAL CLEARANCE

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ETHICS APP'IOVAL CIERTIACATi

RESEARCH AND INNOVATION
OFFICE OF THE DIRECTOR

NAME OF RESEARCHER/INVESTIGATOR:
Dr IC Mulaudzi

STAFF NO:
9711289

PROJECT TITLE: **Exploring Digital Strategies for English First Additional Language reading by Grade 4 learners: A case study of Thohoyandou Cluster.**

ETHICAL CLEARANCE NO: **FHSSE/24/EMS/02/1104**

SUPERVISORS/ CO-RESEARCHERS/ CO-INVESTIGATORS

NAME	INSTITUTION & DEPARTMENT	ROLE
Prof MN lambani	UNIVEN. Enalish. media studies, and linQuislics	Sunervisor
Prof EK Klu	UNIVEN, Eh lish. media 1tudies, and linguistics	Co•Sunervisor
Dr. FT N eohawe	UNIVEN, English, media sludles, and linauistic,	Co•Sunervisor
Dr IC Mulaudzl	UNIVEN, Engli.sh, media studies, and linguistics	Investigator - Student

Type: Staff Research
Risk: Minimal risk to humans, animals, or environment (Category 2)
Approval Period: April 2024 - April 2025

The Research Ethics Social Sciences Committee (RESSC) hereby approves your project a, Indicated above.

General C9ndltl9n9
WhileIhis ethlc:s approval Is subfec:I to all declarations, undertakings al"\d agreements Incarpor1;ted and signed in the .applicatlon form, please note the follow1"19,

Tkc praject:t leatder (principal Investigator) must repof1Ni tho prescribed format to the REC:
Annually(or as otherwise requested) on the progress of the project, and uponc:ompletlon ol the protect.
Within 48hrsIn caseof any adverse event (or any matter that Intenupts soul"\dethicalprinciples) during the course of the proJec:t.
Annuallya number of proJecls m,y be randomly selec:ted for an external audIL
The approval applies strictly to Ihe protocol as stipulated In the appllc:aUon form. Would any changes lo the protocol bedeemed nec:usary during the c:oursoftheptojecl, the project leader must apply for appro\fll of Ihese changes al the REC. Would thera be deviated from the projec:t protocol without the necessary approval of such changes, the ethics approval Is Immedlatoly and automatlcally forfeited.
• Thodate of approvalindk:ales the first date that the proJect may be started. Would the project have to continue after Iha eicplry date; a new application must be made to the REC and new approval rec:elved belare or on the expiry date.
In Ihe Inten1st of ethlc:al responsibility, the REC retains the right to:
Request access ta any Information or dala at any time during the course or aHer compleUon of the projec:t,
To ask further quesUons; Seek additlonal Information; Raqulre further modification or monitor Ihe conduct of your resHrc:h or th• Informed consent proceu.
withdraw or postpone approval ff:
Any unethlc:al prlnc'J>les or practices of the project ere revealed or suspected.
It becomes apparent that any relevant Information was withheld from theRECor thatInformation has been false or misrepresented.
The required annual report and reporting of adverse events wu not done tlmelyand accurately,
New institutional rules, national legislatlon or International canvenlfons A it noces:sary

ISSUEDBY:
UNIVERSITY OF VENDA, RESEARCH ETHICS COMMITTEE
Date Considered: April 2024

Name of the RESSC Chairperson of the Committee: ... Prof M. Mwale-Manjoro •.••.•

Signature..... .....•...,,.....

