

**EMPLOYING WORD MAPPING TO ENHANCE ENGLISH VOCABULARY
DEVELOPMENT OF GRADE 10 LEARNERS AT A SECONDARY SCHOOL IN ROMA**



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of Lesotho**

By

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DEDICATION

I dedicate this study to the loving memory of my late mother 'Makamohelo Maboe. Your love and sacrifices have brought me this far. I wish you were here to celebrate this milestone with me, but I take comfort in knowing that your spirit continues to guide and inspire me. May your soul continue to rest in eternal peace, we miss you every day.

ABSTRACT

In today's fast-paced era, having a strong command of the English language vocabulary is crucial. For English as a second language (ESL) learners, developing English proficiency relies heavily on their understanding of the language's vast vocabulary. Against this backdrop, this study investigated the effectiveness of word mapping to enhance learners' English vocabulary development at a secondary school in Roma, Maseru. The theoretical underpinnings of this participatory action research draws from Schmitt's Theory of Vocabulary Learning Strategies, Vygotsky's Social Constructivism Theory, and Sweller's Cognitive Load Theory. Through the pragmatism paradigm lens, the research adopted a sequential explanatory mixed methods approach, involving Grade 10 English language learners. Sampling techniques included convenience and purposive samplings. Data collection involved tests, questionnaire, focus group discussions and reflective journal. Descriptive statistics were applied to analyse quantitative data, while thematic analysis was utilised for qualitative data. Analysis softwares used were SPSS and ATLAS.ti programs.

The findings unveiled that several factors hindered learners' vocabulary development prior word mapping intervention, including low self-confidence, limited exposure to the English language, inadequate resources and ineffective teaching methods. The study further revealed that word mapping significantly enhanced the English vocabulary development of Grade 10 learners. As a result, students demonstrated improved speaking and writing skills. The study recommends that the National Curriculum Development Centre should consider revising the Integrated Curriculum to incorporate explicit English vocabulary instruction. Furthermore, providing teachers with specialised training and awareness on the importance of vocabulary in ESL is highly recommended. Collaboration between all the stakeholders, including teachers, learners, parents and community is advised, to facilitate effective English vocabulary development and overall mastery of ESL in Lesotho secondary schools.

Keywords: *English vocabulary development, English as a second Language, word mapping, enhance.*

LIST OF ABBREVIATIONS

ASHA: American Speech Language Hearing Association

CLT: Cognitive Load Theory

DV: Dependent Variable

ECOL: Examination Council of Lesotho

EFL: English as a Foreign Language

ESL: English as a Second Language

FGD: Focus Group Discussions

IPA: International Phonetic Alphabet

IV: Independent Variable

KR-20: Kuder Richardson- 20 formula

L1: First Language

L2: Second Language

LGCSE: Lesotho General Certificate Secondary Education

MKO: More Knowledgeable Other

MoET: Ministry of Education and Training

MV: Moderating variable

NCDC: National Curriculum Development Centre

PAR: Participatory Action Research

SPSS: Statistical Package for the Social Sciences

VLS: Vocabulary Learning Strategies

ZPD: Zone of Proximal Development

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CHAPTER 1: INTRODUCTION TO THE STUDY

1.0. Introduction

This research explored the implementation of word mapping to enhance Grade 10 learners' English vocabulary development at a secondary school in Roma. The study commences with the rationale, background and problem statement. The objectives and research questions that guided the study are also presented. Furthermore, the significance as well as the study's delimitations are discussed, accompanied by the operational definitions of key terms to ensure clarity. Finally, an outline of the thesis is provided to indicate an overview of what to be expected.

1.1 Rationale

As an English language educator and researcher, I have always been fascinated by the challenges that Lesotho secondary ESL learners face in developing their English vocabulary. Growing up, I noticed that many learners struggled to understand and use vocabulary in everyday conversations, which often hindered their ability to effectively communicate with their peers and teachers. This lack of vocabulary proficiency not only affected their academic performance but also impacted their self-esteem and confidence in using the English language. My own teaching experiences and observations led me to realise that the conventional methods for vocabulary instruction and learning, such as rote memorisation were not effective in helping learners develop a robust vocabulary. Many learners seemed to memorise words without truly understanding their meanings, and this lack of contextual understanding often led to misuse and miscommunication. Motivated by my desire to positively influence the educational experiences of secondary school learners and to contribute to the field of language education, I decided to conduct this research. Throughout this study, I hope to shed light on the most effective methods for teaching vocabulary and provide practical recommendations for educators and ESL learners.

1.2 Background

Mastering a foreign language requires thoughtful attention, and vocabulary learning is a crucial aspect that demands priority (Rosyada, 2023). In English as a second language (ESL) learning, vocabulary development is a vital and essential skill that cannot be overlooked (Yawiloeng, 2020). In line, Rosyada (2023) emphasises that, it is widely accepted that one cannot successfully learn a language without first establishing a solid vocabulary base. Therefore, the significance of vocabulary for ESL learners should not be underestimated as it is the crucial aspect of becoming proficient in a language. Creighton (2016) acknowledges the importance of vocabulary in a society

by pinpointing how people's vocabulary directly impacts their ability to navigate the intricate social and economic environments of today. Research has consistently shown that learners with a limited vocabulary tend to struggle in school, while those with a broad vocabulary tend to excel (Creighton, 2016). This highlights the importance of English vocabulary in the realm of education.

English vocabulary is defined by Hakim (2018) as a collection of words with their respective meanings, particularly within educational materials aimed at facilitating the learning of foreign languages. Correspondingly, Helmi (2017) outlines English vocabulary as words or word sets, encompassing their forms, meanings and appropriate contextual usage. Based on these explanations, one can underscore the vital role of vocabulary in enabling students to articulate and express their thoughts coherently. In this respect, Humaira and Fatimmattuzahro (2015) emphasise that language proficiency hinges upon a strong vocabulary foundation. Corroborating this perspective, Laila (2023) asserts that for effective communication in both spoken and written English, learners must familiarise themselves with a broad spectrum of vocabulary. This huge spectrum according to Hamra & Syatriana (2015) is expected to be around 2500 terms by the completion of senior high school.

On the contrary, Waring & Nation (1997) note that measuring vocabulary size is a challenging task, this is why research on the topic yields inconsistent results. Despite this, Waring and Nation (1997) continue to emphasise that English language learners should focus on learning the most common 3,000 word families, as this is sufficient for effective communication through speaking and writing. However, Creighton (2016) counters that knowing only 3,000 word families is insufficient for students to understand complex texts, such as novels, textbooks, and teacher-directed discourse, which are typically encountered in high school settings. It appears that, without a comprehensive lexicon, effective communication becomes unattainable across languages, reinforcing the premise that vocabulary serves as the fundamental conduit for conveying ideas Laila (2023).

Anggaraini (2019) accentuates the significance of possessing an extensive English vocabulary, particularly in the context of ESL learning. Anggaraini (2019) stipulates that the inability to utilise vocabulary impedes the conveyance of ideas, highlighting the necessity of a rich lexicon. Evidently, mastery of English vocabulary emerges as a base for proficiency in the four core language skills. Hence, to excel in English language, learners must prioritise the acquisition and

mastery of English vocabulary as a foundational pillar for English language proficiency. This proficiency fundamentally relies upon the extensiveness of vocabulary knowledge possessed by individuals, spanning second language learners even native speakers (Afzal, 2019). Thus, English vocabulary should be enriched, considering that words are the primary mode of communication.

Lack of extensive English vocabulary presents various challenges, particularly for non-native English learners (Jamshiodovna & Narzullayevna, 2021). To support, Afzal (2019) emphasises the correlation between low vocabulary proficiency and reduced academic performance across disciplines. Similarly, Adam (2013) highlights the negative impact of inadequate English vocabulary on students' performance in national examinations, attributing their struggles to comprehend instructions and questions embedded in examination papers. Nations (2013) elucidates that irrespective of the diverse reasons contributing to low vocabulary levels, deficiencies in English vocabulary impose limitations on literacy, comprehension as well as curriculum learning and may trigger a downward spiral in English proficiency. In line, Alharbi (2015) states that the issue of English vocabulary remains a burdensome and demanding process, not confined solely to ESL students but a global challenge.

In the United Kingdom, Adams (2018) raises a concerning trend wherein teachers encounter a growing number of students with inadequate English vocabularies, persisting from primary to secondary schooling. A survey conducted among 1300 teachers across the United Kingdom revealed that over 60% observed an increase in learners of all ages struggling with limited English vocabulary (Adams, 2018). Similarly, in Australia, specifically in New Zealand, Rodgers (2013) posits that a substantial number of learners face challenges in reading and writing due to deficiencies in English vocabulary. To address this issue, Rodgers (2013) incorporated the use of television episodes which aided in the acquisition of both existing and new vocabulary items. In North America, specifically in the United States of America, Almutairi (2018) stresses the importance of English vocabulary in bolstering students' effective reading. However, some learners exhibit limited English vocabulary, directly impacting their comprehension skills (Almutairi, 2018). Echoing this concern, Clement et al. (2017) highlight that approximately 96% of students in Harrington demonstrate deficits in English vocabulary and fluency.

The challenge extends to Asia, notably in China, where Zhang (2015) observes that learners encounter difficulties in acquiring English vocabulary due to limited teaching strategies and relying predominantly on rote memorisation during instruction. As a solution, some educators have adopted multifaceted strategies involving visual aids, charts, word groups, games and competitions which resulted in enhanced mastery of vocabulary among learners (Zhang, 2015). Likewise, in Indonesia, Anggaraini (2019) asserts that many senior high school students lack mastery of vocabulary, leading to challenges in comprehending word contexts, recognising meanings and even pronouncing English words. Implementing word mapping strategy as an intervention significantly improved students' vocabulary mastery, particularly in reading descriptive texts (Anggaraini, 2019). Juniarni (2020) further highlights the struggles of students at SM PN 15 IT Binjai in Indonesia, attributing their poor English language performance to limited vocabulary. Employing word mapping strategy resulted in a substantial improvement in learners' vocabulary mastery, highlighting the strategy's efficacy (Juniarni, 2020).

In Saudi Arabia, Poor English language skills among learners can be associated with deficiencies in vocabulary, stemming from over-reliance on bilingual dictionaries and inadequate recycling of vocabulary items (Altyari, 2017). To mitigate this, an incremental approach to teaching English vocabulary was recommended (Alharthi, 2014). Similarly, in Pakistan, college students face challenges in learning English vocabulary due to several obstacles, including limited working memory capacity, inadequate reading habits, improper word usage and insufficient motivation (Shah et al., 2022). Strategies such as drills, illustrations and word associations are recommended to enhance English vocabulary improvement (Shah et al., 2022). Across the African continent, challenges persist in mastering English vocabulary. In Libya, majority of high school learners struggle to communicate effectively due to limited vocabulary (Rathakrishnan et al., 2019). Factors contributing to this difficulty include pronunciation, spelling, meanings, length and complexity of English words (Abuhabil et al., 2017).

In Ethiopia, ESL learners encounter vocabulary difficulties due to factors such as insufficient emphasis on English vocabulary teaching and reliance on teachers' translation into the vernacular language (Oljira, 2015). Moreover, the lack of professional training among teachers affects learners' ability to acquire English vocabulary (Elhamdi & Hezam, 2020). Furthermore, In South Africa, insufficient mastery of English vocabulary affects learners' performance in reading

assessments, emphasising the importance of vocabulary acquisition (Chaka, 2015). The Progress in International Reading and Literacy Study indicated a significant number of South African Grade 4 learners struggling with reading, attributing this to teachers' unawareness of key reading components, including English vocabulary (Stoffelsma, 2019; Phala & Hugo, 2022). In line, Almutairi (2018) highlights that vocabulary knowledge significantly correlates with reading proficiency, indicating its crucial role in fluent reading development. Moreover, Pretorius & Stoffelsma (2017) underscore the challenge of modifying vocabulary development once established inadequately in the early years of education.

Considering the discussed challenges faced by different nations in English vocabulary instruction and learning, it is evident that Lesotho, a country where English serves as a second language, encounters similar difficulties. However, there is a dearth of comprehensive research on English vocabulary specific to Lesotho, resulting in limited available literature. Thus, the discussions rely primarily on one identified study and examiner's reports. Staden (2016) asserts that Grade 4 ESL learners in Lesotho confront numerous obstacles in reading and spelling development in their first and second languages, with vocabulary presenting a significant hurdle. The researcher intervened by exposing students to English vocabulary using the simple view of reading and creating socio-linguistic opportunities such as employing word wall, interactive story-book reading and applying the ReQuest reading method (Staden, 2016). The study's outcome indicated a substantial performance improvement among Grade 4 ESL learners in the experimental group compared to the control group, suggesting the efficacy of the intervention.

Apart from this study, a detailed analysis of examiner's reports for the LGCSE in English Language 0175/1 &2 (2019-2022) revealed that majority of learners consistently performed below average during this period. Further analysis pinpointed a deficiency in vocabulary skills among these learners, particularly distorting correct English usage in creative writing (ECOL, 2022). Within descriptive compositions, the absence of descriptive English vocabulary hindered the creation of imaginative and vivid descriptions. In narrative compositions, some learners lacked appropriate registers related to the topic, indicating limited vocabulary or jargon (ECOL, 2021). Moreover, in argumentative compositions, candidates failing to meet expectations exhibited a misunderstanding of key terms such as "juvenile delinquency," suggesting a lack of vocabulary knowledge (ECOL, 2019). Considering the discussed global challenges inherent in English

vocabulary and acknowledging their impact on the acquisition of language skills, it becomes crucial to accord greater attention to English vocabulary within Lesotho's educational institutions. Echoing Staden (2016), it is imperative for educators to create high-quality opportunities and employ pedagogically sound vocabulary activities aimed at expanding ESL learners' vocabulary. Consequently, this study explored the implementation of word mapping to develop the English vocabulary of Grade 10 learners at one secondary school in Roma.

