



**THE VIEWS OF GRADE 7 TECHNOLOGY EDUCATORS ON THE USE OF OPEN
EDUCATIONAL RESOURCES IN LIMPOPO PROVINCE**

BY

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Declaration

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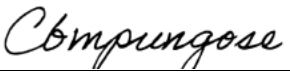
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Dedication

I give honour and glory to God Almighty for His never-ending grace, strength, protection and guidance throughout this academic journey. He has been my strength in all my weaknesses and throughout this study.

This work is dedicated to my loving family, who have continually supported me, made countless sacrifices for me, and believed in my ability to succeed. Thank you for all your unconditional love, encouragement and support over the years. Your belief in me has given me the courage and determination to persevere and reach this significant milestone.

To my beloved son **Chabalala M-Junior**, you are my greatest inspiration and motivation to succeed. I hope this achievement will remind you that commitment, perseverance, and education can open doors to a brighter and more rewarding future.

To my younger sister **Khoza Lunghile**, may this accomplishment inspire you to remain focused on your studies, work diligently, and strive for excellence in all your endeavours. As your elder sister, I hope my academic journey serves as an example that hard work, determination, and perseverance can lead to great success.

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Lastly, I extend my heartfelt appreciation to everyone who stood by me and supported me in different ways throughout this journey. Your kindness, encouragement, and belief in me will always be remembered and deeply appreciated. Thank you for being part of this achievement.

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List of abbreviations

Abbreviation	Full Meaning
ATP	Annual Teaching Plan.
ATU	Attitude Toward Use
BI	Behavioral Intentions
B.Ed	Bachelor of Education
CAPS	Curriculum and Assessment Policy Statement.
COL	Commonwealth of Learning
DBE	Department of Education
NST	Natural Sciences and Technology
OER	Open Educational Resources.
PEOU	Perceived Ease of Use
PU	Perceive Usefulness
SMT	School Management Team
TAM	Technology Acceptance Model.
TRA	Theory of Reasoned Action
UNESCO	United Nations Educational, Scientific and Cultural Organization

Abstract

Open Educational Resources (OER) are increasingly recognised as valuable resources for improving teaching and learning, particularly in contexts where schools face challenges such as limited resources, overcrowded classrooms, and the growing need to integrate digital technologies. This study explored Grade 7 Technology educators' views on the use of OER in Curriculum and Assessment Policy Statement (CAPS) Technology education in Limpopo Province. The study was located within the interpretivist paradigm and adopted a qualitative case study design. Semi-structured interviews and focus group discussions were used to generate data, and thematic analysis was used to analyse the data from purposively and conveniently sampled Grade 7 Technology educators. The study was based on the Technology Acceptance Model (TAM) and was guided by the criteria of credibility, dependability, transferability, and confirmability to ensure trustworthiness.

The findings indicate that educators were guided by three different view levels – personal, verbal, and written – when selecting and using OER, with their personal views being the most dominant. The study further found that educators perceived OER as beneficial in supporting learners' understanding, engagement and performance in Technology education. However, educators face challenges such as limited technological devices, poor internet connectivity, insufficient training, and time constraints when using and accessing OER. In addition, the study revealed a gap between curriculum planning and classroom practice, indicating insufficient structured support for integrating OER into classroom practice. The study thus recommends that the Department of Basic Education should allocate time for the integration of OER in the Annual Teaching Plan (ATP), continuously train educators on OER use, and improve access to digital infrastructure and resources. The findings can contribute to improving the effective use of OER in Grade 7 Technology education and inform policy and practice.

Keywords: OER, Technology education, educators' views, digital infrastructure, learner engagement, OER Integration Challenges, Benefits of OER.

CHAPTER ONE – OVERVIEW OF THE STUDY

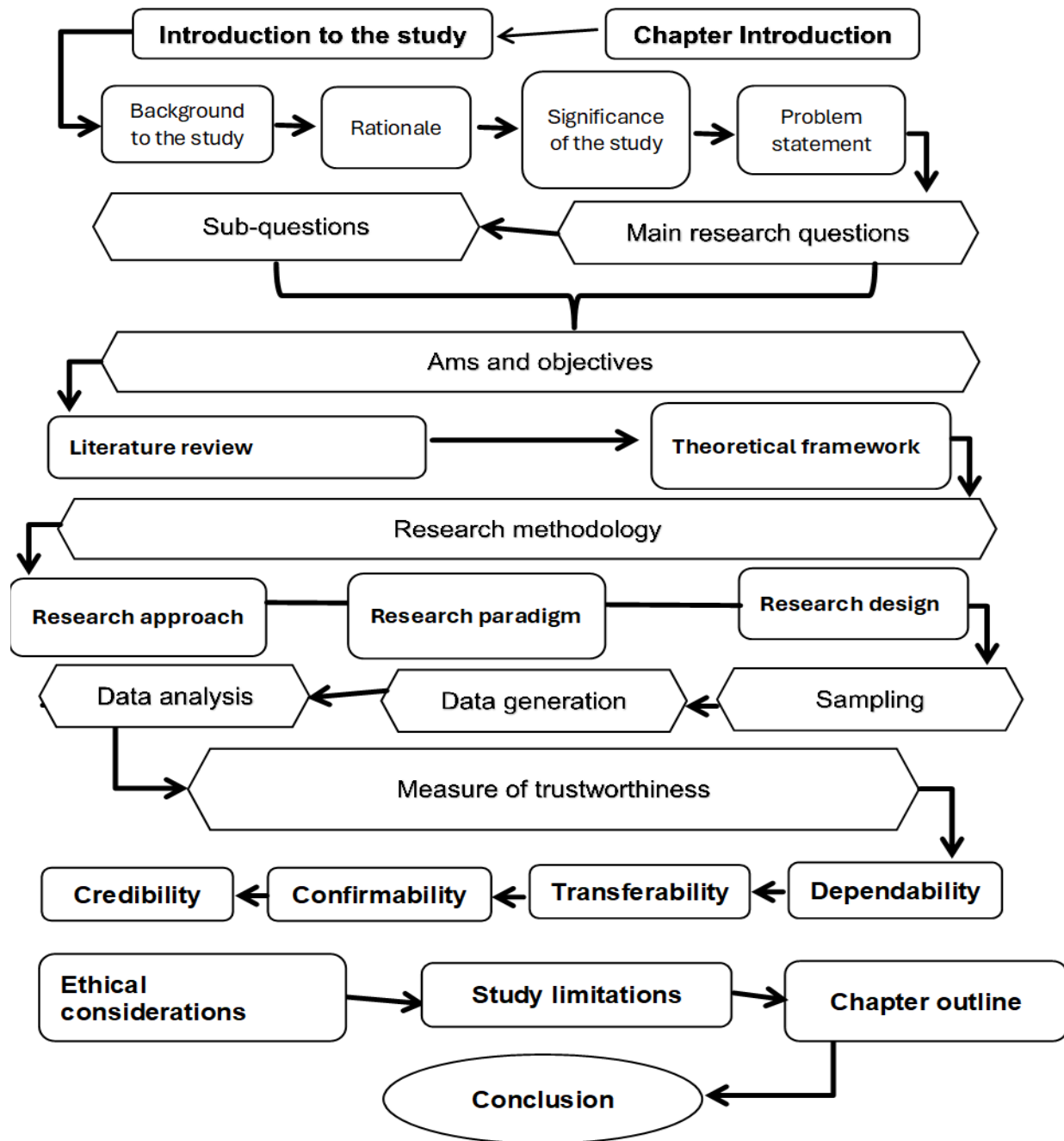


Figure 1: chapter 1 (flow diagram)

1.1 Chapter Overview

This chapter introduces this study, titled ‘The Views of Grade 7 Technology Educators on the Use of Open Educational Resources (OER) in Limpopo Province’. It provides an overview of the study by outlining the background to the study and context within which the research is conducted. The rationale of the study is presented to justify the need to explore educators’ views on the use of OER. The chapter further highlights the significance of the study and its contribution to the field of education. It also presents the problem statement that indicates the knowledge gap that the study aims to fill. The main research question and sub-questions that guide this study are outlined. In addition, the aim and objectives of the study are provided to clarify its purpose. A brief overview of the literature review and theoretical framework is included. The chapter also outlines the research methodology, including the research approach, paradigm, design, and methods of data generation and analysis. Finally, ethical considerations, trustworthiness, limitations of the study, and an outline of the chapters are discussed to provide a systematic foundation for the study.

1.2 Introduction to the study

Open Educational Resources (OER) are gaining recognition as significant resources for improving teaching and learning in the global context. According to UNESCO (2015) OER refers to teaching, learning and research materials that can be accessed online, including videos, lessons and guides, which are free of charge and flexible. In this study, OER are refers as openly licensed or public domain educational resources that are accessible to Grade 7 Technology educators and can be reused and adapted for teaching and learning purposes(UNESCO, 2026). The use of OER is especially beneficial in South Africa, including in Limpopo Province, where school’s experiences problems such as lack of resources, overcrowded classes and the necessity to incorporate digital tools. A study by Setshedi and Van Wyk (2024) advocates that OER enables equal access to education and prepares educators for the challenges likely to be brought by the Fourth Industrial Revolution.

From my teaching experience I have observed that overcrowded classrooms often lead educators to prefer using OER to accommodate all learners and improve performance, particularly in Technology education. I also noticed that educators' use of OER is guided by different views, namely written, verbal, and personal views. Written views are guided by policy documents such as Annual Teaching Plans (ATPs), the Curriculum and Assessment Policy Statement (CAPS) and subject guidelines, while verbal views are guided by educators' formal discussions during staff meetings, subject meetings and online platforms like WhatsApp and Telegram. In contrast, personal views are guided by educators' own classroom experiences and the effectiveness of previously used resources.

Literature supports these observations, as Setshedi and Van Wyk (2024) found that educators often prefer educational videos and pictures to enhance learners understanding and comprehension, while Harkins et al. (2025) highlight that educators value OER for their affordability and accessibility. In addition, Mncube (2024) argues that OER can contribute to the decolonisation of education by promoting African and Indigenous knowledge systems. However, due to time constraints, educators tend to rely on the view level they are most comfortable with. This study explores how Grade 7 Technology educators view the use of OER in CAPS Technology education, and what view level drives them to choose a particular type of OER over another.

1.3 Background of the study

Since 2002 when UNESCO presented the idea of OER, these resources have been actively promoted around the world. According to Dabula and Hodgkinson-Williams (2024) Opening Up Education by the European Union (2013) is another example of why free educational resources could facilitate learning and knowledge sharing. In the central part of Europe (Germany, Austria, Switzerland), policy-level (written views) on OER are predominant. The reason behind this is because national documents have clear guidelines as to how to go about using OER in the classroom (Bedenlier et al., 2022). However, Tosun and Altintas (2024) agree with Baas et al. (2019) that verbal views are

also considered internationally, particularly in Turkey, where educators use social media platforms like Instagram to promote and share OER. However, Al-Zahrani (2024) outlines that some educators, especially those who have been teaching for years before the digital era, still depend on their personal views, although they are still trying to adapt to technology and use OER.

Furthermore, in the African context cultural values, traditions, and social norms play a crucial role in shaping the use of OER, as policymakers and educators strive to align these resources with learners' local cultural backgrounds (Kpedekpo, 2024). As a result, written policy documents are developed to guide the integration of Indigenous knowledge in ways that respect learners' cultural contexts. However, Mncube (2024) noted that educators often rely on personal views, drawing from their classroom experiences and community contexts to decide how and when to use OER. Verbal views also contribute, as educators collaborate and share ideas through social media and professional discussions to ensure culturally responsive practices (Kpedekpo, 2024).

In the South African setting, the government introduced the Open Learning Policy Framework to encourage and support the use of OER (Dabula & Hodgkinson-Williams, 2024), alongside written policy documents such as CAPS, ATPs, and subject guidelines to direct implementation. Similarly, the Commonwealth of Learning (2025) indicates that school management teams (SMTs) encourage the use of OER, such as online past examination papers and digital textbooks, without compromising curriculum requirements. Despite the influence of written and verbal views, Setshedi and Van Wyk (2024) argue that educators tend to prioritise their personal views due to convenience and perceived effectiveness. Therefore, although the verbal and personal views are crucial in practice, written view is predominant as educators should always adhere to the documents provided by the Department of Education (DBE).

1.4 Rationale of the study

1.4.1 Personal Experience

Technology education is an important grade 7 context as it is a foundational level where learners acquire knowledge and skills that will enable them to further their learning in technology. I am a Grade 7 Technology educator who has been teaching the subject of Technology for three years, I have observed that OER are viewed as valuable tools that enhance both teaching and learning in the classroom. Educators are guided by different views on how to incorporate and utilise OER effectively in their Technology lessons to improve learners' performance. Written policies expect educators to follow the ATP, CAPS documents and subject guidelines regarding when and how to use OER. This is because according to these policies the written views can effectively shape the ways in which learners understand the Technology content. In addition, curriculum advisors and principals verbally guide educators to download previous question papers and online worksheets to improve learners' engagement. They further added that educators who utilise downloaded previous question papers are likely to produce high pass rates, while downloading online textbooks saves on costs. However, some of the educators are guided by their own experience (personal view) and understanding when utilising OER. According to these policies, written views can effectively shape learners' understanding of the Technology content. I have realised that this is problematic, because individual educators prefer different views on utilising OER. Hence, I started wondering what view level drives these educators to choose a particular sort of OER over another. Are there any benefits and challenges of using OER? How do educators view OER's impact on learners' comprehension and engagement in CAPS Technology education?

1.4.2 Related studies

A research study conducted by Setshedi and Van Wyk (2024) states that educators view OER as the material that provides and encourages equitable access to education and also equips them for the Fourth Industrial Revolution. Oxford University Press (2020) defines 'views' as an individual's opinions and attitudes towards something. The use of OER is shaped by different views, namely verbal, personal, and written views. In their

study, Setshedi and Van Wyk (2024) mention that the views of OER are shaped by personal experience, such as the use of educational videos to assist learners in better understanding the content. In contrast, a study conducted by Hulbert et al. (2025) states that educators in some faculties verbally view OER as a great way of cutting costs in their faculties and promoting fairness. Hence, management advises educators to try OER as a new teaching strategy that can enhance learners' results and reduce educational costs. In their study Mncube (2024) outlines that OER are viewed by subject policymakers as the resources that can better decolonise learning resources. For this reason, through ATPs and subject guidelines, educators are guided to use OER that are considered to best match the standard of the learners. However, due to limited time in class, educators end up choosing the view that works best for them and their learners. Hence, it is necessary to explore educators' views on the use of OER in Grade 7 Technology education to find out what really inspires them to choose a certain view over another.

1.5 Significance of the study

The findings of this study will capture the first-hand experiences, attitudes, and challenges encountered by Grade 7 educators when utilising OER in CAPS Technology education. An exploration of educators' views will guide curriculum policymakers and advisors on what really inspires educators to choose a certain view over another, so they can better align OER in a manner that accommodates different teaching strategies for different educators. The findings will further enable SMTs to save costs in their institution and also support and encourage a view that promotes the continuous and meaningful use of OER, while assisting educators to provide equal educational access for all learners, including those from a disadvantaged background who cannot afford to purchase extra learning materials and textbooks.

1.6 Problem statement

Sometimes educators find it difficult to access high-quality teaching materials that help improve learners' performance, including in Grade 7 Technology education. OER,

described by D'Antoni (2009) as free online learning materials, have become a helpful solution for educators. OER enable educators to enhance their teaching strategies while fostering learners' engagement in the classroom. In their studies, Setshedi (2024) and Van Wyk (2024) discovered that OER are viewed in different ways, based on written views, verbal views, and personal views, where these views guide educators on how to use OER in their teaching. Even though these different views guide educators on how to use OER, there is limited information on the factors that influence educators' choice of using a particular sort of OER over another and how these factors shape their use of OER in the classroom. Swain and Pathak (2024) also noted that while OER have many benefits, educators encounter several challenges when using them, which affect how they are applied in the classroom. However, limited attention has been given to understanding how these factors influence educators' decisions when selecting OER, particularly in Grade 7 Technology education. This lack of clear understanding has created a gap between policy and practice. This makes it hard for policymakers and curriculum advisors to offer useful support, such as training programmes. This gap may hold back the effective use of OER, which will further limit educators in improving their quality teaching materials, learner engagement, and equal access to the CAPS Technology content in the classroom. Hence it is important to explore and understand the views of Grade 7 educators on the use of OER for CAPS Technology education, as it will also reveal how comfortable educators are with integrating OER in their Technology lessons.

1.7 Main research question

- What are the views of Grade 7 Technology educators in the use of Open Educational Resources in CAPS Technology education?

Sub-questions:

- What view level drives Technology educators to choose a particular sort of Open Educational Resources that they use in CAPS Technology education?
- What are the perceived benefits and challenges faced by Technology educators when accessing and utilising Open Educational Resources in CAPS Technology education?

- How do educators view the use of Open Educational Resources on influencing learners' comprehension and engagement in Technology education?

1.8 Aims and objectives of the research

Research aim / purpose

- To explore the views of Grade 7 Technology educators with regard to the use of Open Educational Resources in CAPS Technology education.

Research objectives

- To understand the view level that drives Grade 7 Technology educators when choosing a particular sort of Open Educational Resources for teaching CAPS Technology education.
- To explore the perceived benefits and challenges experienced by Grade 7 Technology educators when accessing and utilising OER in CAPS Technology education.
- To understand educators' views on how the use of Open Educational Resources influences learners' comprehension and engagement in CAPS Technology education.

1.9 Literature review

Open Educational Resources (OER) have become an important strategy for improving teaching and learning, as schools and SMTs encourage educators to use diverse materials to enhance learner performance, particularly in Grade 7 Technology education. The concept of OER was introduced by UNESCO in 2002 (Daniyar & Sarsenova, 2023), and refers to free, accessible, and reusable teaching and learning materials such as videos, digital textbooks, past examination papers, and online platforms (Chigona et al., 2021; Ashikuzzaman et al., 2025; Read et al., 2020). The global interest in these resources is because it facilitates learner engagement and enhances teaching practices,

particularly in under-resourced schools. However, educators' use of OER is guided by three different views: written, verbal, and personal views.

To begin with, written views are sources that inform educators' written views and they are shaped by policy documents such as CAPS, ATPs, and subject guidelines, which aim to promote inclusive and effective teaching (Lesko et al., 2023). Although these policies provide guidance, their implementation is sometimes limited by lack of time, experience, and educator involvement in policy development, creating a gap between policy and practice (Atenas, 2024). Verbal views emerge through collaboration among educators and SMTs, where knowledge about the use OER is shared through meetings, teamwork, and social media platforms (Tran, 2021; Al-Zahrani, 2024). These interactions help educators access resources, exchange ideas, and improve teaching at a lower cost (Azeneth et al., 2025). However, this approach can exclude educators who lack digital skills. In contrast, personal views are based on educators' own teaching experiences and preferences, allowing them to adapt OER to suit learners' needs (Chakraborty et al., 2024; Richardson, 2022). Although this flexibility is beneficial, it leads to the question of whether teaching is still aligned to the curriculum when OER are used. In practice educators often rely more on their personal views due to convenience and familiarity, even though written and verbal views are also influential.

Furthermore, the use of OER offers several benefits, particularly in improving access to quality education. OER provide free, high-quality learning materials, making education more affordable and accessible, especially in disadvantaged schools (Matthew, 2023; Griffiths et al., 2022). They also support learning beyond the classroom, as educators can use platforms like WhatsApp to share additional resources such as videos and audio lessons, helping learners prepare for examinations (Bijay & Ram, 2024). Furthermore, OER promotes inclusive and culturally relevant education by allowing educators to incorporate diverse perspectives and cater to different learner needs (Griffiths et al., 2022). Nevertheless, these advantages are not equally felt by all learners, because not all learners have access to devices or internet access, especially in the rural areas.

Despite their advantages, the use of OER also has several challenges. Even though organisations such as UNESCO, the Commonwealth of Learning and the South African

DBE support OER integration, educators still face challenges such as poor internet access, lack of training, limited time, and low awareness of OER (Filippos, 2023; Bhavish et al., 2023; Griffiths et al., 2022). These challenges are mostly experienced in the schools located in the rural areas, where infrastructure and digital skills are limited (Tang & Bao, 2020). As a result, the benefits of the use of OER are not always recognised, particularly in disadvantaged schools.

Moreover, study conducted by Hilton (2020) also indicate that OER has the potential to have a positive impact on learner engagement and understanding. According to studies conducted by Griffiths et al. (2022) and Hung et al. (2024), OER enables educators to build learner-centred activities, which result in increased engagement and comprehension in the classroom. Learners become more motivated and engaged when they have a sense of ownership in selecting learning materials, making teaching more interactive and effective. However, despite these benefits, there is still limited understanding of how educators perceive these outcomes in practice. In conclusion, while OER are widely recognised for improving teaching and learning through flexible, affordable, and engaging resources, their use in structured curricula such as CAPS in South Africa remains complex. Educators' choices are influenced by written, verbal, and personal views, yet challenges such as limited infrastructure, digital skills, and policy alignment persist. Therefore, this study aims to explore the views of Grade 7 Technology educators on the use of OER, focusing on what view level drives them to choose a particular sort of OER over another, the benefits and challenges they experience, and how they perceive the impact of OER on learner engagement and comprehension, in order to address the gap between policy, practice, and educational outcomes.

1.10 Theoretical framework

A systematic collection of ideas and theories that form the basis of a research study is called a theoretical framework (Divya, 2023). It presents, explains, and defends the choice of specific theories and concepts to form the basis of the research and connects the researchers' work to previously held knowledge in the field. This study was guided by the Technology Acceptance Model (TAM), which provided a clear explanation of how and

why individual educators adopt new technologies including OER. According to Hong et al. (2021), TAM was developed by Fred Davis (1986) and is widely used to explain technology adoption among users, including educators. It is particularly relevant for this study as it helped to explore Grade 7 educators' views on using OER in CAPS Technology education. TAM focuses on the following core principles: perceived usefulness, perceived ease of use, attitude toward use, behavioural intention, and actual use. These core principles influence an individual's intention to use technology, including the use of OER.

Furthermore, Hong et. al (2021) agree with Marikyan and Papagiannidis (2024) that perceived usefulness refers to the extent to which educators believe that using technology enhances their teaching effectiveness and improves learners' understanding of Technology content. That is, if educators believe that a certain view on the use of OER is the one that enables them to deliver content more clearly and further enables learners to engage effectively in the lesson, then they are more likely to adopt that view in their classrooms. According to Tran (2021), perceived ease of use, in turn, relates to how educators find it easy to access, comprehend, and implement OER in their teaching practice. In other words, if a view on the use of OER is user-friendly and does not require excessive effort or technical skill, educators are more likely to be driven by it. Furthermore, these two beliefs (perceived usefulness, and perceived ease of use) shape the educators' attitudes toward OER, influencing their behavioural intention to use the resources (Ndebele & Mbodila, 2022).

Furthermore, this study used TAM to explore Grade 7 educators' views on the use of OER within CAPS Technology education by examining the relationship between their perceptions, challenges, and experiences in adopting these resources. The framework helps explain how educators' beliefs about usefulness and ease of use influence their adoption decisions, while also highlighting how OER impacts learner engagement and understanding. In addition, applying TAM ensured that the study goes beyond simply describing educators' views by systematically linking these views to the factors that influence implementation and usage. It also guided the data collection and analysis process by helping identify key benefits and challenges associated with OER adoption in

the CAPS curriculum. Ultimately, the use of TAM strengthens the study's practical relevance, as its findings informed strategies and recommendations aimed at improving the effective integration of OER in Technology education classrooms.

1.11 Research methodology

Research methodology is the overall approach and plan that a researcher uses to conduct a study, which explains how the research is going to be conducted and provides the justification of the methods used (Creswell & Creswell, 2021). It also includes all practical decisions about what data will be collected, from whom, how it will be gathered, and how it will be interpreted to answer the research questions (Shona & Tegan, 2022). In this study a qualitative research methodology was used to explore Grade 7 educators' views on the use of OER in CAPS Technology education, focusing on meaning and lived experience.

1.11.1 Research approach

A qualitative research approach was adopted because this study focused on exploring educators' views in context, where meaning and participants' views were central (Pretorius, 2024). Creswell and Poth (2023), supported by Merriam and Tisdell (2022) define qualitative research as a method that explains people's experiences and social situations using non-numerical data. It gives deep, comprehensive information about how individuals create meaning in their social world. This study used a qualitative approach through interviews and focus groups to understand educators' experiences of OER use in real classroom settings, aligning with the interpretivist paradigm (Merriam & Tisdell, 2024).

1.11.2 Research paradigm

A research paradigm is the view of reality held by the researcher that determines the way of understanding the reality, the way of knowledge construction, and the way research should be conducted (Kivunja & Kuyini, 2023; Pretorius, 2024). It comprises ontology, epistemology, and methodology as the guiding elements. This study was based on the interpretivist paradigm, according to which the reality was socially constructed and

shaped by the experiences and interactions of individuals (Pretorius, 2024; Phillips, 2023). Interpretivism is concerned with how people explain and construct meaning in their social world (Pervin & Mokhtar, 2022). This study relied on relativist ontology, in which reality is assumed to be subjective and contextual (Kivunja & Kuyini, 2021), and epistemology, understanding of knowledge as a worldbuilding process instead of the objective discovery (Pervin & Mokhtar, 2022). This provides a stable interpretation of information and viable recommendations to integrate OER (Mohajan, 2022; Takona, 2024).

1.11.3 Research design

A research design is defined as the plan that outlines how a study will be conducted and how research questions will be answered (McCombes, 2021; Creswell & Creswell, 2022). This study used a case study design to explore Grade 7 educators' views on the use of OER in CAPS Technology education. A case study is defined as an approach that allows for an in-depth investigation of real-life situations within their natural context, providing detailed understanding of participants' experiences (Hancock et al., 2021; Chowdhury & Shil, 2021). Data was generated through semi-structured interviews and Focus Group Discussions (FGDs) to gain rich, contextual insights into educators' perceptions. However, case studies are limited in that findings may not be generalisable due to the focus on specific contexts, and there is also a risk of researcher bias in interpretation (Hancock et al., 2021).

1.12 Sampling / selection of participants

Sampling is defined as the process by which a smaller group is selected out of a bigger population to take part in a study, as it is not always feasible to gather data on every member of the target population (McCombes, 2023). To select participants in this study both purposive and convenience sampling were applied. Purposive sampling is a non-probability sampling method where the participants are selected purposively, depending on the characteristics that are of interest to the study (Nikolopoulou, 2023). This method was appropriate for this study because Grade 7 Technology educators were deliberately chosen based on their direct experience and relevant views on the use of OER, ensuring

rich and meaningful data. Convenience sampling involved selecting participants who were easily accessible and willing to take part in the study.

1.13 Data generation

Two qualitative techniques were used to generate data in the form of semi-structured interviews and FGDs carried out with Grade 7 Technology educators in the Senior Phase.

1.13.1 Semi-structured Interviews

Semi-structured interviews refer to data collection that involves pre-constructed questions but allows the researcher to alter the sequence or even pursue new concepts during the interview (George, 2023). This approach allows for deeper exploration of participants' experiences, opinions, and attitudes. In this study semi-structured interviews were used to explore Grade 7 Technology educators' views on the use of OER in CAPS Technology education. Qu and Dumay (2021) agree with Rowley (2023) that this approach enables the researcher to pose guided questions but also to pursue interesting answers, resulting in rich and detailed data that is context specific. The interviews were conducted face to face during term 1 school holidays and early in term 2. Each interview lasted 45–60 minutes and participants were audio-recorded with their consent, which they signed for on the consent forms. The study purposively selected about three Grade 7 educators from each of three schools, based on their experience and diversity, ensuring they had direct exposure to the use of OER in CAPS Technology education and may provide relevant insights.

1.13.2 Focus group discussions

A focus group is a qualitative research design in which a small number of participants are engaged to discuss a topic with the help of a facilitator, and the interaction produces a variety of views and communal experiences (George, 2023). In this study FGDs were used to gather Grade 7 educators' views on use of OER in an interactive setting, helping to reveal both shared views and differing experiences that may not emerge in individual interviews. FGDs can be helpful in determining group dynamics and prevalent trends and are a powerful complement to semi-structured interviews in producing rich qualitative data

(Gill et al., 2022; Kitzinger, 2022). Sessions lasted for 45 minutes to 1 hour and audio-recording was used to record the participants after they signed the consent forms. I ensured that I was a neutral facilitator to ensure balanced participation and a respectful discussion without interfering with the responses. To capture varied perspectives FGDs were conducted across three different schools.

1.14 Data analysis

Thematic analysis was applied in this study, which combines deductive and inductive approaches to analysis of the data from the semi-structured interviews and FGDs. Thematic analysis is a method of identifying and reporting patterns or themes in data (Naeem et al, 2023). It assisted in exploring educators' views in detail regarding the use of OER in CAPS Technology education. The method was used by becoming familiar with the transcripts, coding important statements, grouping codes into themes, and re-reading and refining these themes to ensure that they reflected the views of the participants (Braun & Clarke, 2022). The analysis was conducted manually to make the process more organised and transparent. Furthermore, deductive thematic analysis is top-down analysis with themes found regarding prior theories, ideas, or the research questions of the study (Fife & Gossner, 2024; Jansen, 2025). In contrast, inductive thematic analysis is a bottom-up approach in which themes are directly based on what participants say, without any preconceptions (Nowell et al., 2022). Applying both approaches allowed the study to answer the key research questions and reveal some unforeseen concepts, such as issues with school resources, and training requirements.

1.15 Measures for trustworthiness

To ensure the accuracy of this qualitative study that explored the views of Grade 7 educators with regard to the use of OER in CAPS Technology education, multiple strategies were employed to establish trustworthiness in line with qualitative research standards. Implementing these trustworthiness strategies guaranteed that the findings of the study were reliable, trustworthy, and genuinely represented educators' views on the use of OER in CAPS Technology education.

1.15.1 Credibility

Lee (2022) states that credibility implies the level of assurance that the results of the research are an accurate reflection of what the participants felt and reported. Researchers take their time with the participants, consult various sources or methods to verify the information (triangulation), consult with colleagues, and invite the participants to comment on the results (member checking) to ensure that the findings are correct (Chakma, 2025). In this study, credibility was ensured by engaging participants in member checking, where educators were invited to review the interview transcripts and preliminary interpretations to confirm that their views were accurately represented. Additionally, by asking follow-up questions in interviews, prolonged engagement improved understanding and strengthened credibility.

1.15.2 Transferability

Transferability is about whether the study's findings can apply to other similar situations or groups. Researchers help with this by providing detailed descriptions of the setting, participants, and how the study was carried out so that readers can decide whether the results are useful in their own context (Shenton, 2021). The study addressed transferability by providing rich, detailed descriptions of the participants' backgrounds, the CAPS Technology education context, the specific OER tools they use, and different views on the use of OER. This depth of contextual information allows other researchers or educators to judge whether the findings are applicable in their own settings.

1.15.3 Dependability

According to Nowell et al. (2021), dependability is characterised by the stability and constancy of the research process over the course of time. It implies that the research has been conducted with such care that it can be reproduced by other people. All decisions and methods are well documented by the researchers, and their clarity assists other people to verify the quality of the research. Dependability, in this study, was achieved by having a clear audit trail that charts each of the data collection and analysis stages. It consisted of records of the interviewing procedures, coding, and theme

development in detail. External review of this documentation was possible, reinforcing the dependability of the study.

1.15.4 Confirmability

Confirmability is the extent to which results of a qualitative study can be formed by the answers and experiences of the participants instead of the researcher's biases, motives, and preferences (Lee, 2022). It is objective-oriented and neutral in that the findings are embedded in the data that is generated. Confirmability was improved in this study by maintaining reflexivity, where the researcher critically reflects on their own bias when participating in the research study, and keeping an audit trail, documenting all the decisions and processes so that other researchers can verify the results. Reflective journals and peer debriefing was beneficial in making sure that the findings are based on the opinions of the educators and not just those of the researcher.

1.16. Ethical consideration

According to Nii Laryeafio and Ogbewe (2023) ethical considerations entail the principles that govern how the research will be carried out in order to be responsible and respectful and safeguard the rights, dignity, and well-being of the participants. Informed consent, privacy, confidentiality, voluntary participation, and respectful treatment of the participants during the study are the major ethical considerations in qualitative research, all of which were adhered to in this study (Nii Laryeafio & Ogbewe, 2023; Klykken, 2022).

1.16.1 Confidentiality and anonymity

The interviewer must ensure that any information gathered about the interviewee should be kept secret and confidential. Therefore, no third party should have access to raw data unless specified by the interviewee (Dougherty, 2021). I ensured that privacy and confidentiality were observed by making sure that all the data is anonymized and stored securely. Additionally, any data that can be used to identify the participants was de-identified to protect their privacy.

1.16.2 Informed consent

Bhandari (2021) states that Informed consent is a situation where all the potential participants are given all the relevant information so they may be well informed about the purpose of the study beforehand; they have the right to decide whether they want to participate or not. The information includes details of the benefits, risk, and institutional approval of the study. I ensured that the Informed Consent form was provided to the participants, and that it the purpose of the study, procedures, and possible risks as well as the rights of the participants, such as the right to withdraw without any penalty.

1.16.3 Safety, harm and risk management

The British Educational Research Association (BERA) (2024) noted that ethical research design and implementation are meant to place the participants at ease and not impose too much on them. Before data is generated the researchers must reflect on their duty of care to identify possible harms, plan and be able to mitigate and address any distress or discomfort that might occur. In this study I considered various risks, such as social/psychological risks (e.g., stress when talking about difficulties, professional reputation issues) when interviewing educators. participants were also given the choice to skip questions, refuse audio-recording, or terminate an interview if they felt uncomfortable.