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OFFICE OFI ti[.DIRECTOR
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ANNEXURE E: APPLICATION FOR PERMISSION

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

For admin. use Reference number:

REQUEST TO CONDUCT RESEARCH IN THE LIMPOPO DEPARTMENT OF EDUCATION

1. ~~PARTICULARS OF THE RESEARCHER/S (if there is more than one researcher in~~volved, provide the details of the main researcher)

1.1. Personal details	
Title (Prof/Dr/Mr/Mrs/Ms):	Dr

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Surname and initials:	Mulaudzi, IC
First name/s:	Israel Creleanor
South African ID number:	7108220432086
Work permit number (If not South Africa citizen):	N/A
1.2. Contact details	
Tel home:	N/A
Tel work:	015 962 9092
Cell:	0645091838
Email address:	Israel.Mulaudzi@univen.ac.za
Home address:	House 4839, Ndau Street, Makwarela ext 3 THOHOYANDOU
Postal code:	0950
Postal address:	Private Bag X134
Postal code:	0950

2. PARTICULARS OF AFFILIATED ORGANISATION (if applicable)

2.1. Affiliated organisation	
Name of organisation:	University of Venda
Position:	Lecturer

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Head of organisation/research promoter:	Prof TS Mashau
Tel (head/research promoter):	015 962 9108/ 060 674 8860
2.1. Affiliated organisation	
Email address (head/research promoter):	Takalani.mashau@univen.ac.za

3. LEARNER AND POSTGRADUATE ENTROLMENT PARTICULARS (if applicable)

3.1. Enrolment particulars	
Name of institution:	University of Venda
Degree/qualification:	PhD (English)
Faculty and discipline/area of study:	Faculty of Humanities, Social Sciences and Education
Name of supervisor/promoter:	Prof. MN Lambani Co-supervisor: Prof. Ek Klu Co-supervisor: Dr FT Nephawe
Learner number:	9711289

PURPOSE AND DETAILS OF PROPOSED RESEARCH

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4.1. Purpose of the research (please indicate by placing a cross where appropriate)	
Undergraduate study – Self	
Postgraduate study – Self	X
Private company/agency – Commissioned by National Government Department	
Private research by independent researcher	
Non-government organisation	
Department of Basic Education	
Commissions and committees	
Independent research agencies	
Statutory research agencies	
Higher education institutions only	
Other (specify)	
4.2. Details of proposed research	
Full title of research project/thesis/dissertation	

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Exploring Digital Strategies for EFAL reading by Grade 4 learners: a case study of Thohoyandou Cluster
Brief description of the proposed research
In Thohoyandou Cluster, Limpopo Province, This study aims to explore digital strategies for teaching reading to Grade 4 EFAL learners in the Thohoyandou Cluster. Addressing this requires a deep understanding of teachers' perceptions concerning these specialists. Currently, the district lacks comprehensive insights into this critical dynamic. Rooted in the sociocultural learning theory, which champions collaborative knowledge-building, this study posits that adept subject specialists can furnish teachers with pivotal guidance, resources, and development opportunities. Adopting a mixed-method approach, the research will encompass both questionnaires and semi-structured interviews, targeting a sample of 100 Grade 4 teachers. This methodology comprehensively captures their experiences and perceptions relating to subject specialists. Through rigorous statistical and thematic analysis, the research seeks to illuminate the existing gaps in the system.
Value of the research to the Provincial Department of Education The findings are anticipated to equip educational stakeholders with actionable insights, paving the way for strategic interventions to elevate instructional quality

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within the Thohoyandou Cluster.
4.3. Details of proposed research
The study is conducted in Thohoyandou Cluster, Limpopo Province, This study aims to explore digital strategies for teaching reading to Grade 4 EFAL learners in the Thohoyandou Cluster. Addressing this requires a deep understanding of teachers' perceptions concerning these specialists. It is informed by the use of the Technology Acceptance Model (TAM) as its theoretical framework. The essence of the TAM lies in its simple yet powerful explanation of how and why individuals accept or reject new technology. The study adopts a mixed-method approach, using both questionnaires and semi-structured interviews. 100 Grade 4 teachers are sampled for the study.

Envisaged date of completion of research at the LDoE (day/month/year):	May 31, 2024
Envisaged date of submission of research report and research summary to LDoE	September, 2024

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(Month/Year):	

4. REQUEST OF INTERVIEWS WITH DBE OFFICIALS

5.1. DBE official details	
Name of official/s requested to interview*:	
Unit/division:	
Area of interest of research (if you do not know the name of a particular LDoE official/s you would like to interview):	Grade 4 EFAL teachers.