Word mapping is a visual tool that helps students visualise the connections between words and concepts, creating a network of organised knowledge (Zorfass & Gray, 2024). By using word mapping, learners can gain a deeper understanding of individual words, including their meanings, relationships to other words, and diverse interpretations, leading to a more nuanced understanding of language (Palma, 2023). Due to the suitability and applicability of this strategy in developing students' vocabulary, it has been used by several scholars in different countries such as Turkey, Indonesia and Iran. In most of these countries the strategy brought a significant effect on learners' ability to grasp and retain new vocabulary. This being said, the researcher believed that word mapping would cultivate a substantial lexicon and encourage active exploration of word relationships and meanings among Grade 10 learners, thereby aiding in their English vocabulary development.

1.3 Problem statement

English vocabulary instruction receives less attention than it deserves due to the persistent belief that vocabulary is learned implicitly, making it superfluous in teaching (Larsson, 2014). Although vocabulary instruction is never specified in the curriculum's core content, the Swedish National Agency for Education (2011b) postulates that vocabulary is of great importance in the grading of students' language. The ability of learners to communicate effectively relies heavily on their proficiency in using a diverse range of English vocabulary in their writing and speech. Additionally, it can be seen that many curriculums emphasise the development of communicative competence and functional literacy skills without considering the pivotal role of vocabulary in developing these skills.

In as much as the Lesotho English Language curriculum emphasises that learners who are proficient in ESL, should master amongst other areas, the technical vocabulary required by the learning area (MoET, 2020), it does however, exclude vocabulary in the list of topics to be learned.

As a result, majority of Lesotho secondary ESL learners face severe difficulties when it comes to English vocabulary. Besides this, there is limited research on how English vocabulary develops in Lesotho secondary schools despite its importance in the ESL education. To tackle this knowledge gap and address the identified issues in English vocabulary, this study offered an explicit alternative strategy which is word mapping to enhance English vocabulary development of 10th Grade learners at secondary school in Roma.

1.4 Research objectives

1.4.1 Main objective

To explore how word mapping can enhance English vocabulary development of 10th Grade learners.

1.4.1.1 Sub-research objectives

1. To outline factors influencing limited English vocabulary of Grade 10 learners.
2. To investigate strategies Grade 10 learners utilise to develop their English vocabulary.
3. To incorporate effective techniques in employing word mapping to enhance Grade 10 learners' English vocabulary development.
4. To examine the impact of word mapping on English vocabulary speaking and writing skills of Grade 10 learners.

1.5 Research questions

1.5.1 Primary research question

How can word mapping enhance English vocabulary development of Grade 10 learners?

1.5.1.1 Sub-research questions

1. What factors contribute to limited English vocabulary of Grade 10 learners?
2. Why do Grade 10 learners utilise certain strategies to develop their English vocabulary?
3. How can word mapping be employed to enhance the development of Grade 10 learners' English vocabulary?
4. How does the process of word mapping impact the English vocabulary speaking and writing skills of Grade 10 learners?

1.7 Significance of the study

This study has broader implications beyond Lesotho, as it addresses challenges faced in English vocabulary instruction and learning that are common to many countries. The findings may be particularly valuable to the National Curriculum Development Centre (NCDC), English Language teachers, learners and future researchers, who can apply the insights gained to inform their own work and improve educational outcomes.

1.7.1 National Curriculum Development Centre (NCDC)

This study can offer the National Curriculum Development Centre valuable insights on how to revise the Integrated Curriculum, to recognise the significance of explicit English vocabulary instruction as a key factor in boosting learners' overall performance in ESL.

1.7.2 English language teachers

This research may help English language teachers to adopt a more interactive approach to teaching vocabulary using techniques such as word mapping. By doing so, it can empower educators to shift from a traditional, lecturing style to a more learner-centered approach. With vocabulary playing a crucial role in English language proficiency, this research can bring awareness to ESL teachers that inadequate vocabulary development can hinder their students' progress. By incorporating engaging and interactive techniques, teachers can empower their students to develop robust vocabulary skills, ultimately leading to academic success.

1.7.3 Learners

This study has the potential to benefit 10th-grade learners who had been exposed to word mapping, enhancing their English vocabulary development and overall performance in ESL. The word mapping approach, which puts students at the center of the learning, can spark their interest and motivation to learn English vocabulary, resulting in richer and more impactful learning experiences. By adopting this method, learners can not only gain a deeper understanding of vocabulary, but also develop the ability to apply it in practical, everyday situations.

1.7.4 Future researchers

This research may serve as a valuable reference point for future researchers, potentially inspiring them to delve deeper into the topic, exploring new insights and perspectives that can advance a comprehension of English vocabulary particularly in the context of Africa, where there is a notable dearth of existing literature.

1.8 Delimitation of the study

This study was aimed to employ word mapping to enhance learners' English vocabulary development. It was delimited to one public high school in Roma, and specifically targeted Grade 10 learners. Additionally, the research was confined to the English vocabulary acquisition and word mapping strategy. The study primarily utilised a mixed-methods approach and selected the school and participants using a combination of convenience and purposive sampling methods.

1.9 Operational definition of key-terms

1.9.1 English vocabulary:

It refers to word or words' set in an English Language and understanding their forms, meanings and their accurate usage within specific contexts.

1.9.2 English vocabulary development:

It is a gradual expansion in understanding the meanings of English words and their associated forms. This growth encompasses both a greater number of words (quantity of representation) and a more nuanced understanding of word meanings (quality of representation).

1.9.3 Word mapping:

It is a strategy used to visually display one's understanding of words through the use of graphs or diagrams that illustrate the meaning of the words.

1.9.4 Enhance:

It means improving the quality of something or to add a greater significance to something or someone. Hence in this context, enhance refers to improving English vocabulary by using word mapping strategy.

1.10 Thesis outline

This outline provides an overview of how the study is organised. The first chapter presents the rationale, background, problem statement, objectives, research questions, delimitation of the study and operational definition of key terms. The second chapter indicates the theoretical framework of the study, reviews relevant literature, conceptual framework of variables, and previous studies, highlighting gaps in the current knowledge. Chapter 3 explains the research's methodology, including the paradigm, approach, design, sampling methods, research site, data collection methods, procedures and analysis, steps taken to ensure trustworthiness or rigor and ethical

considerations. Chapter 4 presents and analyses the study's findings, first presenting quantitative results followed by qualitative findings. Chapter 5 discusses the main findings in relation to the research questions. Lastly, chapter 6 concludes the study by summarising key findings, providing pedagogical implications, making recommendations, noting limitations and suggesting potential areas for future investigation.

1.11 Conclusion

This chapter provided a rationale, background to the study, including an overview of the research problem. It has also clearly stated the research objectives and research questions of the study. Furthermore, the significance and delimitations have been discussed, as well as the operational definitions of key terms. Finally, the chapter outlined the structure of the study. The next chapter delves into a comprehensive literature review of this study.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter deviates from the general background overview of the study presented in the previous chapter. Instead, it forages into a thorough examination of relevant literature on English vocabulary and word mapping as an instructional strategy. This chapter also establishes the theoretical foundation for the study, reviews existing research, highlights the gaps in current knowledge, and outlines how this study addressed those gaps. The literature was sourced from prominent online platforms such as Google Scholar, Semantic Scholar, ResearchGate and hardcopy materials.

2.1 Theoretical framework

This study was underpinned by three theories; Schmitt's (1997) theory of vocabulary learning strategies which was the core theory, Vygotsky's social constructivism theory and Sweller's cognitive load theory. These theories had been chosen due to their applicability in vocabulary instruction and learning to meet learners' diverse needs. Incorporating these three theories triangulated complementing the shortcomings of one another so that the study was authentic.

2.1.1 Schmitt's Theory of Vocabulary Learning Strategies (VLS)

Schmitt's vocabulary learning strategies' theory focuses on understanding the methods or approaches employed to acquire new words. These strategies encompass procedures that learners use to uncover the meanings of unknown words, retain those meanings in their long-term memory, retrieve and apply them in both spoken and written contexts (Catalan, 2003). Through Schmitt's (1997) theory of VLS, learners were assisted to learn the meanings of selected English words and to retain them in their minds. This allowed them to utilise such words correctly in speaking and writing. As stipulated by Waldvogel (2013), Schmitt's theory of VLS stands out for its various advantages that set it apart from other classification systems. One primary advantage is its inclusiveness, as it incorporates essential components from vocabulary learning taxonomies introduced by Nations (1990), Oxford (1990) and Stoffer (1995). More, Bernado (2009) points out that Schmitt taxonomy is straightforward and applicable to learners with varying educational backgrounds and across different target languages.

Notwithstanding the idea that Schmitt's taxonomy is popularly known for its comprehensive definitions of vocabulary learning strategies, various scholars have provided distinct definitions for Vocabulary Learning Strategies (VLS). In line, Cameron (2001), points out that VLS are particular actions used by learners to develop their comprehension and retention of vocabulary.

On the other hand, Taka`c (2009) considers VLS as intentional actions, behaviors, steps or techniques employed by learners for vocabulary acquisition. Importantly, no definition of VLS is universally agreed-upon, as evident from the various definitions discussed earlier. To this end, Nations (2013) highlights that second language learners can utilise a variety of VLS to enhance and facilitate their vocabulary acquisition. Thus, different strategies that were used in word mapping were of utmost significance in enriching learners' vocabulary. While various definitions for Vocabulary Learning Strategies (VLS) have been put forth, this study specifically focused on the definitions propounded by Schmitt.

Schmitt (1997) classifies the definitions into two primary types of strategies namely discovery and consolidation strategies. Discovery strategies involve students employing various techniques to learn new words through determining their meanings, whereas in consolidation strategies, students reinforce or retain previously encountered words (Martins, 2021). Discovery strategies are divided into 2 sub-groups; determination and social strategies, whereas consolidation strategies are classified into 3 sub-groups being memory, cognitive and metacognitive strategies (Manoharan, 2019). Conforming to Schmitt (1997), learners use determination strategies to find out the meanings of words on their own without seeking assistance from others. To elaborate further, Sumarta (2016) explains that in this approach, learners individually make guesses and explore the meaning of unfamiliar words using structural knowledge or reference materials such as dictionaries. In the study, learners were given the opportunity to independently discover the definitions of words utilising different resources, guessing techniques and prior knowledge before such words were learned cooperatively via word mapping.

In social strategies learners rely on the social context in which they learn new words. They achieve this by engaging in communication or interaction with people surrounding them, such as classmates, teachers and friends (Ali, 2021). When carrying out this study, learners were allowed to work in groups and also, the researcher provided assistance where needed. On the other hand, Martins (2021) states that memory strategies involve assisting learners to remember the words they previously learned. In word mapping, there were various activities to assist students remember previously learned vocabulary such as presentations and question and answer activities. Looking at cognitive strategies, they share similarities with memory processes, but their emphasis lies not on mental processing, rather on repetitions and mechanical techniques which include using

vocabulary books and word lists (Schmitt, 1997). Thus, in the study learners did repetitions of the learned words and used word lists. Lastly, metacognitive strategies assist in determining valuable words to be learned, making plans and identifying efficient learning techniques (Baskin et al., 2017). Consequently, there was a list of selected vocabulary to be learned, planning and selecting effective methods for teaching and learning processes.

While Schmitt's theory provides valuable insights into vocabulary teaching and learning, it is criticised for not adequately considering meaning and context (Barcroft & Thorn, 2012; Webb, 2007). In consonance, Nation (2022) argues that Schmitt's theory places greater emphasis on the formal characteristics of vocabulary, such as word forms and orthography, rather than the contextual and meaningful aspects of vocabulary. Integrating social constructivism in addition to Schmitt's theory was vital in fostering effective vocabulary acquisition because social constructivism recognises the significance of context and meaning in vocabulary learning. It also suggests that vocabulary should be learned and taught in meaningful authentic contexts that offer students chances to grasp vocabulary in practical, real-life scenarios (Nation, 2022).

2.1.2 Social Constructivism Theory

Social constructivism is an educational theory that was founded by Lev Vygotsky in 1978 (Akpan et al., 2020). Despite its decades-long existence, this theory remains pertinent within the realm of instruction and learning. In the present study, it enabled the researcher to effectively implement various activities related to teaching and learning of English vocabulary through word mapping. Social constructivism posits that knowledge construction is fundamentally shaped by social interactions and collaborative engagement with others (Kapur, 2018). Furthermore, it implies that all individuals actively participate in the process of meaning-making. Consequently, the teaching and learning of vocabulary should be regarded as a collaborative effort, wherein meanings are created through mutual support and scaffolding. (Zhang et al., 2013). In this research, tasks that required learners to collaborate in constructing words' definitions and engage in group discussions were rooted in the principles of social constructivism.

Social constructivism underscores the significance of More Knowledgeable Other (MKO), who is essential in aiding learners grasp cultural and linguistic components within the social environment (Moody et al., 2018). In the context of this research, the researcher was the MKO who assisted students to ensure that there were social interactions among them as they collaborated and learned

from one another in the construction of English vocabulary through word mapping. Equally important, social constructivism is renowned for its Vygotskian viewpoints, specifically the Zone of Proximal Development (ZPD) and scaffolding (Vygotsky, 1978). The ZPD represents the range of tasks that learners cannot accomplish independently but can achieve with guidance from more knowledgeable adults or peers (Kapur, 2018). In this zone, learning is optimally scaffolded to help learners progress from their current capabilities to their potential growth (Kapur, 2018).

Scaffolding, as described by William and Mary (2015), involves providing learners with gradual, step-by-step guidance which assists them in mastering necessary skills and achieving self-regulation. When learners engage in structured and scaffolded interactions with the MKO, it fosters growth in their thinking, language skills and knowledge (Wood et al., 1976). Akpan et al. (2020) postulate that the teacher's responsibility when scaffolding in a constructive class is to utilise student-centered methods such as discussions, brainstorming and collaborative learning. The teacher also has to be an active facilitator who ensures that more or less brilliant learners learn from one another while becoming co-custodian of their own knowledge (Wood et al., 1976). In the present analysis, learners' ZPDs were considered. This was achieved through identifying their existing knowledge of English words and the unknown words. The researcher then scaffolded by engaging in a step-by-step approach utilising word mapping until there was certainty that all the students mastered all the intricacies of the selected English vocabulary.