1.16.4 Permission to conduct the study (access and approvals)

In this study I made sure to have formal permission (acceptance letter) to carry out the study from the school principals before any data was generated, ethical clearance obtained from institutional Research Ethics Committee (REC) or Human Research Ethics Committee (HREC), and the letter approving the proposal. (see Appendices: E, D, G)

1.17 Study limitations

Every research study is limited in some ways that may influence the extent, depth, or relevance of its findings. Practical limitations in this qualitative case study the views of Grade 7 technology educators on the use of OER were primary limitations associated with time and access to participants. Awareness of such limitations makes the research more transparent and credible, and the methods used to reduce their influence increase

the quality of the research and make it more reliable (Creswell & Poth, 2023; BERA, 2024). Time limitations were an issue, because the study began in January 2026 when educators were still adapting to a new school year and balancing several tasks after a devastating tragedy caused by floods in Limpopo Province. To overcome this, interviews were conducted during the term 1 school holidays and at the beginning of term 2 after school, during free time, and online, with the questions provided beforehand so that the participants were prepared to give their answers. Furthermore, institutional consent processes may also have delayed access to participants. However, early contact with the school principals and clear explanations of the purpose and benefits of the study assisted in timely approvals. Moreover, I knew some of the participants and this would have possibly influenced the responses; potential bias was reduced by peer debriefing and assurances of confidentiality. Additionally, some of the participants dropped out because of workload, personal issues and transfer to another school. To minimise this risk, I ensured that I over-recruited, kept in touch regularly, reminded them of the research interviews and was flexible with the schedule (Creswell & Poth, 2023; BERA, 2024). All these strategies were meant to reduce the effects of these limitations without compromising the credibility and reliability of the findings of the study.

1.18 Outline of the chapters

Chapter One provides the reader with the overview of the study, and it starts with the introduction and background that place the research in the context of Grade 7 CAPS Technology education and views on the use of OER. It describes the research problem, indicating the knowledge gap in this area concerning the views of educators on the use of OER. The chapter introduces the research aim, objectives and sub-questions, which are consistent with the problem being examined. It also indicates the significance of the study, describing how it can contribute to educational practice, policy, and literature. The rationale is a mix of personal experiences that prompted the study with knowledge from the available literature to support the necessity of the study.

Chapter Two presents a critical literature review of the current research on educators' views on the use OER in education, especially Technology education and the South

African CAPS curriculum. It analyses different South African, international and local views on the advantages, issues and pedagogical influences of OER adoption. It further discusses issues related to curriculum and how they align with the levels of the phenomenon.

Chapter Three provides the theoretical framework, namely the Technology Acceptance Module (TAM), which is the lens through which the research is interpreted.

Chapter Four explains the methodology that was used in this study. It describes the research approach, stating why a qualitative approach is best applicable in the study of the views of educators in detail. The research paradigm (interpretivist) is explained to make the philosophical position of the research clear. The research design (case study) is also defined in this chapter, as well as the way in which data is generated and analysed. Every methodological decision is explained using literature to show rigour and suitability in answering the research questions. The chapter further explains how the research methodology was carried out. It describes how participants were chosen, and what inclusion criteria and sampling method were used. The data generation methods (semi-structured interviews and FGDs) are outlined as well as how these tools were used to generate data.

Chapter Five explains the process of data analysis, such as coding procedures, thematic analysis, and steps to achieve accuracy and reliability in interpretation of the findings.

Chapter Six provides a summary of the findings that emerged, as well as recommendations for future practice and the conclusion to the study.

1.19 Chapter summary

This chapter introduced the study titled 'The Views of Grade 7 Technology educators on the use of OER in Limpopo Province' by outlining its background, context, and rationale. It highlighted the significance of the study, presented the problem statement, and outlined the main research questions, sub-questions, aim, and objectives that guided the study. It also provided an overview of the literature review, theoretical framework, and research

methodology, including the approach, paradigm, design, and data generation methods. Finally, ethical considerations, trustworthiness, limitations, and the organisation of the study were discussed, laying a clear foundation for the research.

CHAPTER TWO – LITERATURE REVIEW

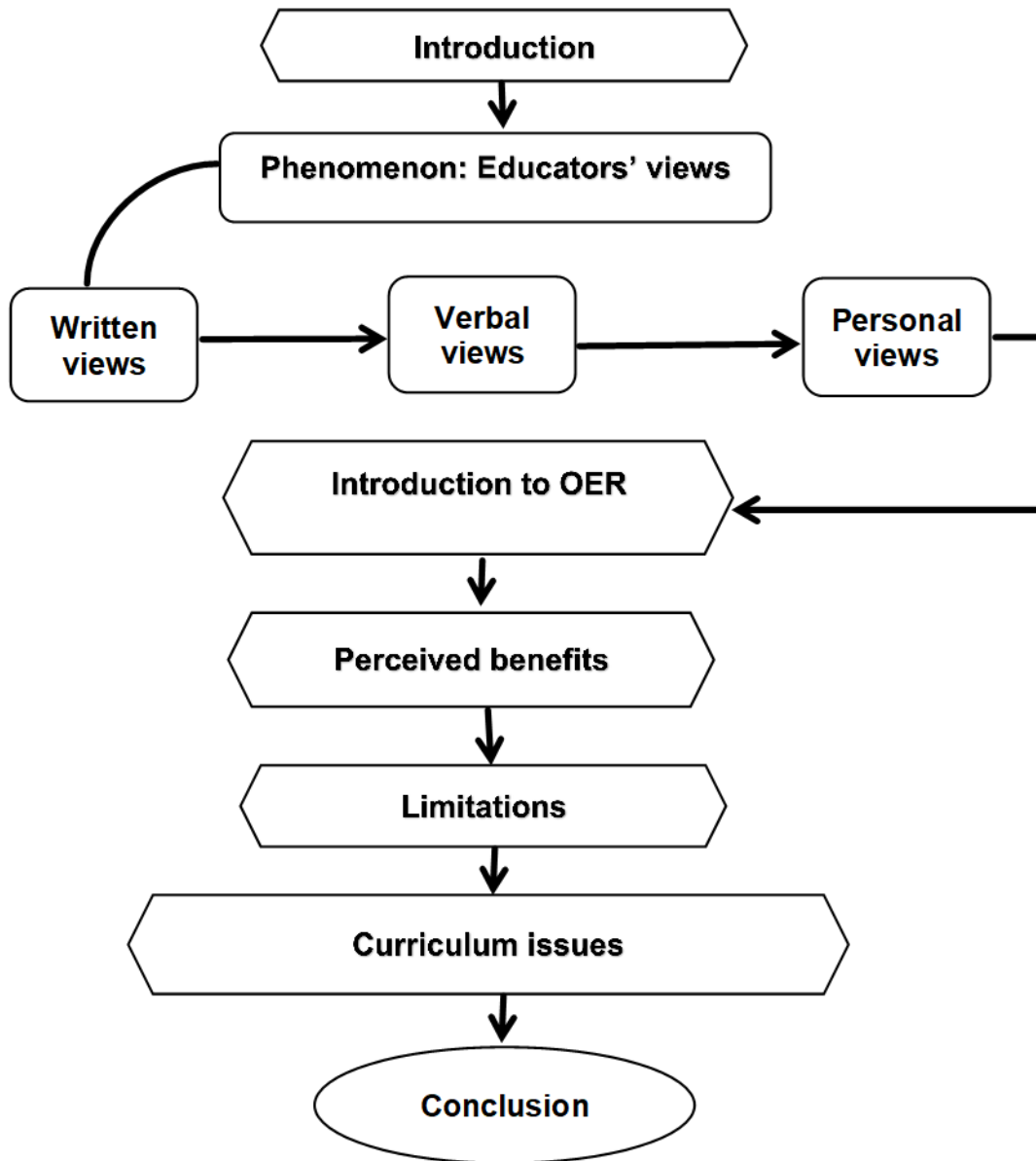


Figure 2: Chapter Two (flow diagram)

2.1 Introduction

Chapter One presented the background of the study, rationale, significance of the study, problem statement, main research question, aims and objectives, as well as a preliminary overview of the research methodology and literature review. Chapter Two presents a literature review of the existing literature on the views of Grade 7 educators regarding the use of Open Educational Resources (OER) in CAPS Technology education, situating the study within the context of current scholarly controversies and theoretical perspectives. It begins by unpacking the phenomenon of the study, which involves views, and then pays more attention to the three levels of views: written views, verbal views, and personal views. The chapter then reviews the concept of OER. Further, it examines the perceived benefits and challenges associated with using OER in teaching and learning, specifically in the context of the CAPS Technology curriculum. The chapter also reviews the impact of OERs on learners' engagement and comprehension in the classroom, outlining the opportunities they open up as well as the limitations they pose. Additionally, the chapter also elaborates curriculum issues and how they align with the levels of the phenomenon. Ultimately, the conclusion leads to the next chapter.

2.2 Unpacking the phenomenon of the study: Views

Educators' views play a vital role in how curriculum policies are understood and implemented in the classroom setting. The concept of 'view' in educational and social research has been defined in different ways by researchers, who all highlighted that it relates to people's perceptions, attitudes, and opinions (Chand, 2025; Clayback et al., 2023; Khine, 2022). According to Romero-Ariza et al. (2025) the concept of 'views' encompasses conscious and unconscious perceptions, attitudes, and opinions that influence the application and interpretation of educational practices, including readiness to use new teaching tools such as OER. Similarly, Granić (2022) indicates that the views entail the beliefs, attitudes, and opinions of educators regarding new teaching methods that shape the level to which educators adopt these methods in their classrooms. This means that the views of educators directly influence their reactions to curriculum policies, the interpretation of teaching materials, and the adoption of innovations (OER). This

further indicates that views are highly dynamic modes of thinking that depend on personal experiences, the context of the environment, and the school environment.

According to the *Oxford English Dictionary* (2023) the concept of ‘view’ originates from the Latin word *vidēre*, which means to see, and has since developed to refer to how people see or interpret their environment. Tondeur et al. (2021) explain that in educational research the meaning of ‘view’ has been extended to represent how educators perceive or make sense of teaching, learning, and curriculum practice. Flint et al. (2024) also noted that the analysis of educators’ views is rooted in social-psychological discussion of beliefs and attitudes. Additionally, the framework offered by Ajzen (1991) is supported by other educational theories like the Technology Acceptance Model (TAM), which was developed by Fred Davis (1986), which focuses on perceived usefulness, ease of use, and compatibility in influencing the ability of educators to accept or resist new educational innovations like OER (Kuo, 2025). The same model aligns with the theoretical framework of this study. This implies that educators’ views are not random but have a systematic impact, determining classroom behaviour and readiness to accept pedagogical change.

Furthermore, empirical studies show that educators’ views are always correlated with increased effectiveness of teaching, enhanced motivation, and enhanced professional identity (Romero-Ariza, 2025). This suggests that when educators’ view curriculum materials and innovations as helpful, they tend to demonstrate a high level of self-efficacy, confidence, and commitment to the success of learners, as they develop attitudes that are usually not limited to their personal training but also cover professional cooperation and learning among peers. For instance, educators who have a favourable view of the use of OER and technology integration are likely to share and co-design lesson content and collaborate to foster continuous improvement. However, Wolf and Brown (2023) point out that educators’ views cannot be entirely interpreted out of context, as they are influenced by institutional and contextual factors. Factors such as workload, school leadership, resource access, and professional support structures play a significant role in the way educators develop and build their beliefs about education (Stacey et al., 2023).

In addition, Motsi and Makgato-Khunou (2024) highlight that educators' views have a profound impact on the interpretation and application of the curriculum policies in the classroom. South Africa is a good example of this, as it demonstrates that the success of reforms, such as the CAPS, largely depends on how educators interpret the relevance, practicality, and importance of the curriculum. Sikoyo and Isabirye (2023) concur with Tondeur et al. (2021) that educators who have positive views towards curriculum changes or innovative ideas tend to test them, adopt learner-centred teaching methodologies, and reflect on their practice in order to improve the quality of teaching. However, they further argue that in cases where educators have a negative view, they often implement the curriculum only to meet the requirements and are not committed to it or to bringing about any substantial change. This leads to shallow compliance rather than actual advancements in learning and teaching (Chimbunde & Moreeng, 2024).

Moreover, there have always been education theorists who highlight that educators' views serve as a link between curriculum development and classroom practice (Chimbunde & Moreeng, 2024; Doh & Blignaut, 2024). Constructivist and socio-cultural theories of learning suggest that educators' decisions regarding instruction are highly dependent on their past experiences, classroom settings, and personal beliefs (Nyamekye et al., 2025). This indicates that educators not only implement the policy but are also active decoders and co-planners of the curriculum. For instance, educators who view OER as flexible, free, and beneficial to learners make an effort to integrate them into the CAPS framework creatively. However, an educator who believes OER does not meet the assessment requirements or is not significant may choose not to use them at all (Kuo, 2025). This implies that educators' views are important factors in determining whether innovation in the field of teaching can be promoted.

However, educators are guided by three different view level, namely written views, verbal views, and personal views, which influence how and when to use OER. View level is used in this study to describe the various ways or sources in which educators' views are expressed or developed. The educators are influenced by written views in the form of documents such as the CAPS, ATPs and subject guidelines (Kuo, 2025; Romero-Ariza,

2025). Verbal views are expressed when educators share their perspectives on how to interpret curriculum innovations like OER during group discussions, workshops, staff meetings and social network collaborations (Stacey et al., 2023; Granic et al., 2022). Personal views are the internal beliefs, values and attitudes of the educator about their decision making and classroom practices. Such personal views tend to be predetermined by individuals' teaching experience, professional knowledge, and contextual influences (Wolf & Brown, 2023). This indicate that all three of these views shape the way in which educators choose and use OER in their Technology lessons. However, it is not known which view level drives individual educators to choose a particular OER over another. Additionally, exploring these views will also assist in determining whether use of the chosen OER matches curriculum expectations and fits the realities of the classroom. Answering this question will reveal the main reason behind educators' choices of the preferable view when using OER. To gain a deeper understanding of how these different views guide educators on when and how to use OER, the next section reviews each of the three levels of views (written, verbal, and personal).

2.2.1 Written views

Curriculum advisors and policymakers play a very important role in the educational environment, because they are involved in formulating policy documents (written views) to inform and assist educators to enhance the teaching and learning process in their subjects, including in Grade 7 Technology education. According to the DBE (2023) written views are sources that inform educators' written views and these sources are in the form of formal documents such as the CAPS, ATPs and subject guidelines. These are the documents that guide educators on the effective way to deliver Technology in a way that promotes equitable and inclusive learning experiences among all learners, including those with learning barriers or those who come from a disadvantaged background (Mabunda, 2023; Mouton & Malumbete, 2023; Rinquest & Simba, 2024; Johnson & Erasmus, 2025). Mahlangu (2022) argues that written views promote consistency in the teaching process, but can also limit educators' ability to meet learners' educational needs. For instance, Setshedi and van Wyk (2024) state that the CAPS document gives a clear

outline on how Technology education should be taught so that learners can acquire practical and problem-solving skills.

However, the structure provided might not always correspond to the situation in the classroom, especially in under-resourced schools where educators have difficulties accessing the OER needed to fulfill the expectations of the policy. Research indicates that most rural and township schools in Limpopo do not have proper infrastructure, such as a stable internet connection and technology devices, which might result in educators struggling to use OER effectively (Shabangu & Jita, 2024; Tshwani & Seeletse, 2025). Duma et al. (2021) and Moodley (2025) added that lack of digital literacy and professional growth also narrow the chances of educators to use OER according to the curriculum requirements. These challenges are likely to create a gap between policy and practice for educators (Mokoena & Seeletse, 2025). Hence educators might only consider written views on the use of OER based on their school context and the available resources by drawing from the school policies.

Furthermore, research has also shown that every individual educator has their own way of interpreting the written views. Indicatively, a research study conducted by Kuo and Tseng (2024) found that educators are more likely to modify written views depending on what they consider to be workable and manageable in their classrooms. On the same note, Lesko et al. (2023) discovered that although national policy documents like CAPS promote the use of learner-centred and resource-based teaching methodologies, most educators take this as a suggestion to adopt OER that have the capacity to improve learners' engagement and results. Nevertheless, the same research noted that several educators were not properly consulted during the policy-making process. This implies that such inactivity can lead to what Atenas et al. (2024) call a disconnect between the policy development and the policy practice, where educators have been engaging in the interpretation of written views in their own ways of understanding. This is also known as a policy enactment gap (the gap between policy and practice), a scenario in which educators would interpret the practice of intended policies in policy documents in their own teaching settings in a manner that might not necessarily be the same as the original

intention of the policies (Ball et al., 2021). This could lead to variations in the use of OER among educators in the context of Technology education due to such gaps in enactment. This demonstrates that some educators may support written views on the use of OER as a means to promote learners' engagement, while others may view them as ineffective due to their school context with limited resources.

Written views also demonstrate the reaction of the national education systems to international recommendations. Governments are urged by the UNESCO OER Recommendation and Commonwealth of Learning frameworks, which were adopted internationally in 2019 and are constantly reinforced by new updates, to encourage the creation, adaptation, and sharing of open learning material to provide inclusive education (Ossiannilsson et al., 2023). The education policies of South Africa, especially CAPS and ATPs, also follow such global direction through encouraging resource sharing, inclusivity, and the incorporation of digital technologies (Lesko et al., 2023). The incorporation of OER-related principles into the curriculum's policies, as written, indicates a commitment to innovation and accessibility at the governmental level of education. Regardless of such policy intentions, issues persist in translating written views into day-to-day classroom practice.

Setshedi and van Wyk (2024) note that educators often lack sufficient digital infrastructure, technical support and training to implement OER-related practices in their classrooms. On the same note, Mahlangu (2022) found that the high level of policy language in curriculum documents presents a challenge to most schools, particularly in rural provinces like Limpopo, due to the difficulty in understanding and applying it in schools. All these documents use written views with the aim of transforming classroom experiences. This indicates that even though written views create a framework of inclusive and resource-based teaching, they do not necessarily imply exemplary implementation unless this comes with support structures and the opportunity to develop professionally. Additionally, written views are likely to standardise at the expense of the local contexts. Ngubane and Mokhele (2023) noted that written views are often expressed on ideal

conditions, as opposed to the real struggles encountered by educators in the disadvantaged schools.

2.2.2 Verbal views

According to Van der Berg and Du Toit-Brits (2023) verbal views refer to the use of words, conversations, and interpretations that occur among educators in their professional contexts. These views are promoted and exchanged in formal settings, such as staff meetings, workshops, and on social media platforms like WhatsApp groups and Telegram. Through verbal interactions educators can exchange ideas, negotiate meanings, and collectively construct interpretations of curriculum expectations and pedagogy (Jensen & Kimmons, 2022). Mncube and Tanner (2021) state that in their staff meetings educators verbally share the ways of using and when to use OER. De Jong (2022) added that verbal views enable educators to encourage each other in the best way to close the gap between policy and classroom practice.

Furthermore, collaboration among educators through verbal views provides a great opportunity for them to shape their professional beliefs and practices, including how they can incorporate OER effectively during the teaching and learning process. According to Al-Zahrani (2024), in Technology education verbal views enable educators to encourage each other on how and when to effectively integrate OER in their lessons. Tran (2021) agrees with this idea by pointing out that the sense-making of educators regarding curriculum policy implementation (including the use of OER) usually takes place in a group meeting where educators gather together to verbally discuss and share different views. This implies that some educators might find it challenging to interpret how to use OER on their own. Hence, through verbal views in their meetings they are able to assist each other to understand how to use OER and further adjust to ways that best fit their own classroom context. Additionally, in South Africa the DBE considers verbal interaction to be more significant because educators are able to share their verbal views in order to help those who might be struggling with specific content. According to Ngubane and Mokhele (2023) educators' professional development workshops and subject meetings are effective in helping them to unpack the intentions of CAPS so that their thoughts on

assessment standards are consistent. Hence educators typically attend cluster meetings or district training sessions which provide opportunities for them to gain more experience in teaching Technology education and discuss how to access and utilise appropriate OER materials with their colleagues. This suggests that verbal views foster professional confidence and shared responsibility among educators regarding the use of OER.

In addition, recent studies highlight the increased role of digital communication to expand verbal views to the traditional face-to-face environment. With the continued rise in the popularity of smartphones and other messaging applications, educators have begun to utilise applications such as WhatsApp, Telegram, and Facebook groups to share their verbal views on the use of OER (Ramirez-Montoya et al., 2025). Through these platforms educators share verbal views on Technology lessons, and consult and discuss their problems during the process of implementing CAPS. Pacheco et al. (2025) note that this type of digital space has become essential to the continuous professional discourse, especially in areas where formal workshops are not that common. Through these online interactions educators reveal their verbal views concerning which OER resources are efficient, how these resources can be modified in accordance with the needs of various learners, and how they can be oriented to the demands of the policy (Wang et al., 2022; Mncube et al., 2021). Verbal views are also a major contributor to promoting reflective teaching practices. As Hennessy et al. (2022) discovered, when educators are actively involved in discussing issues related to lesson planning and resource utilisation, they develop greater confidence in modifying materials to meet the needs of different learners. This implies that verbal views enable educators to discuss strategies, obtain clarification and get feedback on the best strategies to use. Jensen (2022) agrees with Pischetola (2023) that when educators discuss the issues of applying practice in Technology education, they tend to verbally encourage each other on the use of OER in order to make the lessons more efficient. Burger and van der Kolk (2025) noted that educators' verbal views on frequent interactions with instructional materials and co-reading them are most likely to lead to incorporating them effectively in their classroom practice. This indicates that verbal views are not spaces of communication but also spaces of shared professional learning. Burger and van der Kolk (2025) opined that verbal views enable educators to

use OER appropriately, meaning that through verbal views educators can learn from one another how to best assist learners in achieving their academic goals.

Moreover, verbal views are also used as an alternative to formal training opportunities for educators. As Setshedi and van Wyk (2024) emphasise, educators working at under-resourced schools usually count on their colleagues to provide assistance with interpretation of the policy documents and implementation of curriculum innovations through verbal views. This suggests that verbal views that occur through staff meetings and social media groups allow educators to form local knowledge networks that offset the lack of access to formal workshops. Additionally, the use of verbal views on the social media platform acts as informal professional development where educators share stories of success, working challenges and ideas of how they can incorporate OER into the Technology curriculum (Prestridge et al. 2021). However, there are obstacles regarding views that are expressed verbally. Ajani (2021) cautions that non-facilitated discussions may be misleading or contribute to negative outcomes in teaching methods, including on the use of OER in Technology education.

2.2.3 Personal views

Personal views, defined by Tran (2021) and Meij et al. (2025), are personal perceptions, attitudes, beliefs and experiences which reflect how educators make interpretations of the curriculum requirements in order to be able to develop a teaching strategy that aligns with their own understanding. Alemdar and Aytac (2022) agree with Tlali (2023) that personal views are rooted within the professional background of the educators, classroom experiences and their philosophies of teaching. Unlike written or verbal views, which are institutional or collective. Personal views affect the way educators consider and implement instructional practices, such as the use of OER, in a manner that fits their understanding of what they believe is effective for their learners (Chakraborty et al., 2024). Hence some educators choose certain OER materials due to prior success in using those materials or because they are attractive to them in terms of their knowledge about how learners learn most effectively. This reveals that personal views act as a

viewpoint through which educators can understand policy instruction as well as accessible teaching materials.

Furthermore, recent literature points out that personal views also play an important role in curriculum implementation. According to Richardson (2022) and Havemann and Roberts (2021) the readiness of educators to be innovative in the classroom has a strong connection with their confidence and personal view regarding teaching. They further argue that when educators observe that their teaching strategies enable them to help learners produce great performances, they develop motivation to continue with that strategy. Additionally, personal views also reveal the balance between creativity and engagement with the learners and compliance with the curriculum. Lufungulo (2025) notes that individual philosophy allows some educators to implement learner-centred instruction and contextual adaptation, which are more important than adhering to the formal lesson plans. This tends to create new classroom practices that involve designing lessons to suit the needs and backgrounds of the learners. However, personal views can lead to inconsistency in the amount of curriculum covered, as educators may highlight what they feel is the most valuable or feasible and leave the rest unaddressed. Research conducted by Cheung et al. (2022) provided similar results, revealing that younger educators are more prone to using OER and other technological tools freely and easily, whereas older educators might stick to more traditional approaches. This indicates that the understanding of personal views and the level of comfort an educator has with the use of OER and other technology tools defines the way in which the objectives of the curriculum are interpreted and implemented.

It has also been found that contextual elements have a very strong influence on personal views. The character of the teaching practice, including the size of the classroom, the amount of work, teaching resources, and access to technological resources, are variables that affect the educators' personal views regarding the possibilities and practicality of their classrooms (Van Allen & Katz, 2020; Kuo & Tseng, 2024). For instance, in a school with limited internet access educators might view the use of OER as personally challenging, even though the policy suggests the use of online OER. According to recent discoveries

in education sciences (Tang & Qian, 2021), the perceived relevance of resources, together with the adaptability of teachers to local circumstances, are good predictors of the successful implementation of OER. This suggests that the personal views of educators influence how they understand the requirements of the curriculum and the decisions made concerning the utilisation of OER in Grade 7 CAPS Technology classrooms.

2.4 Open Educational Resources

2.4.1 Definition and origin of Open Educational Resources

OER are gaining recognition as significant resources for improving teaching and learning in the global context. Atenas et al. (2024) define OER as the learning and teaching resources that are published and released through open licence and made available free of charge, thus allowing educators and learners to access, exploit, modify, repurpose and redistribute to others without restrictions. Chigona et al. (2021) state that OER are considered to be free online teaching and learning resources that can be used by educators to enhance their teaching strategies; they can further share these resources with each other to improve learners' participation and engagement in the classroom. The term OER was initially introduced at a UNESCO forum in 2002 where policymakers emphasised the significance of open educational content in order to increase the educational opportunities in the world (Daniyar & Sarsenova, 2023; UNESCO, 2023). This indicates that the establishment of OER as a defined and globally recognised concept influences educators' written views through policy and guidance-based documents and thus provides a system in which educators view and use OER during teaching and learning.

Furthermore, the definition and origin of OER are not merely a conceptual discussion but have a direct impact on how educators view and use OER in practice. A systematic literature review of OER in Africa conducted by Tlili et al. (2022) has proven that the interpretations of what OER is and how it is viewed by educators concerning whether they are of high-quality, relevant, and adaptable tools, are major verbal views that drive

educators' attitude towards adoption and use in the classroom environment. This suggests that educators' selection of a particular sort of OER is driven by the view level that influences their learners' comprehension and engagement in the classroom. For instance, recent research outlines that when educators realise that OER can be modified to meet their lesson's aim and objectives they develop more interest in incorporating them in their classroom and verbally encourage fellow educators to use OER in their lessons (Tlili et al., 2022; UNESCO, 2023; Otto, 2024). However, Farrow et al. (2024) highlight that educators that lack knowledge on the use of OER show less interest in incorporating OER in their lessons. This suggests that the view level adopted by educators, particularly their conceptual understanding of OER, drives their instructional decision making and influences the choice of the particular types of OER they use in their teaching.

Studies (Bozkurt et al., 2023, as cited in Tlili et al., 2023; UNESCO, 2023) outline that the origin of OER, traced from initial open courseware projects to its current international adoption and endorsement, influences the way in which educators view and use OER. Similarly, Butcher et al. (2024) states that approval of OER by international bodies, including UNESCO, provides an institutional force to these resources that in turn can influence educators' confidence to use OER in learner-centred ways that promote classroom engagement. In addition, research by Kuo and Kuo (2025) and Tang et al. (2020) demonstrated that educators' personal views regarding the quality, relevance, and adaptability of OER are notable predictors of their intention to use the resources in the teaching process. This suggests that the more educators see the use of OER as a written view that is globally recognised as a means of inclusive education, the more likely they are to incorporate OER into their lessons with a positive attitude. However, educators' personal views also influence their use of OER if they have had a great experience of enabling them to produce good results.

Moreover, free access is not considered a defining feature of OER; rather, it is a permission granted by open licensing. According to Sousa and Santos (2023) through OER educators are able to retain, reuse, revise, remix, and redistribute useful educational resources; this principle is known as the 5R framework. In his study Wiley (2022) argues

that the 5R framework gives a clear indication of how OER are different from traditional copyrighted materials, as it gives an insight into legal permission that allows educators to actively participate in the learning resources instead of using them under limited conditions. This highlights that written views based on these legal permissions shape how educators regard OER as flexible and useful tools rather than resources to be used under limited conditions (Wiley, 2022; Farrow et al., 2024; UNESCO, 2023). Sousa and Santos (2023) agree with Schroeder and Donat (2023) that the 'retain' principle enables educators to store OER content to use in the long term, whereas the 'reuse' principle helps them to use the same material in other teaching and learning processes. This findings highlights that educators might be driven by the personal view, because they should effectively store and reuse OER In their lessons based on their own experience, practical skills, and self-confidence in adapting the resources to their learners' needs. The latter studies further explain that 'revise' and 'remix' allow educators to change the material based on curriculum requirements and learners' background, which is especially relevant in a rural classroom setting. In addition, Wiley (2022) and UNESCO (2023) explain that 'redistribute' enables educators to distribute modified resources that enable learners to collaborate with each other while being engaged in the class during the teaching and learning process. This further implies that educators might be more driven by the personal view, because revising, remixing, and redistributing OER can be influenced by their individual personal experience and their learners' background understanding when using OER in their classroom context.

Nevertheless, Sousa et al. (2023) and Tili et al. (2023) state that educators with awareness and appreciation of the flexibility and adaptability of OER tend to revise and remix resources to enhance the relevance of their lesson and learners' engagement. However, UNESCO (2023) noted that educators with limited knowledge on open licensing might limit their application of OER to merely reuse, which might result in them missing out on the benefits of the 5R framework. This indicates that the personal views and understanding of educators of the 5R principles have a direct impact on the level and quality of OER implemented in the classroom lesson. In addition, Arispe et al. (2025) outline that educators who find it flexible and legally permissible to edit OER are more

ready to create activities that are learner-centred and to match the resources with the learning outcomes. Daniyar and Sarsenova (2023) added that this is applicable in the situation of curriculum-based contexts, where educators are required to balance both the policy requirements and learners' needs. This suggests that the 5R framework plays a fundamental role in understanding educators' personal views on the use of OER, as it enables them to understand the significance of retaining, revising, and remixing resources. This means educators will tend to choose and use OER that will facilitate meaningful learning and increase their learners' engagement.

2.4.2 Applications of Open Educational Resources

Some examples of OER are past exam papers, online textbooks, training video files, interactive simulation, open-access journals, and social media learning communities (Ashikuzzaman et al., 2025; Tlili et al., 2023). All these examples seek educators to draw from personal, verbal and written views in order to use them for teaching and learning. Furthermore, educators can reuse, revise, remix, and redistribute these resources and thus achieve particular curriculum objectives, meet student needs, and fit classroom environments (Wiley, 2022). Such a variety of materials enables educators to enrich the traditional teaching practice with innovative and mobile resources. This evidence point out that the accessibility of different OER is based on different levels of educators' views, which enable educators to move from traditional teaching methods to adopt more innovative, flexible, and mobile approaches to teaching and learning while improving learners' engagement in the class and their academic performance. Santos-Hermosa et al. (2024) agree with UNESCO (2023) that practical implementation of OER has gained attention worldwide because of the verbal view on the possible beneficial effects on the pedagogical approach and educational experience of learners, including in the rural areas. Verbal views are seen thorough educators' encouraging one another and emphasising that, for example, electronic textbooks and training videos can offer visual and interactive learning opportunities which might not be feasible using traditional textbooks. Educational groups with social media enable educators to share resources and pedagogical methods (Kimmons & Smalley, 2024; Liu et al., 2024). Past examination papers can also act as useful OER, as they assist the learner to prepare for an

assessment as well as allowing the educator to develop lessons depending on the knowledge gaps that can be determined (Farrow et al., 2024; UNESCO, 2023). Taken together, these findings indicate that educators might be driven by verbal views, as this enables them to save costs while providing equal education for all by using OER. Hence SMTs constantly advise educators to utilise previous papers.

Kuo and Kuo (2025) conducted an exploratory mixed-methods study with the aim of understanding factors affecting educators' willingness to adopt OER. The findings of the study indicated that the relevance, quality, and adaptability of OER depend on educators' personal views on when to include a resource in the lesson plan or use it as additional material. Daniyar and Sarsenova (2023) agree with the findings of Kuo and Kuo (2025), and also mentioned that, as an example, an educator who appreciates interactive learning may place more emphasis on digital simulations or videos, whereas another will place more emphasis on written materials that may include open textbooks or exam papers. This suggests that educators might be driven by their personal view to use OER, based on the previous positive experiences they have had, and assist their learners to actively engage with the lesson in an effective way. The educational communities on the internet, webinars, and online open-access training courses provide educators with a chance to share their ideas and implement new pedagogical strategies, thereby improving their teaching practice (Tlili et al., 2023; Ashikuzzaman et al., 2025). This implies that when working with OER individual educators might be driven by their personal views to improve their teaching performance; learners' results, create a culture of constant development and self-reflection.