* *If you do not know the name of the official in the LDoE that you would like to interview, specify the unit or area of interest for your research, and the IPR&R Directorate advise accor*

DATA REQUEST

6.1. Request for datasets available to the LDoE (please indicate by placing a cross where appropriate)

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Education Management Information System (“EMIS”)	N/A
Grade 12 examination results	N/A
Former Systematic Evaluations	N/A
Annual National Assessments (“ANA”)	N/A
National Education Infrastructure Management System (“NEIMS”)	N/A
Personnel Salary System (“PERSAL”)	N/A
6.1. Request for datasets available to the LDoE (please indicate by placing a cross where appropriate)	
Learner Unit Record Information and Tracking System (“LURITS”)	N/A
Other (specify)	N/A
6.2. Data should be disaggregated by: (please indicate by placing a cross where	

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appropriate)	
Gender	
Race	
Age group	
Geography (urban/rural)	X
Province	
Period (specify)	
Other (specify)	
6.3. Request for supporting letter for access to the options below (please indicate by placing a cross where appropriate)	
Provincial Department of Education	X
National Government Departments (specify)	
Trends in International Mathematics and Science Study (“TIMSS”)	
Progress in International Reading Literacy Study (“PIRLS”)	

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The Southern and Eastern Africa Consortium for Monitoring Educational Quality (“SACMEQ”)	
Data from the World Bank	
Data from the HSRC	
Other (specify)	

5. ATTACTHMENTS (please indicate which of the following attachments are accompanying this form)

7.1 Attachments (please indicate by placing a cross where appropriate)	
Approved research proposal	X
Draft questionnaire for LDoE official/s to be interviewed/survey for LDoE officials to complete	X
Ethics clearance for study	X
A letter from your supervisor confirming	N/A
7.1 Attachments (please indicate by placing a cross where appropriate)	
registration of your course (university	X

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learners)	
Other (specify)	None

COMMENTS

If you have any additional comments/concerns, please specify them in the box below.

NONE

This form, along with the relevant documentation should be emailed to masilatc@edu.limpopo.gov.za. All queries about the status of the research request can be directed to Dr. Makola MC at makolamc@edu.limpopo.gov.za or Mr Makgati DC at makgatidc@edu.limpopo.gov.za

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ANNEXURE F: APPROVAL LETTER

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PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

EI:>LJC::'"°'-TIC>

CONFIDENTIAL

Ref: 2/2/2 Enq: Makola MC Tel No: 015 290 9448 E-mail:MakolaMC@edu.limoooo.gov.za

Dr. Mulaudzi IC
Private bag X 134
Thohoyandou
0950
Israel.mulaudzi@univen.ac.za

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

1. The above bears reference.
2. The Department wishes to inform you that your request to conduct research has been approved. Topic of the research proposal: "Exploring Digital Strategies for English First Additional Language reading by Grade 4 learners: a case study of Thohoyandou **cluster."**

3. The following conditions should be considered:

3.1 The research should not have any financial implications for Limpopo Department of Education.

3.2 Arrangements should be made with the District or Circuit Office and the School concerned.

3.3 The conduct of research should not in anyhow disrupt the academic programs at the schools.

3.4 The research should not be conducted during the time of Examinations especially the fourth term.

3.5 During the study, applicable research ethics should be adhered to; in particular the principle of voluntary participation (the people involved should be respected).

Cnr 113 Biccard & 24 Excelsior Street, POLOKWANE, 0700, Private Bag X 9489, Polokwane, 0700
Tel:015 290 7600/ 7702 Fax 086 218 2560

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ANNEXURE G: STATEMENT OF AGREEMENT TO PARTICIPATE IN THE RESEARCH STUDY

- I, ……., hereby confirm that I have been informed by the researcher, (*Israel Creleanor Mulaudzi*), about the nature, conduct, benefits, and risks of this study - Research Ethics Clearance Number: _,
- I have also received, read, and understood the above-written information (*Participant Letter of Information*) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials, and diagnosis is anonymously processed into a study report.
- Given the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during this research which may relate to my participation is made available to me.