While social constructivism is praised by many scholars for its relevance in classroom setting, some scholars such as Kirschner et al. (2006) argue that social constructivism overlooks the insights from cognitive architecture studies which highlight the constraints of working memory in processing unfamiliar information. These authors contend that constructivist approaches can overwhelm learners with information that exceeds their cognitive capacity, resulting in a heavy burden on their working memory when trying to grasp new concepts (Kirschner et al., 2006). In agreement, Apu & Bustang (2010) argue that when learners construct their own learning experiences, it overloads working memory which adversely affects the learning process. Hence, cognitive load theory was incorporated in the study to ensure that in the process of enriching learners' English vocabulary development, their cognitive loads were not overloaded. Thus, resulting in a failure to achieve the purpose of the research.

2.1.3 Cognitive Load Theory (CLT)

Cognitive Load Theory (CLT) is a psychological theory coined by John Sweller in 1988 (Houichi & Sarnou, 2020). CLT emphasises the significance of cognitive ability in working memory to achieve fruitful learning results (van Merriënboer & Sweller, 2005). This theory suggests that working memory has a limited capacity to hold information and as a result, teaching approaches should refrain from burdening learners' working memory (Houichi & Sarnou, 2020). When conducting this research, it was crucial for the researcher to account for the cognitive capacities of learners, assuring that their working memories were not piled with excess information which may have resulted in failure to attain the objectives of the study. Moreover, CLT offers guidelines to facilitate the presentation of information which aim to encourage learner- activities that enhance intellectual performance while aligning with features of working memory (Sweller et al., 1998). It also focuses on the structures and functions within human cognitive architecture which serve as the foundation for designing innovative instructional approaches (Sweller, 1988).

The underlying assumption of cognitive load theory is that working memory load should be minimised, while schema construction be actively promoted (Sweller, 1988). The theory posits that students are sometimes taught beyond their cognitive abilities, resulting in a cognitive overload that can hinder learning progress (Houichi & Sarnou, 2020). In the study, the researcher ensured that only four English vocabulary words were learned per lesson to minimise the learners' cognitive loads and maximise effective learning. CLT consists of three main principles, the first principle emphasises that working memory has restrictions regarding the amount of information it can store and the duration for which it can retain that information (Sweller, 1994). This memory functions as a system where brief amounts of information can be temporarily retained (Atkinson & Shiffrin, 1968). In relation to this, Clark et al. (2011) claim that humans can efficiently process "two or three" pieces of information simultaneously in working memory before such information can be encoded into long-term memory.

Miller (1956) postulates that an individual can retain only a restricted quantity of information, around "seven plus or minus two" items, at a time. In consequences, if students are presented with more information than their working memory can handle, they will not be able to retain it (Shibli & West, 2018). For this reason, as outlined earlier, only four English words were learned per lesson which assisted with immediate transfer of such words in the long-time memory for future use. The second principle indicates that, unlike working memory, long-term memory has an unlimited

storage capacity (Sweller, 1988). It is able to hold vast quantities of information for a prolonged period (Houichi & Sarnou, 2020). In accordance with van Merriënboer et al. (2003), this principle assists in transferring new knowledge into long-term memory so that students can leverage their existing knowledge when learning new material, ultimately reducing their cognitive loads. This was beneficial in the study as the words that were previously learned and kept in the long-term memory were vital in assisting students learn new vocabulary easily, in turn, easing the burden on their working memories.

The last principle indicates that learners' cognitive loads can be modified (Mousavi et al., 1995). In the context of CLT, unneeded mental load can be minimised or modified by improving the design of educational materials (Sweller et al., 1998). This reduction is believed to enable learners to have more mental resources at their disposal, which helps them better retain and retrieve information in their long-term memory (Skulmoswki & Xu, 2021). To optimise cognitive load in vocabulary learning, the researcher broke intricate concepts into smaller, simpler segments of information. Again, there were designation of specific activities which prompted learners to engage in the vocabulary and establish links between new and prior knowledge.

Another strategy for reducing learners' cognitive load recommended by Van Merriënboer et al (2003) is to sequence information from simple to complex. van Merriënboer et al. (2003) suggest beginning with a worked example that demonstrates a complete solution, followed by students applying this knowledge to new questions independently. This approach serves as a form of scaffolding to support students in learning without constant guidance from the teacher (Marougkas et al., 2023). In this research, learners were shown how to use word mapping, beginning with simpler vocabulary to more complex terms. Afterwards, they were allowed to continue with the process on their own with a little assistance of the researcher.

In conclusion, incorporating Schmitt's (1997) theory of vocabulary learning strategies, social constructivism and cognitive load theories came in handy for this study. It assisted learners in learning, understanding and remembering vocabulary more effectively, leading to improved learning results. It also equipped learners for real-world communication in and out of the classroom. Additionally, it boosted Grade 10 learners' social interactions and active participation in learning English vocabulary through mapping.

2.1.4 Convergence of the three theories

The combination of the three theories framing this study is structured in the following way:

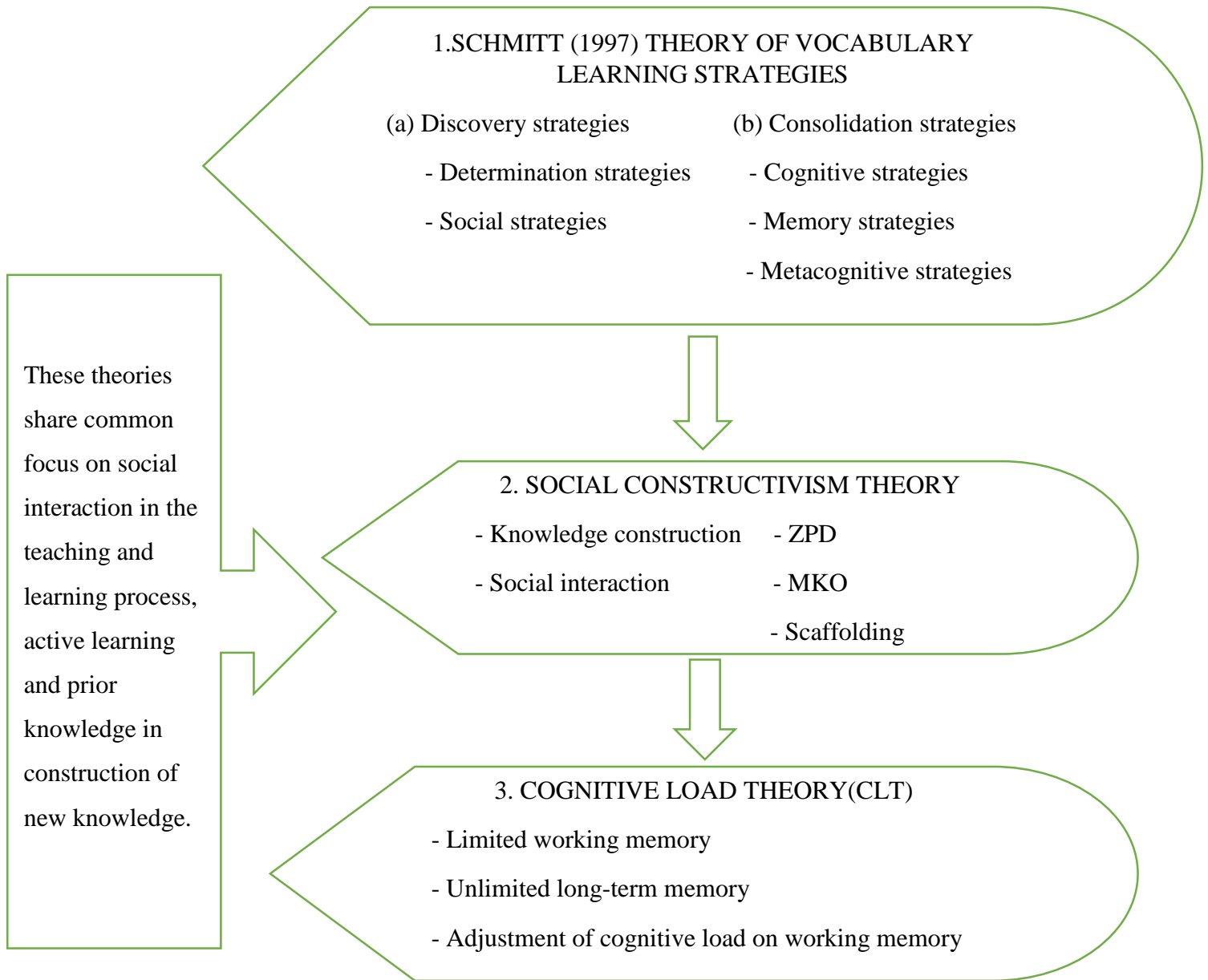


Figure 2.1 convergence of the theories

It is of great significance to emphasise that, although these theories approach vocabulary instruction in different ways, they converge in their advocacy for social interaction in both teaching and learning processes. Additionally, they prioritise active learning, with students taking an active role in constructing their own knowledge. Moreover, they underscore the value of drawing on prior knowledge and experiences when constructing new knowledge. Thus, integrating

these three theories offered learners personalised and engaging learning experiences that promoted critical thinking skills and knowledge retention. Respectively, ensuring that the objectives of this study were effectively and efficiently achieved.

2.2 Literature review of key concepts

This section provides a detailed review of the following concepts; definition of English vocabulary, types of English vocabulary, significance of English vocabulary learning and difficulties in learning English vocabulary. The section further delves into the concepts of techniques for teaching and learning of English vocabulary, nature of word mapping, teaching and learning of English vocabulary through word mapping and significance of word mapping in English vocabulary instruction and learning.

2.2.1 Definition of English vocabulary

Hatch & Brown (1995) explain that vocabulary is a set of words used uniquely by individuals. Likewise, Afzal (2019) describes vocabulary as words that assist learners to improve their learning skills and can act as a bridge between the four language skills. Moreover, Karendra (2016) clarifies that vocabulary consists of a collection of words, each carrying its own meanings, that are utilised in a language to convey ideas. Based on this understanding, it can be inferred that English vocabulary encompasses not only the basic definitions found in dictionaries, but also a deeper theoretical comprehension of word usage. The stated definitions may also infer that English vocabulary encompasses all the English words required to convey concepts and intended meaning, whether it be literal or contextual. Al-Dulaimi (2022) emphasises that possessing a strong vocabulary is crucial for communicating effectively in any language. Therefore, vocabulary should be acknowledged as a crucial tool for enhancing different language skills. Conforming to Nation (2022), vocabulary entails knowing words, their definitions and how they are used in specific contexts. Arianti et al (2022) contends that without vocabulary, learners may be unable to comprehend the foreign languages they acquire.

Wardani (2015) argues that, the expansion and development of vocabulary typically happen as individuals grow older and play a crucial role in communication and gaining knowledge. Wardani (2015) continues to state that acquiring vocabulary is the initial phase in second language learning, but one may never reach a point where they have learned all vocabulary. Thus, it appears that the process of learning new vocabulary is continuous, regardless of whether it takes place in a person's native or second language. Similarly, Al-Dulaimi (2022) stipulates that learners' comprehension

of vocabulary evolves as they uncover the connections between words, examine their examples, consider related terms, and appropriately use words in context. This indicates that vocabulary use is fundamental to learners' listening, speaking, reading, and writing skills. Therefore, it is essential to create strategies that can improve English vocabulary development for ESL learners throughout their educational journey.

2.2.2 Types of English vocabulary

It was previously noted that ESL students need to be familiar with a specific number of words to navigate different English contexts effectively. However, determining the meaning of knowing a word and evaluating that understanding can be quite challenging. One method of assessing word knowledge is by differentiating between receptive and productive vocabulary, which are the two primary categories of vocabulary (Creighton, 2016).

2.2.2.1 Passive/receptive vocabulary

Elmahdi & Hezam (2020) define passive or receptive vocabulary as words that learners can comprehend when they hear or see them being used, but are unable to actively use in speaking or writing. While learners may recognise passive vocabulary during listening or reading activities, they may not be able to use them in their own communication (Salam & Nurnisa, 2021). Despite not fully grasping the nuances of these words, learners can still comprehend their general meanings (Alqahtani, 2015). In addition, Rosyada (2023) highlights that receptive knowledge encompasses grasping a word's structure, meaning, and possible contexts, even if one lacks knowledge of how to use the word. Hence, understanding passive vocabulary enabled Grade 10 learners to comprehend the definitions of words when they came across them in listening or reading materials.

Typically, learners possess more passive than productive vocabulary knowledge (Schmitt & Schmitt, 2014). A study by Laufer (1998) revealed that receptive vocabulary expanded by 1,600 word families over the course of one year in high school, yet only 850 word families could be utilised productively. This suggests that learners find it easier to acquire receptive vocabulary than productive vocabulary, as indicated by Laufer's findings. Likewise, Creighton (2016) explains that learners may be able to comprehend what their teachers communicate in class (receptive knowledge) but struggle to articulate those same words in their own speaking and writing (productive knowledge).

2.2.2.2 Productive vocabulary

Active or productive vocabulary refers to the collection of words that learners can comprehend, pronounce correctly, and use effectively in both verbal and written forms of communication (Afzal, 2019). It appears that this type of vocabulary goes beyond simply recognising words to being able to actively incorporate them into communication. In a similar vein, Qomariyah & Nafisah (2020) illuminate that active or productive vocabulary consists of words that an individual is familiar with, commonly used and can employ in writing or speaking. Resultantly, productive vocabulary is considered an active skill as learners can verbally express their thoughts to others (Alqahtani, 2015). Rosyada (2023) stipulates that knowledge of productive vocabulary involves utilising a word correctly within its appropriate lexical, pragmatic, and syntactic contexts, along with proper spelling and pronunciation. In ESL classroom, vocabulary is essential for expressing meaning and communicating thoughts through both receptive and productive skills (Karendra, 2016). Hence, Grade 10 learners were assisted to master both passive and active vocabulary as they were necessary for developing their four critical English language skills.