2.4.3 Perceived benefits of using Open Educational Resources

OER are regarded as powerful learning resources that can benefit different schools, including those in rural areas with limited educational resources. These benefits are viewed through educators' written, verbal and personal views. Parker et al. (2022) agree with Squibb et al. (2023) that most SMTs emphasise that one of the most significant advantages of OER is that they provide good-quality learning materials at no cost. This suggests that, from a verbal view perspective, SMTs through their experiences

emphasise that OER not only assist schools in reducing expenditure on textbooks, but also provide an opportunity for all learners to access the same educational materials, even when their families are unable to afford additional study resources. In other words, the use of OER is verbally viewed as a wonderful benefit in education, including in South Africa, where most government schools continue to use old-fashioned textbooks and not all learners get access to a copy of the learning materials because the schools do not have sufficient money to purchase textbooks for all of the learners since classes are overcrowded (Rinquest & Simba, 2024). Herbert et al. (2022) noted that SMTs emphasise that by using OER educators can access learning materials by downloading, printing, or projecting them, without having to wait for textbooks to be delivered to schools, thereby allowing teaching and learning to continue without interruption. This suggests that SMTs may be driven by a verbal view, because they regard this as a practical solution for reducing costs while supporting the continuous teaching and learning process.

Furthermore, the other significant benefit of OER is the fact that they assist in delivery of the curriculum. In most schools educators face difficulties meeting the curriculum deadlines due to overcrowded classes and a shortage of educators (Harvey & Bond, 2022; Cheung et al., 2022). According to Swain and Pathak (2024) educators' personal views emphasise that OER can be used to assist them in a situation where they realise that some topics were not covered prior to exams. Studies conducted by Nkambule et al. (2023) and Gcabashe (2024) state that even though educators did not manage to finish the curriculum in class, they can still do so through digital learning where they can conduct online classes through WhatsApp groups and further share educational videos, slides, past papers or explanation notes in order to help learners catch up with the content that was missed. This findings reflect that from educators' personal view, learners can continue learning even out of school time, which consequently makes it easier for them to meet curriculum needs even when learning time is lost due to interference by factors such as absenteeism or overcrowded classes. This implies that some educators may be driven by the personal view, as it provides the opportunity for them to benefit significantly from the use of OER by further addressing gaps in the curriculum where there was not enough time to cover the entire curriculum in class.

Besides this, OER also encourages educators to teach decolonised content that is culturally relevant. According to many researchers, most textbooks contain content that uses too many Western or Eurocentric examples, which do not provide a complete picture of African history, experience, and knowledge systems (Kugara & Mdhuli, 2023; Akinmolayan et al., 2024). They further add that the use of OER enables educators to incorporate local South African examples and community-based knowledge, helping their learners to gain a better understanding of the content. This flexibility enables educators to eliminate culturally biased or outdated information and replace it with more contextually relevant information (Bradshaw et al., 2024; Bradshaw & McDonald, 2023). This suggests that educators may be driven by a personal view when using OER, as they see it as providing them with an opportunity to implement the curriculum in ways that ensure learners can relate school content to their own lives, thereby enhancing learner engagement and conceptual understanding.

Another benefit of using OER is that it helps educators to modify and align the curriculum to accommodate the needs of different learners. Swain and Pathak (2024) also state that OER can be modified to accommodate the needs of learners who study a second language and those who require more visual, audio-centred, or interactive explanations. They further noted that unlike printed textbooks, OER can be modified in terms of font size, level of reading, language or length of lessons. This may enable educators to be able to match teaching principles with Universal Design for Learning principles that promote flexibility in the presentation of content (Weirick et al., 2023). Research conducted by Mouton and Malumbete (2023) pointed out that written views help South African educators to adapt OER to suit learners in various circuits of the same district who might be using different home languages. This suggests that from a written view perspective OER can assist educators to follow the curriculum while at the same time supporting the language needs of the learners and addressing other personal barriers, as they will be able to edit, translate or rewrite the contents to suit them, unlike when textbooks are used. This further indicates that educators driven by written views when

using OER are able to adhere to the curriculum while also addressing the language realities and some personal barriers faced by their learners.

Moreover, according to Mabunda (2023) in South Africa changes to the curriculum, like the CAPS amendments, always occur before new textbooks that align to that curriculum are published and printed/distributed. This leads to educators having to use textbooks which are not updated to the current curriculum. However, Johnson and Erasmus (2025) posit that educators' verbal view assists them to remind each other that through the use of OER they still have access to the latest policy-compliant resources available online; therefore they do not necessarily have to wait until publishers can provide up-to-date resources, but can download them for free. This implies that educators may be driven by the verbal view, because educators are able to remind each other that by implementing the use of OER they can continue teaching while waiting for the printed textbooks. Additionally, the verbal view allows educators to remind each other that OER can also provide a great opportunity to save time, enabling them to download various worksheets or tests and make adjustments to fit their classroom, instead of writing them all themselves. This lessens the planning burden, particularly in schools where the educators teach many subjects. Swain and Pathak (2024) claim that educators who have adopted the use of OER have additional time to pay attention to their learners instead of creating their resources. This implies that educators who are driven by the verbal view can consider OER as a flexible approach to curriculum aims, since OER can be easily adjusted to correspond to CAPS standards while also reducing their workload stress and allowing them to be more deliberate in assisting learners to actively engage with the lesson.

2.4.4 Limitations of the use of Open Educational Resources

OER have been promoted as an innovative approach to enhance the quality, access and equity of education worldwide. According to Gurav and Nagarkar (2025) organisations such as UNESCO and the COL constantly promote OER as the tool for facilitating innovative teaching and minimising the cost of education. Setshedi and van Wyk (2024) concur with Van den Berg and du Toit-Brits (2023) that the DBE in South Africa has also

shown a commitment at policy level by recognising and endorsing the inclusion of OER into curriculum frameworks such as CAPS-aligned programmes. However, Swain and Pathak (2024) and Arispe et al. (2023) noted that although the policy is highly endorsed, the realities of access and use of OER in classrooms remain a great challenge for some educators, as they have limited knowledge of technology skills, limited institutional support and limited resources. These challenges are viewed through educators' written, verbal and personal views.

Even though the global development and implementation of the OER policy have been on the increase, to date the differences between nations are still apparent. According to Farrow et al. (2024) some countries have been able to work at national OER strategies and guidelines, but many low- and middle-income countries still have serious structural challenges. UNESCO (2023) and Ndebele et al. (2023) state that research indicates that the lack of infrastructure, constraints on funding, and lack of institutional support continue to persist in most developing settings. This imply that educators' attitudes toward the use of OER in some countries may be driven by their personal view, particularly for those who have had positive experiences with OER despite the limitations imposed by their socio-economic circumstances. Among the most long-term problems that educators face during the utilisation of OER are related to poor technological infrastructure, especially poor or unstable internet connectivity (Springer, 2025). Similarly, Klimova and Palla (2025) emphasise that a significant number of educators are not able to use OER resources because of poor connectivity, especially in rural and under-equipped schools. The same results are mentioned by Andrew (2024), who state that the lack of access to infrastructure connectivity is a serious limitation to the searching for, downloading, and adapting of OER among educators. In their studies Dlamini and Mbatha (2022) and Mabila and Mhlanga (2024) validate that internet connectivity is still a significant barrier in a lot of public schools in the South African context. This indicates that although OER are widely regarded as having significant benefits, some educators might personally view the use of OER as theoretically useful but practically infeasible, and thus OER will not be used consistently and meaningfully in Technology classrooms.

Furthermore, a problem closely associated with the limitations of infrastructure is the lack of digital competence among educators (Redecker, 2021; Cabero-Almenara et al., 2022; UNESCO, 2023; Fernández-Cruz & Fernández-Díaz, 2025). A systematic literature review conducted by Basilotta-Gómez-Pablos et al. (2022) emphasises that although OER are intended to be flexible, their efficient utilisation frequently involves some form of digital literacy, such as searching, evaluation, editing and remixing digital literacy. Blomgren (2023) added that even though the internet is accessible, many educators do not know how to adapt OER to their teaching styles due to a lack of technical expertise. Additionally, the most recent literature supports this issue of limitations, which suggests that the lack of digital training remains a barrier to OER implementation (Blomgren et al., 2023; Suria et al., 2025). From a verbal perspective, these limitations are reported by educators during staff meetings, workshops and social media discussions. According to Romero-Ariza et al. (2024) and Mishra (2025) educators reported that OER use is time-consuming and difficult to manage, especially for Grade 7 Technology educators who already feel overwhelmed by curriculum requirements. Additionally, there are limited formal training and professional development opportunities to orientate educators about the use of OER, and this further promotes fear among educators regarding taking part in the use of OER. According to De Hart et al. (2025) most educators are given minimal or no instruction on how to identify, assess and adopt OER in their classrooms. Similarly, results from Rabajalee et al. (2023) show that educators, colleges and policymakers do not know much about OER, including their definition and effective application (Griffiths et al., 2022). This suggests that a lack of formal training is one of the factors that contributes to the common concerns and discussions of educators that influence their verbal view and attitudes on how and when OER can be practically applied in classroom practice.

Moreover, time is also a major challenge that emerges as a limitation to the use of OER by educators. Although OER may be suggested as resources that can save time, multiple studies imply that the first stage of searching for resources, quality control, and matching the resources with curriculum goals can be time-consuming (Tang & Bao, 2020; Santos-Hermosa et al., 2022; Kimmons et al., 2023; Otto & Becker, 2024; Filippou, 2023). In their study Mullens and Hoffman (2023) mention that educators often do not have enough time

to assess the validity and applicability of OER prior to implementing it in the classroom. This issue has found resonance in studies by Santos-Hermosa et al. (2022), Kimmons et al. (2023), and Otto and Becker (2024), who fail to find any viable solution to this, due to the overwhelming teaching load and administrative burden of educators. This highlights that time pressures can further add to educators' personal view of the use of OER as an extra burden and not a viable solution, especially in the schools where educators have to teach more than one subject. Curriculum alignment and quality assurance are also additional limitations in the effective use of OER. In spite of the fact that OER are openly available, their quality may differ widely, which casts doubts on the accuracy, relevance, and suitability to CAPS requirements. Rolfe (2021), Wiley and Hilton (2022) argue that without standardised quality control mechanisms educators can doubt the quality of some OER materials. The latter studies noted that in the South African context most educators have difficulties in locating OER that fully meet local curriculum standards and expectations when it comes to assessment (Mabusela & Khoza, 2023). This indicates that such limitations could influence educators' personal view of OER as a supplementary teaching tool that is hard to include in formal lesson preparation. Besides quality issues, language and context relevance are also significant challenges in the use of OER. Most OER are constructed within the global scenario and might not be representative of local languages, cultural experiences or classroom realities. Hodgkinson-Williams and Arinto (2021), Tlili et al. (2022), and Mtebe and Kondoro (2024) argue that educators do not always manage to use OER to address the needs of learners from different linguistic and socio-cultural groups. This suggests that such contextual irrelevance can have the effect of making educators personally view OER as having no connection with the lived experience of their learners, which will lead them to think that OER are less effective in terms of increasing the engagement and comprehension of the learners.

2.5 Curriculum issues

2.5.1 Understanding curriculum: Definition and historical background

The concept 'curriculum' has been defined in different ways by different scholars. According to Ornstein and Hunkins (2022) and Marsh (2021) curriculum can be

considered a defined and organised system aimed at guiding the teaching and learning process to achieve certain educational objectives. Other researchers also point to the idea that curriculum not only refers to formal plans but also to lived experiences of learners and educators in particular situations, which implies that curriculum is dynamic and situational (Priestley et al., 2021). In contrast, the concept of curriculum is verbally viewed as a socio-political and ideological instrument that is influenced by social, economic and political factors which represents the values and power relations in society and not an objective body of knowledge (Au, 2022). Curriculum has ancient origins, especially in classical Greek and Roman education, where the order of subjects in learning was based on subjects like rhetoric, logic, and philosophy (Oyadokun et al., 2024; Coşkun Yaşar & Aslan, 2021). Formal application of the term ‘curriculum’ took place much later; the term curriculum was created through the Latin language, where it was used to point to the racecourse or track, representing a course or a path to be taken. Education theorists in the early years of education used this metaphor to refer to the course of study that learners were supposed to follow (El-Astal, 2023). Contemporary curriculum studies evolved in the early 20th century, particularly in the United States of America, as education spread and needed to be planned. Franklin Bobbitt (1918) is said to have formalised curriculum theory when he assigned importance to efficiency, goals and adult life preparation (Coşkun Yaşar & Aslan, 2021; Saim Akman, 2025). Bobbitt’s conceptions were later polished and criticised by other scholars like Tyler (1983) and Dewey (1997), who stressed experience and learner-centred education (Saim Akman, 2025). This suggests that knowledge of the curriculum is not constructed by just reading the written policy texts, but can also be explained and reinterpreted through the verbal view, where policy intentions are deliberated, contextualised and renegotiated in response to classroom realities and wider social interests.

Etymologically, the word curriculum is from the Latin word *currere*, meaning to run (Planàs, 2023; Duman, 2022). Coşkun Yaşar and Aslan (2021) note that this derivation supports the concept of curriculum as a guided process, where educators and learners go through pre-planned levels of learning and ability. However, according to researchers in critical theory this linear explanation is narrow; current studies propose that the debate

around the curriculum is becoming more preoccupied with questions of cultural identities, and social justice. For example, Agbaje (2023) highlights that curriculum reform in the higher education sector should support wider societal requirements and not be technocratic. Coker et al. (2024) insists that the curriculum decision-making process on the part of teachers is a complicated negotiation of knowledge, identity, and equity. Therefore, in spite of the fact that the concept of curriculum is conventionally rooted in notions of order and progression, modern scholarship has emphasised curriculum as an elastic and contextual phenomenon which is formally expressed in written policy statements, including curriculum outlines, syllabi and subject guidelines (van Booyse et al., 2025; Ngoben & Chibambo, 2023; Sepadi & Molapo, 2024; Janse van Vuuren et al., 2023). This suggests that curriculum as a concept, as represented in official policy documents like CAPS, ATPs and subject specifications (written views), is a structured and ideologically informed system that provides directions for the instructional choices of an educator, and justifies specific types of knowledge in Technology education.

2.5.2 Curriculum levels

2.5.2.1 Macro-level curriculum: National/system

According to Priestley et al. (2022), Ramdass and Mokgohloa (2023) and Van den Akker (2009) curriculum at the macro level is a broader term that is used to describe educational policies, frameworks, standards and official decisions that influence schooling in a whole system of education (e.g., national curriculum policy). Similarly, Ramdass and Mokgohloa (2023) highlighted that in the macro-level curriculum national documents like CAPS, ATPs and subject guidelines are formulated, and these provide educators with a structured direction of what, when and how to teach learners. On the same note, according to Van den Akker (2003) the macro level also enlightens us further on the system-wide intentions and standards which the curriculum planning is based on and upon which all other levels of enactment are based. Surma et al. (2025) agree with Ramdass and Mokgohloa (2023) that the macro curriculum outlines the content to be learned, the purpose, and sets the official goals, academic skills and measurement standards of schooling. This suggests that at a macro level educators are guided by the written views as expressed in formal

documents such as CAPS, ATPs and subject guidelines that reflect intended and mandated curriculum plans. Therefore, these documents represent the official written views of the policymakers and the systemic priorities that influence educators in their choices in relation to resources, including the use of OER and educational focus.

According to Legesse Edamo (2026) the use of OER is mostly promoted at the macro curriculum level, where national policy and formal curriculum influence the systemic adoption and incorporation of openness in educational systems. This highlights the fact that the use of OER is not only motivated by educators' individual decisions but legitimised and supported by written views such as policy documents and national curriculum strategies that position OER in the national education system. UNESCO (2023) argues that the policy tools that support the notion of openness include the national curriculum frameworks, strategies, and regulations, which justify and inform the way OER is implemented in the classroom. This indicate that the use of OER is not simply a pedagogical option, but a curriculum decision made at the system level and reflected in written views such as official policy documents.

Studies (Lufungulo, 2025; Mncube, 2024; 2024; Adedoyin et al, 2024) noted that within the Global South context, the adoption of OER is influenced at the macro level through the written views of the national curriculum systems and policy requirements; the level of openness recognised, resourced and maintained depends on these policy requirements. The latter studies underscore the importance of integrating OER principles in official curriculum documentation, as this enhances the likelihood of educators regarding the use of OER as a legitimate and curriculum-oriented action. This implies that educators use OER based on what is officially prescribed and reinforced in the curriculum policy through written views. In the same vein, Bozkurt et al. (2023) define open education as reform of national curriculum systems where openness should be expressed in terms of national visions, policies, and curriculum guidelines to achieve coherence and quality. Within their analysis, the use of OER is located in the macro- curriculum level, where governments stipulate educational priorities, quality standards, and access principles, which are conveyed through written views. This implies that at the macro level, when using OER

educators are guided by written views which are provided in the form of policy documents and national curriculum guidelines.

2.5.2.2 Meso-level curriculum: Institution/department

Ramdass and Mokgohloa (2023) define the meso level of curriculum as encompassing school systems, districts, provincial education offices and departments whose role is to interpret, contextualise and implement a broad curriculum intention into tangible plans and support systems. Hizli-Alkan (2022) added that the meso level of curriculum is the institutional layer between the national (macro) policies and the classroom (micro) practice. Fitriadi et al. (2026) highlighted that meso-level interactions influence the way in which educators and curriculum advisors come together to discuss and enact curriculum expectations. This suggests that the meso level is guided by verbal views, since the educators, SMTs and subject advisors hold discussions, conferences and workshops to make sense of macro written curriculum documents (CAPS, ATPs, subject guidelines) in order to make them fit the context of their learners. According to Priestley et al. (2021) policy becomes practice at the meso level because educators and curriculum advisors engage in verbal views such as discussions, workshops, and collaborative planning to interpret the macro-level curriculum. These collaborations help them to make sense of national policy, support one another in initiating curriculum innovations, exchange resources and help to implement them effectively.

Soler (2023) also argues that meso-level organisation is essential in implementing coherence, quality, and consistency between the national curriculum objectives and school-level practices. This suggests that verbal views at the meso level enable educators and curriculum advisors to collaboratively interpret the macro curriculum and come up with strategies and support structures that can assist learners' effective comprehension and engagement in the classroom. According to Mishra (2025) school leadership, district advisors, and the institutional governance structure are a key determinant of the way in which OER can be implemented, as they affect institutional policies, opportunities to develop professionally, and also the context, which enables long-term OER adoption. The latter studies also pointed out that institutional systems and support mechanisms play a decisive role in directing the approval of educators, capacity development through

education, and the coordination of open contents with broader curriculum objectives, which subsequently assists in ensuring successful execution of OER systems within schools. This suggests that at the meso level educators are verbally guided on how and when to use OER in their classroom in order to improve learners' comprehension and engagement.

2.5.2.3 Micro-level curriculum: Classroom/teacher

Studies (O'Connor, 2023; Ramdass & Mokgohloa, 2023; Van den Akker, 2009) define the micro-level curriculum as the classroom curriculum and classroom practice where educators fulfil the curriculum intentions in day-to-day pedagogy, use of resources, assessment, and interaction with the learners. Similarly, Fitriadi et al. (2026) highlighted that curriculum at this level is lived and experienced and influences the decisions of the educators, their beliefs and their own philosophy of teaching. Priestley et al. (2021) argue that curriculum is implemented at the micro level in the classroom, where educators transform institutional and policy-led curriculum intentions into meaningful learning activities, pedagogy and the choice of instructional materials that are responsive to classroom needs and realities. The latter studies highlight that this level of curriculum is mostly influenced by teachers' professional judgement and daily teaching choices. This indicates that at the micro level of curriculum educators are guided by personal views that have been effective for them and their learners throughout their teaching and learning process.

According to (Ross, 2024; Poulton, 2024). at the micro level individual educators interpret the macro curriculum so they can integrate the learning activities and educational resources that best fit their classroom context and the needs of learners. Kelly (2014) highlighted that the more educators have technology-integration self-efficacy, the higher the chances of them having a personal view on adopting and using OER in their classroom. This indicates that at the micro level educators' personal view on the use of OER can improve their learners' engagement and comprehension; hence they are likely to adopt them in a way that best suit learners' needs and the curriculum goals. In the same vein, UNESCO (2023) notes that although policy frameworks may encourage the

use of open resources, educators' personal views, willingness and ability to incorporate open resources into their daily practice in classrooms are the factors that largely define how open resources are adopted. This suggests that micro-level implementation of curriculum influences the personal view of the educator significantly, and thus it is a very important level through which the educators' manner and motive of using OER can be determined.

2. 6. Curriculum Representations

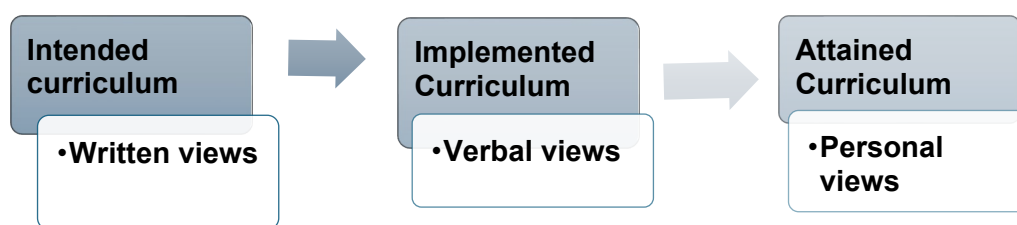


Figure 2.1: Curriculum representation guided by views

2.6.1 Intended curriculum

Tran (2024) defines the intended curriculum as the written and official documents produced by educational authorities to outline what learners are expected to know, comprehend, and perform. These documents are provided in the form of CAPS, ATPs, subject guidelines, national curriculum frameworks, guides to syllabuses, learning outcomes and official statements of goals and standards. Similarly, Sepadi and Molapo (2024) assert that the intended curriculum guides educators on how teaching, content and assessment should be implemented in the classroom. Priestley et al. (2023) agree with Sundberg (2021) that the intended curriculum reflects the priorities and epistemic commitments of education systems that not only encourage the teaching of the content but also shape educators' attitude toward it. This suggests that the intended curriculum is the written view that guides educators on how teaching and learning should be implemented in the classroom. According to Ross (2024) the intended curriculum acts as a policy tool that stipulates the intentions of the education system, pedagogical focus, performance standards of learners, and provides clear guidance on the selection of resources. This suggests that the intended curriculum has a great influence on the

process of selecting and modifying open resources such as OER by educators, as it provides the purposes and structures according to which OER are applicable to their lessons and can assist them to enhance learners' engagement and comprehension during the teaching and learning process. Ramulumo and Mnguni (2023) argue that the intended curriculum serves as a macro level where policy documents provided to the educators by the policymakers provide the written views on where and how educators can use OER. Similarly, Alhassan et al. (2024) note that the intended curriculum explicitly addresses educators on the competencies related to integration of technologies. This suggests that in the intended curriculum educators are guided to integrate and adopt OER in ways that align with curriculum objectives through written views.

However, studies conducted by Admiraal et al. discovered that even though the intended curriculum can guide educators on how and when to use OER through written views, when learning outcomes and standards are not clearly defined educators can find it difficult to get the suitable OER for their lessons, which might result in them losing interest in integrating them into their lessons. This suggests that when written views are not clear it might hinder educators from using OER when implementing the intended curriculum in their classroom. Moyo and Reddy (2025) highlight that when digital learning objectives and the use of open resources are clearly stipulated within the curriculum frameworks, educators can positively incorporate OER in their lesson plans in a manner that addresses learners' needs and the needs of the intended curriculum. This implies that for the effective implementation of the intended curriculum, written views need to be clear, detailed, and well structured, providing explicit guidance on learning outcomes, competencies, and resource use to support educators in selecting and integrating OER effectively.

2.6.2 Implemented curriculum

According to Doh Nubia and Blignaut (2024) the implemented curriculum is defined as what really happens when educators put the intended curriculum into practice in their classroom. It involves the enacted curriculum, the use of various teaching approaches and teaching resources verbally viewed and selected by educators during workshops,

departmental and subject meetings. Similarly, Zikalala and Ntshangase (2025) highlight that these verbal views offer an understanding of the way educators as a group discuss curriculum requirements, and experience and negotiate practical ways of teaching under particular situations, including in rural areas. Springer (2024) asserts that the implemented curriculum is influenced by the verbal views of educators in the teaching process, professional discussions about the use of curriculum material, choices of what activities should be given preference, and impulsive choices based on the needs of the learners and the classroom context. This highlight that the implemented curriculum is guided by verbal views, as implementation is influenced by educators' discussions and shared understandings during meetings. However, observations in research on curriculum implementation keep pointing out that the gap between the curriculum and actual practice in the classroom is a major issue. This gap is influenced by the interpretation of the instructed curriculum and its contextual limitations, such as time, class size, resources and the beliefs of the educators on effective teaching (Doh Nubia & Blignaut, 2024; Sepadi, 2025; Zikalala & Ntshangase, 2025). Hence educators' verbal views on the implemented curriculum play a crucial role, as educators verbally encourage each other to integrate the use of OER in their lessons to overcome some of the challenges (Flowers et al., 2024; Schaap & de Bruijn, 2024). This suggests that when educators integrate OER into their practice, they engage in the implemented curriculum, where verbal views enable them to encourage one another to select available open resources, adapt them to meet learners' needs, and use them as part of their lessons.

Romero-Ariza et al. (2025) agree Staudt Willet et al., 2022 that verbal views play a significant role in the implemented curriculum, as it enables educators to implement the use of OER effectively in a way that meets the objectives of the lesson while addressing learners' needs. The latter studies emphasise that in the implemented curriculum verbal views through collaboration discussions, workshops, and professional meetings enable educators to exchange experiences, review resources, exchange teaching approaches and make sure that OER are modified to the local context and adjusted to the desired learning outcomes. Doh Nubia and Blignaut (2024) note that verbal views enable educators (in a rural classroom) to implement the use of OER in a manner that fits their

background setting. Similarly, Kimmons et al. (2021) emphasise that verbal views improve the confidence educators feel when implementing the use of OER in their classroom to achieve their lesson goals. This suggests that the implemented curriculum is actively developed as a result of verbal views, where all views of educators are the driving force of implementing OER in the learning process and creating a way to achieve the predetermined outcomes of the curriculum.

2.6.3 Attained curriculum

The attained curriculum is also known as the experiential or learned curriculum (Van den Akker, 2009; Alyasin et al., 2023). Deng et al. (2023) define the attained curriculum as the received curriculum or the achievement, attitudes, skills, and knowledge of learners obtained in the process of teaching and learning. Alhajri and Al-Kharusi (2023) explain that the attained curriculum is a reflection of the learning processes and learning outcomes that learners actually remember in the classroom in terms of skills and values they have gained as a result of the teaching and learning process. Conversely, Ramulumo and Mnguni (2023) describe the attained curriculum as the knowledge and skills that learners have learned and can demonstrate by assessment, and emphasise that the attained curriculum might not match the intended and implemented curriculum because of contextual and instructional factors. Therefore, this curriculum representation describes the lived experience of learners, which suggests that the attained curriculum is guided by personal views, since it emerges from the interaction of individual learners with the curriculum and the resources that educators present to them.

The attained curriculum can be evaluated in terms of learner achievement measures, reflective self-reports, performance tasks, or any other measures of competence (Alyasin et al., 2023). Furthermore, the attained curriculum has been conceptualised in a manner that it is the curriculum as experienced, implying that it might not be the same as the planned (intended) and taught (implemented) curriculum (Shimizu & Vithal, 2023). The differences between these representations serve to note that despite the effectiveness of curriculum structures and taught methods, the lack of resources, absence of assessment and teaching methods and perceived lack of engagement with learners can prevent

results from being as anticipated (Ramulumo & Mnguni, 2023). Hence in the use of OER the attained curriculum should be reflected in the way in which learners are able to make sense of open resources, the impact of the resources on their cognition, and the degree to which they achieve learning outcomes corresponding to the desired objectives. This implies that the attained curriculum is guided by the personal views of the learners since individual beliefs, existing knowledge, personal motivation and experiences with OER have a direct impact on the internalisation and expression of learning.

2.7 Chapter summary

The literature reviewed in this chapter provided a clear definition of the phenomenon (educators' views) and unpacked its levels (written views, verbal views, and personal views). Also, the chapter introduced OER and their perceived benefits and limitations. Furthermore, it elaborated on curriculum issues and how they align with the levels of the phenomenon. Although previous studies have identified factors influencing the use of OER, there remains a need for a coherent theoretical lens to explain the views that drive educators to choose a particular OER over another. To fill this conceptual gap, the next chapter introduces the theoretical framework of this study, the Technology Acceptance Model (TAM), as the main theory for exploring educators' views on the use of OER.

CHAPTER THREE – THEORETICAL FRAMEWORK

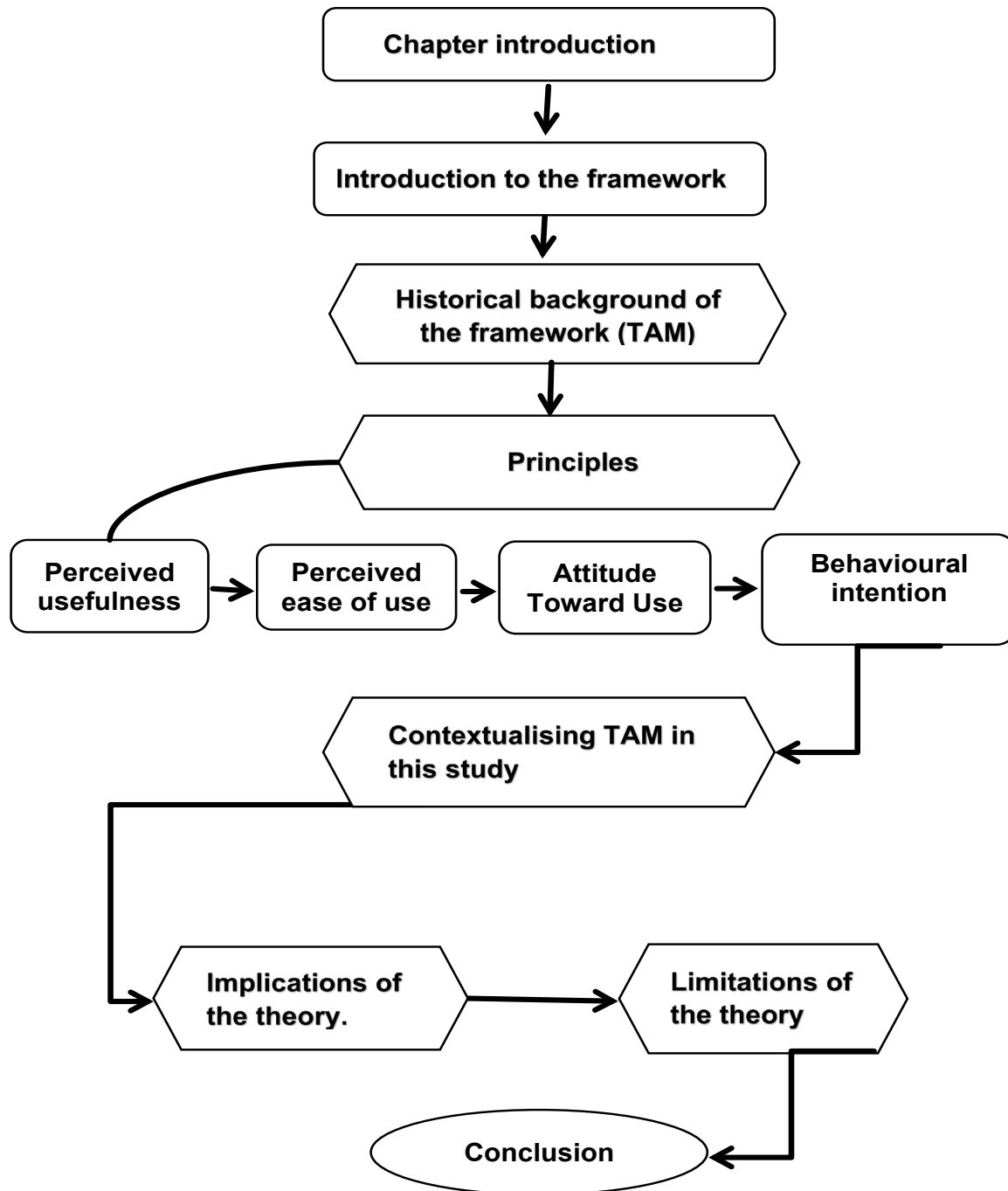


Figure 3: Chapter Three (flow diagram)

3.1 Introduction

The relevant literature on educators' views was reviewed in the previous chapter, which provided a clear definition of the phenomenon and unpacked its various levels written, verbal, and personal views. The chapter also discussed OER and its perceived benefits and limitations and further explored the relationships between the issues of curriculum and these levels of the phenomenon. Although previous studies have identified factors that may impact educators' adoption of OER, there remains a need for a coherent theoretical lens to explore which level of view drives educators to choose one type of OER over another. To fill this conceptual gap, this chapter presents the theoretical framework on which the study is based. In particular, it presents the Technology Acceptance Model (TAM) as the most relevant framework for understanding educators' acceptance and utilisation of OER in Limpopo Province. The chapter starts by providing the historical background of TAM, and then discusses its core principles, namely perceived usefulness, perceived ease of use, Attitude toward use and behavioural intention. The chapter further contextualises TAM within this study, explores the implications of the theory, and considers the theory's limitations before concluding. It is suggested that by using TAM as the basis of the study, the research offers a systematic insight into which view level drives educators to choose one type of OER over another.

3.2 Introduction to the framework

Divya (2023) defines a theoretical framework as a systematic collection of ideas and theories that serve as a basis for a research study. Vinz and George (2023) agree with Smith (2024) that a theoretical framework presents, explains, and defends the choice of a specific theory and concepts as the basis for research and also connects the researchers' work to previously held knowledge in the field.