Full Name of Participant Date Time Signature

I…… …….. ……

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(*Israel Creleanor Mulaudzi*) herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

Full Name of Researcher

……. Date……. Signature……

Full Name of Witness (If applicable)

…….Date …….Signature……..

Full Name of Legal Guardian (If applicable)

……Date……..Signature…….

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ANNEXURE H: LANGUAGE EDITING CERTIFICATE

Independent Editor
kufazano@gmail.com
+27631434276

SATI
SOUTH AFRICAN TRANSLATORS' INSTITUTE

CERTIFICATE OF EDITING

This confirms that I edited substantively the document below, including a Reference list. The document was returned to the author with various tracked changes to correct errors and clarify meaning.

TITLE: **Exploring digital strategies for English first additional language reading by Grade 4 learners: A case study of Thohoyandou Cluster**

AUTHOR : **Mulaudzi Israel Creleanor**

Student number: **9711289**

Note: The edited work described here may not be identical to that submitted. The authors, at their sole discretion, have the prerogative to accept, delete, or change amendments made by the editor before submission.

DATE: **2 January 2025**

EDITOR'S COMMENT

The author was advised to effect suggested corrections regarding subject-verb agreement, punctuation and overall academic writing style, to name a few.

Signature

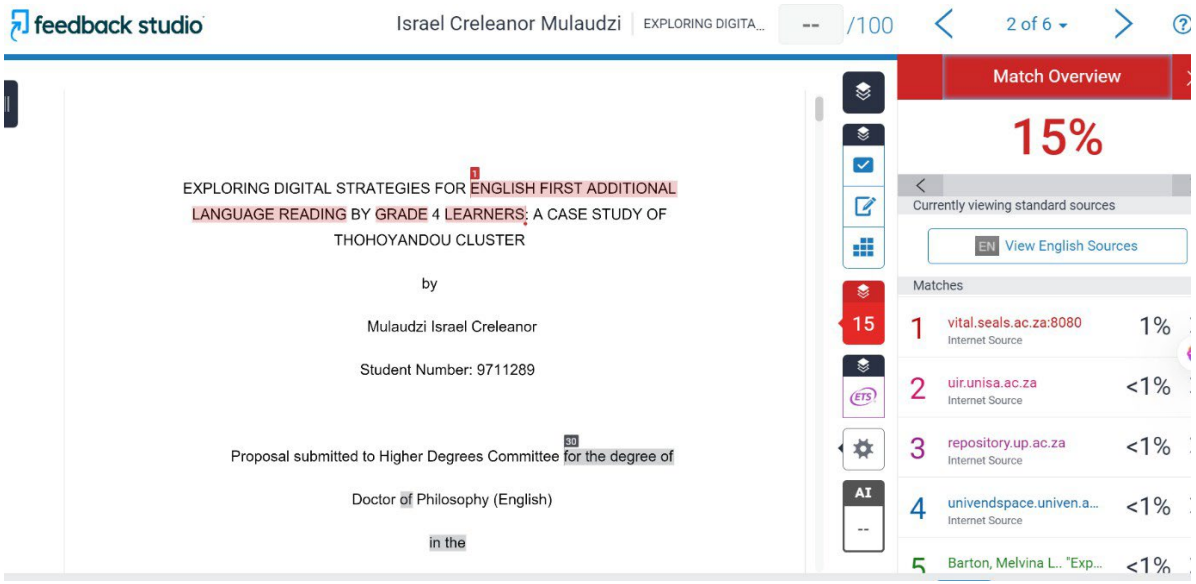
Dr Kufakunesu Zano, PhD in English. A member of the South African Translators' Institute, Ref 1000686, South Africa 2024

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ANNEXURE I: TURNITIN REPORT



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ANNEXURE J: INFORMED CONSENT FORM FOR SURVEY PARTICIPANTS

Title of the Study:

Exploring Digital Strategies used for Teaching EFAL Reading by teachers in Grade 4 Classrooms: A Case of the Thohoyandou Cluster

Principal Researcher:

[Your Full Name]

[Student Number]

[Department & Institution]

[Email Address]

Supervisor:

[Supervisor's Full Name]

[Supervisor's Title & Contact Information]

Purpose of the Study:

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You are invited to participate in a research study that aims to explore the digital strategies used by teachers in teaching English First Additional Language (EFAL) reading in Grade 4 classrooms. The study seeks to understand teaching practises, digital integration, and the difficulties educators face, particularly in rural contexts.