2.2.3 Significance of English vocabulary learning

Having a strong English vocabulary is important for enhancing listening, speaking, reading and writing skills (Alqahtani, 2015). Inadequate vocabulary can make communication challenging and hinder language proficiency (Rohmatillah, 2017). Moreover, Afzal (2019) asserts that vocabulary knowledge is crucial for effective communication and second language learning. This implies that lack of vocabulary can cause challenges in English learning and can demotivate learners. Several researchers contend that vocabulary is one of the crucial, if not the most significant aspect of learning a foreign language, emphasising necessity for foreign language curricula to acknowledge its importance (Siddiqua, 2016). In support of this view, Scott & Nagy (1997:97) wrote: “there is not much value in being able to produce grammatical sentences if one has not got the vocabulary that is needed to convey what one wishes to say ... while without grammar very little can be conveyed, without vocabulary nothing can be conveyed.”

Conforming to the above statement, it is undebatable that vocabulary is essential for anyone wishing to learn and use English language appropriately. Besides, English language teaching is concerned with enabling the learners to acquire communicative competence in English. In this regard, vocabulary should be the key element in language learning as one must have large accumulation of words to communicate effectively (Oljira, 2015). Providing more insights on the

importance of vocabulary, Ekasari (2020) highlights that in speaking, vocabulary is used to express learners' ideas or feelings orally and in listening, it is utilised to understand what someone says. This implies that the words learners have influence how effective the communication runs, and that it can be very hard to understand what others say if only the construction of a sentence is known without knowing the words.

Ekasari (2020) mentions that in reading, vocabulary is used to comprehend the reading materials while in writing, learners use it to develop their ideas. Moreover, for ESL learners who typically improve their English language and reading abilities at the same time, possessing strong vocabulary skills is essential as a robust vocabulary enhances key processes in overall comprehension and inference making while reading (Geva, 2012). This suggests that reading without a strong vocabulary can lead to challenges in comprehending a text, as it is difficult to grasp the content of a passage if learners are not familiar with the meanings of the words it contains. As for writing the statement indicates that without knowing much English vocabulary, learners' writing ability may be restricted.

Some researchers argue that even if learners of a foreign language do not fully understand its syntactical subtleties, they can still speak the language quite effectively as long as they develop a solid vocabulary (Khalifa, 2016). Likewise, Karendra (2016) postulates that still considering other language elements, vocabulary is regarded as the key factor in EFL instruction and learning. As such, teachers are anticipated to employ effective methods to actively involve students in learning English vocabulary, ensuring that educational goals are met successfully. This is due to the fact that learners with a restricted vocabulary struggle more with understanding grade-level language, engaging in class discussions, and efficiently completing projects, and tests (Al-Dulaimi, 2022).

English vocabulary mastery within Lesotho secondary schools is not only beneficial in learning English as a subject, but also for success in other subjects because English is the language of instruction from Grade 4 upwards (MoET, 2021). Therefore, if learners have sufficient jargon, they will comprehend instructions and communicate vividly in various subjects. Equally important, adequate English vocabulary is significant as English is one of the official languages in Lesotho, along with Sesotho (MoET, 2009). This highlights the necessity for learners to possess broad vocabulary in English to achieve academic and social success given the importance of English in areas such as trade, business and it being a lingua franca.

Based on the perspectives discussed, it can be concluded that knowledge of English vocabulary is crucial for effective communication and various facets of language learning. Therefore, policymakers, English teachers, and learners should recognise the significance of vocabulary knowledge in the ESL learning process. Additionally, it is important to identify and implement helpful resources and strategies that can assist students in improving both the breadth and depth of their English vocabulary. In this study, a word mapping strategy was utilised to support the vocabulary development of Grade 10 learners.

2.2.4 Difficulties in learning English vocabulary

Non-native English learners encounter challenges in expanding their vocabulary which include understanding the definitions of unfamiliar words, spelling accurately, pronouncing correctly, using words appropriately and deducing meaning from context (Afzal, 2019). Factors contributing to these challenges are diverse. For example, Al-Seghayer (2015) emphasises that some Saudi Arabian teachers employ outdated teaching methods and rely heavily on learners' native language, leading to limited English vocabulary among learners. This is the case in Lesotho as one could observe that many teachers rely mostly on Sesotho translation to assist learners understand unknown English words. In as much as native language translation method can positively impact learners' vocabulary acquisition (Khan, 2016), educators should do it accordingly and balance it with other effective teaching methods to create a comprehensive vocabulary learning experience.

Other potential factors are that, vocabulary learning does not have specific rules that learners can systematically use unlike syntax and phonology, and it remains uncertain which specific vocabulary items should be prioritised (Siddiqua, 2016). Furthermore, Staden (2016) contends that rapid and effective recognition of words, encoding them, and accessing their meanings are essential for advanced semantic processing and meaning construction, all of which are interconnected with successful vocabulary use. This implies that for numerous ESL learners, encountering a high number of unfamiliar words in a text can significantly impede their understanding. Apart from this, Shah et al. (2022) point out that many English language learners depend on bilingual dictionaries, which offer precise definitions rather than encompassing both literal and contextual meanings. It can be inferred that as a result of this reliance, learners' effective understanding of English vocabulary can be hindered.

Elaborating on the challenges in English vocabulary teaching and learning, Thornbury (2004) claims that pronunciation is one of the factors that make some words harder to learn because difficult-to-pronounce words are typically harder to grasp. For example, it was challenging for Grade 10 learners to retain words such as “tuberculosis” than terms such as “men”. Apart from pronunciation, Al-Dulaimi (2022) highlights spelling to be another factor leading to difficulty in vocabulary learning. This is because words that have silent letters can be problematic as they can lead to mistakes in both pronunciation and spelling (Rohmatillah, 2017). Examples of such words can include: *foreign, listen, bored and honest*. On the other hand, length and complexity also cause difficulty in English vocabulary teaching and learning (Thornbury 2004). To emphasise, Abuhabil et al. (2021) stipulate that it is harder to learn and remember lengthy words compared to shorter ones. For Grade 10 learners, words such as “*manufacturing*” were difficult to learn than shorter words such as “*stop*”.

The different stresses in polysyllabic words also contribute to the intricacy of English vocabulary, examples include “*unavoidably*” and “*essential*” (AL-Dulaimi, 2022). As a solution, I assisted learners to understand different stresses of all the words that were learned. Moreover, differences in grammar rules compared to one's first language can also be a challenge (Thornbury 2004). In line, Rohmatillah (2017) mentions that remembering which verb form to use can complicate the vocabulary learning process as verbs such as swim, enjoy or love can be followed by either an infinitive (to swim) or an -ing form (swimming). Confusion may also arise when two words have similar meanings, making it harder for learners to distinguish between them (Abuhabil et al, 2021). In this context, “make” and “do” were words that learners often confused. Lastly, the ambiguity surrounding certain words' connotations can pose difficulties (Thornbury, 2002). For instance, “propaganda” carries negative meaning in English, while in another language might mean “publicity” (Rohmatillah, 2017). Conversely, the word “eccentric” does not always carry negative meaning in English, but it can be perceived differently in other languages (Rohmatillah, 2017).

In a study conducted by Surmanov & Azimova (2020) that focused on the challenges learners face in vocabulary acquisition, the results indicated that the most frequent errors were related to pronunciation. Participants mispronounced an average of 60 words. The next common issue involved misunderstanding word meanings, averaging nearly 40 words confused. Another noted difficulty was related to the length and complexity of words; participants typically struggled more

with longer and more complex words compared to shorter, simpler one- or two-syllable words. Additionally, a lack of confidence stemming from insufficient interaction with friends or classmates hindered participants' ability to recall the vocabulary they had learned.

Many scholars concur that learners' levels of vocabulary are also influenced by the opportunities they have to expand their lexicon, which are determined by their exposure to a language-rich environment (Staden, 2016). Supporting this idea, Stoffelsma (2019) states that children's vocabulary growth is shaped by both their home environment and school setting. Thus, learners who are frequently exposed to the English language tend to possess a richer English vocabulary compared to those from impoverished linguistic environments and low socio-economic backgrounds. Lack of resources is another major problem influencing learners' limited English vocabulary development (Madrid, 2023). Without adequate resources such as textbooks, newspapers or online tools, learners struggle to practice new words and it restricts exposure to idiomatic expressions and nuanced vocabulary which are essential for vocabulary retention and expansion (Madrid, 2023).

In the context of Lesotho, it is undebatable that limited English resources is a major challenge particularly in rural or marginalised schools. Consequently, learners from such schools face the struggle of possessing low levels of English vocabulary. This being the case, teachers should find alternative ways to teach vocabulary using simple teaching aids. These may include use of word maps, pictures and speaking activities such as role-plays, spelling bees and debates which foster vocabulary use without relying on external materials. As outlined by Lastiri (2023), lack of motivation significantly impacts learners' English vocabulary development. When learners lack motivation, their engagement with language learning decreases, leading to several adverse effects on vocabulary acquisition (Lastiri, 2023). It is unarguable that, motivation is a driving force behind successful vocabulary development. Therefore, educators and learners should recognise its importance and actively foster motivation to enhance language proficiency and vocabulary growth. In line with the identified issues, it becomes crucial for teachers to employ effective techniques that can assist learners grasp and enrich their English vocabulary in an exciting and easy ways.

2.2.5 Techniques for teaching and learning of English vocabulary

Most learners' expansion of vocabulary happens through unintentional exposure to spoken or written language, however, deliberate vocabulary instruction within the language curriculum should receive emphasis (Karami & Bowles, 2019). Although it is not feasible to teach learners all English words, explicit teaching may provide opportunities to instruct essential vocabulary needed for understanding words that may be difficult to pick up solely through context clues (Alqahtani, 2015). It appears that, both intentional and incidental learning are significant methods for vocabulary acquisition. As a result, teachers need to prioritise both approaches and use a variety of teaching strategies to help learners learn English vocabulary more effectively.

In English vocabulary instruction and learning, educators can assist learners to make use of the following strategies as proposed by Hatch & Brown (1995): Firstly, learners should encounter new words with different sources, such as television, radio, reading, word lists and dictionary. Secondly, creating mental associations is crucial whereby learners can visualise or audibly connect new words with their L1 equivalents and use phonetic scripts. Thirdly, understanding word meanings which can be achieved by seeking input from others, forming mental images related to the meaning and inferring from context. Fourthly, strengthening the relationship between the word and its meaning in memory, no matter which memory technique is being utilised. Lastly, learners can use words in sentences, collocations and in diverse contexts (Hatch & Brown, 1995).

Qomariyah & Nafisah (2020) emphasise that, to enhance effective vocabulary instruction, it is essential to prioritise repetition and multiple exposures whereby learners should actively engage in deep word processing. Key strategies for effective vocabulary teaching should include focusing on high-frequency words, utilising word walls, employing word mapping, encouraging extensive print exposure, promoting independent reading and teaching word meaning discovery (Stoffelsma, 2019). Additionally, Blachowicz & Fisher (2015) propose four evidence-based protocols necessary for teaching vocabulary within school curricula. These include provision of rich and varied language experiences, diverse language contexts to enrich vocabulary, teaching individual words and fostering word consciousness. Regardless of the techniques teachers may choose, they need to make sure that learners are engaged in the process of meaning-making, ultimately enhancing their English vocabulary growth.

The spelling of words should also be considered since the pronunciation of English words does not always reflect their written form. By using this method, the teacher prompts learners to discover the meanings of words through elicitation, thereby increasing their speaking opportunities and checking their comprehension (Susanto, 2023). Additionally, this approach incorporates personalisation, which allows utilisation of the word in context or sentences relating to learners' experiences. Equally important, The International Phonetic Alphabet (IPA) is a valuable tool for improving English pronunciation. This standardised system of symbols helps language users to accurately represent and analyse the sounds of spoken language (Brittanica, 2023). By incorporating IPA into vocabulary instruction, the researcher enhanced vocabulary accuracy and deepened students' comprehension of the complex relationships of letters and sounds.

In a study conducted by Wardani (2015) it was discovered that some of the strategies that learners can utilise in vocabulary learning include watching movies or televisions, listening to music or YouTube, playing games, memorising, extensive reading of books or articles and repeating new vocabulary. It might appear that, increased exposure to a word naturally leads to a deeper understanding. However, many educators tend to overlook the importance of repeated encounters with new vocabulary, forgetting that learners require several instances of hearing and using a word before it genuinely becomes part of their vocabulary (Ronaghi et al., 2015). To address this, the researcher offered multiple opportunities for learners to incorporate new words into both their writing and speaking to reinforce their comprehension of these terms.

Emphasising on the importance of media in English vocabulary learning, Rosyada-AS (2023) mentions that the multifaceted utilisation of media resources in vocabulary acquisition provides personalised and adaptable strategies to meet learners' unique needs and preferences. It is suggestive that by using media, educators can successfully accommodate various learning styles and preferences, creating a more interactive and well-rounded educational experience that promotes vocabulary growth. According to Rosyada-AS (2023), this integration not only improves learners' language skills but also fosters their digital literacy, preparing them with the necessary skills to engage with the constantly changing world of media technologies.

While watching television shows, movies, YouTube videos and listening to music or radio can be beneficial for language learners, there are also some potential negative impacts on English vocabulary development. This is because learners may pick up incorrect pronunciations, slangs,

informal language or adopt accents from characters they hear which can affect their spoken English (Lestari & Yositha, 2016; Uzzaman & Roy, 2019). While these reflect real-world communication, learners might struggle with understanding or using these in appropriate contexts as media might not always align with real-life situations (Ebrahimi & Bazae, 2016). To mitigate these negative effects, learners can supplement media with other language activities, use subtitles to understand context and pronunciation and actively engage by discussing scenes, writing summaries or creating vocabulary lists (Sabouri & Zohrabi, 2015).

In the 21st century, the use of mobile phones has increased rapidly. Mobile phones can play a significant role in English vocabulary learning, offering engaging and rewarding methods to acquire new words through various applications, e-dictionaries, and social media platforms, where learners can encounter new vocabulary and communicate with peers (Sa'di et al., 2021). However, overreliance on mobile phones may hinder learners' independence and can become a distraction if they are tempted to use non-educational apps and social media (Thomes, 2019). Therefore, for successful and productive outcomes, learners must ensure that they utilise mobile phones in ways that effectively enhance their English vocabulary development.