TAM is relevant to this study as it provides a theoretical framework and empirical evidence for analysing educators' acceptance of technology in the context of OER use. For instance, educators who perceive OER as useful to learners (perceived usefulness) and easy to implement in teaching (perceived ease of use) are likely to use OER in their

classrooms. In addition, TAM core principles may be influenced by external factors, such as social norms and facilitating conditions, to shape technology acceptance (Lee et al., 2025; Duan et al., 2026). This indicates that by using TAM the study systematically analyses educators' views (written, verbal, and personal) which drive them to use one type of OER over another.

Furthermore, since TAM aims to clarify the reasons why individuals adopt and use technology, its core principles (perceived usefulness and perceived ease of use), as stated by Venkatesh and Bala (2022), align with the major research questions of the study: What view level drives Technology educators to choose a particular sort of Open Educational Resources that they use in CAPS Technology education? What are the perceived benefits and challenges faced by Technology educators when accessing and utilizing Open Educational Resources in CAPS Technology education? How do educators view the use of Open Educational Resources on influencing learners' comprehension and engagement in Technology education? Another key TAM core principle is behavioural intention, which provides a theoretical framework for educators' decision making when introducing OER in the classroom (Al-Adwan et al., 2023). Lee et al. (2025) concur with Akbarini (2024) that TAM has consistently been recognised as a credible model for assessing technology acceptance in educational settings when decisions are rooted in beliefs and attitudes rather than predetermined by external requirements. This suggests that, by using TAM, the study analyses educators' views (written, verbal, and personal) systematically, thereby driving educators to use one type of OER over another.

In this study, however, TAM is used to interpret the technology-acceptance beliefs that are expressed in educators' views of OER use, even though it was originally developed to explain technology acceptance and use. TAM does not provide explanations of the written, verbal and personal views, but rather the levels of views refer to the way they are expressed by the educators, and TAM provides interpretation of the beliefs of perceived usefulness, perceived ease of use, attitude and behavioural intention. Tang et al. (2021) used TAM to examine K–12 teachers' acceptance of OER and determined that perceived

usefulness and perceived ease of use were relevant to OER acceptance, and Al-Nuaimi and Al-Emran (2021) confirmed the continued use of TAM in educational technology research. Hence, TAM is a relevant framework for the analysis of the technology-acceptance beliefs that are part of educators' attitudes.

3.3 The historical background of the framework (TAM)

TAM is a theory used to explain the process individuals use in decision making when adopting and using technology. The Theory of Reasoned Action (TRA) developed by Fishbein and Ajzen in 1975 is the basis of TAM. TRA proposes that human behaviour is determined by individuals' beliefs and attitudes, which subsequently influence their behavioural intentions and actions. Building on this theoretical foundation, Fred Davis introduced TAM in the late 1980s to explain the acceptance of information systems. This model focuses on two core principles, namely perceived usefulness and perceived ease of use (Sechabe & Malatji, 2025; Bazine, 2025). Marikyan and Papagiannidis (2025) emphasise that perceived usefulness (PU) and perceived ease of use (PEOU) are the key determinants of an individual's behavioural intention to use technology and actual use. This suggests that TAM is particularly appropriate for exploring educators' use of OER through the lens of educators guided by their personal views, as it captures their individual beliefs, attitudes, and decision-making processes regarding OER use in Grade 7 Technology education.

Furthermore, TAM has been refined several times to improve its explanatory power: TAM2 added social influence and cognitive instrumental processes to clarify perceived usefulness, and TAM3 emerged when Venkatesh and Bala developed it in 2008 (Schorr, 2023; Silva et al., 2025). Marikyan and Papagiannidis (2025) noted that TAM3 integrates the determinants of PU and PEOU into a comprehensive framework, introducing additional anchors and adjustment factors, including computer self-efficacy, external control perceptions, computer anxiety, perceived enjoyment, and objective usability. In their study, Rogala et al. (2024) highlighted that these extensions offer a wider explanation of how both individual differences and system-related perceptions affect behavioural intention (BI) and the attitude toward use (ATU) of technology. Almaiah and Almulhem (2022) noted that recent empirical research confirms the further extended

structure of TAM3, especially in educational and digital learning settings. For example, modern studies reveal that self-efficacy, enabling conditions, and perceived enjoyment are strong determinants of BI and long-term technology integration in teaching pedagogy. In the same vein, Rogola et al. (2024) state that some studies have found social influence and PEOU to be the dominant drivers of educators' acceptance of digital resources, consistent with the integration of TAM3. TAM was created early on in the area of information systems; however, it was extensively used in the education sector, where technology has become a significant part of teaching and learning (Fuchs, 2022; Tang et al., 2023; Tawafak et al., 2023; Abulail et al., 2025). Lee et al. (2025) concur with Akbarini (2024) that previous studies have been addressing technological aspects in the workplace, whereas more recent studies have implemented TAM in digital learning environments, educational software, and new digital technology. This change suggests that TAM is particularly appropriate for further exploring the use of OER through the lens of educators guided by the verbal view, as it provides a clear framework for analysing their expressed views in professional discussions and shared experiences in staff meetings, workshops, and online communities. This further implies that by capturing the verbal views, TAM enables a detailed understanding of how educators' social influences shape their adoption and integration of OER in Grade 7 Technology education.

In addition, more recent studies indicate an increase in the application of TAM in education. According to Alshammari and Alkhwalidi (2025) there has been a marked increase in TAM-based studies, systematic reviews, and empirical research that refine the model's core principles and implement them in practice across real teaching environments. Lee et al. (2025) noted that systematic reviews in medical education indicate that TAM has been used both as a survey tool and as a theoretical framework to explain educators' and learners' technology acceptance. The study reveals that TAM is dynamic and can be applied to emerging technologies such as mobile learning and virtual reality, rather than to traditional systems like learning management systems. A biometric review of online learning literature points to the development of TAM over the last two years, namely an emphasis on AI-based pedagogy, learning outcomes and technology acceptance in particular areas (Fuchs, 2022; Akbarini, 2024). Other scholars have also

extended TAM to incorporate variables such as self-efficacy, social norms, and enjoyment, which affect PU and POEU, especially among learners (de Oliveira Santini et al., 2025). A systematic review and network analysis conducted by Galimova et al. (2024) revealed that TAM principles are the key determinants of educators' adoption and subsequent use of digital technologies. The study further indicates that PU and PEOU have strong effects on educators' BI to integrate digital tools into their teaching pedagogy. Research on artificial intelligence (AI) learning applications indicates that educators' personal views of usefulness and ease of use shape their intentions to adopt AI-based systems in higher education (Barakat et al., 2025; Basit et al., 2025).

Although the historical background shapes the theoretical foundation of TAM, understanding its practical implementation requires a closer look at its core principles. These principles explain how different educators construct beliefs about technology, form attitudes, and eventually decide whether to use technology, including OER. Figure 4 below presents the core principles of TAM and the relationships among them, which guide the interpretation of educators' views on the use of OER in Grade 7 CAPS Technology education.

3.4 Principles of the Technology Acceptance Model

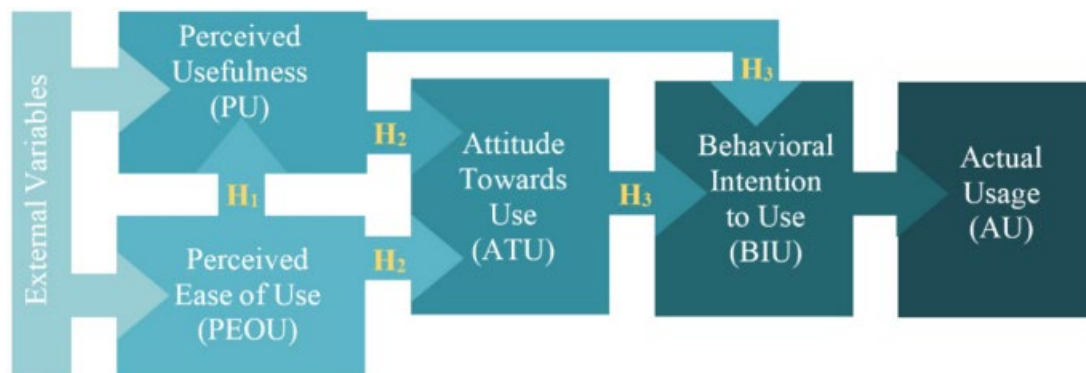


Figure 3.1: TAM model (Chatzopoulos et al., 2022)

Sechabe and Malatji (2025) agree with Bazine (2025) that TAM proposes that the acceptance of technology by individuals is mainly dependent on two core principles,

which are perceived ease of use (PEOU) and perceived usefulness (PU), as shown in Figure 3.1. These beliefs also affect the Attitude Toward Use (ATU) of an individual, which subsequently impacts Behavioural Intention (BI) and eventually leads to actual use (Duan et al., 2026). In this study the principles are interpreted based on educators' views: verbal views (expressed during professional discussions), written views (presented in policy documents), and personal views (observed through individual educators' experiences). In addition, Figure 3.1 is an adapted version of the Technology Acceptance Model (TAM) that is focused on the focus of this study. All hypotheses from the original model are kept to demonstrate the hypothesized relationships between the TAM principles. The study does not include external variables but is still focused on the views of OER with respect to perceived usefulness, perceived ease of use, attitude, behavioural intention and actual use, with PU correlating with educators' written, verbal and personal views, whereas PEOU, BI and ATU correlate with verbal and personal views.

Moreover, Alshammari and Alkhwalidi (2025) state that modern extensions of TAM acknowledge the role of external factors, including institutional support, digital literacy, social norms and contextual infrastructure, that have an indirect effect on the PEOU and PU. These principles are used in this study to provide a structured analytical prism for exploring the written, verbal, and personal views of Grade 7 Technology educators on the use of OER in Limpopo Province. The next sections address each principle separately and reveal how each is relevant to interpreting educators' views when using OER in CAPS Technology education.

3.4.1 Perceived usefulness (PU)

The foundational principle of TAM is PU, defined as the level of potentially observed improvement in a person's job performance resulting from the use of a specific technology (Al-Adwan et al., 2023). Similarly, Ndebele and Mbodila (2022) noted that PU can be defined as the level of an educator's belief that the use of technology, such as OER, improves teaching performance and learner performance. Additionally, in the educational context, PU reflects the extent to which individual educators believe that technological tools such as OER enhance instructional effectiveness and improve learners'

understanding of the subject content (Hong et al., 2021; Marikyan & Papagiannidis, 2025). Alshammari and Alkhwalidi (2025) agree with Duan et al. (2026) that PU is one of the most effective determinants of the adoption of technology in educational institutions, as individual educators have personal classroom experience where they observe that OER can assist them to explain difficult concepts, save time in lesson preparation and improve learners' comprehension and engagement during the lesson. The latter studies emphasise that these lived experiences form educators' personal views of using OER. This imply that PU correlates with personal views, which in this case are individual educators' beliefs that the application of OER enhances the performance of teaching and learners' comprehension and engagement in Technology content.

Furthermore, Ndebele and Mbodila (2022) highlight that PU is shaped not only by technology but also by contextual and institutional factors. Alshammari and Alkhwalidi (2025) note that educators are more inclined to use OER when they perceive that it helps them successfully deliver the curriculum and improve learners' performance; hence, institutional support, colleague encouragement, and technical guidance strengthen educators' PU. The latter studies also note that such contextual factors are commonly discussed during workshops and staff meetings, where educators report better learner comprehension and engagement when using OER. Such discussions reinforce collective beliefs about the usefulness of OER in delivering Grade 7 Technology content. However, some educators also discuss infrastructural challenges such as unstable internet connectivity, a lack of devices, and insufficient training, which weaken their PU and hinder the integration of OER (Ndebele & Mbodila, 2022; Al-Adwan et al., 2023). This indicates that PU correlates with verbal views since many educators are influenced by discussions in the workshops about the benefits of the use of OER, such as improved learner comprehension and engagement.

Additionally, ATPs and CAPS documents help ensure educators know how to use OER in their lesson plans successfully. Al-Adwan et al. (2023) and Ndebele and Mbodila (2022) highlighted how PU in written form is observed in the alignment of OER with curriculum policy documents such as ATPs and CAPS. Alshammari and Alkhwalidi (2025) present a

similar argument to Duan et al. (2026), indicating that educators are more inclined to utilise digital materials such as OER, provided that they are convinced that these tools clearly correspond with ATPs, CAPS and support curriculum objectives. In this way the written curriculum frameworks demonstrate that policymakers understand the advantages of using OER, which in turn affects how educators integrate it into their lesson plans to enhance learners' performance and, consequently, their teaching methods. Hong et al. (2022) and Marikyan and Papagiannidis (2025) noted that when OER are introduced as part of structured lesson plans, they not only demonstrate compliance with ATPs and CAPS but also show that OER can improve teaching performance and learner performance. Also, ATPs and the CAPS policy help in ensuring accountability and standardisation in the incorporation of technology in institutions (Al-Adwan et al., 2023). Thus, the PU of OER manifests in a policy-compliant, organised way when educators create CAPS-compliant lesson plans that integrate OER. This suggests that written views correlate with PU, as ATPs and that CAPS guidance enables educators to integrate lesson plans with OER.

3.4.2 Perceived ease of use (PEOU)

The PEOU is the second core principle of TAM; it is defined as the degree to which an educator is convinced that the use of technology requires minimal effort (Ndebele & Mbodila, 2022). Tran (2021) defines PEOU as the extent to which educators consider OER as simple to access, comprehend, and incorporate in teaching practice. In the educational setting, PEOU is a reflection of educators' personal views regarding the perceived simplicity, accessibility, and manageability of a technological resource, such as OER within the context of the daily pedagogy of teaching professionals (Mubashir & Asim, 2025). In terms of OER, this involves how easily individual educators can search for resources, the possibility and ability to download and modify them to fit CAPS guidelines, and their incorporation into classroom practice. Al-Adwan et al. (2023) noted that PEOU remains an important factor in technology adoption in schools, especially when individual educators must balance curriculum requirements, assessment tasks, and time constraints. In cases where digital platforms are user-friendly and need few technical skills, educators can engage in and continue using them (Duan et al., 2026). This

suggests that PEOU reflects a personal view, and educators are guided by it, as their positive or negative experiences with OER shape their internal judgements about effort and practicality in Grade 7 Technology classrooms.

Furthermore, TAM proposes a direct relationship between PEOU and PU, suggesting that when different educators perceive a technological system as easy to use, they are more likely to verbally view it as useful for achieving the aims and objectives of the subject content (Al-Adwan et al., 2023; Duan et al., 2026). This relationship is seen through discussions among educators during staff meetings, professional development workshops and subject cluster meetings where they share experiences regarding the usability and value of OER. For instance, educators verbally discuss the benefits and challenges of using OER, mentioning benefits such as ease of access, mobile-friendliness, and offline downloadability, which make it more practical for supporting teaching and learner engagement in Technology education (Ndebele & Mbodila, 2022). Apart from the benefits, they also discuss the issues that hinder their use of OER, such as poor internet connections, inadequate devices, and expensive data plans. However, through their verbal discussions they can develop solutions to overcome these challenges and ensure the successful integration of OER in their classroom (Dlamini & Mbatha, 2022; Mabila & Mhlanga, 2024). This implies that through these verbal discussions, educators verbally assess whether the use of OER can be implemented in their classroom based on their background settings, and if not, how they can best solve the problem in order to enable successful implementation of OER in their classroom, since they also discussed the benefits of OER use. This further suggests that PEOU correlates with verbal views, since educators can discuss OER issues during professional discussions and propose solutions to overcome them, enabling the successful utilisation of OER.

3.4.3 Attitude toward use (ATU)

The ATU is another principle of the TAM, referring to the overall positive or negative response of an educator to using a specific type of technology, such as OER (Hashim & Thomas, 2023; Al-Adwan et al., 2023). Al-Adwan et al. (2023) and Shyr et al. (2024) note that in TAM, PU, PEOU and BI are connected through an intermediate variable of attitude.

According to AlDreabi et al. (2023) individual educators are likely to develop positive attitudes toward the use of a technological system, including OER, when they feel it improves learners' performance and engagement, supports their teaching strategies, and enables them to achieve the lesson's aims and objectives. Camilleri et al. (2025) note that negative attitudes can form when an educator personally views technological systems or resources as complicated or irrelevant to their lesson aims and objectives, thereby undermining the intention to implement them. Thus, ATU indicates not only cognitive judgement but also the affective reaction that develops as a result of interaction with technology, such as the use of OER. This suggests that ATU correlates with personal views as it represents the internal cognitive-emotional thoughts of educators regarding the use of OER.

Additionally, Ndebele and Mbodila (2022) highlighted that attitude is a key factor of long-term technology integration in educational settings. For example, an educator's attitude is a major factor in their readiness to continue using e-learning systems in South African institutions, especially when the situation demands individual commitment. Similarly, Al-Adwan et al. (2023) indicated that in digital learning settings PU has a mediating effect on PEOU and BI through the influence of attitude. This suggests that the system's characteristics influence educators' attitudes, as their reflective judgements provide the basis for their OER attitudes.

Furthermore, in pedagogical settings educators' attitudes towards technology are usually formed and manifested through professional discussions, such as workshops, staff meetings, cluster meetings and subject advisory meetings (Moosa & Ramnarain, 2023). These interactions are verbal expressions of communication that serve as significant social spaces through which educators develop shared meanings regarding curriculum resources and instructional technologies (Kimani, 2023). In such dialogue spaces usefulness and ease of use are negotiated by a group and not created individually (Vangrieken et al., 2017; Al-Adwan et al., 2023). As a result, attitudes toward the constant use of OER can be developed through discussion-based validation, peer influence, and communication of experience in professional meetings (Al-Adwan et al., 2023; Shyr et al.,

2024). In the TAM, ATU is hypothesised to mediate the relationships among PU, PEOU, and BI. Empirical studies show that not only are isolated beliefs formed by PU and PEOU, but social interaction and professional discussions also influence them (Al-Adwan et al., 2023; AlDreabi et al., 2023). Educators provide positive comments and encouragement during subject meetings on the use of OER. When fellow educators hear about the successful integration of OER in the classroom, they tend to regard verbal views on the usefulness of these resources as essential, thereby fostering more positive attitudes and encouraging their use (AlDreabi et al., 2023; Shyr et al., 2024). However, scepticism about the benefits of OER can be transmitted in meetings when the discussion focuses on issues such as time pressure, connectivity problems or insufficient institutional support, thereby negatively influencing attitudes towards adoption (AlDreabi et al., 2023). This implies that BI also correlates with verbal views, as educators' positive comments and encouragement during professional discussions encourage other educators to use OER in their classrooms and shape their attitudes towards OER.

3.4.4 Behavioural intention (BI)

The last core principle of TAM is BI, which is defined as the extent to which educators develop conscious intentions to use specific technology (Bothma, 2021; Duan et al., 2026; Kim et al., 2021). Al-Adwan et al. (2023) agree with Alshammari and Alkhwalidi (2025) that in TAM, BI is regarded as the closest determinant of real use of the system, meaning that prior to educators' use of OER in their classroom they are first driven by a personal intention to do so. In a school context, when educators personally view the use of OER as positively influencing teaching effectiveness, improving learners' comprehension and engagement, and being easy to implement, they are more willing to use them in their classrooms. Additionally, individual educators begin to develop a greater intention to search OER sites, engage in OER-related professional growth, and devote some time to adapting OER (Duan et al., 2026; Alshammari & Alkhwalidi, 2025). This suggests that personal views correlate with BI as they reflect the internal commitment and readiness of individual educators to act on the use of OER in their classrooms and further develop interest to learn more about OER access and adoption.

Furthermore, a study conducted by Al-Adwan et al. (2023) noted that BI mediates the connection between the verbal views toward the technology and its actual classroom application. The study discovered that educators' intention to use digital tools was largely determined by their perception of these tools as valuable instructional resources. Similarly, Alshammari and Alkhwalidi (2025) opine that educators who view educational technologies as unmanageable and irrelevant tend to implement them within their pedagogical systems in the long term. These results support the idea in TAM that intention is not random but is formed as a result of careful and conscious evaluation. The intentions of educators on the use of OER are also expressed during subject meetings, in which educators plan and commit themselves to redesign lesson plans that integrate OER in their classroom, visit the OER repositories and also encourage each other to integrate OER in future lessons. This implies that BI also correlates with verbal views, since the educators verbally commit themselves to their intention of using OER in the future to improve learners' comprehension and engagement in the classroom.

3.5 Contextualising TAM in this study

The relationship between TAM and the phenomenon level is grounded on the view that educators' written, verbal, and personal views can be related to technology-acceptance beliefs. Views on the usefulness of OER for teaching and learning are linked to perceived usefulness (PU) and views on the ease of accessing and using OER are linked to perceived ease of use (PEOU). Attitude towards use (ATU) reflects educators' positive or negative evaluations of OER, while behavioural intention (BI) reflects their willingness or intention to use OER. Actual use (AU) is reported as actual use by educators. Therefore, TAM does not describe the three levels of views but rather the principles of TAM that describe the technology-acceptance dimensions that are expressed in these views (Davis, 1989; Venkatesh & Davis, 2000; Tang et al., 2021).

To contextualise TAM in this study, Table 1 is presented, which provides each principle with its definition (supported by literature), example in OER use (Grade 7 Technology), and alignment to levels of the phenomenon (researcher conceptualisation). The table is adapted from a review of TAM informed by the literature (Ndebele & Mbodila, 2022).

Table 1: Contextualisation TAM principles within the levels of the phenomenon (views) in the use of OER in Grade 7 Technology education

TAM principle	Definition (supported by literature)	Example in OER use (Grade 7 Technology)	Alignment to levels of phenomenon
PU	The level of an educator's beliefs that the use of technology improves the performance of teaching and the performance of learners	Educators consider that the application of OER enhances learning and the interaction level of learners in Technology content	Written views: interpretations of CAPS and ATP guidance may inform educators views about the usefulness of OER. Verbal views: Discussions in workshops about improved learner comprehension and engagement Personal views: Individual experience that OER improves learners' comprehension and engagement
PEOU	The degree to which an educator is convinced that the use of technology involves minimum effort	An educator would like ease of use offline, and downloadable OER that they can easily adjust	Verbal views: Discussions on issues of OER access in staff meetings Personal views: Educators believe in the utilisation of OER platforms
ATU	The overall positive or negative judgement by the educator regarding using a technology	The educator's expression on the use of OER	Personal views: Educators' great achievement of aims and objectives after implementing OER in their lessons Verbal views: Positive comments and encouragement during

			subject meetings on the use of OER
BI	Educators' intention to use technology again in the future	An educator intending to use OER in Grade 7 technology subject in the future	Verbal views: Verbal commitment in workshops Personal views: Personal choice to learn more about the use of OER
AU	How the technology is actually used in the classroom by the educator	An educator plans and teaches Grade 7 Technology lessons using OER	Written views: Educators' interpretations of CAPS and ATP guidance could be used to inform their reported use of OER in lesson planning Verbal views: Educators' use may be influenced by their discussions and sharing of OERs with colleagues Personal views: Educators' previous experiences with the use of OER can be seen in their continued use of OER in the teaching process.

3.6 Implications of the theory

TAM is an appropriate theoretical framework for exploring educators' views on the use of OER. The core principles, namely PU, PEOU, ATU, and BI, describe the influence of views regarding the usefulness and ease of technology use on the occurrence of attitudes and intentions to utilise technology (Ndebele & Mbodila, 2022). In the educational context, educators' views of PU and PEOU have been found to play a significant role in their intentions to use OER in teaching. Using TAM in this study, within written, verbal, and

personal views, can offer an insight into the cognitive, social, and personal drivers that lead to the use of OER. The analysis of TAM principles presented in terms of the levels shows the combination of beliefs and experiences of educators in terms of their intentions and practices (Duan et al., 2026; Lee et al., 2025).

PU guided by personal, written, and verbal views is found in cases where educators consider that the application of OER enhances the learning and interaction level of learners in Technology content, as seen in formal documents, professional discussions, and the classroom experience. PEOU driven by personal and verbal views is found in cases where an educator seeks ease of use offline and downloadable OER that they can easily adjust, as expressed in resource accessibility and ease of modification, supported by peers and previous experience (Ndebele & Mbodila, 2022; Al-Adwan et al., 2023). Furthermore, ATU and BI indicate optimistic views towards OER and a desire to further use it, as evidenced by reported contemplation, verbal support, and personal satisfaction (Ndebele & Mbodila, 2022; Padalia et al., 2023). This suggests that the conceptual alignment enables TAM to be used not only as a theoretical framework but also as a practical tool that clearly captures the diverse views of Grade 7 Technology educators in Limpopo Province.

3.7 Limitations of the theory

According to Granic (2022), although TAM is widely used in educational technology research, some researchers argue that this theory oversimplifies the complex technology adoption process. The model primarily emphasises cognitive variables like PU and PEOU and places less emphasis on the contextual and organisational factors (Granic, 2022; Ndebele & Mbodila, 2022). In their study Leshabane et al. (2025) indicate that school infrastructure, leadership support, and education policies have a very strong impact on educators' technology use, and these variables are included in the original TAM but are not well described. These structural and social factors can affect or even dominate personal views of usefulness and ease of use of educators in schools that are under-resourced (Ndebele & Mbodila, 2022; Granic, 2022).

Moreover, TAM assumes that the intention to behave directly translates into AUT. Nevertheless, according to Leshabane et al. (2025), positive intention is not always followed by continued implementation. Ndebele and Mbodila (2022) concur with Leshabane et al. (2025) that there could be a weak relationship between intention and practice due to external factors, such as poor digital infrastructure, lack of training among others and lack of time. Granic (2022) noted that TAM fails to describe pedagogical thought and the emotional reactions of educators, as well as their professional collaboration, which also affect the choice of technologies. However, even though TAM has its limitations, I kept it as it offers a good lens to grasp educators' acceptance and use of OER, including perceived usefulness, perceived ease of use, attitude and behavioural intention as studies conducted by Al-Nuaimi and Al-Emran (2021) and Tang et al. (2021) have shown the relevance of TAM for understanding the acceptance of technology in educational settings in recent research. These findings demonstrate that TAM is a lens for interpreting the technology acceptance beliefs reflected in educators' written, verbal and personal views. However, it does not seem to account for the contextual and systemic influences at the Grade 7 Technology education level in Limpopo Province.

3.8 Chapter summary

This chapter presented the TAM as the theoretical framework guiding this study. It explained the purpose of a theoretical framework and justified the choice of TAM to explore educators' views on the use of OER in Grade 7 Technology education in Limpopo Province. The historical development of TAM, including its roots in the Theory of Reasoned Action and later extensions (TAM2 and TAM3), was discussed. The four core principles, namely PU, PEOU, ATU, and BI, were defined and linked to educators' written, verbal, and personal views. The chapter showed how PU and PEOU influence attitudes and intentions to use OER. It also described the reflections of ATU and BI in educators' judgements and their subsequent use of OER. The conceptualisation table demonstrated the alignment between TAM principles and the study's levels of view. Finally, the chapter explored the implications of the theory and also acknowledged the limitations of TAM, while confirming it as a suitable framework for analysing educators' choice and use of OER.

CHAPTER FOUR – METHODOLOGY AND RESEARCH DESIGN

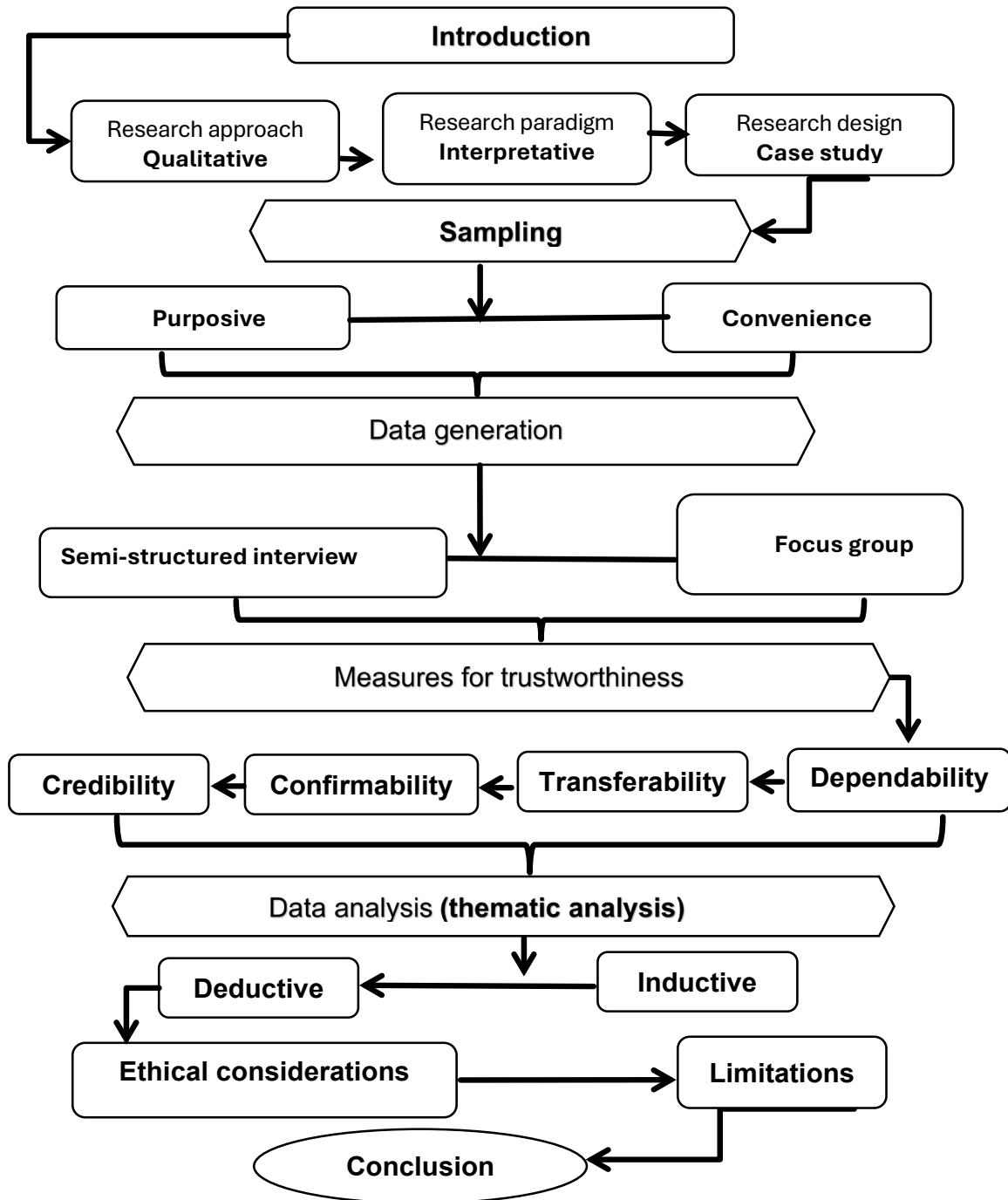


Figure 4: Chapter Four (flow diagram)

4.1 Introduction

Chapter Three presented the theoretical framework used in this study, namely the Technology Acceptance Model (TAM). The chapter introduced the framework and explained the historical background of TAM, followed by an analysis of its core principles, namely perceived usefulness (PU), perceived ease of use (PEOU), behavioural intention (BI) and attitude toward use (ATU). The chapter further explained how these constructs align with educators' written, verbal, and personal views regarding the use of OER. Additionally, the chapter contextualised TAM within the study, explored its implications, and discussed its limitations before concluding. This chapter presents the research methodology used to answer the study's research questions. The chapter begins by outlining the research approach, which is the qualitative method, followed by an explanation of the rationale for adopting the interpretivist research paradigm in this study. It then describes the research design, specifically the case study design, which was applied to explore the views of educators regarding the use of OER. Furthermore, the chapter provides information about the sampling procedures and outlines the methods and tools that were used to generate data. The measures employed to ensure the trustworthiness and rigour of the study, namely credibility, transferability, dependability, and confirmability, are also discussed. In addition, the chapter explains the data analysis process, which was conducted using thematic analysis. Lastly, the ethical considerations followed during the research process are described, and the limitations of the study are discussed before the chapter concludes.

4.2 Research approach: Qualitative

Taherdoost (2022) and Kempen (2025) define qualitative research as a method for generating primary, first-hand textual information and interpreting it through an interpretive approach. Similarly, Lim (2025) describes qualitative research as an approach that provides researchers with a great opportunity to gather an in-depth understanding of complex social phenomena, investigate issues in detail, and offer practical strategies for understanding various aspects of a phenomenon. The qualitative approach is especially applicable when there is not much information about a given

phenomenon due to the consideration that its exploratory nature enables researchers to delve into new insights, concepts and even theory (Taherdoost, 2022; Creswell & Poth, 2024; Flick, 2018). In addition, Meuleman et al. (2025) assert that qualitative research seeks to answer questions in the form of “how” and “why”, which helps researchers gain insight into individuals’ experiences, their views and the contexts in which these views occur. The latter studies state that such questions are difficult to represent numerically because they involve meanings, interpretations, and personal perspectives rather than quantifiable variables.