Nature of Participation:

If you agree to take part:

- You will be asked to complete a survey that will take approximately 15–20 minutes.
- The survey includes both closed- and open-ended questions about your teaching experience, access to digital resources, and your views on EFAL instruction.

Voluntary Participation:

- Your participation is entirely voluntary.
- You may choose not to answer specific questions or exit the survey at any point.
- There will be no penalties or consequences for choosing not to participate.

Confidentiality and Anonymity:

- Your responses will remain anonymous and confidential.
- No personal identifiers (such as your name or school) will be collected or reported.

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- Survey data will be securely stored and used solely for academic purposes.

Potential Risks and Benefits:

- There are no known risks associated with this survey.
- While you may not benefit directly, your responses will contribute to improving EFAL teaching strategies and informing policy in South African education.

Consent Statement:

By ticking the box or submitting the survey, you acknowledge that:

☐ You have read and understood the above information.

☐ You voluntarily agree to participate in this study.

☐ You understand your participation is anonymous and you may withdraw at any time.

☐ You consent to the use of your responses for academic research and reporting.

Thank you for your participation. Your input is highly valued.

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ANNEXURE K: INFORMED CONSENT FORM FOR INTERVIEW PARTICIPANTS

Title of the Study:

Exploring Digital Strategies used for Teaching EFAL Reading by teachers in Grade 4 Classrooms: A Case of the Thohoyandou Cluster

Principal Researcher:

[Your Full Name]

[Student Number]

[Your Department & Institution]

[Email Address]

Supervisor:

[Supervisor's Full Name]

[Supervisor's Title & Contact Information]

Purpose of the Study:

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You are invited to take part in a research study that seeks to explore the use of digital strategies in the teaching of English First Additional Language (EFAL) reading to Grade 4 learners. This study aims to understand the experiences, difficulties, and practises of EFAL teachers in diverse school contexts.

Nature of Participation:

If you agree to participate, you will be asked to take part in a semi-structured interview lasting approximately 30–45 minutes. The interview will focus on your experiences with teaching EFAL reading, any digital tools you use, difficulties you face, and your views on how teaching can be improved.

- With your consent, the interview will be audio-recorded to ensure accuracy.
- You are free to skip any questions or stop the interview at any point.

Voluntary Participation:

Participation is entirely voluntary. You may:

- Refuse to answer any questions.
- Withdraw from the interview at any time without any negative consequences.

Confidentiality and Anonymity:

- All information shared will be kept strictly confidential.

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- Your name, school, or any identifiable details will not appear in the final report.
- Pseudonyms will be used in all written or published work.
- Audio recordings will be securely stored and destroyed after transcription.

Risks and Benefits:

There are no foreseeable risks associated with this interview. While you may not receive direct benefits, your contribution will provide valuable insights that may inform improved EFAL teaching strategies and educational policy.

Consent Statement:

I have read and understood the information provided above. I voluntarily agree to participate in the interview. I understand that:

☐ I can withdraw at any time without giving a reason.

☐ The interview will be recorded (if I consent).

☐ My identity will remain confidential.

☐ The information I provide may be used in publications, but my identity will not be revealed.