Memorisation and spelling are also some of the techniques that learners can utilise to learn English vocabulary because learners' active involvement with vocabulary through intentional memorisation promotes the comprehension of lexical knowledge (Rosyada-AS, 2023). Again, reinforcing this knowledge with spelling exercises plays a crucial role in solidifying vocabulary understanding (Rosyada-AS, 2023). It seems that utilising these cognitive strategies can aid in the learners' development of language skills and support the learning of English vocabulary, consequently enhancing their language proficiency and communication abilities. However, memorising words without understanding their meaning or context can lead to surface-level learning, where learners are unable to use the words in a meaningful way (Nation, 2013). In overall, while memorisation has its merits, it is essential to complement it with contextual learning, exposure to authentic language and practical usage. Balancing both approaches can lead to more robust vocabulary acquisition and retention.

Another useful strategy for vocabulary acquisition is usage of dictionaries as they provide quick access to word meanings, pronunciations, exposure to a broader range of words, synonyms, antonyms, thus enriching learners' vocabulary (Mohamad et al., 2017). However, relying solely

on dictionary definitions can hinder comprehension as learners may miss nuances, idiomatic expressions and context-specific meanings (Mohamad et al., 2017). Therefore, learners should balance their use with contextual learning, authentic exposure and practical application just like when using memorisation. Equally important, using the newly learned English vocabulary either verbally or in writing can help learners to retain vocabulary easily whereby associating a word with something interesting or personally relevant would increase the likelihood of retention (Kandybovich, 2017). For instance, if learners are football fans, remembering the word “unstoppable” in a sentence such as “Messi is unstoppable” is more effective than learning it in isolation and memorising it (Kandybovich, 2017).

The research conducted by Goundar (2019) on vocabulary learning strategies used by EFL learners indicated that 91% of the participants learned vocabulary by reading diverse English texts. As a result, it is suggested that teachers incorporate a range of English reading materials into their lessons and learners also should embrace the culture of extensive reading. This is significant because extensive reading fosters a deeper understanding of words, cultivates substantial lexicon, promotes fluency, correct spelling and makes English learning enjoyable (Liu & Zhang, 2018). The data further indicated 96% of the participants relied on their existing knowledge, including experience and intuition, to deduce the meanings of words. Lastly, the results showed that just 4% of the participants learned new vocabulary from their teacher. Based on this study, ESL teachers and learners should incorporate as many techniques as possible to cultivate learners’ extensive English vocabulary. Hence, in this study, I implemented word mapping in a Grade 10 class by incorporating more than one technique, thus enriching learners’ English vocabulary development. Having maneuvered the strategies that can enhance students’ English vocabulary, the following section provides a thorough discussion of word mapping which was employed in this study.

2.2.6 Nature of word mapping

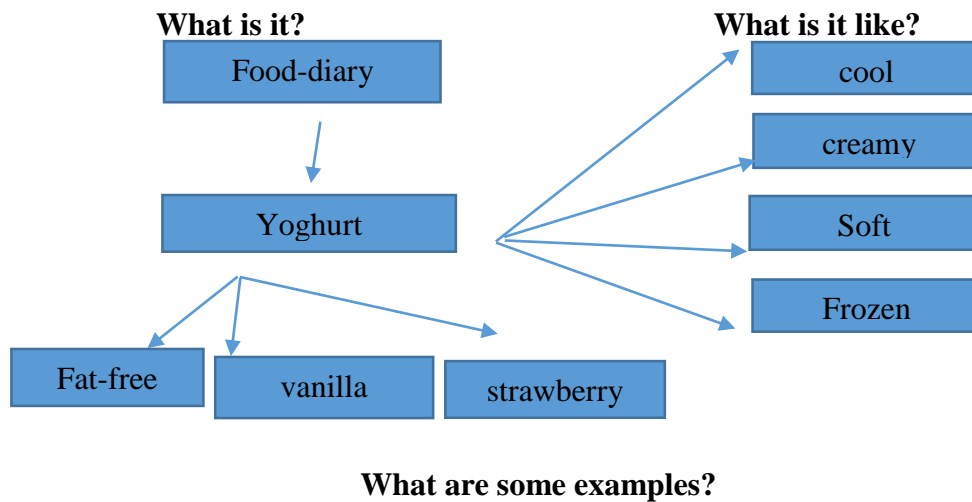
One practice that could be of assistance in developing learners’ English vocabulary is mapping words. Although word mapping is interpreted in several ways by different scholars, it is considered a versatile yet principled method tailoring integrated skills to learners’ needs (Aisya & Tanasy, 2019). Word mapping is defined by Karendra et al. (2016) as a visual depiction of word meanings that helps students enhance their understanding of words. Similarly, Qomariyah & Nafisah (2020) postulate that word mapping is a visual way to represent a definition, prompting learners to engage in a deeper thinking on the definitions of words and move beyond simple dictionary definitions.

In word mapping learners use context clues, their background knowledge and dictionaries to determine unknown words' meaning (Aisya & Tanasy, 2019). From the aforementioned definitions, it can be concluded that word mapping is the methodological instructional and learning strategy intended to improve and enrich students' comprehension of English vocabulary through a graphic or visual organiser.

Word mapping plays a vital role in learners' vocabulary acquisition, as it requires them to demonstrate their understanding of vocabulary and explore the connections between target words within their own maps (Al-Dulaimi, 2022). The strategy of linking a specific English word to related terms helped Grade 10 students grasp the nuances associated with that word. Accordingly, it became clear that for learners to effectively internalise, remember, and incorporate these words into their usable English vocabulary, they needed to engage with the target words through speaking, writing, listening, and reading, while also connecting them to other relevant terms. In addition, Ronaghi et al. (2015) highlight that word mapping serves as an excellent approach to support a learners' vocabulary development. Similar to other explicit teaching methods, it is important for the teacher, either independently or collaboratively with the learners, to introduce words that are worthy of learning (Ronaghi et al., 2015). Utilising the new vocabulary terms, the student, with the teacher's guidance, creates a graphic organiser to aid understanding of such words.

Typically, word mapping involves placing a vocabulary word at the center of a graphic organiser and connecting it to three distinct sections representing the main three questions regarding the term; "what is it?", "what is it like?" and "what are the examples?" (Widyawanti, 2016). Wardani (2015) expands the three questions of word mapping in the following way; "What is it?" is a question that assist students to connect a new term to their existing knowledge. For example, if the term is "doll," a possible answer could be that a doll is a toy for children. The question "what is it?" is responded to by defining the term. In this particular case, a doll would be referred to as a play toy or baby that can be dressed in various outfits. The question "what are some examples?" encourages learners to think about items that fit the description and meaning of the term. In the case of a doll, examples could include a Barbie doll (Wardani, 2015). Utilising prior knowledge, the learners fill the three categories (Ronaghi et al., 2015). Once the learners have addressed these

three main questions, they could be able to formulate a thorough definition for a selected English word. The following picture is an illustration or word mapping;



Definition: Yoghurt is a dairy-based food known for its cool, creamy texture that can be enjoyed soft or frozen. There are a variety of yoghurt products, with different brands and flavors including fat-free, vanilla and strawberry.

Figure 2.2: An example of word mapping as adapted from Revitalizing Vocabulary (North Caroline Teacher Academy)

2.2.7 Teaching and learning of English vocabulary through word mapping

Teaching English vocabulary through word mapping is a highly engaging activity that should be demonstrated by the teacher first. Following the guidelines of Edy & Amiruddun (2019), the process involves displaying the key term on the board, explaining the procedures and encouraging learners to brainstorm numerous associated words. The teacher afterward lists the words and assign students to work in groups to categorise them (Edy & Amiruddun, 2019). In expansion, Schwartz and Raphael (1985) developed a method for vocabulary teaching and learning through word mapping as follows:

1. The teacher first shows learners a vocabulary mapping organiser and emphasise the importance of including three relationships to formulate a substantial definition: “what is it?”, “what is it like?” and “what are some examples?”

2. In order to demonstrate this technique, the teacher starts with known words that are mapped easily such as forest, yoghurt and shoes.

3. The teacher then writes the words in the central portion of the map.

5. The teacher asks learners “what is it? “what is it like?” and “what are some examples?” Then records the learners’ responses on the map.

6. The teacher then clarifies that the definitions encompass characteristics, classifications and examples. The teacher may sometimes ask learners to look for the synonyms, antonyms and use those words in sentences.

2.2.8 Significance of word mapping in English vocabulary instruction and learning

Word mapping is an effective method of teaching vocabulary that encourages learners to consider the relationships between words (Wardani, 2015). By encouraging learners to actively explore these relationships, they can develop a comprehensive understanding of word meanings (Widyawanti, 2016). Additionally, Al-Dulaimi (2022) emphasises that this approach helps learners to adjust their existing framework of English vocabulary knowledge and construct meaning when they encounter unfamiliar words. Word mapping may also lessen pupils’ cognitive load during text comprehension because learners can make connections between new material and what they already know, therefore activating their past knowledge (AL-Dulaimi, 2022). These imply that word mapping will enable pre-assembled portions of words to be recalled from learners’ memories when learning new words, therefore making it easier for them to comprehend the meanings of such words and appropriately utilise them in different contexts.

Through word mapping, learners can comprehend both new and familiar words by categorising them, recognising relationships between such words and making comparisons (Hediza, 2016). Besides, Karendra et al. (2016) stipulate that word mapping is a versatile technique that learners can utilise in any subject and at any level, either individually, in small groups or as part of a full class activity. In support, Udayi (2021) emphasises the importance of the strategy in prompting learners to activate their schemata to learn highly specialised vocabulary in various disciplines. Equally important, word maps can be easily and quickly created on paper, a whiteboard or even on a projector screen (Utami, 2017). Considering the strengths of word mapping that have been discussed, this strategy played a significant role in helping Grade 10 learners at the selected

secondary school to attain an interactive and educational learning experience. This strategy also assisted them to incorporate their prior knowledge and utilise their critical thinking skills, consequently enhancing their English vocabulary development.

2.3 Conceptual framework

Figure 2.3 depicts the interconnections of the variables utilised in this study.

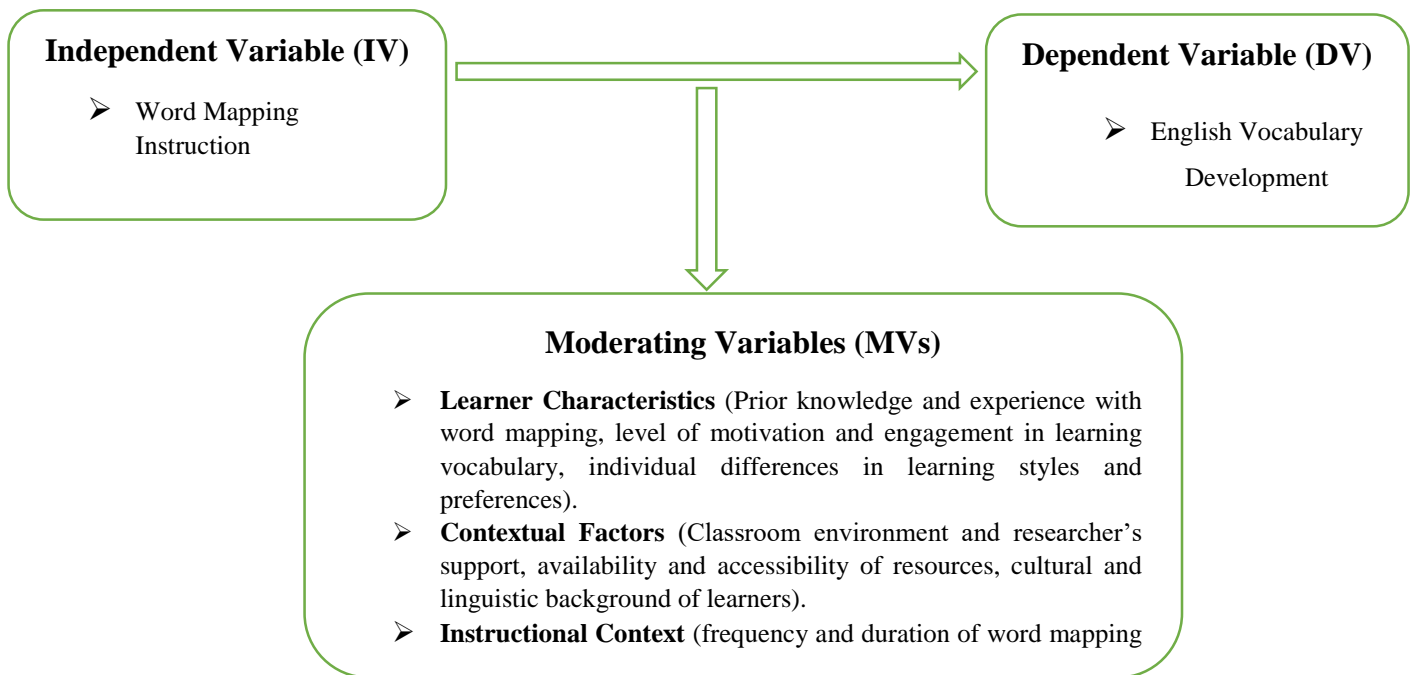


Figure 2.3 Conceptual framework of variables

The above framework indicates that the independent variable (word mapping instruction) is the manipulated variable that is expected to affect the dependent variable (English vocabulary development). The moderating variables (learner characteristics, contextual factors and instructional context) may influence the relationship between the independent variable and the dependent variable. For example, the effectiveness of word mapping instruction may be enhanced or hindered depending on the learner's prior experience with word mapping, their level of motivation or the classroom environment. Similarly, the availability of resources may moderate the impact of word mapping instruction on vocabulary development. By considering these moderating variables, the researcher better understood how to optimise word mapping instruction to support Grade 10 learners' English vocabulary development.

2.4 Review of previous studies

This review aims to outline previous studies on English vocabulary, with the objective of analysing the intervention methods used, highlighting any knowledge gaps, developing a solid theoretical foundation, pinpointing areas that require further investigation and contextualising to Lesotho.

The first study is from Kai & Hua (2021). This study was aimed at examining how effective the Google Translate mobile application is in enhancing the English language vocabulary of indigenous learners. The results of this research showed that using Google Translate was a valuable technique for improving English language vocabulary of learners. This innovative approach supports the idea that fresh teaching methods can be beneficial. The study's findings emphasise the need to carefully assess the impact of educational technology on learning outcomes, taking into account the unique benefits and limitations it may have compared to traditional methods.