Furthermore, Islam and Aldaihani (2022) agree with Mortelmans (2024) that it is necessary to address such questions since the answers can help broaden the existing knowledge and create a more profound understanding of a specific phenomenon. This suggests that a qualitative approach was appropriate for this study since the aim was to explore the views of Grade 7 Technology educators regarding the use of OER in Limpopo Province. The phenomenon of interest in this study was the views of educators, as expressed through their verbal views, written views and personal views regarding the use of OER. Adopting a qualitative approach enabled exploration of the view level that drives the decision of educators to adopt specific forms of OER to be used in Grade 7 CAPS Technology education. The approach also allowed for exploration of the views of the educators regarding the advantages and limitations to access and use of OER in Technology classrooms. Furthermore, the qualitative method allowed me to explore the views of educators about the effectiveness of OER in improving learners’ understanding and engagement in Technology education.

The qualitative approach was a suitable method for exploring educators’ written views when using OER in Technology education as it is well suited to exploring how individuals understand written materials, and interpret and also utilise them appropriately (Creswell & Poth, 2024; Flick, 2018; Given, 2022; Merriam & Tisdell, 2023; Saldaña, 2024). The approach offered the possibility to gather subjective meanings, attitudes, and beliefs as articulated by educators on the use of OER based on guidance from policy documents such as CAPS, ATPs, and subject guidelines, which could not be collected by a

quantitative approach (Merriam & Tisdell, 2023; Saldana, 2024). Qualitative research, based on the analysis of textual and contextual data, is a valuable source of information about how educators make pedagogical choices regarding the use of OER, ensuring that the study reflected the specifics of real classroom practice (Flick, 2023; Given, 2022). This implied that a qualitative approach was appropriate for this study, as it enabled the exploration of written views that informed Grade 7 Technology educators in the process of selecting and implementing OER in the CAPS curriculum. In this way it was possible to understand how educators interpreted curriculum documents such as CAPS and ATPs and how these written guidelines influenced their decisions to adopt OER in Technology education

Furthermore, qualitative approach was appropriate in exploring the verbal views of educators on the use of OER. These verbal views arise through professional interactions like subject meetings, cluster meetings and workshops where educators share their ideas and teaching strategies, as well as discussing when and how to use OER in Technology education (Alam & Asmawi, 2024; Meuleman et al., 2025). The approach enabled recording of the explanations and thoughts of educators on how professional dialogue influences their choices when using OER (Tracy, 2023; Flick, 2023). Kuo and Kuo (2025) concur with Mortelmans (2024) that fellow educators are also significant in informing their colleagues on how to implement and modify digital learning material; for example, educators tend to seek advice from their peers when making decisions about the suitability of new learning resources to be used in their classrooms, to see the practical advantages and disadvantages of resources and decide how to use them (Mogashoa, 2023; Nketsia & Saloviita, 2023). This implied that the qualitative approach was the appropriate one to explore educators' verbal views when using OER, since it provided the opportunity to discover that through the encouragement that arises from professional discussions, educators develop more confidence and courage to choose and incorporate OER into their teaching methods.

In addition, the qualitative approach was appropriate to explore educators' personal views when using OER. In this case personal views meant individuals' personal experience,

professional judgement and beliefs acquired during years of teaching experience (Alam & Asmawi, 2024). Most educators used their experience in selecting OER because they had a positive experience where they saw this strategy being successful in their classroom (Meuleman et al., 2025; Mortelmans, 2024). Judging by experience frequently influence the readiness of educators to use new tools, such as OER (Paetsch et al., 2023; Luo & Watts, 2023; Mogashoa, 2023). Research has shown that the attitudes of educators towards the adoption of digital resources are highly affected by their past experiences with the teaching materials, because they are likely to stick with those methods and materials that have led to efficient learning (Li et al., 2025). This implied that the qualitative approach was suitable for exploring educators' personal views, since discoveries show that experience-based knowledge of individual educators was the determinant of decisions they made when using OER.

Moreover, the qualitative approach research was suitable to the study as it enabled the me to delve into the views of Grade 7 Technology educators about the use of OER in Limpopo Province. However, there are also certain limitations of qualitative research which had to be taken into account in this study. The first limitation is that qualitative research typically has few participants and is situated in a particular context, which can limit extrapolation of the results to other contexts (Chakma & Li, 2025). In order to overcome this limitation, the study has given a clear description of the research situation, the participants and data collection procedures in order to allow other researchers to understand the situation in which the research was conducted and establish whether the results can be used in similar situations (Barahmeh & Bsharat, 2024). The other weakness of qualitative research is that the researcher may develop bias when collecting and interpreting data, since the researcher is in close contact with the participants and their responses (Pretorius et al., 2025; Adeyiga et al., 2025). This limitation in the study was resolved as a systematised data collection and analysis procedure was adhered to and in-depth documentation of the research procedure was maintained, which contributed to enhancing transparency and minimising bias (Pretorius et al., 2025). Moreover, qualitative studies can have certain issues of credibility if the data is gathered by one source (Asogwa et al., 2023). To overcome this weakness, the research was triangulated

by comparing the information expressed by various educators and using the TAM as a reference framework to explain the results, which enhanced the interpretation of the results (Donkoh & Mensah, 2023). The other weakness is that qualitative research may not be trustworthy if not conducted according to clear procedures (Chakma & Li, 2025). To counter this, the research adhered to the recognised principles of qualitative research, including credibility, dependability and confirmability, by designing questions to be used during the interviews and conducting data analysis procedures in an orderly manner. Thus, despite the limitations of the qualitative approach, strategies were applied in this study to make sure that the results can be considered credible and useful in the context of interpretation of educators' views about the use of OER in schools. The next section discusses the interpretative research paradigm, which supports the qualitative approach used in this research.

4.2 Research paradigm: Interpretative

A research paradigm refers to the way in which a researcher understands the world and the assumptions that guide the research process. According to Pervin and Mokhtar (2022) a research paradigm is a set of guidelines for interpreting social reality and conducting research. Pretorius (2024) outlines that a research paradigm is a collection of beliefs, values and principles that influence the approach to understanding the reality of how information is interpreted, as well as giving meaning to findings in a research study. In research the paradigm influences the researcher's thinking, focus and the method used to investigate a phenomenon, because it shapes how the researcher understands reality and approaches the study (Alharahsheh & Pius, 2021). The research paradigm can be generally described by major philosophical elements, including ontology, epistemology and methodology, that direct the researcher to comprehend the reality, knowledge and research process (Belharar et al., 2023; Punziano, 2025). These elements assist researchers to design studies that are philosophically consistent with their research aims and objectives. Therefore, selecting an appropriate paradigm is important because it ensures that the study remains consistent, transparent and logically aligned with its purpose and research questions (Ling, 2025). In this study the interpretivist paradigm guided the exploration of Grade 7 Technology educators' views on the use of OER in

Limpopo Province. The study focus was to explore how educators develop meaning concerning OER with regard to various levels of views that guide their decision making and utilisation of these resources. Such levels are written views that are based on curriculum documentation (e.g. the ATPs, CAPS and subject guidelines), verbal views that arise through professional discussions (e.g. workshops, staff meetings and social media groups), and personal views that are formed based on the teaching experience of an individual educator. Therefore, adopting the interpretivist paradigm allowed me to understand how these different levels of views shape educators' interpretations and use of OER within the context of CAPS Technology education.

Furthermore, the interpretivist paradigm regards reality as something created and constructed through the experience and interaction of people in the environment (Flick, 2022; Given, 2023). According to Flick (2022) interpretivism presupposes that reality is not defined as singular but is constructed in the course of social interactions and lived experiences. Similarly, Given (2023) explains interpretivist research as aiming to understand how people comprehend the world around them by interpreting events, activities and situations through the views of those people. In the context of this study, the interpretivist paradigm helped me understand that Grade 7 Technology educators' views about the use of OER were influenced by their experiences with curriculum requirements and professional interactions. For example, some educators are guided by the written curriculum documents (written views), including CAPS and the ATPs when choosing OER, whereas other educators are guided by the professional discourse (verbal views) that takes place during workshops, staff meetings and participation in teaching communities. Additionally, personal experiences educators had in their teaching (personal views) influenced the way they saw the efficiency of OER as able to enhance understanding and learner engagement. These different views of professional knowledge and experiences provided a deeper understanding of how educators interpret and use OER in their teaching practice. This suggests that the interpretivist paradigm enabled me to explore how educators constructed meaning about OER use through written views, verbal views and personal views.

In addition, this study was guided by a relativist ontology, which is commonly associated with the interpretivist paradigm (Denzin & Lincoln, 2023). Ontology refers to beliefs about the nature of reality and what can be considered real in a study (Flick, 2022). The interpretation of reality in interpretivist research is based on a multiplicity of reality and influenced by personal experience instead of having a single objective truth (Given, 2023). In this study the relativist ontology helped me recognise that Grade 7 Technology educators are guided by different view levels, and they further influence their decisions on the use of OER. With regard to the effective use of OER in their classroom, some educators are guided by the written curriculum expectations (written views), while others are guided by the verbal views that arise through professional collaboration in the workshops or staff meetings, and some are guided by their classroom experiences (personal views). All these views were true realities and depended on the circumstances of the educators' knowledge. Therefore, adopting a relativist ontology allowed me to acknowledge and value the multiple realities that influenced educators' views about OER use in CAPS Technology education.

Moreover, the epistemology of interpretivism was applied to the understanding and generation of knowledge in this research. Epistemology refers to beliefs about how knowledge is created and how the researcher comes to know what is known (Sol & Heng, 2022). In interpretivism the focus on epistemological assumptions focuses on the fact that knowledge is created in the experiences and interpretations of individuals instead of having an objective reality (Pervin & Mokhtar, 2022; Given, 2023). In this study knowledge about educators' views on the use of OER was generated by exploring how they interpreted the influence of written views, verbal views and personal views on their choice of OER use. This meant that the findings were developed through understanding educators' views and the meanings they attached to these influences within their teaching contexts. Such an epistemological position supported the qualitative approach, because it allowed me to explore participants lived with experiences of the use of OER and to understand how they made sense of their professional practices when selecting the appropriate OER in Technology education (Ravitch & Carl, 2021).

Therefore, the interpretivist epistemology enabled me to construct knowledge about educators' views regarding OER use in CAPS Technology education. Additionally, the methodological position of interpretivism also informed the design of this study. Methodology refers to the overall strategy used to conduct the research and gather data that would answer the research questions (Given, 2023). In interpretivist research qualitative approaches are commonly used because they allow researchers to explore participants' meanings, experiences and perspectives in depth and within their natural context (Pervin & Mokhtar, 2022; Tracy, 2024). In this study a qualitative research approach was adopted to explore educators' views on the use of OER in Grade 7 CAPS Technology education. This approach enabled me to explore how different levels of views, including written views, verbal views and personal views, influenced educators' decisions regarding the use of OER. This suggests that this consistency of ontology, epistemology and methodology guaranteed that the research was consistent in the perception of reality, knowledge and research processes (Given, 2023). Therefore, the interpretivist methodological approach enabled me to gain a deeper understanding of the factors that shaped educators' views on OER use in the Technology classroom.

Despite its relevance to this study, the interpretivist paradigm presented certain limitations, that were addressed during the research process. One limitation was that the interpretation of participants' responses could have been influenced by the researcher's views, potentially affecting the objectivity of the findings (Mohajan, 2022). In order to address this, I critically examined the views of educators concerning the impact of written views, verbal views and personal views on OER utilisation so that the results that were arrived at fully represented the overviews of the participants. Another weakness is that interpretivist research is usually context-driven, thus limiting the generalisability of results to other learning environments (Pervin & Mokhtar, 2022). In this research the limitation was overcome by a comprehensive description of both the research setting and subjects, which allowed readers to see how the results could be applicable to similar educational settings. Additionally, the credibility of the study was strengthened by comparing educators' views across different levels of the phenomenon and interpreting them in relation to the Technology curriculum and the use of OER in CAPS Technology education.

Thus, despite certain limitations associated with the interpretivist paradigm, I made conscious efforts to overcome them, and the study has allowed me to gain a valid and useful picture of the views of educators towards the use of OER. The next section discusses the research design adopted in this study

4.3 Research design: Case study

Research design is a general guideline that is followed to conduct a study and answer research questions. It describes the process of data collection and analysis, which is carried out in a systematic way to provide credible responses to the research problem (Bunkar et al., 2024; Viera, 2023). Similarly, Mtisi (2022) explains that a research design helps the researcher organise the research process and ensure that the methods used align with the research objectives and the phenomenon being studied. A research design also helps the researcher to logically connect the research questions, methods, and context of the study (Viera, 2023). In this study a qualitative exploratory single case study design was adopted to guide the exploration of Grade 7 Technology educators' views on the use of OER in Limpopo Province. The selection of this design was essential because the study aimed to explore educators' written, verbal, and personal views regarding the use of OER in their teaching practices. Additionally, the case study design was appropriate as it enabled an in-depth and contextual understanding of educators' views within their natural school environment (McCombes, 2023). As noted by Bunkar et al. (2024), case studies allow for a detailed exploration of a phenomenon in its real-life setting, which is particularly suitable in educational research where experiences and practices are shaped by contextual school conditions. Therefore, this design was considered appropriate as it allowed for a focused exploration of how educators' views influenced their selection and use of specific OER over others.

Furthermore, Safari et al. (2023) noted that case studies can be helpful when one has to explore a complicated matter in education by analysing the views of participants in detail. This design has assisted me in gaining knowledge of how these different views have contributed to the choices educators make in selecting to use OER in Technology education. The case study research design is also appropriate, as the goal also involves

exploring the lived experiences and interpretation of a specific issue by the participants in real-life contexts (Viera, 2023; Bunkar et al., 2024). In this study I explored the ways in which individual educators explained their own views of using OER in the classroom and how the same views impacted the engagement and comprehension of their learners. This suggests that exploring educators' personal views was important because the interpretivist paradigm emphasises understanding meaning from participants' perspectives rather than measuring outcomes statistically.

Another strength of the case study design is its ability to connect the phenomenon to the context; case studies are especially helpful in learning about the functioning of a phenomenon in a real-life context (McCombes, 2023). In this study the context was the use of OER in CAPS Technology education in schools within the Man'ombe Circuit. This context allowed me to realise how the requirements of the curriculum, the school context and professional interactions impact the written, verbal, and personal views of educators regarding OER use. This was a strategy that ensured that the findings were indicative of the actual situation that the educators were going through in the teaching context with regard to selecting a particular sort of OER over another.

However, case study also has several limitations. Among these is the possibility that the study might not be generalised outside of the study setting, since the research was conducted in a particular setting with a particular group of participants (Bunkar et al., 2024). To overcome this, I provided specific descriptions of the research setting, participants and procedures to enable the reader to make a decision on whether the results are applicable in different settings. Another weakness was the possibility that I, as the researcher, had an influence in data collection and data analysis (Lim, 2025). To overcome this, I made sure that the interview questions were well-defined and the responses were analysed thoroughly to reflect the views of the educators, and maintaining transparency helped improve the credibility of the study. Availability of time and of the educators was also problematic. Educators often have demanding schedules due to teaching responsibilities. I addressed this by scheduling interviews and focus groups at convenient times, such as after school, during school holidays and during

agreed professional staff meeting times. This enabled educators to engage freely and contribute their views and experiences without any fear, in a way that enhanced data gathering. The next section discusses the sampling techniques adopted in this study.

4.4 Sampling

Sampling refers to the process of selecting a group of participants from a larger population in order to obtain information that can address the research questions of a study (Nyimbili & Nyimbili, 2024; McCombes, 2023). In most research situations time, access and logistical limitations make it impossible or impractical to collect data from or on all members of a population. Pattier (2024) concur with Simkus (2023) that in such contexts researchers select a sample to obtain information that can adequately represent the larger population. According to Nikolopoulou (2023), in qualitative research the sampling is centred more on the quality and applicability of the information as opposed to statistical representation. Similarly, Nyimbili and Nyimbili (2024) emphasise that the aim of qualitative studies is to choose participants with first-hand experience of the phenomenon under study, in order to gain in-depth perspectives and interpretations. In the same vein, Memon et al. (2024) highlighted that sampling choices are directly correlated with the aim of the research and the questions that inform the research. In this study the focus was on the views of Grade 7 Technology educators regarding the use of OER in Limpopo Province.

In this study, the population comprised Grade 7 Technology educators teaching in primary schools in Man'ombe Circuit, Mopani District, Limpopo Province. Grade 7 Technology educators were specifically chosen because they have first-hand experience of teaching Technology at this grade level. Mcambi (2022), who conducted a study on the Grade 7 Technology educators, mentions the role that Grade 7 plays in the development of Technology knowledge and skills. Therefore, Grade 7 Technology educators were chosen to provide access to participants with relevant experience in teaching and using teaching and learning resources. These views were explored across the different levels of the phenomenon, namely written views, verbal views and personal views. Therefore, the sampling strategy needed to ensure that educators who interacted with OER in

different ways were included. In addition, selecting participants who are knowledgeable about the phenomenon improved the quality and depth of the qualitative findings (Nyimbili & Nyimbili, 2024). Therefore, purposive and convenience sampling were used in this study to select appropriate participants and make sure that the study encompassed a variety of educators' views regarding OER use. These methods were used to make sure that those who had interactions with OER in terms of curriculum documents (written views), professional discussions (verbal views), and classroom experiences (personal views) were involved.

4.4.1 Purposive sampling

Nikolopoulou (2023) and Memon et al. (2024) define purposive sampling as a non-probability sampling method where the participants are chosen based on certain characteristics of interest to the research topic. This approach is applied when research participants have knowledge or experience regarding the phenomenon under study (Czernek-Marszalek & McCabe, 2024). According to Taherdoost (2022) purposive sampling allows the researcher to focus on individuals who can provide detailed and meaningful information about the research problem. Nyimbili and Nyimbili (2024) add that purposive sampling allows the researcher to sample individuals who will provide valuable information since they are directly engaged in the context of the research. Similarly, Taherdoost (2022) agrees with Nyimbili and Nyimbili (2024) that purposive sampling is efficient in retrieving a wide range of views in qualitative case studies. Therefore, in this study purposive sampling was adopted to select Grade 7 Technology educators who had experience of using OER in CAPS Technology education.

Additionally, Grade 7 Technology teachers were purposefully selected as they are directly involved in teaching Technology in the CAPS curriculum and have experience in the selection and use of teaching resources, including OER. Grade 7 is also important as it is the point at which learners complete the Senior Phase and therefore is an appropriate point for discussing how educators utilise Technology resources. The research also reveals that educators' subject context and teaching experience are significant in the context of studying technology integration and its acceptance (Xie et al., 2023; Yavich &

Davidovitch, 2024). These educators were expected to provide relevant information regarding how OER were accessed, selected, and applied in the teaching and learning process, as well as the benefits and limitations. The use of purposive sampling also enabled me to discover information on which view level drives the educators to use a particular type of OER over another. For example, educators who regularly used curriculum documents (written views) such as ATPs, CAPS and subject guidelines offered insight information on how these written views guide and influence their choice of selection of OER during curriculum implementation. Educators who engaged in professional discussions (verbal views), such as subject meetings, workshops and staff meetings, provided in-depth information on how these verbal views guide and influence their choice of OER, based on the recommendations and encouragement they normally get from their colleagues. Additionally, educators who had practical classroom experience (personal views) in using OER contributed their personal views based on their teaching experiences and strategies that worked in their classrooms. This suggests that purposive sampling was appropriate because it ensured participants were selected based on their ability to provide informed views across written, verbal, and personal levels of the phenomenon.

4.4.2 Convenience Sampling

Convenience sampling is another non-probability sampling method in which participants are selected based on their availability and willingness to participate (McCombes, 2023). This approach is frequently applied in an educational context where the researchers operate in a particular school district and have to take into account the time constraints, access to the participants and school schedules (Nyimbili & Nyimbili, 2024). According to Nikolopoulou (2023), convenience sampling enables a researcher to obtain information in cases where the participants are readily available and yet provide useful information. Similarly, Taherdoost (2022) also added that convenience sampling is practical and cost-effective, particularly in studies conducted within defined contexts such as schools. In this study, convenience sampling was used to include Grade 7 Technology educators who were readily available and willing to participate from the selected schools within Man'ombe circuit. This method was used to supplement purposive sampling so that data

collection process was not unfeasible in the school setting. Convenience sampling also aligned with the levels of the phenomenon. For instance, educators available during school activities such as staff meetings and professional engagements provided verbal views on how OER were discussed and recommended among colleagues. Available educators who interacted directly with curriculum materials provided written views about how OER aided teaching using CAPS, ATP and subject requirements. Furthermore, educators who volunteered and offered their reflections on how OER affected the understanding and involvement of learners in technology learning gave their personal views regarding the use of OER. This indicates that using convenience sampling made it possible to collect rich data within the available time and school context while still ensuring that educators' views across the different levels of the phenomenon were captured.

Despite the fact that the purposive and convenience sampling were suitable in this study, the two sampling techniques had certain limitations which might have influenced the results. Although purposive sampling was suitable in the selection of informed participants, it was limited in two ways. First, it may have caused researcher bias since participant selection depended on the researcher's judgment (Nyimbili & Nyimbili, 2024). Second, it may leave out less visible educators, which narrows down the range of views (Memon et al., 2024). These limitations were addressed through the use of clear inclusion criteria and consultation with the school principal to ensure that the participants had diverse experiences (written, verbal, personal views). Furthermore, there were two major weaknesses of Convenience sampling. First, it included only those participants who were easily accessible, which could have affected the sample (McCombes, 2023). Second, it did not include those educators who did not have enough time to participate, leaving their views limited (Nikolopoulou, 2023). These limitations were addressed by scheduling data generation at multiple times and locations convenient to the participants, ensuring that educators with varying availability could be included. Table 2 provides an overview of the nine participants who were involved in the data collection process .

Table 2: Profiles of the participants

In this table, TP stands for Teacher Participant

Partici- pants	School	Subject	Grade	Qualificat ion	Gender	Years of experience
TP1	Primary	Technology subject and Natural Sciences and Technology (NST)	5 & 7	BEd, Hons	Male	16
TP2	Primary	Technology and NST	6 & 7	BCom (Economi cs), PGCE	Female	3
TP3	Primary	Technology, Maths, NST	5 & 7	BEd	Female	4
TP4	Secondary	Technology and Maths	7 & 8	BSc, Hons, PGCE	Female	8
TP5	Primary	Technology, English, NST	6 & 7	BEd	Male	3
TP6	Secondary	Technology and English	7 & 8	BEd	Female	8
TP7	Secondary	Technology and Maths	7 & 8	BSc, Hons, PGCE	Male	5
TP8	Primary	Technology, Maths and NST	6 & 7	BEd	Female	11
TP9	Primary	Technology	7	BEd,	Male	30

		and NST		Hons, MEd, PhD		
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The next section discusses data generation, and the methods used to generate data in this study.

4.5 Data generation

Data generation refers to the process of collecting information from participants to answer the research questions of a study and better understand the phenomenon under investigation (Neupane et al., 2026; Chand, 2025). In qualitative studies data is usually generated in the form of interviews, FGDs, observations, document and text analysis, and audiovisual materials. These methods enable researchers to gain an in-depth understanding of participants' experiences, views, and social interactions within a particular context (Crowe & Manuel, 2024; Chand, 2025; Neupane et al., 2026). In this study data were generated through two qualitative methods, namely semi-structured interviews and FGDs conducted with Grade 7 Technology educators in the Senior Phase. These methods were selected because they allowed participants to explain their experiences, opinions, and views in detail, which aligned with the purpose of this study, which was to explore educators' views on the use of OER in CAPS Technology education.

4.5.1 Semi-structured interviews

George (2023) defines a semi-structured interview as a method of data collection in which the researcher prepares a set of guiding questions but remains flexible to change the order of questions and ask follow-up questions where necessary. This method allows the researcher to explore issues in more depth and to gain a better understanding of participants' experiences, views, and attitudes. Similarly, Braun and Clarke (2022) concur with Czernek-Marszałek and McCabe (2024) that semi-structured interviews enable researchers to ask guiding questions while remaining flexible to explore emerging ideas through follow-up questions during the discussion. To understand how the Grade 7

Technology educators view the use of OER in CAPS Technology education, semi-structured interviews were used in this study. The use of this method allowed me to gather detailed, in-depth, context-specific information that addressed the sub-questions of the study. For example, educators were able to explain how the written, verbal and personal views influenced their choice of using a particular OER over another, the benefits and challenges they experienced when using OER, and how OER influence learners' comprehension and engagement in Technology education.

Furthermore, the semi-structured interviews were designed to explore participants' views across the three levels of the phenomenon guiding this study: written, verbal, and personal views. Coker et al. (2024) concur with Guerrero-Romera et al. (2021) that educators rely on curriculum documents and other formal knowledge sources when preparing their lessons to ensure effective curriculum implementation. During the semi-structured interviews educators indicated that they regularly use curriculum documents (written views), such as ATPs, CAPS and subject guidelines, because these documents guide them on what the curriculum requires them to teach. As a result, participants provided in-depth insights into how these written sources guide and influence their selection of OER during curriculum implementation. Furthermore, the Organisation for Economic Co-operation and Development (2021) noted that discussions and collaboration of educators are important in influencing the teaching practices of educators and the choice of resources. During the interviews some educators explained that professional discussions (verbal views), such as subject meetings, workshops, and staff meetings, had a strong influence on improving their teaching strategies. They also stated that such interactions have motivated them to incorporate OER in their classrooms to improve learners' engagement and comprehension, especially in subject content that seem to be difficult for learners. Moreover, Kuo et al. (2024) suggest that the educators' views, experience and self-efficacy are the factors that impact their choice to implement OER in their instructional practice. In our interviews educators who had practical classroom experience (personal views) in using OER shared their personal views based on their teaching experiences and the strategies that worked effectively in their classrooms. Therefore, these responses suggest that semi-structured interviews were an

appropriate method for this study, because they allowed educators to explain their views, experiences, interactions and practices in detail across the written, verbal, and personal view levels of the phenomenon being explored.

The interviews were conducted face to face during term 1 school holidays at some of the participants' respective homes and on the second term (month of April) at the participants' respective schools. A quiet space, such as an empty classroom, was used to ensure participants felt comfortable during the interview. Each interview lasted approximately 45–60 minutes. With the consent of the participants, the interviews were audio-recorded to ensure that the responses were captured accurately for analysis. The participants in the interviews were Grade 7 educators currently teaching the CAPS Technology curriculum. Approximately nine educators from three schools were selected using purposive sampling, based on their experience and their participation in Technology education. These educators were considered suitable participants because they had first-hand experience with the use of OER within CAPS Technology teaching. The selected sample size was appropriate for semi-structured interviews as it allowed me to obtain in-depth information while also reaching data saturation, which strengthens the credibility of qualitative findings (Rowley, 2023; Memon et al., 2024). However, semi-structured interviews had certain limitations. Some participants withhold some information, especially when discussing professional practices (Rowley, 2023). I addressed this by creating a comfortable interview environment and further explained to them that all information would remain confidential, that is when they stated that they were comfortable and provided useful information. Some educators felt that the interviews were time-consuming since they had other educational responsibilities to take care of, and this resulted in them withdrawing from taking part (George, 2023). I had to schedule the interviews at times that were convenient for them and meet them at places that were convenient for them.

4.5.2 Focus group discussions (FGDs)

According to Adekola and Olumati (2023) a focus group is a qualitative research method where a small group of participants is facilitated to discuss a particular topic, enabling collective information to be gathered through the group's interaction. McLeod (2023) adds that focus group interaction allows participants to share experiences, express opinions, and respond to views among themselves. According to Amir et al. (2024) focus groups are useful in qualitative research because they allow researchers to observe group dynamics and understand how participants collectively discuss a phenomenon. In this study FGDs were used to generate educators' views in an interactive setting. This approach was used to supplement semi-structured interviews since it enabled educators to share their experiences and different views regarding the use of OER as a group. Through these discussions I was able to identify common practices, shared challenges, and differences in how educators use OER in Technology education. This suggests that FGDs were appropriate in this study, as this method helped to answer some of the sub-questions in this study

Furthermore, according to Morgan (2022) FGDs are useful in qualitative research because they allow participants to interact, share experiences, and build on each other's responses, which helps the researcher to gain deeper insight into the phenomenon being studied. For example, educators from the same group mentioned that during subject meetings, curriculum advisors often encourage them (verbal view) to follow curriculum documents (written views) such as the ATP, CAPS, and subject guidelines in their teaching practice. UNESCO (2023) argues that curriculum policies and official guidelines are significant in helping educators understand how teaching materials such as OER can be incorporated into classroom practice. According to the participants, these professional interactions and discussions with curriculum advisors provide guidance on how and when to use OER. Nevertheless, educators also pointed out some of the difficulties that they have in implementing OER in their local school environments, which they believe curriculum advisors do not always fully take into account. Tang et al. (2022) concur with Hilton (2020) that contextual elements, including poor infrastructure, technological resources, and insufficient internet connectivity, may affect the capacity of the educators

to successfully utilise OER in their schools. An example of this was when one of the educators noted that there were no computers and that the network connectivity in her school was not good. She further explained that due to these challenges, she often relies on her personal view and teaching experience when deciding how to use OER. Other educators in the group supported this view, indicating that many of them face similar challenges. These suggest that FGDs also helped me to get information about one of the sub-questions in this study, by discovering challenges educators encounter when using OER, while at the same time allowing participants to confirm and reflect on shared experiences within their teaching environments.

Each focus group consisted of five educators with myself as the facilitator to maintain effective interaction. A semi-structured discussion guide was used to ensure that the FGDs remained focused on the research sub-questions while allowing participants to freely express their views. Each session lasted between 45 minutes and one hour. The discussions were recorded with the consent of the participants so that the information that was shared during the sessions was accurately captured. I encouraged participation from all group members and avoided influencing participants' responses. During the discussions, respectful communication among the participants was also encouraged. To capture diverse perspectives from different contexts, the FGDs were conducted across three selected schools within the circuit. The FGDs also presented some limitations. First, some participants dominated too much during the discussion, which influenced the contributions of other group members. Second, some participants felt hesitant to express differing views in a group setting (Alimoradi, 2025). To manage these limitations, I made sure that I played a facilitative role where all group members contributed equally, and maintained a respectful environment where all educators felt free to express their opinions. The next section discusses the measures employed to ensure the trustworthiness of this study.

4.6 Measures for trustworthiness

The concept of trustworthiness in qualitative research refers to the rigour of the study, and the consistency and authenticity of the research results, which reflect participants' experiences rather than those of the researcher (Nowell et al., 2021; Lee, 2022). Shenton (2021) agrees with Chakma (2025) that trustworthiness includes credibility, transferability, dependability, and confirmability, which all make research defensible and usable in other similar situations. In this research credibility was used to ensure that the views of Grade 7 Technology educators on the use of OER in CAPS Technology education were faithfully captured at the three levels of the phenomenon (views): written views (ATP, CAPS and subject guidelines), verbal views (professional discussions during staff meetings, subject meetings, social media groups), and personal views (what educators personally experienced and what strategies helped them work with OER successfully). The study ensured that the data collected, interpreted and presented is truthful and significant to the context of education by using several methods to check every aspect of trustworthiness, including member checking, extended involvement, audit trails, reflexivity, and peer debriefing.

4.6.1 Credibility

Credibility, as defined by Lee (2022) and Nowell et al. (2021), refers to the accuracy and truthfulness of qualitative results, that point to the degree to which the views of the participants are captured in a genuinely accurate way. Similarly, Chakma (2025) concurs with Shenton (2021) that credibility can be enhanced by means of member checking, prolonged engagement, and data triangulation. In this study credibility was achieved by gathering data using direct data collection methods by conducting semi-structured interviews with the educators with a focus on their experiences with OER at the three levels of the phenomenon. Qualitative information regarding the written, verbal and personal views was obtained by asking the participants about ways in which these views guide them on how and when to use OER. Member checking was also undertaken, which involved having the participants read through the transcripts and initial interpretations to ensure that they were correct. Ambiguous answers were clarified by means of follow-up questions, while extended interaction during interviews allowed for a comprehensive

grasp of the point of view of each of the educators. Debriefing with colleagues was done to find possible biases. This methodology helped to make sure that the results were based on the actual experiences of educators at all three levels of the phenomena.

4.6.2 Transferability

Transferability is a concept that refers to how research results can be applied or adjusted to other similar situations (Shenton, 2021; Lee, 2022). Transferability was achieved in this study because educators' experiences with OER were well documented across the three levels of the phenomenon. Written views were explored based on participants' personal reflections on use of the ATP, CAPS, and subject guidelines. Verbal views were recorded through educators' recollections of professional conversations and discussions about OER. Individual experiences with OER in their teaching practices were used to explore personal views. Therefore, the description of experiences and views on the use of OER by participants offered sufficient detail for other researchers or educators to make judgements as to how these results can be relevant to their environment. The focus on context-dependent descriptions and the views of participants enables the readers to compare the applicability of findings to comparable educational settings in their primary contexts.

4.6.3 Dependability

Dependability is a characteristic of research that implies its stability, consistency, and transparency, which makes the study reproducible in similar situations (Nowell et al., 2021; Lee, 2022). The literature underscores the importance of maintaining an audit trail and documenting all methodological decisions (Shenton, 2021; Chakma, 2025). In this research reliability was ensured through the systematic recording of all phases of the data collection and analysis based on interviews. Written views were recorded by description of the educators' compliance with the ATP, CAPS, and subject guidelines and how these formal documents guide them on the use of OER. The verbal views were recorded based on how the professional discussions guide them on the use of OER, and the personal views were documented based on reports about the personal experiences of the

educators regarding OER use. The decisions made during coding, theme development and analytic processes were carefully documented to ensure that there was a clear audit trail. This documentation can be reviewed externally, and other people can evaluate how consistent and rigorous the study is. These methods allow for stable results and methodology that may be repeated in a similar context.