Participant's Name: _____

Signature: _____

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Date: _____

Researcher's Name: _____

Signature: _____

Date: _____

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INFORMED CONSENT FORM FOR INTERVIEW PARTICIPANTS

Title of the Study:

Exploring Digital Strategies used for Teaching EFAL Reading by teachers in Grade 4 Classrooms: A Case of the Thohoyandou Cluster

Principal Researcher:

[Your Full Name]

[Student Number]

[Your Department & Institution]

[Email Address]

Supervisor:

[Supervisor's Full Name]

[Supervisor's Title & Contact Information]

Purpose of the Study:

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You are invited to take part in a research study that seeks to explore the use of digital strategies in the teaching of English First Additional Language (EFAL) reading to Grade 4 learners. This study aims to understand the experiences, difficulties, and practises of EFAL teachers in diverse school contexts.

Nature of Participation:

If you agree to participate, you will be asked to take part in a semi-structured interview lasting approximately 30–45 minutes. The interview will focus on your experiences with teaching EFAL reading, any digital tools you use, difficulties you face, and your views on how teaching can be improved.

- With your consent, the interview will be audio-recorded to ensure accuracy.
- You are free to skip any questions or stop the interview at any point.

Voluntary Participation:

Participation is entirely voluntary. You may:

- Refuse to answer any questions.
- Withdraw from the interview at any time without any negative consequences.

Confidentiality and Anonymity:

- All information shared will be kept strictly confidential.

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- Your name, school, or any identifiable details will not appear in the final report.
- Pseudonyms will be used in all written or published work.
- Audio recordings will be securely stored and destroyed after transcription.

Risks and Benefits:

There are no foreseeable risks associated with this interview. While you may not receive direct benefits, your contribution will provide valuable insights that may inform improved EFAL teaching strategies and educational policy.

Consent Statement:

I have read and understood the information provided above. I voluntarily agree to participate in the interview. I understand that:

☐ I can withdraw at any time without giving a reason.

☐ The interview will be recorded (if I consent).

☐ My identity will remain confidential.

☐ The information I provide may be used in publications, but my identity will not be revealed.

Participant's Name: _____

Signature: _____

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Date: _____

Researcher's Name: _____

Signature: _____

Date: _____

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ANNEXURE L: INFORMED CONSENT FORM FOR OBSERVATION PARTICIPATION

Title of the Study

Exploring Digital Strategies for Teaching EFAL Reading in Grade 4 Classrooms: A Case of the Thohoyandou Cluster

Principal Researcher:

[Your Full Name]

[Your Student Number]

[Your University and Department]

[Your Email Address]

Supervisor:

[Supervisor's Name]

[Supervisor's Title & Contact Information]

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Purpose of the Study:

You are being invited to participate in a research study that explores how teachers integrate digital strategies into the teaching of English First Additional Language (EFAL) reading in Grade 4. The purpose of this study is to understand your experiences, difficulties, and innovative practises in EFAL instruction, especially in under-resourced settings.

What Your Participation Involves:

If you agree to participate:

- You will be observed during one or more EFAL reading lessons.
- The researcher will sit in your classroom and take notes during the lesson.
- With your permission, some parts of the lesson may be audio-recorded to supplement field notes.
- Observations will focus on teaching methods, learner engagement, and use of materials (both digital and non-digital).

Voluntary Participation:

Your participation is entirely voluntary. You may:

- Choose not to take part in the study.
- Withdraw at any stage without any consequences or explanation.
- Decline audio recording while still participating in the observation.

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Confidentiality and Anonymity:

- Your identity and school name will be kept strictly confidential.
- Pseudonyms will be used in all transcripts, reports, and publications.
- No identifying information will be included in any reporting of findings.

Benefits and Risks:

- There are no direct risks or penalties associated with participating.
- While you may not benefit directly, your insights will contribute to improving EFAL teaching practises in resource-constrained environments.

Consent Statement:

I have read and understood the information above. I voluntarily agree to participate in the study. I understand that I can withdraw at any time without penalty.

Please tick the relevant boxes:

☐ I agree to be observed during EFAL reading lessons.

☐ I agree to have parts of my lesson audio-recorded.

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☐ I understand that my identity and responses will be kept confidential.

☐ I have received answers to all my questions regarding this study.

Participant's Name: _____

Signature: _____

Date: _____

Researcher's Name: _____

Signature: _____

Date: _____

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