The second study was undertaken by Juniarni (2020). Its purpose was to determine the effectiveness of word mapping in improving the vocabulary skills of seventh grade learners at SMPN 15 IT Binjai. The findings of this quantitative study revealed that incorporating the word mapping into vocabulary instruction had a significant influence on students' ability to acquire and retain vocabulary. This study sheds light on the advantages of incorporating word mapping into primary education, with a focus on enhancing vocabulary acquisition and development. The research offers insights for educators seeking to optimise their pedagogical approaches and foster more effective language instruction.

The third study was carried out by OZKAL (2019). The aim of this research was to use flipped learning to enhance learning of vocabulary items and to gain insights on the views of pre-intermediate EFL students from a private language institution in Denizli, Turkey on how the flipped approach impacts their English vocabulary learning. The results of this sequential explanatory mixed-methods design indicated that flipped learning significantly enhanced learners' English vocabulary, with the flipped class outperforming the traditional class. The results further signaled learners' positive view of flipped learning. This research emphasises the impact of novel instructional methods, including the flipped learning approach, on Turkish learners' English vocabulary development, providing valuable insights for language educators seeking to improve language acquisition outcomes.

The fourth study is from Wardani (2015). Its purpose was to improve third-grade students from the Accounting Department at State Vocational School 1 Pamekasan' mastery of vocabulary mastery through the use of word mapping technique. The findings indicated an improvement in the number of learners who successfully passed the test after being taught through word mapping, suggesting the effectiveness of the strategy in vocabulary learning. This study demonstrates the importance of incorporating word mapping as an educational strategy to improve students' English vocabulary acquisition, offering educators a valuable tool to support their students' language development.

The last study was conducted by Ronaghi et al. (2015). The main objective of the study was to explore the impact of word-maps technique on learners' vocabulary acquisition, specifically when used as a help-seeking method. The study showed that after a post-test, it was evident that the experimental group outperformed the control group suggesting that the word mapping technique significantly enhanced the vocabulary of those Iranian EFL learners. This study contributes to the effectiveness of word mapping as a tool for teaching and learning English vocabulary. The findings of this study can be applied to educational settings beyond Iran, providing valuable insights for educators worldwide. Having reviewed the previous studies, the subsequent section highlights their gaps and explains how the current study aims to address those gaps.

2.4.1 Identification and addressing of gaps

The reviewed previous studies have highlighted various methods for enhancing English vocabulary development. As a result, their contribution in the English language field is acknowledged. Despite this, there is a notable dearth of research on English vocabulary development among secondary school ESL learners in Lesotho, which this study aimed to address. Furthermore, this study combined three theoretical frameworks to provide a robust foundation for its analysis. By drawing on Schmitt's theory of vocabulary learning strategies, social constructivism, and cognitive load theory, this research identified effective ways to learn new words, facilitated practical teaching and learning activities through word mapping and considered the cognitive abilities of the learners.

This study also diverged from the conventional single-method approach which most reviewed studies utilised. This was done by employing a mixed-methods approach, integrating both quantitative and qualitative elements. This innovative combination allowed the two approaches to

complement each other, yielding a more comprehensive understanding of the word mapping strategy, thus addressing a methodological gap. In overall, this research successfully filled gaps in both theoretical, knowledge, and methodological understanding, making a meaningful contribution to the field of language.

2.5 Conclusion

This chapter highlighted the theoretical foundations that guided this study, combining Schmitt's vocabulary learning strategies with social constructivism and cognitive load theory. It also explored the main themes and sub-themes related to English vocabulary learning and word mapping as an instructional approach. The chapter then outlined the conceptual framework of the variables. Finally, it reviewed existing research, identified gaps in the literature, and explained how this study aimed to address those gaps. Building on this literature, the following chapter discusses the methodology incorporated in this research.

CHAPTER 3: METHODOLOGY

3.0 Introduction

This study aimed to enhance the English vocabulary development of 10th-grade learners using word mapping. While the previous chapter delved into the relevant literature, this chapter explains the research methodology used in the study, which was designed to ensure a systematic approach to inquiry. The chapter begins by outlining the study's paradigm, research approach and design. Additionally, it covers the research site, the sampling technique, population and sample. Data collection methods and procedures as well as data analysis methods are also presented. Finally, measures to ensure the trustworthiness or rigor and ethical considerations are discussed.

3.1 Research paradigm

In social research, a paradigm refers to fundamental philosophical beliefs or assumptions that shape researchers' worldviews and guide their actions (Rehman, 2016). Moreover, Creswell (2015) points out that a paradigm encompasses axiological elements related to values and morals in research as well as ontological beliefs or expectations regarding the nature of reality. In addition, Kaushik & Walsh (2019) state that epistemology and methodology are also important elements of the paradigm. Epistemology pertains to beliefs about how knowledge is acquired, while methodology is a shared agreement on the most effective approaches for obtaining the world's knowledge (Creswell & Plano, 2017). The present study adopted pragmatism paradigm.

3.1.1 Pragmatism paradigm

Pragmatism paradigm is an American methodology developed by scholars such as William James and John Dewey (Parvaiz et al., 2016). Pragmatism paradigm aims to reconcile scientific methodology and structuralist methods with more naturalistic approaches (Creswell & Plano, 2017). Additionally, Creswell (2014) posits that it considers "what works" to address research questions through thoughtfully choosing and integrating appropriate methods. Similarly, Shannon-Baker (2016) mentions that pragmatism enables integration of different assumptions, approaches, paradigms, data collection and analysis methods which was a case in this study. The following assumptions of pragmatism paradigm are discussed in detail;

3.1.1.1 Epistemology

Pragmatist philosophy emphasises that knowledge is constructed socially, with some interpretations aligning more closely with individual experiences than others (Morgan, 2014a). It also assumes that during research, a combination of objective and subjective approaches may be

necessary to construct accurate realities (Creswell & Clark, 2011). The pragmatic paradigm therefore allowed for the adaptations of practicable approach to effectively answer research questions. In this respect, both quantitative and qualitative findings were considered, leading to comprehension of singular and multiple realities. This epistemological perspective, known as double-faced knowledge, embraced different types of knowledge and suitable methods that best served research objectives (Brierley, 2017).

According to Pragmatism, the teacher is as a facilitator and philosopher who plays the role of assisting learners to construct practical, content, contextual, pedagogical, personal and reflective knowledge (Vintoni et al., 2023). The point here is that, the learning process must be connected with the learner's personal experience so that the knowledge learners get in the learning process will be useful for them in practical life (Vintoni et al., 2023). Hence, English vocabulary was taught based on learners' daily life experiences and knowledge. This assisted learners to attain communicative competence and performance inside and outside the classroom contexts.

3.1.1.2 Ontology

Creswell (2012) states that pragmatism suggests that research should be “intersubjective,” meaning it involves a combination of subjective and objective perspectives, acknowledging both a singular reality and various interpretations of it. Likewise, Kaushik & Walsh (2019) assert that a comprehensive understanding of mixed research requires consideration of both objective and subjective perceptions of reality. Pragmatists believe truth is determined by its utility or its ability to withstand individual testing and scrutiny over time (Baker & Schaltegger, 2015). In line, the researcher acknowledges that Grade 10 learners faced challenges with English vocabulary, but also recognises that each individual had unique perspectives and experiences with it. By taking into account these differing interpretations, the researcher catered for each learner's specific needs.

3.1.1.3 Methodology

The pragmatist paradigm offers researchers flexibility in selecting methods to address research questions, allowing for the use of any method that is effective (Brierley, 2017). This paradigm does not only endorse the adoption of mixed research approaches but also gives researchers the freedom to choose from various methodological options (Creswell, 2014). As a result, multiple data instruments were utilised, both quantitative and qualitative data were generated and diverse approaches for analysing data were utilised to adequately address the research objectives.

3.1.1.4. Axiology

The pragmatic paradigm underscores that researchers should use their values, experiences, beliefs and ideas to strengthen their research not as obstacles in achieving the truth (Maarouf, 2019). Thus, the researcher prioritised the research goals, experiences and values to attain the study's objectives. In line with the discussed pragmatic assumptions, the researcher created practical and engaging English vocabulary lessons that were relevant to students' lives. By adopting this approach, all possible options to maintain the goal of the research were explored. Through pragmatic lens, vocabulary was taught using words that were relevant to students' lives such as those related to their hobbies or interests. Additionally, vocabulary teaching and learning were integrated with other subjects such social sciences to enhance the instructional and learning experiences.

3.2 Research approach

Creswell (2015) outlines research approach as strategies and steps which guide the research process from initial assumptions to specific methods for collecting, analysing and interpreting data. Similarly, Grover (2015) characterises a research approach as the combination of procedures and plans that dictate the overall research process. Thus, three primary research approaches include qualitative, quantitative and a combination of both known as mixed methods (Taherdoost, 2016) This study utilised mixed methods approach.

3.2.1 Mixed methods approach

Mixed methods approach integrates quantitative and qualitative methods to leverage each other's strengths and compliment their shortcomings while simultaneously enabling the combination of both inductive and deductive reasoning (Maarouf, 2019). Unifying the adaptability of qualitative methods with the speed of quantitative approaches aided in the effective development of Grade 10 learners' English vocabulary through utilising word mapping intervention. Creswell (2014) identifies several types of mixed methods research approaches, including convergent parallel, explanatory sequential, exploratory sequential, and embedded mixed methods. Each of these methods offers distinct benefits and drawbacks. Considering the goals and participants of this study, a sequential explanatory mixed methods approach was deemed appropriate.

3.2.1.1 Sequential explanatory mixed methods

The sequential explanatory mixed methods approach involves two distinct phases to data analysis (Barnes, 2019). In the first phase, numerical data was gathered and analysed through statistical techniques. One-group-pre-test-post-test experimental design was utilised in this phase. There was

no control group as the impact of the intervention was assessed by comparison of only the pre-and post-test scores of a single group. Following, it was a second phase where qualitative data was generated to offer additional understanding of the quantitative results (Creswell, 2014). This approach was beneficial as it provided both statistical and descriptive data, offering a comprehensive understanding of how word mapping enhanced Grade 10 learners' English vocabulary development. The diagram below shows how this mixed-methods approach, specifically sequential explanatory mixed methods, was implemented in this study, allowing for a deeper comprehension of the research topic.

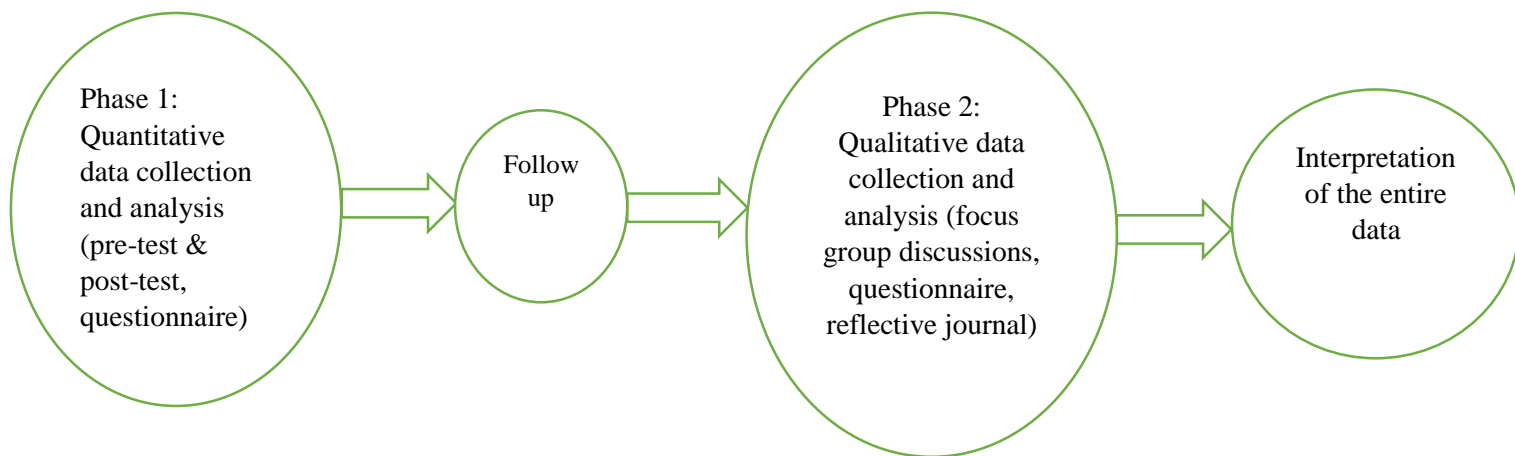


Figure 3.1 Sequential explanatory design: Adapted from Creswell & Creswell (2018)

3.3 Research design

Research design is a comprehensive strategy that incorporates various components of the study in a coherent and systematic way, ultimately allowing researchers to tackle the research problem efficiently (Thukur, 2021). Research designs include action research, correlational, case study and diagnostic research designs (Akhtar, 2016). Action research design was adopted in this research.

3.3.1 Action research

An action research is focused on investigating and addressing a problem simultaneously (Byrnes, 2017). In addition, Bourner & Brook, (2019) highlight that action research involves systematic inquiry, encourages reflection and connects theory with practice. This design was chosen because of its ability to offer practical solutions for immediate issues, rather than recommending long-term solutions based on complex data (George, 2023). Thus, it was vital that the issue of English vocabulary amongst Grade 10 learners was attended immediately through incorporating word

mapping intervention. The action research has various types such as participatory, community-based and practical action research (Stewart, 2024). This study was a participatory action research.

3.3.1.1 Participatory action research

Participatory action research (PAR) aims to investigate and solve an issue with members of communities affected by that research through taking an action (Nelson (2017). On the same vein, Maxwell (2016) explains that a participatory action research involves the collaboration between the researcher and participants to address and improve a challenging situation. In this study, both the researcher and 10th-grade learners investigated the reasons behind their (Grade 10s) limited English vocabulary and worked together to find a solution (word mapping intervention). This design was chosen because it focuses on fostering social change and empowering participants to recognise their situations and take action (Fetters, 2016). Thus, it provided learners with equitable access to knowledge through inclusive epistemological practice. Participatory action research comprises of a continuous cycle of planning, acting, observing and implementing, with the goal of bringing meaningful and beneficial change (Linder et al. 2014). This research adopted Kemmis and Mc Taggart spiral model as shown on figure 3.2.