4.6.4 Confirmability

Confirmability is described as the objectivity of qualitative results, which will guarantee that the findings are based on the responses of the participants and not a researcher's bias or assumptions (Lee, 2022; Nowell et al., 2021). Reflexivity can be used to synthesise studies and improve their confirmability, and should be supported by audit trails, peer review, and triangulation (Shenton, 2021; Chakma, 2025). In this study confirmability was ensured by recording all decisions, reflections, and analytical processes used during the interview. The written views were confirmed by the participants' descriptions of the ATP, CAPS, and subject guidelines. Verbal views were validated in the form of the account of professional conversations provided by the participants, while personal views were based on the personal experiences with OER use. Reflexive journaling helped me to control and reduce the effects of my biases. The three levels of phenomena were triangulated because the interpretations were based on participants' views. External validation of interpretations was conducted through peer debriefing. These measures substantiate that the research results are the real views of educators on the use of OER in CAPS Technology education and not my subjective views. The next section discusses the data analysis process and the method used to analyse the data.

4.7 Data analysis

According to Braun and Clarke (2022) the process of data analysis in qualitative research includes the systematic organisation, interpretation, and sense-making of the experiences of participants to address the research question. In this study thematic analysis was used to analyse the data collected through semi-structured interviews with

Grade 7 Technology educators. Ahmed et al. (2025) concur with Goyanes et al. (2025) that thematic analysis is an approach for identifying, interpreting and reporting the patterns or thematic elements of qualitative data, enabling the researcher to comprehend the views of the participants in a holistic manner. Thematic analysis enabled me to familiarise myself with the interview transcripts, code meaningful statements, sort out the codes into possible themes, and narrow down these themes so that they effectively reflected the views of the educators about the use of OER in CAPS Technology education. The three levels of the phenomenon, namely written, verbal and personal views, were taken into account during data analysis. Manual analysis was also performed to ensure transparency and traceability of the results.

4.7.1 Deductive thematic analysis

Deductive thematic analysis is a top-down method whereby identification of the themes is done in relation to already existing theories, research questions, or conceptual frameworks (Braun & Clarke, 2021; Jansen, 2025). TAM and the sub-questions regarding the exploration of Grade 7 Technology educators' use of OER guided the deductive analysis in this study. This means they were used as themes and categories to classify and organise data. Additionally, deductive coding involved examining the interview transcripts and identifying statements and patterns that were consistent with the TAM core principles, namely PU, ease of use, and attitudes towards adoption of technology. Written, verbal, and personal views were analysed to understand how they guide educators in using OER and influence their choices in applying them in their classrooms. Deductive analysis supported a systematic response to the research question to ensure that the study was able to find expected patterns and provide a systematic interpretation of educator practices and perceptions.

4.7.2 Inductive thematic analysis

Inductive thematic analysis is a method that is bottom-up: it identifies the themes out of the information without having a preconception and enables the researcher to identify anything unexpected or that was not thought about before (Nowell et al., 2022). This study

employed inductive reasoning, which enabled themes to emerge directly from the data rather than being predetermined, unlike in deductive reasoning where themes are determined beforehand. This approach helped identify additional themes beyond the three levels of the phenomenon (written, verbal, and personal views) and was used to analyse information generated through the semi-structured interviews and FGDs to draw meaningful conclusions. The data were analysed using Braun and Clarke's (2006) six-step process of thematic analysis. First I familiarised myself with the transcripts by reading them carefully and noting initial ideas. I then created preliminary codes by underlining statements that captured educators' views on OER use. The codes were then grouped to identify themes, which were later reviewed and narrowed for clarity. Each theme was defined and named to accurately reflect the participants' views. Lastly, the results were presented in the form of a report that was associated with the research questions to enable the study to achieve its purpose, which was to explore the views of Grade 7 Technology educators on the use of OER.

4.8 Ethical considerations

According to Flick (2022) ethical considerations are principles that encourage researchers to conduct studies responsibly, safeguarding the rights and dignity of participants. Scheytt and Pflüger (2024) concur with Mirza and Bellalem (2023) that in qualitative research ethical practice enforces treatment of the participants in an equitable manner and honours their experiences during the research. The major ethical considerations in qualitative research include informed consent, confidentiality and anonymity, safety and risk management and permission to conduct the study (Potthoff et al., 2023; Macdonald, 2024). In this study ethical considerations were observed when exploring the views of Grade 7 Technology educators in CAPS Technology education in Limpopo Province.

During the research, confidentiality and anonymity were upheld. The study did not use participants' real names or school identities but instead assigned them codes. This was useful in protecting the educators as they shared their experiences and views on the use of OER. All the recordings and transcripts of the interviews were stored in a safe place and were not accessed by any other person except the researcher. The interviews were

also conducted with informed consent. Consent forms describing the aim of the research and the use of the information were provided to the participants. They were made to understand that they were under no obligation to take part and were free to withdraw from the study at any time without consequences. This suggests that ethical measures were strictly maintained throughout the study to foster trust and encourage participation.

I also made sure that none of the participants were subjected to harm during the interview. Educators were free to answer questions as they wished and to avoid those that they were not comfortable with. Also, the relevant authorities were consulted to allow the study to proceed before data collection started. For example, the school principals provided approval as the gatekeepers, and the university provided ethical clearance. Such ethical processes assisted in making sure that the research process was carried out in a responsible manner, with protection of the participants involved in the study. The next section discusses the location of the study.

4.9 Location of the study

Limpopo Province consists of various education districts, namely, Mopani, Vhembe, Capricorn, Sekhukhune and Waterberg. The province has a population of about 6.2 million residents (Statistics South Africa, 2023) and has been characterised by many socio-economic inequalities, with thousands of rural inhabitants living in poverty and with limited access to infrastructure and other resources. Within the Mopani East District there are different educational circuits, one of which is the Man'ombe Circuit. The Man'ombe Circuit consists of 38 schools that serve learners from nearby communities. This study focused on schools located in the Man'ombe Circuit in the Mopani East District. The circuit was selected mainly for convenience, as I currently work in Man'ombe. This made it easier for me to access the participants and engage with them at times that were suitable for the educators during the data collection process. Most of the schools in this circuit are situated in rural areas and serve communities with disadvantaged socio-economic backgrounds. Such rural circumstances may affect access to teaching resources such as OER. Conducting the study in this context enabled me to understand educators' views on the use of OER in schools that mostly experience resource-related challenges.

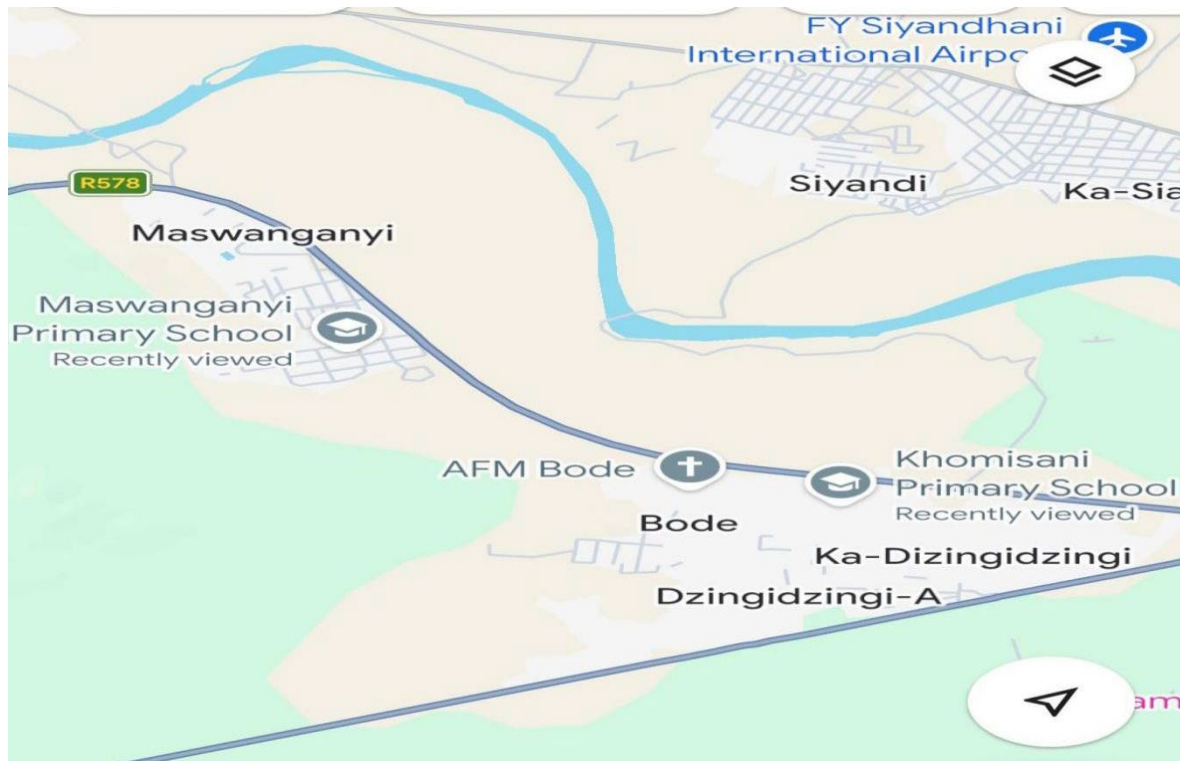


Figure 4.1: Local map of Man'ombe Circuit

The next section discusses the limitations of the study and the strategies used to address them.

4.10 Study limitations

Study limitations are constraints that affect the depth, scope, or applicability of the research findings. Such limitations are inherent to any research process and may be due to practical, methodological, or contextual factors beyond the researcher's control (Flick, 2021; Nowell & Albrecht, 2024; Tracy, 2022). In qualitative studies acknowledging limitations enhances transparency, supports the validity of the research and helps readers interpret the findings within the appropriate context (Nowell et al., 2021). This research also had some limitations that influenced the collection of data and the degree to which the phenomenon was explored under written, verbal, and personal views.

To begin with, the first term in Limpopo schools had a challenging start due to devastating floods that hit a number of schools, including those within the Man'ombe Circuit.

Consequently, educators were lagging behind in the curriculum and working to close the gap in the second term. This limited participants' availability. To overcome this issue a few of the interviews were carried out over the term 1 school holidays, and some were arranged after school and online at times that suited participants so that they had enough time to reflect and answer. Nine out of 20 sampled for semi-structured interview participants ended up participating in the study; this was because there were educators who were not sure about taking part, or rather lacked the confidence to do so. This restricted the collection of information. Such a drawback has been addressed by making sure that the purpose of the study was explained, the study was confidential, and the participants were given the questions to be asked during the interview in order to develop confidence and encourage them to participate.

Furthermore, a lack of literature about the views of Grade 7 educators on the use of OER in CAPS Technology education also became a challenge. This limitation was overcome through reference to broader research on OER in Technology education and through international qualitative research studies that explored the views of educators on open resources. In this way, triangulation, and additional explanation of the phenomenon was possible. In addition, time was a limitation in terms of the depth and richness of the data collection. Flexibility of the time schedule, early communication with the participants and providing various options for participation (face to face and online) enabled minimisation of these limitations. Moreover, Potential Insider Research concerns and power relationships arose because I knew some of the participants. This familiarity also might have led to social desirability bias, with participants giving answers they thought were favorable. In order to reduce these risks, participants were given the right to participate freely and anonymously, and their views were encouraged. I also adopted reflexivity in data collection and analysis to reduce bias and influence of personal relationships and assumptions in the results. Nevertheless, the strategies used enabled the study to effectively gather significant written, verbal and personal views of Grade 7 Technology educators on the use of OER, retaining the credibility, dependability, and confirmability of the results.

4.11 Chapter summary

This chapter described the qualitative methodology used to explore Grade 7 Technology educators' views on the use of OER. The study was guided by the interpretivist paradigm, which focuses on participants' subjective experiences. The case study design was used to get a detailed explanation of the phenomenon. The sample sizes were determined through purposive and convenience sampling to ensure the participants had relevant experience in terms of the views on OER. Data generation took place through FGDs and semi-structured interviews, during which written, verbal, and personal views were captured. Both inductive and deductive approaches to thematic analysis were used to identify key patterns and themes. Credibility, transferability, dependability, and confirmability guaranteed trustworthiness. Meeting ethical considerations ensured the rights and wellbeing of the participants were upheld. The limitations of the study were identified, and measures to overcome them were noted.

CHAPTER FIVE – DATA PRESENTATION AND DISCUSSION

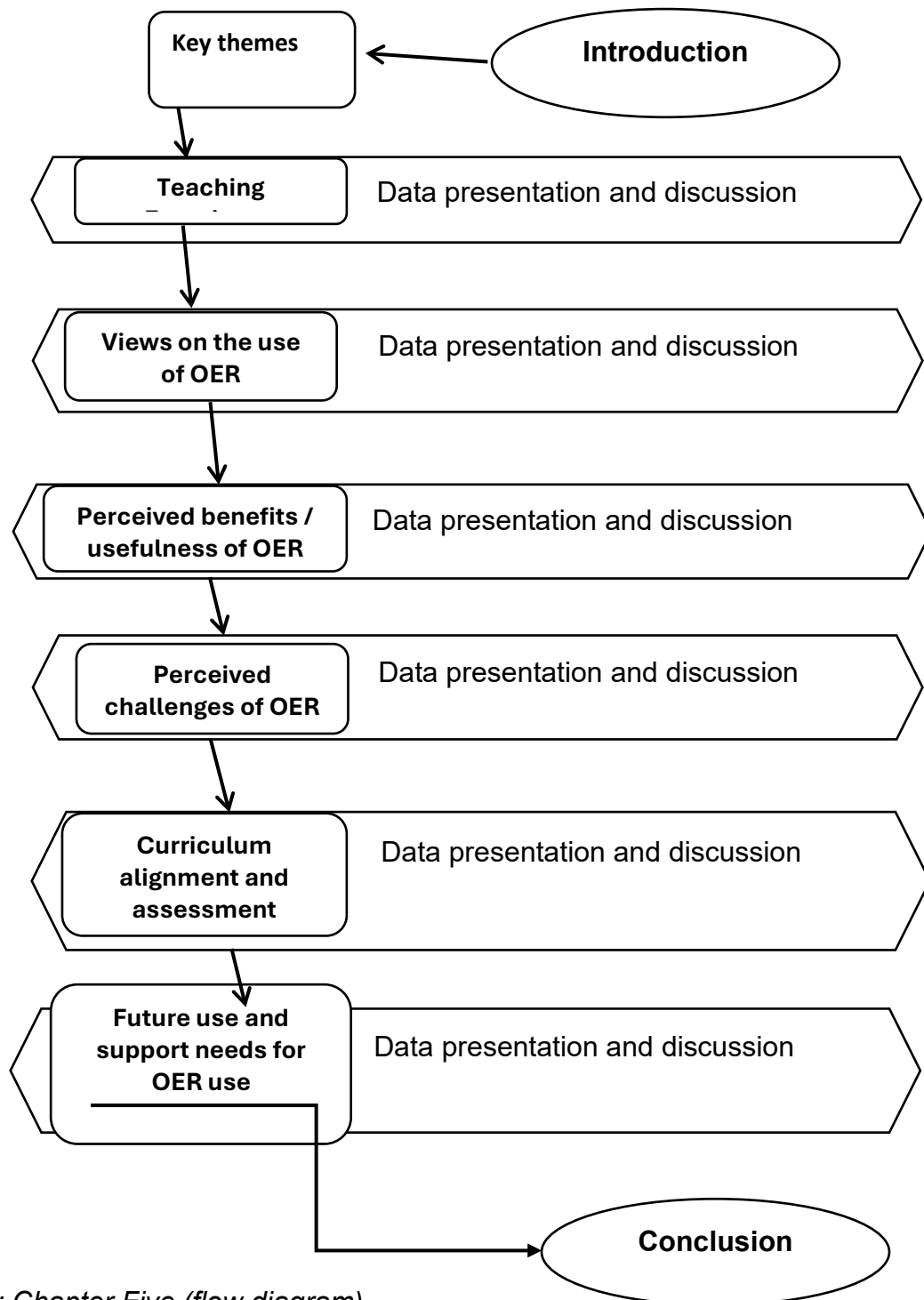


Figure 5: Chapter Five (flow diagram)

5.1 Introduction

Chapter Four outlined the qualitative methodology employed in this study, including the research approach, interpretative paradigm, case study design, sampling procedures, data generation methods, data analysis process, measures of trustworthiness, and ethical considerations. The interpretivist paradigm guided the study, focusing on understanding the subjective experiences and meanings participants attach to their teaching practices in relation to OER use in Technology education classrooms. Building on this, Chapter Five presents and discusses the findings derived from the data. The findings are presented and discussed thematically across six major themes: 1) teaching experience; 2) views on the use of OER; 3) benefits/usefulness of OER use; 4) perceived challenges of OER use; 5) curriculum alignment and assessment practices; and 6) future use and support needs for OER use in Limpopo schools.

5.2 Deductive and inductive thematic analysis: Key themes

As previously stated, this study employed deductive and inductive thematic analysis. Deductively, the study drew inspiration from the TAM theory, which helped in analysing educators' views on the use of OER through the principles of perceived usefulness (PU), perceived ease of use (PEOU), behavioural intention (BI), attitude toward use (ATU), and actual use (Ndebele & Mbodila, 2022). These principles helped to establish the initial lens for theme identification. Braun and Clarke (2021) agree with Kiger and Varpio (2022) that recent research supports the use of deductive thematic analysis when research is grounded in a pre-existing theoretical model, as it facilitates systematic mapping of data onto theoretical concepts. Inductively, this study also analysed data to identify themes in participants' responses that were not specified by the theoretical model. This enabled the emergence of themes from participants' experiences, specifically their written views (influence of CAPS and ATPs), verbal views (workshops, meetings, peer influence), and personal views (classroom experience and individual judgement) on the use of OER in Technology education. Braun and Clarke (2021) argued that inductive thematic analysis is useful to explore nuanced meanings in participants' accounts without constraining them to existing models. After the analysis the study identified six themes, which are presented

below together. The data presentation and discussion include evidence from semi-structured interviews and FGDs, which were analysed collectively to ensure consistency and rigour in the interpretation.

5.2.1 Theme 1: Teaching experience

The following excerpts from each of the participants are illustrative of this theme:

TP1: *I have been teaching Technology Grade 7 for 5 years... I also teach NST Grade 5 and Natural Sciences Grade 7... I have a BEd Honours in Education ... I have been using Open Educational Resources (OER) for the whole period that I have been teaching the subject (5 years).*

TP2: *I have been teaching Technology Education for 2 years... I hold a Bachelor of Commerce in Economics... I also did a PGCE in Senior and FET... and obtained an Advanced Diploma in Intermediate Phase Mathematics ... At my school I was allocated Technology Grade 7 and NST Grade 6 ... because I had little knowledge in these subjects ... I was advised to use digital tools such as OER ... I have been using Open Educational Resources for 1 year ...*

TP3: *I have been teaching Technology for 4 years now ... I also teach Mathematics Grade 7 and NST Grade 5 ... I obtained a Bachelor of Education specializing in Natural Sciences and Technology, hence I am qualified to teach Technology ... I have been using Open Educational Resources (OER) ever since I started teaching Technology (4 years)...*

TP4: *I have been teaching Technology for almost three years ... I have a BSc Honours in Mathematics ... I did my Postgraduate Certificate in Education (PGCE) specialising in Mathematics, hence I am qualified to teach ... I am currently teaching Mathematics and Technology ... I have been using Open Educational Resources (OER) since I started teaching Technology (almost 3 years) ...*

TP5: *I am a Grade 7 Technology teacher at a primary school ... I have been teaching Technology for a few years now ... I studied Bachelor of Education specialising in NST and English, hence I am qualified to teach Technology... I have been using Open Educational Resources (OER) for over 2 years now ... I started using them when I realised that the resources at school were not enough to support my teaching and learners' understanding ...*

TP6: *I have taught Technology for the past 6 years at Grade 7... I have learned how to teach various topics including structures, systems and control, and the design process using OER ... I have been using Open Educational Resources (OER) for nearly 3 years, specifically during the COVID-19 pandemic, when there was an urgent need for online materials ...*

TP7: *I possess some years of experience in teaching Technology at Grade 7 level ... I give more attention to practical teaching where learners learn through practicing ... I prefer relating topics to real-life experiences such as small businesses and daily issues ... I have been using Open Educational Resources (OER) since a year ago after being encouraged during a staff meeting on how OER can enhance learners' engagement and save costs ...*

TP8: *I have been teaching Technology for 4 years now ... I obtained a bachelor's degree specialising in NST and Mathematics in 2022 and I immediately started working ... I was first teaching Mathematics and NST in Grades 5 and 6, and later allocated Grade 7 Technology... I have been using Open Educational Resources (OER) for 2 years after realising that textbooks were not enough for learners ...*

TP9: *I am a Technology Education teacher who has been teaching for over 30 years ... I have been teaching Technology in both the intermediate and senior phases ... I hold a PhD in Educational Management; hence I am qualified to teach ... I am currently teaching Grade 7 Technology and NST... I have been using Open Educational Resources (OER) for a couple of years ...*

5.1.2.1 Discussion

This theme explores the professional background of Grade 7 Technology educators and how it shapes their views on the use of OER, focusing on their qualifications, years of teaching experience and exposure to Technology teaching and OER. Regarding the research questions, it identifies important factors that drive educators to choose a particular sort of OER over another. Semi-structured interviews and FGDs were used to generate data, which revealed that participants differed in terms of experience and training. Educators had diverse backgrounds in subject specialisation and teaching experience, with some having formal training in Technology education and others having self-trained and supported. These differences were reflected not only in data generation but also in how personal teaching experience (personal view) affects confidence and instructional choices, especially in the way educators initially adopt and use OER in their classrooms.

The findings reveal that the participants have different teaching experiences in Technology education, and their teaching qualifications reflect the written view level. For example, TP3 and TP4 agreed with TP1 who said that *"I have a BEd Honours in Education..."*, while TP3 said that *"I did a Bachelor of Education in Natural Sciences and Technology..."*, and TP4 said that *"I did my Postgraduate Certificate in Education (PGCE) ... hence I am qualified to teach..."*. This indicates that educators' practices are guided by structured (written views) knowledge which is policy curriculum driven. Moreover, participants described various experiences of exposure to OER. For instance, TP2 stated *"I was encouraged to use digital resources such as OER ..."*, and TP7 said that *"I have been using OER ... after being encouraged in a staff meeting ..."*, indicating the influence of the verbal view. However, the results also revealed that most participants were driven by their personal teaching experience (personal view) to use OER. For example, TP5 mentioned *"I started using them when I realised that the resources at school were not enough ..."*, and TP8 said, *"I have been using ... OER ... after realising that textbooks were not enough ..."*. This implies that although educators consider written and verbal views, the use of OER is mostly influenced by their personal view, where

educators make pedagogical decisions based on their classroom challenges, contextual background and learners' needs.

Furthermore, literature and theory (TAM) indicate that the use of OER is mostly driven by educators' personal views, including PU, in line with their classroom experience, as opposed to educators' training (Davis, 1989; Ndebele & Mbodila, 2022; Alkhwaldi, 2025). Similarly, Marikyan and Papagiannidis (2025) point out that the success of digital learning tools is linked to their usefulness for teaching and learning, underscoring the role of personal experiences with technology. Further, a study by Bond et al. (2021) highlights that educators are more likely to be influenced by their personal view than written views (policy and formal curriculum advice) or verbal views (workshops and peer pressure) when using digital resources. This suggests that although educators receive training in the form of policy documents (CAPS) and workshops, they use their personal view of teaching and learning to decide on OER use. This is consistent with the results of this study, including PU, in line with their classroom experience rather than educators' training (Davis, 1989; Ndebele & Mbodila, 2022; Alkhwaldi, 2025), and a desire to improve learners' knowledge. Therefore, the literature and findings support the view that personal factors are the primary drivers of OER use.

Moreover, CAPS provides general guidance that educators can use a variety of teaching and learning resources, including digital resources such as OER, to implement the curriculum. Yet the ATP provides a week-by-week teaching plan with content to be covered within a particular time period, and this limits educators' flexibility to fully implement OER, as OER is not explicitly allocated or scheduled in the ATP. This suggests that while the written view (CAPS) is flexible regarding resource diversity, the curriculum implementation tool (ATP) constrains educators' flexibility in using a range of resources, including OER. This suggests that educators are still implementing OER in their classrooms guided by their personal views, especially their classroom experiences of a lack of textbooks and a desire to support learners' understanding. Hence some educators mentioned that they use OER due to resource constraints. This also implies a gap

between curriculum planning and teaching practice: while there is written curriculum advice, educators' use of OER is largely driven by their personal views.

5.2.2 Theme 2: Views on the use of Open Educational Resources

The following excerpts from each of the participants are illustrative of this theme:

TP1: *Written policies provide variety of OER to use during the lesson ... they direct and guide us how to use them ... they also tell us when, what and how to assess ... our subject specialists encourage us to use different OER when teaching ... I prefer using AI (ChatGPT) when preparing my lessons ... I also download lesson plans that are readily available online ... I also use videos to present some of the lessons ...*

TP2: *CAPS, ATP and the subject guidelines encourage us to use supplementary resources like OER to meet curriculum outcomes ... during our staff meeting we discuss with colleagues how OER can help ... during our subject meetings some educators also provide examples ... therefore, we inspire and motivate each other to share OER ... we have also created a WhatsApp group ... after hearing positive feedback about how OER can help learners, I tried some of the methods ... I no longer design lesson plans entirely on my own, instead I download them and also use the one shared on our WhatsApp group ...*

TP3: *Written policies recommend and guide us to use OER ... there are also cases when these documents restrict the flexibility of its use due to the time allocated for each content in the ATP ... in our meetings with my colleagues, we normally exchange practical examples of how OER can be incorporated ... we also talk about the significance of OER during workshops ... when presenting my lessons I prefer using videos ... throughout my 4 years of teaching I have seen this strategy work best for my learners ...*

TP4: *CAPS and ATP and subject guidelines give teachers an idea of which type of OER they must incorporate ... how to teach and when to teach ... during our meetings and staff meeting we also discuss how OER can best enhance our learners' performance ...*

the use of OER is highly influenced by my personal experience ... since I began using OER, I observed positive changes in the learning and engagement of learners ...

TP5: *The CAPS and ATP guide me on what OER to use on specific topics ... when and how to teach them ... I make sure that the materials I download match the curriculum ... during subject workshops and subject meetings we share ideas on how we can improve learners' engagement and performance ... from my experience, I choose resources that I know help my learners understand better ... I prefer downloading previous exam papers ... I also prefer downloading pictures suitable for the content I want to teach ...*

TP6: *According to Curriculum and Assessment Policy Statement and Annual Teaching Plan, we get information about what content are to be covered during a particular time period ... these policies further guide us on the types of OER to use ... at the beginning of the term we always attend workshops and that is where we verbally encourage each other ... I utilise materials which proved to be effective and beneficial for my learners ... I personally prefer to use OER such as videos and pictures ... I also prefer downloading previous question papers ...*

TP7: *These policies guide me on what to teach and when to teach it ... so when I use OER, I make sure it matches the topics and pace from these documents ... discussions with colleagues help me a lot ... we share ideas and resources, including OER ... my personal experience helps me choose OER that are simple and practical ... I prefer resources that relate to real life ...*

TP8: *Curriculum And Assessment Policy Statement, Annual Teaching Plan and Subject Guidelines are the main factors that influence how I as the Technology teacher choose, modify and utilise Open Educational Resources ... these policies guide me to make sure that the OER integrate with the lessons planned and to also focus on curriculum objectives and assessments needs ... the ATP guide me on which topics need to be covered within a term ... I use OER such as online lessons and YouTube videos to align*

with the time limit ... verbal discussion with my colleagues helps me shape how to use Open Educational Resources ... we share ideas and resources ...

TP9: *Written policies like CAPS, ATP, and subject guidelines greatly affect my OER usage ... these policy documents inform me on what I should teach, when I should teach it and how I should measure it ... the verbal discussion with colleagues during staff meetings, workshops, and subject meetings are significant in shaping my use of OER ... my own experiences have a huge impact on my OER selection and usage ... I have realised that videos and pictures are resources that learners react very well to ...*

5.2.2.1 Discussion

The data generation procedures revealed that educators rely on several views when making decisions about a specific type of OER use over another. Most participants appeared to select and use OER based on their classroom experience (personal view) rather than policy documents (written views) and professional interactions (verbal views). Based on the findings, educators' views on the use of OER are shaped by written, verbal and personal views, with personal views being the most influential.

TP1, TP3 and TP4 agreed that written policies direct the use of OER, with TP1 saying that *"Written policies provide variety of OER to use during the lesson ... they direct and guide us how to use them ..."*, while TP3 also indicated that *"Written policies recommend and guide us to use OER ..."*, and TP4 explained that *"CAPS and ATP and subject guidelines give teachers an idea of which type of OER they must incorporate ..."*. This finding implies that educators' use of OER is influenced by written views, in particular documents such as CAPS and the ATP. However, educators also had similar experiences in terms of the influence of verbal views on their use of OER. For example, TP2 said that *"during our staff meeting we discuss with colleagues how OER can help ... we inspire and motivate each other to share OER ..."* and TP6 also said that *"at the beginning of the term, we always attend workshops and that is where we verbally encourage each other ..."*. This suggests that verbal views (such as workshops and staff meetings) are contributing to educators' awareness and use of OER.

In addition, the results also show that most educators are strongly influenced by their own teaching experience (personal views) when selecting and using OER. For instance, TP5 stated that *“from my experience, I choose resources that I know help my learners understand better...”* and TP9 also indicated that *“my own experiences have a huge impact on my OER selection and usage...”*. This implies that while written and verbal views influence educators' practices, the use of OER is mostly influenced by personal views, with educators drawing on their own teaching experiences and learners' needs when deciding to use OER.

Furthermore, literature and theory (TAM) propose that educators' decision to use OER is driven by principles such as PU, PEOU, ATU, BI and actual system use (Davis, 1989; Sechabe & Malatji, 2025; Bazine, 2025). PU is identified as the key principle in this model, as it relates to educators' beliefs that OER enhances their teaching strategies and learners' engagement. This is supported by studies by Alkhwaldi (2025) and the Organisation for Economic Co-operation and Development (2023), which indicate that educators are more likely to use digital resources when they observe improvements in learners' engagement and understanding. While institutional factors (written views) such as curriculum policies and professional interactions (verbal views) such as workshops and staff meetings provide recommendations and access to OER, literature demonstrates that these factors play a supportive role rather than a determining one in the adoption of OER (Bond et al., 2021; UNESCO, 2023). However, educators make decisions based on their classroom experiences, assessing whether the resources are useful for enhancing learner outcomes. This aligns with the study's findings, which show that educators tend to adopt OER based on their classroom experiences. The participants repeatedly stated that they use the OER they perceive as useful for learners' understanding and effective in the teaching context, rather than relying on policy documents or verbal discussions with other educators. This suggests that the literature and the findings confirm that personal views are the dominant level of phenomenon, and this dominance is well explained by the TAM principle of PU.

Moreover, policy documents such as CAPS provide broad guidance on what to teach, when to teach and how to assess, but they do not specify when to use OER in the classroom. So, OER use is not scheduled in the ATP, and educators choose when and how to use it in the classroom. The results indicate that educators primarily use OER, such as videos, AI tools, WhatsApp-forwarded resources and downloadable lesson plans, practically and selectively based on classroom needs. This therefore implies that while policy documents such as CAPS (written views) offer guidance on the use of OER, OER use is mainly determined by educators' personal views, informed by classroom experiences and learners' needs, revealing a gap between the curriculum and classroom practice.

5.2.3 Theme 3: Perceived benefits/usefulness of OER

The following excerpts from each of the participants are illustrative of this theme:

TP1: *Using OER makes it easy for learners to understand ... videos bring concrete learning ... learners remember more things they saw than they heard ... this improves performance ... learners become more active and participate more ... it also makes them love the subject ...*

TP2: *I enjoy using OER because I download them for free anytime ... they improve the quality of my teaching ... they promote learners' engagement and comprehension ... OER reduce lesson preparation time ... they provide diverse materials ... videos improve participation and understanding ...*

TP3: *OER are free to access ... they benefit learners from disadvantaged backgrounds ... they save time and provide lesson plans ... learners become more active and attentive ... videos and quizzes make lessons interesting ... this improves understanding and performance ...*

TP4: *OER helps me gain more technology knowledge ... it improves learners' engagement ... it enhances comprehension ... it is easier and quicker to find information online ... OER provides a variety of teaching ideas ... learners understand better and perform well ...*

TP5: *I download past exam papers and worksheets ... this helps learners practice ... it improves their understanding ... learners become more engaged ... their performance has improved ... videos and pictures help them visualise and gain confidence ...*

TP6: *OER helps me make lessons fun and understandable ... videos and images improve engagement ... learners are more involved ... they show better understanding ... visual learning helps them remember ... this leads to better performance ...*

TP7: *OER saves me time ... it gives me new teaching ideas ... it provides simple and practical materials ... learners are more engaged ... they understand better ... this improves their confidence and performance ...*

TP8: *OER allows me to modify resources ... it helps meet learners' needs ... it aligns with lesson objectives ... it saves time ... it creates hands-on learning experiences ... learners participate more and understand easily ...*

TP9: *OER enhances the quality of teaching and learning ... it makes difficult concepts easier ... it provides updated and varied materials ... it supports different learning styles ... learners become more engaged ... this improves understanding and performance ...*

5.2.3.1 Discussion

There was high and consistent agreement on the benefits of using OER across the participants in both data sets, with many of them pointing to increased engagement, understanding and participation. The study's findings show that educators' views on the use of OER are influenced by written, verbal, and personal views, with the latter being the most dominant. Many educators highlighted, drawing from their classroom experiences, that OER enhances learner understanding, engagement and performance. For instance, TP1 said "*learners remember more things they saw than they heard ... this improves performance ...*" and TP7 explained that "*learners are more engaged ... they understand better ...*". This suggests that teachers use their classroom experiences to assess the value of OER. Furthermore, written views were also reflected by educators in the form of structured resources such as lesson plans and past papers. For example, TP5 indicated "*I download past exam papers and worksheets ... this helps learners practice ...*".