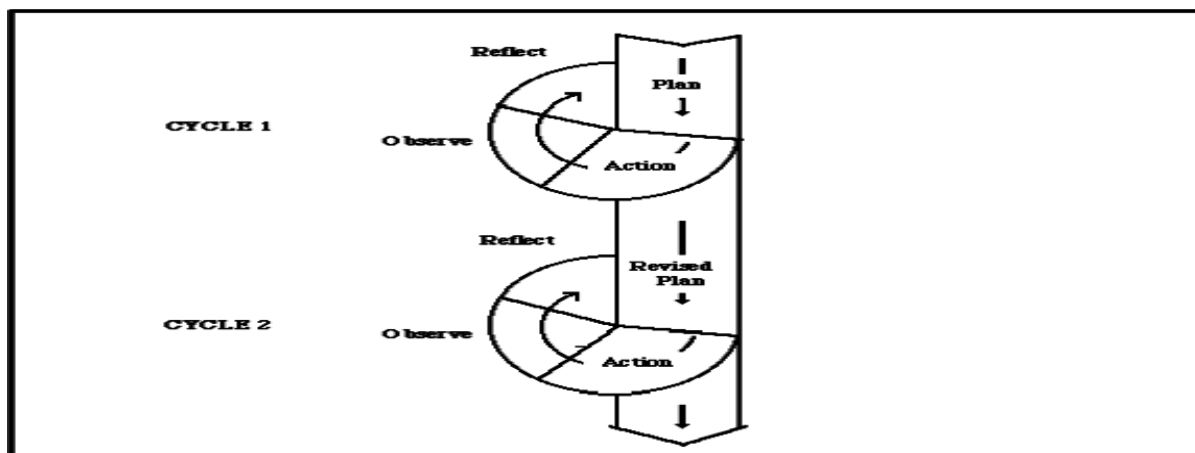


Figure 3.2 Kemmis and Mc Taggart (2005) spiral design

The above figure indicates that in a participatory action research according to Kemmis and Mc Taggart (2005), are two cycles that the researcher has to follow with each cycle consisting of four stages; planning, implementing, observing and reflecting. This design was helpful in ensuring that word mapping intervention was effectively implemented. This being said, the study employed

three distinct phases an action research: diagnostic, transformative and reflective phases following the guidelines of (Thamae, 2023; Makumane, 2018). In the diagnostic phase, the researcher gathers information to understand the problem thoroughly and generate potential solutions, and the transformative phase involves implementing a solution to address the identified problem (Makumane, 2018). Finally, the reflective phase involves evaluating the effectiveness of the implemented solution, reflecting on whether it had successfully transformed the original issue and promoting growth for all the people involved (Thamae, 2023). The process of each phase is illustrated in the section on data generation procedure. The table below illustrates how each research question, using the action research spiral design and data generation methods was addressed.

Table 3.1: Research questions as addressed by spiral design and data generation methods: adapted from Thamae (2023) and Makumane (2018)

| Research question | Action research stage | Data generation method |
|---|-----------------------------|-----------------------------------|
| 1. What factors contribute to the limited English vocabulary of Grade 10 learners? | Plan, observe, reflect | Pre-test, focus group discussions |
| 2. Why do Grade 10 learners employ certain strategies to develop their English vocabulary? | Plan, observe, reflect | Questionnaire |
| 3. How can word mapping be employed to enhance the development of Grade 10 learners' English vocabulary? | Plan, act, observe, reflect | Post-test, reflective journal |
| 4. How does the process of word mapping affect the English vocabulary speaking and writing skills of Grade 10 learners? | Plan, act, observe, reflect | Focus group discussions |

3.4 Population

Population refers to the particular group from which data is intended to be collected (Majid, 2018). This study's population consisted of learners from a public secondary school in Roma, where a decline in English language performance has been observed over the years, motivating the choice of this specific group for investigation.

3.4.1 Sample

Sample is the precise group of units often people that will be asked to take part in a study (Creswell, 2014). Likewise, Creswell & Creswell (2017) clarifies that the sample is meant to represent the larger population from which it is selected, enabling researchers to sometimes make inferences and generalise their results to a wider population. In this case, Grade 10 learners from school X were selected to be a sample of this study.

3.5 Sampling technique

Sampling as described by Bhardwaj (2019) is the process of choosing a segment of a population for a particular research objective. In similar lines, Bertram & Christiansen (2014), postulate that sampling entails selecting individuals, environments, occurrences and behaviours to be incorporated in a particular research. There are two main ways to select a sample for research; probability sampling, where every individual in the population has the same likelihood of being selected, and non-probability sampling, where the chance of selection varies (Etikan et al., 2015). Non-probability sampling methods include convenient, purposive, quota, and snowball sampling, however, the choice of which method to use depends on the nature of the research (Creswell, 2014). In this study, purposive and convenience sampling were utilised.

3.5.1. Convenience sampling

Convenience sampling refers to the selection of participants from the target population based on criteria such as ease of access, proximity, or willingness to take part in a research (Etikan et al., 2016). In this context, learners from School X were selected due to convenient location, making them easily accessible and reducing financial burdens.

3.5.2 Purposive sampling

Purposive sampling involves the researcher selectively picking participants according to the study's objectives and requirements (Cohen et al. 2017). Similarly, Safari & Razmjoo (2016) highlight that in purposive sampling, the researcher chooses individuals or groups to include in the sample based on their own judgment of how typical they are or whether they possess specific

characteristics being sought. This suggests that researchers select participants who can help to meet the research objectives. In this study, I purposively selected Grade 10 learners due to their limited English vocabulary proficiency, and on the basis that they had only one year left to complete their secondary education, making it crucial to improve their English vocabulary before moving on to the final grade. With a low level of English vocabulary, it was deemed essential to enhance their skills to ultimately boost their overall English proficiency and academic performance. Since the school only had a single Grade 10 class, the 32 students in that class served as the participants.

4.6 Research site

School X, located in Roma, is a public secondary school about 40 kilometers from Lesotho's capital, Maseru. Currently, the school only consists of native Basotho speakers, with Sesotho as their L1 and English as their L2. In recent years, the school has experienced a decline in its pass rate, which can be attributed to several factors. These include limited proficiency in ESL, socio-economic challenges faced by most learners and insufficient training among teachers on the new curriculum.

3.7 Data collection methods

The commonly employed data collection methods in a mixed methods research are observations, interviews, focus group discussions, tests, questionnaires and document analysis (Akmese, 2016). Due to the nature of this study, pre-test and post-test, questionnaire, focus group discussions and reflective journal were used.

3.7.1 Pre-test and post-test

Pre-test is a form of assessment conducted on participants before they undergo any form of treatment in a research, whereas a post-test is given to participants following a treatment to evaluate their progress (Budert-Waltz, 2022). This study used pre- and post-tests (appendix 2) to gauge the vocabulary knowledge of 10th-grade learners before and after implementing a word mapping intervention. The pre-test helped to identify areas where students needed improvement, while the post-test measured their vocabulary gains. By comparing the pre- and post-test results, the study was able to create a benchmark for performance analysis and evaluate the effectiveness of the intervention.

3.7.2 Questionnaire

A questionnaire is a written or electronic tool for gathering data through self-reported answers, which can be used to analyse attitudes, opinions, behaviours and experiences of a particular group or population (Kuphanga, 2024). This approach was employed in this research due to its affordability, accessibility, and capability to engage a wide and varied population, allowing for effective collection of extensive insights (Rashid, 2022). Nonetheless, it is crucial to recognise the challenges linked to using questionnaires, including low response rates and possible bias resulting from non-responses (Kuphanga, 2024). To address these potential issues, I took a proactive approach by being present when the learners filled out the questionnaires and carefully reviewed them when they were returned.

Types of questionnaire include structured, unstructured and semi-structured questionnaires (Rashid, 2022). Structured questions have a specific format and a limited number of predetermined response options to ensure consistency in the data collection process, while unstructured questions are open-ended and allow respondents to provide detailed, qualitative responses (Kuphanga, 2024). This study utilised a semi-structured questionnaire (appendix 3). A semi-structured questionnaire is combination of structured and unstructured questions, providing some guidance on the types of answers expected while still allowing for some flexibility (Cleave, 2023). This implies that semi-structured questionnaires offer a unique balance of flexibility, control, and richness of data, making them a valuable tool for researchers seeking for a more profound understanding of their research subject.

3.7.3 Focus group discussions

Focus-group discussions (FGDs) are structured and focused way of gaining an insight on a specific issue with a small group of respondents (Cohen et.al 2017). In agreement, Nondabula, (2020) emphasises that focus group discussions are instruments for data generation that consider the dynamics of a group, allowing researchers to capture the real-life experiences of participants and aiding those who may struggle to express their thoughts effectively. Using focus group discussions (appendix 4 & 5) in this study allowed for a free-flowing conversation, which enabled the researcher to engage with respondents in a more dynamic way, and to address unexpected issues that arose during the discussions. As a result, the study was able to gather comprehensive data that ultimately helped achieve its research objectives. The groups were divided into four groups of eight participants each, allowing for manageable discussions that I could effectively oversee. With

participant consent, I recorded and transcribed the discussions, which enabled insightful comprehension of the data and assisted to preserve the original meaning.

3.7.4 Reflective journal

Reflective journal in research is a personal written account of thoughts, observations and reflections on one's experiences, ideas and learning process during a research project (Ghanizadeh et al., 2020). Bashan & Holsbla (2017) support utilising reflective journals in research because it promotes active learning, critical thinking, self-assessment and self-reflection, allowing researchers to track their progress, identifying challenges and exploring new perspectives. Through the reflective journal (appendix 6), I reflected on significant events that unfolded during the research, which influenced the investigation, shaped relationships with learners and informed instructional practices. In overall, the reflective journal was useful in developing reflexivity, fostering self-awareness, critical thinking, continuous learning and critically examining assumptions and biases, ultimately improving the quality of the research.

3.8 Procedures for data generation

Data generation procedures involve structured approaches to collecting data using various methods and techniques, facilitating a deeper understanding into the research issues (Bhandari, 2020). As such, clearly outlining the methodology for data collection was a critical consideration for the researcher. The data collection period for this study lasted for nine weeks, with the first week dedicated to preliminary research, serving as the foundation for the entire investigation. A preliminary study in research is a small-scale investigation conducted prior to the main study to gather initial data, test research methodologies, interventions and explore the feasibility of the research (Smith et al., 2015).

In the context of this research, the preliminary study assisted the researcher to test the practicability and comprehensibility of the instruments. It was also useful in identifying the real problems of learners in English vocabulary. This was done so that the problems were diagnosed and reduced through implementing word mapping as an intervention strategy. By conducting this preliminary study, I made sure this research was rooted in the needs and experiences of learners, ultimately leading to more meaningful and impactful research outcomes. Following, I proceeded with the main study, which was structured into three stages of an action research: diagnosis, transformative and reflective, as previously outlined.

3.8.1 The diagnostic phase

In this phase, I administered a pre-test to 32 Grade 10 learners. The test consisted of 25 marks, featuring multiple-choice, fill-in-the-blank, matching and true/false questions. This test was aimed to assess learners' prior knowledge of English vocabulary and identify areas where they struggled. This was followed by focus group discussions to get a comprehensive understanding of the factors that contributed to their limited vocabulary. Additionally, a questionnaire was administered to determine whether the strategies used by Grade 10 learners to improve their vocabulary were effective. Overall, this phase was instrumental in pinpointing and examining the difficulties learners were experiencing in English vocabulary, ultimately laying the groundwork for developing effective solutions.

3.8.2 The transformative phase: Implementing word mapping intervention

In this phase, I collaborated with Grade 10 learners to develop their English vocabulary through word mapping, guided by the spiral design framework proposed by Kemmis and McTaggart (2005). This intervention was aimed at addressing the issue of limited English vocabulary that was identified during the diagnostic phase of the study.

3.8.2.1 Cycle I

This research cycle was conducted for three weeks. The process consisted of four key stages: planning, implementing, observing and reflecting following the guidelines of participatory action research as outlined by Kemmis and McTaggart (2005).

(i) Planning: Prior to instruction, I prepared lesson plans, materials and assessments for effective teaching. I also identified the specific English vocabulary to be covered and made arrangements for observation and evaluation.

(ii) Acting/ implementing (teaching and learning process): The concept of word mapping was introduced to 10th-grade learners. I used the chalkboard as a model to demonstrate how to create a word map, focusing on the word “yoghurt”. The students were then provided with printed word map sheets. Through collaborative efforts, the students and I used dictionaries, word maps, smartphone and other materials to explore the meanings of new words. Students also practiced pronouncing, spelling and utilising words in sentences and in various contexts. Learners worked individually and in groups, fostering both independent thinking and cooperative learning. To

reinforce their understanding, I assigned classworks and homeworks, and regularly reviewed the material with them.

(iii) Observing: I closely observed and tracked the implementation of actions to obtain necessary data, and also assessed the effectiveness of the instructional and learning procedures.

(iv) Reflecting: Making a reflection of the cycle 1, I discovered that significant improvements in vocabulary mastery were not yet observed among students. While some learners grasped the concept and could apply it, many struggled to use the learned words in different contexts. Additionally, some learners were not fully engaged in learning, as reflected in the reflective journal. Furthermore, attendance was affected by some students' dismissal due to unpaid school fees or participation in sports events, leaving them behind. Moreover, I realised that using English alone sometimes caused difficulties for students. Lastly, lack of access to reference materials such as dictionaries hindered learners' understanding of new vocabulary. As a result, the study moved on to the next cycle with revisions made to address these challenges.

3.8.2.2 Cycle 2

I carried out this cycle for another three weeks, following the same steps of revised planning, implementing, observing and reflecting, as described by Kemmis and McTaggart (2005).

(i) Revised Planning: I made adjustments by creating revised lesson plans and preparing instructional materials. To support students who were falling behind, I planned to code-switch and facilitate productive discussions to enhance the learning process. Additionally, I prepared for access to structural resources such as dictionaries and offered motivational support.