Similarly, TP2 indicated *"I enjoy using OER because I download them for free anytime ..."* While written and verbal views play a role in shaping educators' perspectives, the study's findings indicate that educators primarily rely on classroom experience (personal views) to assess the usefulness of OER.

Furthermore, the literature based on TAM supports those personal views, especially PU, which is defined as the level of an educator's belief that the use of technology such as OER improves teaching performance and learner performance (Mbodila, 2022). Sechabe and Malatji (2025) added that PU is one of the key determinants of an individual's BI to continue using technology. Research indicates that educators are more likely to adopt digital resources if they perceive that they enhance learner engagement, understanding and performance, based on their classroom experience, rather than other factors (Ibrahim & Shiring, 2022; Zhang & Li, 2023; Nkomo et al., 2021; Uzorka & Odebiiyi, 2025). While policy and professional dialogue (written and verbal views) facilitate access and guidance, they primarily play an enabling role rather than driving classroom use (Cronin, 2022; UNESCO, 2023; Weller et al., 2021). This is consistent with the findings of this study, which showed that educators use OER based on their classroom experiences and the impact on learning outcomes. This suggests that literature and the study's findings show that personal views, based on PU, are the main factors influencing OER use.

Moreover, CAPS acknowledges the need to use a variety of teaching and learning resources to enhance learners' understanding and support curriculum implementation, aligning with the view that OER can enhance teaching and learning. However, the ATP, with its content and time allocation structure, offers little opportunity for the conscious use of such resources in the classroom. This suggests that while policy recognises the value of OER, it does not allocate time for their implementation. This suggests that policy is more of a guide than a driver of practice.

5.2.4 Theme 4: Perceived challenges

The following excerpts from each of the participants are illustrative of this theme:

TP1: *Sometimes it is challenging when there is unstable internet and poor network ... computers are sometimes out of order or have limited storage ... load shedding affects access to OER ... I sometimes skip lessons or teach without visuals ... our school lacks enough computers and projectors ... internet access is also a serious challenge ...*

TP2: *Poor network makes it difficult to download OER ... we do not have enough computers and have to share ... time constraints limit access to OER ... it is difficult to find CAPS-aligned resources ... I sometimes assist other teachers, which is time-consuming ... this affects my lesson preparation ...*

TP3: *Internet is often unavailable due to load shedding and poor connectivity ... we only have one shared computer ... lack of devices forces me to use my phone in class ... resources are limited and textbooks are not detailed enough ... lesson preparation takes too much time ... this slows down teaching ...*

TP4: *There is no stable internet in my rural area ... I use personal data to access OER ... sometimes I download materials beforehand for offline use ... we lack projectors and enough devices ... network problems delay access to resources ... access is not always convenient ...*

TP5: *Internet is unstable and computers are limited ... I use my personal phone and data to download resources ... printing is restricted due to lack of paper and ink ... lesson planning becomes time-consuming ... I must prepare resources in advance ... sometimes I adjust lessons based on available materials ...*

TP6: *OER use is difficult due to poor internet and lack of equipment ... we lack computers and projectors ... sometimes I depend on textbooks which are limited ... resources are not sufficient in the school ... this affects learner engagement ... it limits effective teaching ...*

TP7: *Internet is unreliable at school ... I prepare and download materials beforehand ... it is sometimes difficult to align OER with CAPS ... not all learners have digital access ... lesson planning takes more time ... I must prepare backup materials ...*

TP8: *OER is easy to find but difficult to access due to poor internet ... there is lack of time and ICT skills ... language barriers also affect usage ... we only have a few computers ..., ...this increases workload ... I often rely on traditional materials ...*

TP9: *Challenges include unstable internet, power outages and lack of devices ... some OER are not aligned to CAPS ... not all learners have digital access ... lesson planning requires backup preparation ... resources at school are insufficient ... this affects teaching effectiveness ...*

5.2.4.1 Discussion

The data generated using semi-structured interviews and FGDs revealed that educators face several limitations in using OER in teaching. Limited internet access, lack of devices, and time were the most common challenges across participants, which were consistently reported in both data sets. Nevertheless, the effects of these problems differed according to the school situation and the resources available, with some educators being able to develop coping mechanisms and others still struggling with ongoing problems.

The study's findings show that the challenges faced by educators in using OER affect all levels of the phenomenon, namely written, verbal, and personal views, with the biggest challenges occurring at the personal level. At this level, educators reported infrastructural and classroom challenges. For instance, TP1 mentioned "... *I sometimes skip lessons or teach without visuals ... our school lacks enough computers ... internet access is also a serious challenge ...*". Similarly, TP5 indicated that "*I use my personal phone and data ... sometimes printing is limited due to paper and ink*". This suggests that the lack of internet, devices, and resources impacts classroom use of OER. Furthermore, challenges were also discovered at the written level, in particular, curriculum alignment; TP2 mentioned that "*I sometimes struggle to find OER that align with the curriculum*" and TP7 added "*I have to adapt resources to ensure they align to CAPS*". Additionally, at the verbal level some challenges are evident in professional discussions, particularly where

educators help each other because of resource constraints. For instance, TP2 explained *"other teachers ask me to access resources for them, which takes time and impacts on planning"*. This indicates that although the written and verbal level views play a role in educators' experiences, the major challenges are mostly encountered at the personal classroom experience level (personal view).

Furthermore, literature guided by the TAM suggests that educators' digital resource use is influenced by PU and PEOU, which in turn affects actual system use (Al-Emran & Teo, 2021; Scherer et al., 2021; Joo et al., 2022). PU is the extent to which OER improves teaching and learning, whereas PEOU is the extent to which OER are convenient and simple to utilise (Al-Adwan et al., 2023; Ndebele & Mbodila, 2022). Therefore, educators evaluate ease of use and PU of online materials according to their personal views that are gained through classroom experiences (Bond et al., 2021; Ndebele & Mbodila, 2022). This aligns with the findings of this study, which show that educators use OER based on their classroom experience despite the challenges, as they improve engagement and understanding among learners. This suggests that classroom experiences (personal view) inform ease of use and usefulness, with educators employing what works.

Moreover, Farrow et al. (2024) highlighted that CAPS, ATPs and subject guidelines promote the use of the appropriate resources, including OER, to improve teaching and learning. However, these policies are based on the availability of infrastructure and resources and overlook issues such as connectivity, availability of devices and training reported by participants (LeMire, 2025). This implies that policy and practice are not linked but have a huge gap. Additionally, the policy encourages the utilisation of OER, but it does not provide much information on resource concerns and challenges. As a result, educators rely on their personal views in order to put policy into practice. This suggests that written and verbal views provide guidance, but educators rely on their personal views since they are based on the classroom realities and challenges they encounter.

5.2.5 Theme 5: Curriculum alignment and assessment practices

The following excerpts from each of the participants are illustrative of this theme:

TP1: *OER are specifically useful when we learn about the topics such as structures, mechanical systems and control, electrical system ... these are complex topics and I prefer the use of OER on these topics since visual aids and videos help learners to have a better understanding of the content ... I am able to download quizzes and exercises that best align with these topics ... the OER makes teaching and learning easy ... I manage to access previous question papers for assignments, projects and tests ...*

TP2: *The use of OER makes lesson presentation simpler for complex technology topics ... by allowing me to use visuals and interactive materials ... it aligns with the curriculum because it provides free digital materials that meet curriculum standards ... OER provide additional examples, practical activities and revision materials and this helps my learners prepare better for their formal and informal assessments ...*

TP3: *Assessment can be a problem in curriculum topics such as Systems and Control ... Therefore, I download rubrics online and ask other colleagues to share with me ... Using OER aligns well with the curriculum, especially in practical projects and theory lessons ... videos and interactive material assist learners in visualising difficult concepts ... previous online question papers help ... learners to perform better ... However, there are difficulties when online materials are not aligned with CAPS or ATP standards ...*

TP4: *OER can be quite useful in such subjects as mechanical systems and control ... I make use of videos to demonstrate how these systems operate ... OER assists students in visualising what we cannot show in the classroom ... OER assists in explaining these concepts in a more practical and understandable manner ... OER helps me in my planning since it offers pre-made activities, worksheets and examples ... this simplifies the planning ...*

TP5: *Teaching topics such as structures, mechanical systems and controls ... are very challenging ... the use of OER such as printed pictures and downloaded videos helps me a lot ... learners get to have a better understanding ... I make sure that the OER I use is*

CAPS aligned ... It takes time for me to get those OER because I need to ensure that they align ... OER supports my assessment planning because I use past papers and worksheets ...

TP6: *Yes, it is easy when we learn content area such as structures and system control ... we are able to use videos for demonstration ... however, it can be problematic once there is no resource ... the use of OER assists the syllabus by offering further clarifications ... the utilisation of OER enables me to develop improved assessment questions ... finding the materials that fit the assessment and curriculum standards became very challenging ...*

TP7: *Yes, OER is very helpful in topics like structures and simple electrical circuits ... I can find diagrams, examples, and activities ... it is sometimes challenging when it comes to formal assessments, because not all OER match exactly with CAPS requirements ... I make sure the content follows what I am required to teach ... OER support my planning because they give me ideas for questions, tasks, and activities ...*

TP8: *OER is helpful when it comes to topics such as structures, electrical system and mechanical system ... through videos learners better understand ... Open Educational Resources can be revised ... I can adapt OER to meet particular learning objectives ... OER supports assessment ... by allowing me to adapt materials that align learning outcomes ... making sure that assessments measure what has been taught ...*

TP9: *OER are particularly beneficial in subjects where visualisation ... is needed ... structures, systems and control, mechanical systems, electrical systems ... OER can be used in practical tasks and project-based assessment ... OER may be tricky when materials do not correspond to CAPS ... alignment depends on my capability to choose resources ... OER enable me to plan assessment by offering examples, practice activities and revision materials ... however, ensuring alignment with CAPS standards and cognitive levels is a challenge ...*

5.2.5.1 Discussion

Based on the responses, participants had mixed experiences in the alignment of OER with CAPS and ATP requirements. Some of the participants pointed out the usefulness of

OER in simplifying complex subjects and supporting the preparation of assessments, while others mentioned that there was no balance between curriculum expectations and classroom realities.

Participants reveal different views (written, verbal and personal) that guide their alignment of curriculum and assessment practices in Technology education when using OER, with personal views emerging as the most dominant. Educators highlighted the importance of the influence of personal view on the use of OER when teaching Technology content. For example, TP1 mentioned *“OER are specifically useful when we learn about the topics such as structures, mechanical systems, and control, electrical systems ... these are complex topics ...”*. This suggests that educators personally view the use of OER as a great solution for teaching complex topics. Furthermore, curriculum documents like CAPS and ATP were mentioned to be guiding in the alignment process of the curriculum when using OER. As TP5 elaborated *“... I make sure that the OER I use is CAPS aligned ...”*. This indicates the influence of the written views. Additionally, at the verbal view level educators collaborate and share useful OER, as TP3 asserted: *“I download rubrics online and ask other colleagues to share with me ...”*. However, even though the three levels influence practice, the personal views are considered dominant, as educators use their teaching experience to ensure learners successfully understand the delivered lesson (especially the complex content) that aligns with the curriculum and the assessment.

Furthermore, literature and theory (TAM) suggest that the PU and PEOU are the primary factors influencing the use of OER by educators in curriculum alignment and assessment practices, due to personal views based on classroom experience and not on formal training (Davis, 1989; Ndebele & Mbodila, 2022; Alkhwaldi, 2025). This is seen in this study through educators' repeated engagement with OER they find effective for teaching complex topics and for supporting assessment activities such as quizzes, projects and examinations. On the same note, the research by Marikyan and Papagiannidis (2025) also points to the fact that the PU of digital learning tools is strongly connected with their actual use in practice, emphasising the value of lived classroom experience (personal view) in influencing the adoption and use of OER.

Moreover, CAPS promotes the adoption of appropriate teaching resources, such as digital tools and OER, to facilitate teaching, learning and assessment (Farrow et al., 2024). Such a policy presupposes that educators have enough time, facilities, and access to coordinated resources. However, this study reveals that educators struggle to find OER that align with the curriculum for assessment, further highlighting a gap between policy expectations and classroom realities. This implies that although CAPS and ATP guide curriculum and assessment, the actual implementation of OER relies more on educators' personal perspectives and classroom experience.

5.2.6 Theme 6: Future use and support needs for Open Educational Resources

The following excerpts from each of the participants are illustrative of this theme:

TP1: *As much as I am still working, I will continue using OER ... it worked for me, gave good results and improved performance ... I am also able to access previous question papers ... using different question papers help learners to be familiar with what they may come across in the test ... the department must provide laptops for educators since there is limited computers ... the use of OER has been a great experience for me and my learners ... we are able to overcome learning difficulties in complex topics such as mechanical system and control ...*

TP2: *Based on my personal experience, I have seen OER assist my learners to have a better understanding of Technology education ... I am very much confident that I will continue to use OER in future, as long as we have access to internet, enough computers and projectors ... reliable internet access, training on OER use, availability of resources such as computers and projectors must be provided ... the use of OER enabled me to create an interesting learning environment ... learners retain more knowledge and improve their performance ...*
TP3: *... OER enables me to enhance learners' engagement and comprehension ... I see OER as an essential instrument of improving learners' performance ... there is a low possibility of using it in the future if we still encounter problems such as lack of infrastructure, limited computers, and constant internet failures*

... if these issues can be solved ... I am quite sure that I will continue to use OER on a daily basis... availability of projectors or smart boards, stable internet connection and ICT [information and communication technologies] training are needed ...

TP4: *There are high chances that I will still be using OER in the future as it simplifies my teaching process and enhances the learning and performance of the learners ... the availability of good internet, projectors and speakers would assist me in utilising OER in my teaching more efficiently ...*

TP5: *I am very likely to continue using OER ... they are very helpful, especially in a school like mine where resources are limited ... they improve learners' engagement and understanding ... it would help a lot if the school had internet access, computers, projectors, and teacher training ... more printing resources like paper and ink would also make a difference ... with more support and resources, OER can make a big difference in schools like ours ...*

TP6: *... I will be very willing to use OER as they improve my teaching and make the lessons motivating ... if we can have a stable internet and enough gadgets such as computers and projectors ... teacher training and knowledge on how to effectively utilise OER will be extremely helpful ... OER are highly beneficial but require infrastructure and access ...*

TP7: *I am very likely to continue using OER in my future lessons ... I need free internet, devices like laptops or tablets ... OER helps me teach better with limited resources, but lack of internet and devices makes it difficult ...*

TP8: *It will help a lot if I can access OER that is already aligned with national curriculum standards ... training on how to work through the 5R permissions of OER is needed ... workshops focusing on how to integrate OER into teaching methods would help ... if we can get more resources and support, I will definitely continue to use OER ...*

TP9: *I will most probably use OER in further lessons ... OER have contributed positively to my teaching and learners' engagement ... although there are challenges such as lack of infrastructure and internet connectivity ... better access to technology and institutional support would improve use ... training, resources and collaboration between teachers are*

essential ... OER are a valuable resource that can enhance curriculum implementation and learner outcomes ...

5.2.6.1 Discussion

This theme discusses the intentions of educators to use OER and the support that is needed to use OER effectively in Grade 7 Technology education. It is oriented towards future use, professional growth, and resource needs. It expands the discussion in relation to the research questions by investigating the BI of educators towards the use of OER. Interviews and FGDs were used to generate data, and they revealed that most educators are willing to proceed with the use of OER in their teaching. The participants emphasised the necessity to have better infrastructure, training, and access to resources, as seen in the two data sets. Nevertheless, there were variations regarding the support that was needed: some focused on technical support and others focused on continuous professional growth.

The study found that participants held different expectations for the future use of OER, influenced by the written, verbal, and personal levels of the phenomenon, with the personal level proving the most dominant. On the personal level, educators are willing to continue using OER based on their classroom experiences of enhanced learner engagement and performance. For example, TP1 stated *“I will continue using OER ... it worked for me, gave good results and improved performance”*, while TP5 asserted *“I am very likely to continue using OER ... they improve learners’ engagement and understanding”*. This implies that educators see OER as a way to enhance engagement and learning outcomes among learners, and they plan to use them in future. However, at the written view level, future use depends on the institutional support needs, like access to infrastructure and training. As TP2 noted, *“reliable internet access, training on OER use ... must be provided”*. This suggests that institutional support can facilitate the use of OER. In addition, at the verbal level educators need to continue collaborating and supporting one another, as TP5 highlighted: *“we support each other and share ideas”*. This implies that cooperation can facilitate the further utilisation of OER. Nevertheless, personal classroom experience (personal view) is the most important factor, since

educators can continue to use OER based on the perceived benefits and the practical teaching requirements they discover individually.

Furthermore, literature and theory (TAM) show that the use of OER by educators is often motivated by personal views formed in the classroom, especially their PU in enhancing teaching and learning (Davis, 1989; Ndebele & Mbodila, 2022; Alkhwaldi, 2025). This is evident in this study, where educators are willing to continue using OER because it positively affects learner engagement, understanding and performance. In the same vein, Marikyan and Papagiannidis (2025) highlighted that digital learning tools are more sustainable when they prove to be useful in an actual teaching context. Nevertheless, the results also indicate that further use is conditional, because implementation is limited by challenges such as insufficient infrastructure, the absence of devices and insufficient training. This aligns with Bond et al. (2021), who pointed out that classroom realities influence educators' use of technology rather than technical potential. This indicates that individual experience (personal view) is a key factor in defining continuation of OER use in practice.

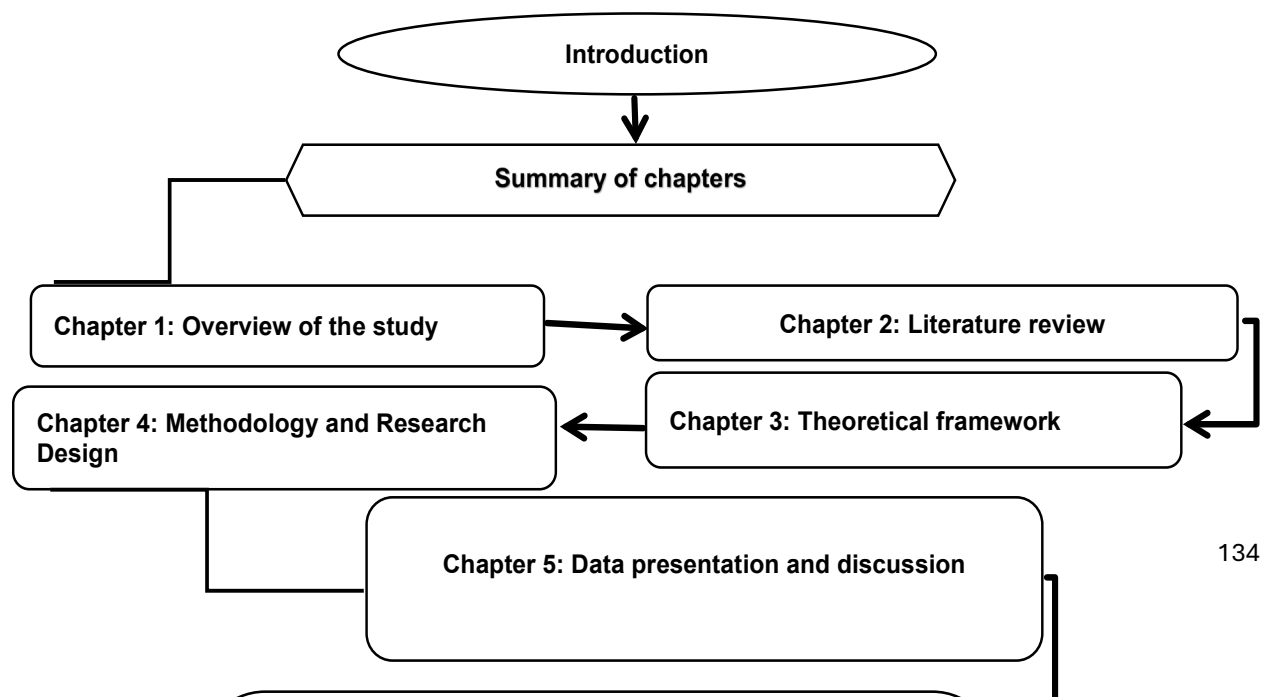
Moreover, policy (CAPS) promotes the use of digital resources but provides little guidance on how teachers can address current issues of access and implementation, creating a gap between policy expectations and classroom realities, especially in resource-constrained settings (Chinengundu, 2025; Pillay, 2024). This suggests that despite policy support educators will use their own experience (personal views) and available resources to assess the viability of further OER use.

5.3 Chapter summary

The chapter presented the data and discussed the research findings that were generated during the semi-structured interviews and FGDs. Data analysis was based on thematic

analysis, informed by the levels of the phenomenon (written, personal, and verbal) and also presented as connected to the TAM through deductive logic. Additionally, the chapter contained the findings that emerged, which were formulated into themes by using inductive reasoning. Consequently, six themes were discovered that respond to the research questions and the objectives of the study. The next chapter summarises the research, presenting recommendations to overcome the challenges that were identified, and finally the conclusion of the study.

CHAPTER SIX – SUMMARY, RECOMMENDATIONS AND CONCLUSION



6.1 Introduction

The findings of the views gained from Grade 7 Technology educators through semi-structured interviews and FGDs were presented and discussed in the previous chapter. These findings were analysed using thematic analysis, guided by the Technology Acceptance Model (TAM) and the different levels of the phenomenon (written, verbal and personal views). Both deductive and inductive reasoning were used in the analysis, which identified six major themes: teaching experience; views on the use of Open Educational Resources; perceived benefits/usefulness of Open Educational Resources; perceived challenges; curriculum alignment and assessment practices, future use and support needs for Open Educational Resources in Limpopo schools. The final chapter presents these themes with the aim of summarising the findings and further responding to the key research questions, namely:

1. What view level drives educators to choose a particular sort of Open Educational Resources that they use in Grade 7 CAPS Technology education?
2. What are the perceived benefits and challenges faced by educators when accessing and utilising Open Educational Resources in CAPS Technology education?
3. How do educators view the use of Open Educational Resources as influencing learners' comprehension and engagement in Technology education?

In addition, this chapter summarises the entire research study, presents the key findings, and offers recommendations based on the challenges and gaps identified. The chapter also presents the study's conclusion and implications for education, based on its findings regarding the use of OER in Grade 7 Technology education.

6.2 Summary of chapters

6.2.1 Chapter One: Overview of the study

Chapter One introduced the study titled 'The Views of Grade 7 Technology Educators on the Use of Open Educational Resources (OER) in Limpopo Province' by outlining its background, context, and rationale. It highlighted the study's significance, presented the problem statement, and outlined the main research questions, sub-questions, aim, and objectives that guided the study. It also provided an overview of the literature review, theoretical framework, and research methodology, including the approach, paradigm, design, and data generation methods. Finally, the ethical considerations, trustworthiness, limitations, and the organisation of the study were discussed, laying a clear foundation for the research.

6.2.2 Chapter Two: Literature review

Chapter Two covered the literature review, which provided a clear definition of the phenomenon (educators' views) and unpacked its levels (written, verbal and personal).

Furthermore, the chapter introduced OER and its perceived benefits and limitations. Moreover, it elaborated on curriculum issues and how they align with the phenomenon's levels.

6.2.3 Chapter Three: Theoretical framework

Chapter Three presented the TAM as the theoretical framework that guided this study. It explained the purpose of a theoretical framework and justified the choice of TAM to explore educators' views on the use of OER in Grade 7 Technology education in Limpopo Province. The historical development of TAM, including its roots in the theory of Reasoned Action and later extensions (TAM2 and TAM3), was discussed. The four core principles, namely perceived usefulness (PU), perceived ease of use (PEOU), attitude toward use (ATU), and behavioural intention (BI), were defined and linked to educators' written, verbal, and personal views. The chapter also showed how PU and PEOU influence attitudes and intentions to use OER. It also described the reflections of ATU and BI in educators' judgements and their subsequent use of OER. A conceptualisation table was provided to demonstrate the alignment between TAM principles and the study's levels of view. Finally, the chapter explored the implications of the theory and acknowledged the limitations of TAM while confirming it as a suitable framework for analysing educators' choice and use of OER.

6.2.4 Chapter Four: Methodology and research design

Chapter Four described the qualitative methodology used to explore Grade 7 educators' views on the use of OER. The interpretivist paradigm guided this study, which focused on participants' subjective experiences. The case study design was used to obtain a detailed explanation of the phenomenon and its levels. The sample sizes were determined through purposive and convenience sampling to ensure participants had relevant experience with OER-related views. Data was generated through FGDs and semi-structured interviews, during which written, verbal, and personal views were captured. Both inductive and deductive approaches to thematic analysis were used to identify key patterns and themes. Credibility, transferability, dependability, and confirmability ensured trustworthiness. Ethical considerations were put in place to ensure the rights and well-being of the

participants. The limitations of the study were identified, and measures to address them were noted.

6.2.5 Chapter Five: Data presentation and discussion

Chapter Five presented the data and discussed the research findings that emerged from the semi-structured interviews and FGDs. The data analysis, based on thematic analysis and informed by the levels of the phenomenon (personal, written, and verbal views), was also presented as connected to the TAM through deductive logic. Additionally, the chapter presented the six themes that emerged from the findings, which were formulated through inductive reasoning and addressed the research questions and the objectives of the study.

6.3 Summary and recommendations

The study has three objectives, which are to: understand the views that drive Grade 7 educators when choosing a particular sort of OER for teaching CAPS Technology education; explore the perceived benefits and challenges experienced by Grade 7 educators when accessing and utilising OER in CAPS Technology education, to understand educators' views on how the use of OER influences learners' comprehension and engagement in CAPS Technology education. These objectives were addressed by answering the three research questions of this study, namely: What view level drives educators to choose a particular type of OER for Grade 7 CAPS Technology education? What are the perceived benefits and challenges faced by educators when accessing and utilising OER in CAPS Technology education? How does the use of OER influence learners' comprehension and engagement in Technology education?

The findings of this study, which respond to the above research questions, are presented under the following themes in the sections that follow: teaching experience; views on the use of Open Educational Resources; perceived benefits/usefulness of Open Educational Resources; perceived challenges; curriculum alignment and assessment practices; and future use and support needs for Open Educational Resources in Limpopo schools. Recommendations are also provided under these themes.

6.3.1 Teaching experience

The findings of this study indicate that of the three view levels (written, verbal, and personal) that educators draw on when selecting and using OER in Grade 7 Technology education, participants were driven much more by personal views than by written and verbal views. Participants had different educational backgrounds, qualifications, and experience in Technology education, some having been formally trained in Technology education, while others lacked specialised training in the subject. The results also reveal that written views (obtained from CAPS and curriculum expectations) and verbal views (obtained through workshops, staff meetings and professional networks) also affected educators' use of OER. However, educators chose and used OER mainly based on their own classroom experiences and realities (personal views). This suggests that educators are driven more by personal views when using OER than by written or verbal views. Therefore, although CAPS promotes the use of diverse teaching and learning resources, educators relied more on personal experience when implementing OER in Grade 7 Technology Education. These findings primarily address the first research question: What view level drives educators to choose a particular type of OER for Grade 7 CAPS Technology education?

Furthermore, the study revealed that the ATP does not explicitly allocate or schedule OER in the weekly teaching schedule, and the DBE provides limited structured support for the effective incorporation of OER into classroom practice. Therefore, educators relied more on their personal views when choosing and using OER. According to the literature, based on the TAM Model (Mbodila, 2022), educators' acceptance and use of technology are largely dependent on their perceptions of technology's usefulness in their teaching. This suggests that the more educators feel they can use OER to solve classroom problems and facilitate learning, the more likely they are to do so. In addition, Bond et al. (2021) highlighted that educators' personal views derived from classroom experience are more likely to influence their decision to implement digital resources than written views from policy documents or verbal views from workshops. Similarly, this study found that educators relied more on their own teaching experiences and classroom realities than on written and verbal views when selecting and using OER. Therefore, the study found that

educators relied primarily on their personal views, specifically PU, when using OER in Grade 7 Technology education.

Additionally, Personal views may be explained in the context of the lack of formal guidance and structured support for OER integration. The ATP does not specifically include a list of the resources that will be available to support OER, and structured DBE support is limited, so educators must use their professional judgment and classroom experience to decide which resources are helpful and suitable for their learners. This has implications for the implementation of curriculum because educators do not always read or hear curriculum requirements and then interpret and adapt them as they see fit in their classroom context. It also implies that the adoption of OER in South African schools is not just about providing resources for the school, but also about supporting educators to assess and tailor the OER to their teaching environment. This is especially relevant in Grade 7 Technology education where resources would help with practical activities, problem solving, designing and making. The finding adds to the knowledge base by demonstrating how situated experiences, professional judgement, and perceptions of usefulness of the OERs are important factors in the process of curriculum guidance to actual use of OERs.

6.3.1.1 Recommendations

Considering the results, this study recommends that the DBE enhance the alignment between curriculum planning tools and their practical application in the classroom. The ATP should explicitly include OER integration in weekly lesson planning, to enable more flexible, structured classroom use. Additionally, training and professional development should be offered to educators, especially those who teach Technology without subject-specific training, to build their competence and confidence in using OER. Finally, there is a need for more explicit guidance on integrating OER into Technology education to help align curriculum with practice and to facilitate more consistent and effective use of OER in schools.

6.3.2 Views on the use of Open Educational Resources

The findings of this study indicate that educators' attitudes towards the use of OER in Grade 7 technology education are guided by the written, verbal, and personal views, with personal views being the most dominant. The results revealed that when using OER, educators drew on policy documents such as CAPS, ATP, and subject guidelines (written views), workshops, staff meetings, and professional discussions (verbal views), as well as their classroom experience (personal views). However, when selecting which OER to use, participants drew more on their own classroom experiences and learners' needs (personal view) than on policy documents or professional discussions. This implies that while written and verbal views help inform understanding of OER, educators' use of OER is primarily driven by their own teaching experiences and classroom realities (personal view). Therefore, these findings primarily address the first research question: What view level drives educators to choose a particular type of OER for Grade 7 CAPS Technology education?

Furthermore, the literature on TAM indicates that educators are more inclined to use educational technologies when they believe the technology is useful and effective in their teaching environment (Bazine, 2025). Similarly, this study found that educators chose OER for their effectiveness in enhancing learners' understanding, participation and lesson delivery. Additionally, the study found that the resources that participants liked most were practical and accessible, like videos, AI tools, shared content on WhatsApp, and downloadable lesson materials, which they felt were relevant and helpful in the classroom. This suggests that educators' personal views, especially their perceptions of usefulness, are more influential in OER use than verbal and written views, as curriculum documents offer only general guidance on teaching and assessment and do not clearly explain how OER should be used in the classroom. Consequently, according to Bond et al. (2021) educators make their own choices about which type of OER to use based on learners' needs, available resources, and classroom context. This implies that educators use their personal views when incorporating OER, leading to selective, flexible use in Grade 7 Technology education.

Moreover, the dominance of personal views can thus be interpreted in the context of educators' first-hand encounters with classroom realities. The usefulness, access, relevance, and appropriateness of an OER to a learner and the content being taught is judged by the educator, and prior experiences impact these judgements. This means that there are implications for curriculum implementation, as educators do not just implement curriculum as it is written, but rather interpret and adapt the resources to suit their professional judgment and classroom settings. Therefore, the mere availability of OER in South African schools, especially in resource-limited environments, may not be sufficient to ensure its adoption, as educators are more inclined to adopt resources that they view as being useful, accessible and responsive to the needs of learners. It is important especially in Grade 7 Technology education, where resources must aid in practical activities, designing, making and problem-solving. The finding adds to the body of knowledge by revealing the situated experiences and professional judgement of educators in the context of OER adoption and curriculum enactment.

6.3.2.1 Recommendations

Based on these findings, the study recommends that the DBE provide clear, practical guidance on the use of OER in Grade 7 Technology education classrooms, as many educators rely primarily on their own classroom experience (personal view) when choosing and using OER. Also, schools and subject advisors need to arrange regular practical workshops to train educators in selecting, adapting, and using appropriate OER that best align with the curriculum. Furthermore, schools should also provide opportunities for educators to present real-world examples and to show how they implement OER in their classrooms. This will enable educators to learn from each other and build their confidence in applying various OER. Finally, educators should be encouraged to use learner-centred OER, which enhances learners' understanding, participation, and interest in Technology education, rather than using traditional teaching approaches.

6.3.3 Perceived benefits/usefulness of Open Educational Resources

The findings of this study indicate that the use of OER is perceived as beneficial and useful in Grade 7 Technology education, especially in enhancing the understanding,

engagement, participation, and academic performance of learners. The results showed that educators' views on OER's usefulness are guided by written, verbal, and personal views, with personal views being the most dominant. Participants mentioned that while written views (policy documents) and verbal views (workshops and professional discussions) guided them to understand and use OER, personal views (classroom experiences) are the primary factors that led to their interest and engagement in OER. Some participants noted that learners are more interested and engaged when visual and practical resources, such as videos, worksheets, and past examination papers, are used in lessons. These participants also mentioned that using OER helps their learners better understand complex topics and retain that content, resulting in better performance and enhancing teaching and learning. This suggests that educators assess the value of OER based on their benefits and usefulness in their own classroom. Therefore, the findings primarily address the second research question: What are the perceived benefits and challenges faced by educators when accessing and utilising OER in CAPS Technology education?

Furthermore, the results of this study are consistent with the TAM, which posits that educators are more inclined to adopt technology when they perceive it as useful and as enhancing teaching and learning (Mbodila, 2022). In this study participants reported that OER positively improves lesson delivery, learner participation, learner understanding, and performance, and that this impacts their continued use of OER. Therefore, while written and verbal views provide guidance and support, participants mainly depended on their own personal views, as they perceived them as being useful. This suggests that educators draw more on their own classroom experiences (personal views) when using OER, having observed that OER are beneficial in Technology education.

Additionally, it is therefore not surprising that personal views dominate because educators have first-hand experience with how OER adapt to the needs and challenges in their classrooms. This is significant for curriculum implementation, as educators can use their own experiences of what is effective in practice to inform their interpretation and adaptation of curriculum resources, not just following written and verbal views. It also implies that the implementation of OER in South African schools may be related to

educators' experience of the usefulness and relevance of the OER. In grade 7 Technology education, where practical and visual resources can enhance understanding of technological concepts, the professional judgement of the educator becomes crucial in the selection and adaptation of OER. The study contributes to knowledge by revealing how situated classroom experiences of educators influence their perceptions of usefulness and the ongoing use of OER in Technology education.

6.3.3.1 Recommendations

Based on these findings, the study recommends that schools should ensure that educators have access to digital resources, internet connectivity and technological devices to facilitate the effective use of OER in the classroom. This is because participants mentioned that learners are more interested and engaged when visual and practical resources like videos, worksheets and past examination papers are used in lessons, and all of these require a stable internet connection and technological devices. Additionally, workshops and professional development programmes should provide more training opportunities to emphasise how OER can be used to enhance teaching and learning in classroom settings.

6.3.4 Perceived challenges

The findings of this study indicate that Grade 7 Technology educators encounter several challenges when accessing and using OER in Technology education. The results showed that these challenges are influenced by written, verbal, and personal views, with personal views being the most dominant. Participants mentioned the written views (policy documents) and verbal views (professional discussions); however, their personal views (classroom experiences) revealed the practical challenges educators faced in classroom implementation. Some participants highlighted challenges such as limited internet connectivity, lack of technological devices (computers, projectors), insufficient printing materials, and time constraints. Participants also said they have difficulty locating OER that aligns with the CAPS curriculum and frequently have to adapt OER before using them in lessons. In addition, some participants mentioned that helping colleagues access OER also takes up their time and impacts their lesson preparation. This implies that the challenges are mainly faced by educators in their own classroom experience (personal

view), which is where they directly face infrastructural and resource-related challenges in the teaching and learning process. The results therefore focus mainly on addressing the second research question: What are the perceived benefits and challenges faced by educators when accessing and utilising OER in CAPS Technology education?

Furthermore, the results of this study align with the TAM, which posits that educators' adoption of technology is determined by PU and PEOU (Alshammari & Alkhwaldi, 2025). The results showed that OER enhances the engagement and understanding of the learners, but the adoption of OER is hindered by challenges such as internet connectivity, lack of devices, limited resources, and time constraints. These challenges impact educators' ease of use of OER, especially in under-resourced schools. Nevertheless, participants continued to use OER despite the challenges they faced, as they perceived them as useful for improving teaching and learning. Therefore, while written and verbal views provide guidance and support, participants mainly relied on their own personal views, as they are shaped by their classroom realities and experiences. This suggests that educators rely more on their classroom experience (personal views) when implementing OER, as they constantly make decisions about what works and what does not work in their classrooms.

Moreover, such a dominance of personal views is therefore understandable as a product of what the educators experience in practice, the enabling or inhibiting conditions for the use of OER. This means that there are implications for curriculum implementation as educators may have to modify the OER that are available to them due to resource constraints and ensure that the curriculum is aligned with the CAPS requirements. It also implies that the adoption of OER in the South African schools is not detached from the infrastructure and context within which educators operate. In Grade 7 Technology education, where learning is often dependent on the use of materials and the participation of learners, the benefits of OER could make it more likely that they will continue to be used despite access and implementation challenges. The finding extends the knowledge as it demonstrates that the classroom experiences of educators offer a crucial foundation for structuring the relationship between perceived usefulness and ease of use of OER and the practical limitations of Technology teaching.

6.3.4.1 Recommendations

Based on these findings, the study recommends that schools and the DBE ensure stable internet connectivity and supply technological devices, such as computers, laptops, and projectors, so that adequate teaching resources are available for the use of OER in the classroom. This is because participants pointed out that issues such as poor internet connectivity, fewer devices, and fewer printing facilities affect the use of OER for teaching and learning. Furthermore, professional development workshops and training programmes should include guidance for educators on identifying, adapting, and successfully incorporating OER into their classrooms that are aligned with the curriculum.

6.3.5 Curriculum alignment and assessment practices

The findings of this study indicate that educators consider the use of OER important for aligning with the curriculum and supporting assessment practices in Grade 7 Technology education. Specifically, they are valuable in lesson delivery, assisting with assessment activities, and ensuring that teaching and learning are aligned with CAPS and ATP requirements. The results showed that curriculum alignment and assessment practices based on OER use are guided by written, verbal, and personal views, where personal views dominate. Participants mentioned that written views (policy documents like CAPS, the ATP, and subject guidelines) as well as verbal views (workshops, staff meetings and professional discussions) guide how OER, curriculum and assessment should be implemented. In contrast, personal views (classroom experiences) have a greater influence on how OER that aligns with the curriculum and assessment are selected, adapted and used in real practice. Additionally, some participants noted that OER is very helpful when teaching complex topics such as structures, mechanical systems, control systems, and electrical systems. This suggests that the use of OER helps them to break down content into a simple teaching and learning strategy and to facilitate assessment in the simplest form, such as projects, quizzes, and class exercises. This further implies that personal views enable educators to decide how well a particular sort of OER fits the curriculum and assessment needs based on their classroom experience and learners' needs. Therefore, these findings mainly answer the third research question: How does

the use of OER influence learners' comprehension and engagement in Technology education?

Furthermore, findings from this study align with the TAM, which suggests that educators' intention and attitude toward the use of technological systems such as OER depend on the PU in the learners' performance and ease of use in the teaching process (Aldreabi et al., 2023). The results of this study revealed that the use of OER has a positive impact on lesson delivery, assessment preparation, and understanding of complex concepts in Technology education, thereby motivating the consistent use of OER in the classroom. This suggests that educators continue using OER as they have realised that they help them to meet curriculum and assessment expectations while addressing learners' needs. The findings also demonstrated the principle of attitude towards use (ATU), revealing that educators developed positive attitudes towards the use of OER based on positive results from their classroom experiences, where they witnessed improvement in learners' engagement and understanding. This suggests that although written and verbal views guide educators on curriculum alignment and assessment practices when using OER, educators primarily rely more on their personal views.

Additionally, this is because the dominance of personal views can be interpreted as educators' attempts to find out how well OER could be integrated into their actual classrooms, in terms of curriculum, assessment and learner needs. This is a consideration for curriculum implementation as educators do not simply implement curriculum requirements but they interpret and adapt OER to make complex Technology content accessible and assessable. It also implies that the more educators feel the resources are effective tools for solving real-world problems in the classroom, the more likely they are to adopt OER. Practical and visual OER can help Grade 7 Technology education educators to explain complex concepts and create suitable learning and assessment tasks. The finding enriches knowledge by revealing the significance of educators' situated classroom experience in the process of turning classroom curriculum and assessment requirements into meaningful classroom teaching practice with the support of OER.

6.3.5.1 Recommendations

Based on these findings, the study recommends that the DBE offer continuous training and explicit guidance on implementing OER in Grade 7 Technology education classrooms to ensure alignment with the CAPS and ATP requirements. Furthermore, schools and subject advisors should also organise ongoing practical workshops and training sessions on how to effectively align OER with curriculum and assessment tasks. In addition, schools should encourage educators to work together and exchange ideas on how to effectively align OER with the curriculum and assessment needs. This will enhance consistency in alignment and assessment practices across the curriculum and increase the effective use of OER in Technology education.

6.3.6 Future use and support needs for Open Educational Resources

The findings of this study indicate that the majority of Grade 7 Technology educators are willing to continue using OER in their lessons, but only if they receive adequate support, such as infrastructure and educators' training. The results showed that written, verbal, and personal views all have an impact on future use and support needs, with the personal view being the most prominent. Participants mentioned they will likely continue using OER, as it enhances learner engagement, understanding, and performance, particularly when teaching complex topics in Technology education. However, participants also highlighted the importance of improving infrastructure, internet connectivity, technological devices and ongoing training to ensure the effective future use of OER in the classroom. In addition, some participants mentioned that insufficient training and resources can hinder their capacity to regularly adopt and use OER for teaching and assessment. This suggests that educators' attitudes towards OER use in future is mostly influenced by their classroom experiences (personal view) and the support they are given in practice. The findings thus primarily answer the research question: How do educators view the use of OER as influencing learners' comprehension and engagement in Technology education?

Furthermore, the findings of this study are consistent with the TAM, which suggests that educators' experience impacts PU and PEOU, thereby influencing the BI to use OER (Alkhwaldi, 2025). The results revealed that educators have a strong BI to use OER as it improves learner engagement, understanding and performance. However, this intention

is compromised by several factors that limit the ease of use of OER, including inadequate infrastructure, limited devices, lack of training, and time constraints, especially in under-resourced schools. In addition, the attitude towards use (ATU) of OER remains, as educators see its usefulness in enhancing teaching and learning. Therefore, while written and verbal views are used to guide and support participants, the primary influence of future use is personal views, which are influenced by classroom experiences and practical realities. This suggests that educators' attitudes and intentions towards the use of OER are predominantly shaped by their experiences and effectiveness (personal view) of the resources in the classroom.

Additionally, this may, therefore, be seen as the result of personal views stemming from educators' first-hand experiences with the advantages and disadvantages of OER in their classroom setting. This also has implications for how curriculum is implemented, since the willingness of educators to continue to use OER is not only related to the curriculum expectations, but also to whether or not the conditions are present for effective use. It also recommends that there is a need for continuous infrastructure and professional support in the implementation of OER in South African schools, especially in under-resourced schools. Sustained OER use can be beneficial for Grade 7 Technology education as the use of digital and practical materials can assist in the teaching of complex concepts and in engaging learners. The finding helps advance knowledge by demonstrating how the classroom experiences of educators influence their ongoing intention to use OER and their perceptions of the support needed for the sustainable integration of OER.

6.3.6.1 Recommendations

Based on these findings, the study recommends that the DBE and schools must provide sufficient infrastructure, such as reliable internet access, technological devices (computers, laptops, projectors), and printing machines, so that the use of OER can be sustained. In addition, there is a need for continuous training and professional development workshops for educators to learn more about how to effectively select and use OER that are CAPS aligned in teaching, learning, and assessment. Moreover,

collaborative platforms should be enhanced to enable educators to share experiences, resources, and strategies for effective use of OER in practice.

6.4 Summary of key responses to the key research questions

The main purpose of this study was to explore Grade 7 Technology educators' views on the use of OER in Limpopo Province. Three research questions guided this purpose. The first research objective of the study was to understand the views that drive Grade 7 educators when choosing a particular sort of OER for teaching CAPS Technology education, which led to the following first research question: What view level drives educators to choose a particular sort of Open Educational Resources that they use in Grade 7 CAPS Technology education? to answer this question, the study found out that when selecting and using OER educators were guided by three different view levels, namely written, verbal and personal views, with the personal view being the most dominant view that drives educators when choosing and using OER. Written views guided educators through policy documents such as CAPS, the ATP and subject guidelines. Verbal views guided educators through workshops, staff meetings, and professional discussions, while personal views were based on individual educators' classroom experience. The study revealed that when selecting and using OER educators were driven by personal views, as these were influenced by their teaching experiences, the needs of their learners, and their teaching classroom realities. This suggests that educators chose the OER that they believed to be useful, practical, and effective for supporting lesson delivery, and learner engagement, understanding, and performance. The findings of this study are consistent with the literature on the Technology Acceptance Model (TAM), which suggests that educators' adoption of OER is significantly affected by the perception of its usefulness and effectiveness in the classroom (Ndebele & Mbodila, 2022; Alkhwaldi, 2025).

The second aim of the study was to explore the perceived benefits and challenges experienced by Grade 7 educators when accessing and utilising OER in CAPS Technology education, which led to the second research question: What are the perceived benefits and challenges faced by educators when accessing and utilising Open

Educational Resources in CAPS Technology education? To answer this question, the study found that there are both benefits and challenges faced by educators when accessing and using OER in Technology education. To begin with, the study revealed that educators perceive OER as beneficial, with educators' views on the benefits and usefulness of OER use influenced by written, verbal and personal views, with personal views being the most dominant. Participants mentioned that learners are more interested and engaged when visual and practical resources, including videos, worksheets, and past examination papers, are used in lessons. Furthermore, OER help learners to learn complex topics more easily and to retain them better, thereby improving teaching and learning outcomes. The study also found that OER offers ready-made materials like lesson plans, worksheets, videos, and assessment tools, thus saving time on creating materials from scratch. This implies that the use of OER is perceived as beneficial.

However, the study also revealed several challenges affecting the access and utilisation of OER, which is affected by written, verbal, and personal views. Personal views are again the most dominant. The study revealed that the challenges faced are poor internet connectivity, lack of technological devices such as computers and projectors, limited printing facilities, lack of training opportunities, and limited time. Furthermore, difficulties in locating OER that are fully aligned with CAPS requirements and the need to frequently modify OER before use are also challenges. Moreover, some educators said that assisting their colleagues to access OER also constrained their time and impacted their classroom lessons. This implies that although the use of OER is beneficial, their effective use is limited by infrastructural and resource-related challenges experienced in the classroom. Hence educators primarily draw on their own experiences (personal views) in their classrooms to deal with the limitations and challenges they encounter when using OER.

With reference to the last research objective, which was to understand educators' views on how the use of OER influences learners' comprehension and engagement in CAPS Technology education, this objective led to the third research question: How do educators view the use of Open Educational Resources as influencing learners' comprehension and engagement in Technology education? The study found that educators viewed OER as

important tools for improving learners' comprehension, participation, engagement, and performance in Technology education. The findings showed that these views were guided by written, verbal, and personal views of educators, with personal views being the most dominant. While written views and verbal views provide general guidance on the use of OER, personal views (classroom experiences) were the main factor shaping how educators perceived the influence of OER use on learners' comprehension and understanding during the teaching and learning process. Educators highlighted that OER simplified complex topics such as structures, mechanical systems, control systems, and electrical systems, making learning more practical, interactive, and learner-centred. They further indicated that practical and visual resources such as videos, worksheets, and past examination papers improved learners' interest, allowing them to be more engaged, even when learning complex Technology concepts. This suggests that educators personally view the use of OER as influential in learner comprehension and understanding.

6.5 Critical Reflection on the Technology Acceptance Model

The Technology Acceptance Model (TAM) gave a theoretical framework to understand the acceptance and use of OER by Grade 7 Technology educators. The model explained the role of the perceived usefulness (PU), perceived ease of use (PEOU), attitude towards use (ATU) and behavioural intention (BI) in educators' decisions to use OER, in particular. The findings revealed that teachers were more likely to continue using OER if they believed that the materials would enhance student learning and engagement, participation, performance and teaching. For this reason TAM was used to explain the acceptance part of the OER use, which included the factors of usefulness and ease of use that affected the attitudes and intentions of educators to continue using OER.

The results also indicated some other factors related to the use of OER that were not fully captured by the core TAM constructs. TAM did not sufficiently explain how personal views, which were influenced by what educators experienced in the classroom, what educators

perceived the needs of their learners to be, and what educators thought, were more influential than written or verbal views in the selection and use of OER. Likewise, contextual factors like limited internet access, lack of suitable technological devices, lack of printing materials, and time pressures and lack of structured support for OER integration were significant factors in classroom use. The above factors can influence perceived usefulness and perceived ease of use, but they are not fully captured by TAM as they relate to how teachers manage these contextual conditions in their daily classrooms. This suggests that TAM is a partial explanation of OER use in the scope of this study.

The study does not deny the TAM but rather extends its application by showing the significance of situated experiences and contextual realities of educators in the understanding of technology acceptance. The results indicate that personal experiences in the classroom can affect teachers' perceptions of the utility and feasibility of OER, and their attitudes and intentions for continued use. In this aspect, the study makes a contribution to the use of TAM in a more context sensitive way in rural Grade 7 Technology education. Although TAM captures important factors for acceptance and continued use of OER, the results suggest that acceptance and continued use is not separable from the educational, infrastructural and classroom contexts in which educators work.

6.6 Areas for future research

There are several areas for further research that can be explored in this study, which could give insight into the views of Grade 7 Technology educators on the use of Open Educational Resources (OER).

Firstly, more research is required to determine if the dominance of educators' personal views found in this study also occurs with other Technology educators in other districts and provinces of South Africa. This study might contribute to a wider understanding of the impact of educator's experiences in the classroom on the selection and use of OER in various educational contexts.

Further research may also explore the long-term effects of the use of OER on learners' academic achievement, engagement and understanding in Technology education. This

may serve as additional proof of the extent to which the positive results that educators report lead to lasting gains in learners achievement.

Learners' views and experience of the use of OER in Technology education could be another research area. The views of the educators in this study are important but may be supplemented by learners' views to gain further understanding of the impact of OER on their engagement, understanding and participation in Technology lessons.

There is also a need for further research into the effectiveness of the different types of OER (videos, interactive digital tools, worksheets, simulations and AI-supported tools) to teach various Technology topics. This research might identify the most effective types of OER to support the teaching of complex concepts and practical activities.

Further studies should also explore the impact of educator training and professional development on the adoption of OERs. Studies can be conducted to see if continuous, hands-on training enhances teachers' perceptions of usefulness and ease of use, as well as their attitudes and behavioural intentions towards using OER, in particular.

Further, comparative studies could be carried out in well-equipped and poorly equipped schools to gain a deeper understanding of the impact of infrastructure, internet connection, devices and printing equipment on the use of OER and their implementation in the classroom.

Finally, a study into the development and implementation of OER for the CAPS Technology education field could be undertaken in the future. This research may include the effects of OER that aligns with the curriculum and is relevant to the context on the practical activities, assessment and the teaching of complex concepts in the field of Technology in different school contexts in South Africa.

6.7 Conclusion

In conclusion, this study revealed that the personal views of Grade 7 Technology educators in Limpopo Province are the views most commonly used in the selection and

utilisation of Open Educational Resources (OER), which are mainly drawn from their classroom experiences and learners' needs, as opposed to written (policy documents) and verbal (workshops and professional discussions) views. The study also found that educators believe that OER can enhance learners' engagement, understanding, and performance, particularly in the teaching of complex concepts in Technology, but face barriers including limited technological devices, weak internet connectivity, and a lack of training and time. The results also indicate that educators perceive OER as useful resources to support learners' understanding and engagement in Technology education. Overall the study concludes that personal views drive the use of OER. Also, OER are perceived as useful for teaching and learning, but are not used consistently and effectively because of a lack of institutional support, infrastructure, and educators' training.

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8. Appendices

Appendix A: Participant information sheet

Ethics clearance reference number: 1108

Research permission reference number (if applicable): 1108

Date: _____

Title: THE VIEWS OF GRADE 7 TECHNOLOGY EDUCATORS ON THE USE OF OPEN EDUCATIONAL RESOURCES IN LIMPOPO PROVINCE

Dear Prospective Participant

My Name is Nhlahla Hitekani Khoza and I am doing research with Cedric Bheki Mpungose, a professor in the Department of curriculum and instructional studies towards a MED degree at the University of South Africa. We are inviting you to participate in a study entitled: 'The views of grade 7 technology educators on the use of open educational resources in Limpopo province'. With your permission, these interviews will be audio-recorded to ensure accurate capture of your responses. The recordings will be kept strictly confidential and will only be used for research purposes.

WHAT IS THE PURPOSE OF THE STUDY?

This study is expected to collect important information that could provide valuable insights into the experiences, attitudes, and challenges of Grade 7 educators in using Open Educational Resources (OER) for CAPS Technology Education. By exploring educators' views, the research will help policymakers and curriculum advisers to better align OER with diverse teaching strategies, ensuring that educational resources are accessible, relevant, and effective. It will also guide school management teams in optimizing resource allocation, reducing costs, and promoting equitable access to quality education, particularly for learners from disadvantaged backgrounds. Furthermore, the study will enhance educators' capacity to integrate OER effectively, improving learner engagement, comprehension, and overall learning outcomes. By examining how written, verbal, and personal views influence OER use, the research will bridge the gap between policy and classroom practice. The findings will also contribute to the development of innovative, flexible, and inclusive teaching approaches that support the use of OER by both educators and learners in Technology Education.

WHY AM I BEING INVITED TO PARTICIPATE?

You are invited to participate because you are a Grade 7 Technology educator or HOD/COD who works directly with the CAPS Technology education and may have experience using or supporting Open Educational Resources (OER). Your views are important for understanding how OER are selected, accessed, and used in Technology Education. Your professional contact details were obtained through formal permission from the Limpopo Department of Education and your school principal, in line with the Protection of Personal Information Act (POPIA), Act 4 of 2013, and only work-related information was accessed. You were chosen because you have first-hand knowledge relevant to the study, and your role allows you to provide meaningful insights into teaching and curriculum support. The study will include 15 participants from three schools. Please note that confidentiality will be strictly maintained to protect your identity.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

Your participation in this study will involve taking part in either a semi-structured interview and/or a focus group discussion. These activities will explore your views, experiences, and challenges related to the use of Open Educational Resources (OER) in teaching Grade 7 CAPS Technology. You will be asked questions about the view level that drives you when choosing using OER, the benefits and difficulties you encounter, and how OER influence learners' engagement and learning. The semi-structured interview will last 45 to 60 minutes, and the focus group discussion will also last about 45 minutes to 1 hour. With your permission, the sessions will be audio-recorded to ensure that your responses are captured accurately. Participation is limited to these activities, and you are free to skip any question you do not wish to answer.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Participation in this study is completely voluntary, and you are under no obligation to take part. If you choose to participate, you will receive this information sheet and be asked to sign a written consent form. You may withdraw from study at any stage without giving a reason and without any penalty or loss of benefits. However, if you have already taken part in an interview or focus group, or if your responses have already been anonymized and included in the data analysis, it may not be possible to remove your information. You may still withdraw from further participation at any time.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

There are no direct personal benefits for you as an individual participant; however, your contribution may benefit educators as a group by highlighting the realities, needs, and challenges related to using Open

Educational Resources (OER) in Grade 7 Technology Education. The findings may also support future improvements in teaching resources, professional development, and curriculum support within schools. In addition, the study may contribute to the broader scientific and educational community by providing insights that can inform policy, enhance OER adoption, and improve teaching and learning practices in Technology Education.

ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

There are no anticipated physical, psychological, or financial risks associated with participating in this study. The only possible inconvenience may be the time required to participate in an interview or focus group, as well as any discomfort that may arise when sharing your professional experiences or opinions. There is a small risk of others becoming aware that you took part in the study; however, every effort will be made to protect your identity through the use of pseudonyms, secure data storage, and the removal of any identifying details during reporting. No harm is expected, but if you experience any discomfort or concerns during the process, you may stop participating at any time. There are no special indemnity or insurance arrangements required for this study, as it involves minimal risk.

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

All information you provide to the researcher will be treated confidentially. Your name will not be recorded, and a code or pseudonym will be used to refer to you in all data, reports, publications, or presentations. Only the researcher and the supervisor will have access to identifiable information. If a transcriber or external coder is used, they will sign a confidentiality agreement, and any data shared with them will be de-identified. Your de-identified data may be used for research-related purposes, including reports, journal articles, or conference presentations, but no individual participant will be identified. Focus groups will be used as a data collection method, which involves small group discussions guided by the researcher to explore views of the grade 7 Technology educators. While every effort will be made to protect your privacy, the researcher cannot guarantee that other participants will keep shared information confidential. You are therefore advised not to share personally sensitive information during focus groups.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

All data collected in this study will be securely stored. Hard copies of your responses will be kept in a locked filing cabinet at the researcher's office for a minimum of five years for future research or academic purposes. Electronic data will be stored on a password-protected computer and backed up securely. Any future use

of the data for purposes beyond this study will require additional approval from a Research Ethics Review Committee. When it is necessary to dispose of the data, hard copies will be shredded, and electronic files will be permanently deleted from the computer using secure deletion software to ensure that the information cannot be recovered.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

You will not receive any payment or material incentives for participating in this study. Participation is entirely voluntary, and no financial or other rewards will be provided. There are no expected costs for you as a participant, apart from the time required to take part in interviews or focus group discussions.

HAS THE STUDY RECEIVED ETHICS APPROVAL?

This study has received written approval from the Research Ethics Review Committee of the college of education_ ERC curriculum studies, Unisa. A copy of the approval letter can be obtained from the researcher if you wish.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

If you would like to be informed of the final research findings, please contact Khoza Nhlahla Hitekani on 0729630127 or 62886967@mylife.unisa.ac.za. The findings are accessible for five years. Should you require any further information or wish to discuss any aspect of this study, you may also contact the principal researcher using the above details.

Should you have concerns about the way in which the research has been conducted, you may contact Prof Cedric Bheki Mpungose at 079 358 0351 or mpungcb@unisa.ac.za. For any ethical concerns, you may contact the research ethics chairperson of the college of education_ ERC, Prof Justin Oswin August at augusjo@unisa.ac.za . Thank you for taking time to read this information sheet and for participating in this study.

Thank you.

Khoza Nhlahla Hitekani

Signature: _____



Appendix B: Declaration of consent

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

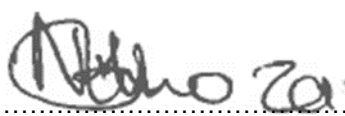
I agree to the recording of the (specific data collection method)_____.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname..... (please print)

Participant Signature.....Date.....

Researcher's Name & Surname: Khoza Nhlahla Hitekani.....

Researcher's signature..........Date.....

Appendix C: semi-structured interview and focus group questions

Section 1: Background and Experience

1. Can you briefly describe your teaching experience in Technology Education?

2. How long have you been using Open Educational Resources (OER) in your lessons?

Section 2: Views on the use of OER

1. What motivates you to use or not use OER in your teaching? (PU – usefulness)

2. How do written policies (CAPS, ATP) influence your use of OER?

3. How do verbal discussions with colleagues or school management influence your use of OER?

4. How do your personal views or experiences affect the way you choose and use OER? (ATU – attitude toward use)

5. How easy or difficult is it for you to access and use OER in your lessons? (PEOU – ease of use)

6. How likely are you to continue using OER in future lessons? (BI – behavioral intention)

Section 3: Perceived Benefits and Challenges

1. What benefits have you experienced from using OER in your Technology lessons?

2. What challenges do you face when accessing or using OER?

3. How do these challenges affect your teaching and lesson planning?

Section 4: Impact on Learners

1. In your opinion, how does using OER influence learners' engagement in Technology lessons?

2. How does OER use affect learners' understanding and performance in the subject?

3. Are there specific curriculum topics or assessments where OER is particularly helpful or challenging?

Section 5: Curriculum issues

1. How does using OER align with the technology curriculum content that you are required to teach?

2. How do OER support or challenge your planning for assessments and evaluation of learners?

3. Are there sufficient resources (e.g., computers, internet, projectors, etc) to effectively integrate OER in your lessons?

Section 6: Recommendations and Future Use

1. What support or resources would help you use OER more effectively?

2. Is there anything else you would like to share about your experiences with OER?

Appendix D: Ethical Clearance

	
College of Education _ERC	
Date: 27/11/2025	NHREC Registration # : (if applicable) Ref # : 11108 Name: Miss Nhlahla Khoza Student # : 62886967 Staff # :
Dear: Miss Nhlahla Khoza	
Decision: Ethics Approval from	

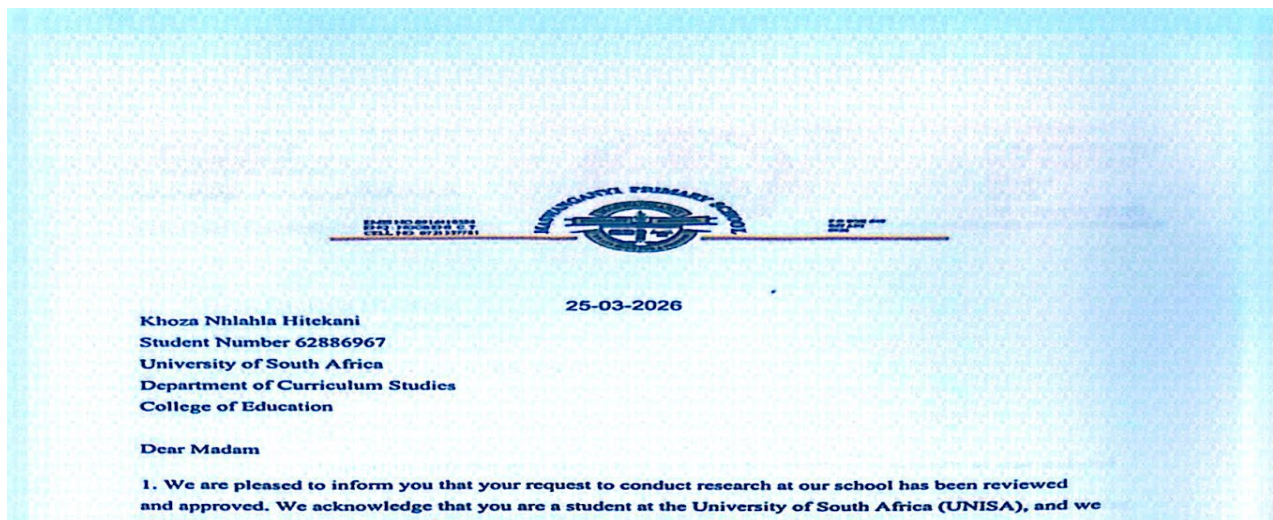
Appendix E: Gatekeepers letters

School no 1:



School 3:

School no 2:



School no 3:

: 916410300
I : Hlechiwayo TE
I : 083 495 9632
II: holapondo1@gmail.com



Hola Pondo High
P.O. Box 2417
Glyani
0826
26 March 2026

Khoza Nhlahla Hitekani
Student Number 62886967
University of South Africa
Department of Curriculum Studies
College of Education

Dear Madam

1. We are pleased to inform you that your request to conduct research at our school has been reviewed and approved. We acknowledge that you are a student at the University of South Africa (UNISA), and we appreciate your interest in contributing to academic research within our institution.

Appendix F: Letter from the editor

L. Gething, M.Phil. (cum laude)

16 Rinah Court, Tijgerhof, Milnerton 7441, South Africa;
cell 072 212 5417 Email leverne@eject.co.za

15 June 2026

**Declaration of editing of an M.Ed. thesis in the subject Curriculum Studies at the
College of Education of the University of South Africa**

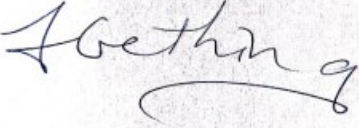
**‘The Views of Grade 7 Technology Educators on the Use of Open Educational
Resources (OER) in Limpopo Province’**

I hereby declare that I carried out language editing of the above thesis on behalf of Nhlahla Khoza, excluding editing the reference list.

I am a professional writer and editor with many years of experience (e.g. 5 years on *SA Medical Journal*, 10 years heading the corporate communication division at the SA Medical Research Council), who specialises in Science and Technology editing – but am adept at editing in many different subject areas. I have edited a great deal of work for various academic journals and universities.

I am a full member of the South African Freelancers' Association as well as of the Professional Editors' Association.

Yours sincerely



LEVERNE GETHING

leverne@eject.co.za

Appendix G: Proposal letter

UNISA | 
university of south africa

1412 DIRST

KHOZA N H MISS
P O BOX 742
MASINGITA
0832

STUDENT NUMBER : 6288-696-7
ENQUIRIES NAME : MALEFO SP
ENQUIRIES TEL : 0124415702

DATE : 2025-10-14

Dear Student

I have pleasure in informing you that your research proposal has been accepted. Please see details below:

DEGREE : MED (CURRICULUM STUDIES) (98434)

TITLE : Exploring the views of Grade 7 educators on the use of Open Educational Resources for CAPS technology education in primary schools within Mano'Mbe Circuit in Limpopo province

SUPERVISOR : Prof CB MPUNGOSE (mpungcb@unisa.ac.za)

ACADEMIC YEAR : 2025

TYPE: DISSERTATION

SUBJECTS REGISTERED: DFDID95 Med - Didactics

Please visit the Unisa website for information on the registration dates.

Appendix H: Turnitin Report

Similarity Report	
PAPER NAME	AUTHOR
THESIS_Submit.docx	NHLAHLA HITEKANI KHOZA
WORD COUNT	CHARACTER COUNT
44265 Words	251533 Characters
PAGE COUNT	FILE SIZE
142 Pages	624.0KB
SUBMISSION DATE	REPORT DATE
Jun 8, 2026 9:11 AM GMT+2	Jun 8, 2026 9:14 AM GMT+2
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Excluded from Similarity Report • Manually excluded sources	
Summary	