(ii) Acting/ implementing: I implemented the revised lesson plans and ensured that all students borrowed dictionaries from the school book office. For students who were struggling due to various reasons, individualised attention was provided, using code-switching and encouraging active discussions. Furthermore, I assisted all learners to focus on understanding word meanings and using them in context, rather than just memorising them. The goal was to help learners fully comprehend and apply vocabulary in sentences and diverse contexts. To achieve this, I assisted students with correct pronunciation, spelling and sentence construction. Additionally, the learning approach was tailored to encourage individual and group work, fostering an independent and

interactive environment. Lastly, I emphasised the importance of mastering English vocabulary to boost students' motivation to learn, as many seemed initially unmotivated.

(iii) Observing: I observed and monitored the execution of word mapping to gather the required data, and then assessed the learning process. A post-test was administered to determine whether there was a noticeable improvement and to analyse the impact of the implemented intervention on Grade 10 learners' English vocabulary development.

(iv) Reflecting: The effectiveness of the instructional and learning procedures was assessed through a review of the entire cycle, including the post-test results and insights from the reflective journal. The outcome showed that all students not only comprehended the concept of word mapping but also demonstrated the skills to utilise their knowledge of English vocabulary in different contexts, both in writing and verbally.

3.8.3 The reflective phase

The last phase of this research was a reflective phase, where the learners and I took time to think deeply about the experiences and analysed the outcomes. This involved utilising descriptive statistics to compare the pre and post- test scores. Focus group discussions with Grade 10 learners were also conducted to gain insights into their performance after implementing the word mapping technique. The goal was to determine whether the technique had successfully enriched the learners' limited English vocabulary, as identified earlier in the diagnostic phase. Through this reflective process, valuable learning and growth experiences were gained.

3.9 Methods of data analysis

Data analysis is a procedure for condensing and analysing vast quantities of data into meaningful insights (Harding & Whitehead, 2020). To effectively analyse data, I employed a mix of quantitative and qualitative analysis techniques, following sequential explanatory approach.

3.9.1 Quantitative data analysis

The study incorporated descriptive statistical analysis utilising Statistical Package for Social Science (SPSS) software version 16.0. Creswell (2014) states that descriptive statistics describe the key characteristics of a dataset, such as mean, mode, median, range and standard deviation. In this study mean, standard deviation, percentages and frequencies were calculated.

3.9.2 Qualitative data analysis

Qualitative data was analysed through inductive thematic analysis using ATLAS.ti program. Inductive thematic analysis encompasses recording or noting sections of written material that are interconnected through a common theme (Jnanathapaswi, 2021). Braun (2019) outlines a systematic approach to thematic data analysis, which involves familiarising oneself with the data, coding relevant features, identifying patterns, generating themes, analysing and labelling those themes, then showing the results in a report. In the study, data was thematised according to research questions. I started by familiarising myself with the data and searching for underlying patterns. To ensure a thorough analysis, I reviewed a large number of participants' responses for each code and theme, resulting in a detailed representation of the data. Next, I validated the established themes by grouping similar data together and naming them. Finally, I compiled the results by carefully examining each theme to identify connections and gather relevant data for each individual theme.

3.10 Trustworthiness and Rigor

Due to the mixed methods nature of this research, trustworthiness and rigor are used interchangeably. Trustworthiness is the assurance in the accuracy of the data, analysis and approaches used to maintain the integrity of the research (Polit & Beck (2020). The main principles of trustworthiness include credibility, dependability, confirmability and transferability (Connelly, 2016). Conversely, precision of a quantitative research known as rigor, is determined by the thoroughness of its planning, data collection, analysis and reporting and is associated with validity, reliability, objectivity and generalizability (Alele & Malau-Aduli, 2023).

3.10.1 Credibility/ Validity

In qualitative research, credibility pertains to how accurate the study delves into its intended subject matter and truthfully portrays the occurrences in the field (Cowan, 2017). In this study, it was attained by providing a thorough explanation of the research process using relevant concepts from the literature and direct quotes from interviews mostly known as a "chain of evidence" (Denzin & Giardina, 2017). In quantitative research, validity refers to how correctly a measure or study assesses the intended variables (Alele & Malau-Aduli, 2023). This study ensured the validity of its findings by examining internal and construct validity. Internal validity pertains to the study's capability to demonstrate a cause-and-effect relationship between the independent and dependent variables (Cohen et al., 2017).

In this research, internal validity verified that the enhancements in English vocabulary development among Grade 10 learners were directly caused by the employment of word mapping. This was observed from the results of the pre- and post-test assessments which were conducted to isolate the true effect of the intervention. On the other hand, construct validity guarantees that a test effectively measures the specific concepts it is designed to assess (Bhandari, 2023). Thus, word mapping intervention effectively measured its intended goal, which was to improve language proficiency and vocabulary skills. Other measures which were taken to generally address validity include triangulation, use of validated data instruments, data analysis softwares such as SPSS and ATLAS.ti, as well as transparency and openness.

3.10.2 Dependability/ Reliability

In qualitative research, dependability entails having a well-defined and detailed research procedure that enables others to duplicate the study and obtain comparable results (Rennie, 2014). In this study, dependability was accomplished by providing thorough and explicit explanations of each step of the research following the guidelines of (Rennie, 2014). Reliability in quantitative research focuses on the stability and consistency of the measure or ability of the measure to reproduce a consistent result over time (Alele & Malau-Aduli, 2023). The internal consistency reliability of the English vocabulary tests was measured through Kuder-Richardson (K-R-20) formula. The reliability of this formula ranges from 0 to 1, with 0 indicating no reliability and 1 high reliability (Bobbitt, 2022). In this study, the reliability of the pre-test measured through KR-20 was 0.54 indicating enough reliability, and the post-test's reliability was 0.72 demonstrating high reliability.

3.10.3 Confirmability/ Objectivity

Confirmability in qualitative studies includes ensuring that the findings accurately represent perspectives and experiences of the individuals involved in the study (Creswell, 2012). Jwan & Ong'ondo (2021) underscore the significance of providing evidence throughout the research process to ensure confirmability which include during data collection, organisation, analysis and interpretation. This was a case in the current study. In quantitative studies, it is vital that researchers maintain objectivity and prevent their values, beliefs, biases and prejudices to influence the results (Reiss & Sprenger, 2014). Thus, in conducting this study, I remained separated from the opinions of the participants and prominently showcased my own perspectives and interpretations to provide a clear understanding of my subjective assessments of the data.

3.10.4 Transferability/ Generalizability

Transferability in qualitative research has to do with how applicable or relevant the research findings are comparable to situations or groups rather than to more generalised settings (Stahl & King, 2020). This can be accomplished through providing detailed descriptions of the results of the study, methods of gathering data and study's participants (Connelly, 2016). This study facilitated the transferability of findings by providing detailed descriptions of the population, participants and analytical methods, allowing for the application of the findings within a specific context. In quantitative research, generalizability is the application of the results and conclusions to a larger population based on a sample taken from that population (Nikolopoulou, 2022). Thus, generalizability was not utilised in this study.

3.11 Ethical considerations

In accordance with Bhandari (2021) ethical considerations in research are principles that inform research methods and conduct. Arifin & Roshaidai (2018) underscore the necessity of prioritising ethical research practices, especially when human participants are involved as they are integral to many research studies. Hence, I followed necessary ethical protocols in this research.

3.11.1 Permission to conduct the research

When conducting research involving individuals from a specific organisation or institution, the researcher must obtain permission from the relevant authority (Dooly et al., 2017). In my case, I received approval from my faculty to carry out this research. I also informed the principal of school X about my research project, who then allowed me to conduct it.

3.11.2 Informed consent

Consent in a research is very crucial as failure to obtain it from participants or from parents/guardians of participants constitutes a breach of research ethics guidelines (David & Resnik, 2015). Through the informed consent process, participants were informed about my identity, the study's purpose, my contact information, any potential risks or benefits and assurance that their data would be kept confidential and anonymous, as recommended by academic guidelines of (Fleming & Zegwaard, 2018). Since the participants in this study were between 15 and 17 years, which is considered a minor age group, parental/guardian consent was obtained (appendix 1) as suggested by (Fleming & Zegwaard, 2018).

3.11.3 Confidentiality and Anonymity

To protect the confidentiality and anonymity of the school and participants, I utilised pseudonyms following the guidelines of (Creswell, 2018). I referred to the school as *school X* and the participants as *learner 1-32* to ensure that their identities remained unknown and untraceable.

3.11.4 Voluntary participation and freedom to withdraw from the study

As stipulated by Fleming & Zegwaard (2018), participants should be free to engage in the research of their own volition, without any pressure. As a result, all participants in this study chose to participate voluntarily. Additionally, they were clearly informed of their right to decline participation or withdraw at any time without facing any negative consequences, even if their parents or guardians had signed the consent forms.

3.11.5 Academic integrity and plagiarism

ASHA (2018) postulates that it is crucial for researchers to avoid and prevent fraudulent practices, particularly plagiarism, in order to maintain the integrity and credibility of scientific inquiry. Plagiarism is an unauthorised use of another person's writings, putting them as one's own and it is considered a serious offense in academia (Dhammi & UI Haq, 2016). Hence, in this study, I made concerted effort to ensure that the data was accurately presented in its true form. I also acknowledged the sources of information and ideas that were not mine to maintain transparency and academic integrity. Additionally, I used Turnitin plagiarism software to detect potential instances of plagiarism. The resulting similarity index is included in the appendices section (appendix 7).

3.12 Conclusion

This chapter outlined the research methodology employed in this study. The chapter began by describing the pragmatist paradigm and the mixed-methods approach used, which involved a sequential explanatory design. It further discussed participatory action research design which was incorporated in this study. Purposive and convenience sampling were also indicated as the chosen sampling techniques. Furthermore, the population, sample and research site were clearly defined. The chapter also outlined the data collection methods, including tests, questionnaire, focus group discussions, and reflective journal. It again clarified the procedures for data generation and data analysis methods, which involved descriptive and thematic analysis. Finally, it addressed issues of trustworthiness and rigor, as well as ethical considerations. Chapter 4 delves into data analysis, presentation and interpretation.

CHAPTER 4: DATA ANALYSIS, PRESENTATION AND INTEPRETATION

4.0 Introduction

The previous chapter discussed this study's methodology. This chapter shifts its focus to analysing, presenting and interpreting the data collected from pre-test and post-test assessments, questionnaire, focus group discussions and reflective journal. On the basis that this study is a participatory action research, the results and findings are presented in three phases; diagnostic, transformative and reflective. The analysis also aligns with the research questions put forth:

1. What factors contribute to the limited English vocabulary of Grade 10 learners?
2. Why do Grade 10 learners utilise certain strategies to develop their English vocabulary?
3. How can word mapping be employed to enhance the development of Grade 10 learners' English vocabulary?
4. How does the process of word mapping impact the English vocabulary speaking and writing skills of Grade 10 learners?

This research utilised a sequential explanatory mixed-methods approach, where data was generated in two phases. First, quantitative data is presented, followed by qualitative data that provides further insight and explanations for the quantitative findings. The chapter begins by indicating the biographic information of research participants which was essential for obtaining a more profound understanding into the data.

4.1 Biographic information of the research participants

This section offers a concise summary of the participants' background information, focusing on their age and gender. The study involved 32 Grade 10 learners from a single public secondary school, who were the subjects of the research.

Table 4.1. Age of the learners' participants

| Learners' age | Frequency(f) | Percentage(%) |
|---------------|--------------|---------------|
| 15 | 11 | 34.4 |
| 16 | 18 | 56.3 |
| 17 | 3 | 9.3 |
| Total | 32 | 100 |

Table 4.1 indicates that most of the participants, a staggering 56.3%, were aged 16 years old, with 18 respondents falling within this age bracket. This is closely followed by those who were 15 years old, with 11 respondents making up 34.4% of the total sample. Only a small percentage, 9.3%, were aged 17 years old, with just three respondents falling within this age range. It was essential to gather data on the age of the participants to ensure that they were within the suitable age range for secondary school learners.

Table 4.2. Gender of learners' participants

| Learners' gender | Frequency(f) | Percentage (%) |
|-------------------------|---------------------|-----------------------|
| Female | 21 | 66 |
| Male | 11 | 34 |
| Total | 32 | 100 |

Table 4.2 demonstrates that majority of the participants were females (21) 66% while (11) 34% were males. While there was a slight imbalance in the gender distribution (more females than males), both genders were represented in this study.

4.2 The diagnostic phase

The diagnostic phase was a crucial step in identifying the root causes of limited vocabulary among Grade 10 learners, ultimately informing the creation of word mapping activities designed to address these issues. It was further concerned with exploring the methods that learners used to enhance their vocabulary, with a focus on whether these strategies helped or hindered their vocabulary growth. As such, research questions 1 and 2 were explored during this phase.

4.2.1 RQ1: What factors contribute to the limited English vocabulary of Grade 10 learners?

The primary purpose of this question was to identify the primary reasons behind the limited English vocabulary of Grade 10 learners. To achieve this, a pre-test was administered to the learners. The results were utilised as a springboard for focus group discussions, which provided a detailed examination of the underlying factors that lead to their limited vocabulary and subsequent poor performance on the pre-test.

4.2.1.1 Quantitative phase: Results of the pre-test

The study began with a quantitative phase, where pre-test data was collected and analysed. To determine the baseline knowledge of Grade 10 learners' English vocabulary, a pre-test was administered to 32 students. The table below shows the pre-test scores achieved by the learners.

Table 4.3. Learners pre-test scores

| Learner | Score (%) |
|----------------|------------------|
| Learner 1 | 20 |
| Learner 2 | 24 |
| Learner 3 | 36 |
| Learner 4 | 62 |
| Learner 5 | 40 |
| Learner 6 | 28 |
| Learner 7 | 32 |
| Learner 8 | 36 |
| Learner 9 | 64 |
| Learner 10 | 24 |
| Learner 11 | 22 |
| Learner 12 | 40 |
| Learner 13 | 30 |
| Learner 14 | 44 |
| Learner 15 | 40 |
| Learner 16 | 24 |
| Learner 17 | 46 |
| Learner 18 | 60 |
| Learner 19 | 26 |
| Learner 20 | 30 |
| Learner 21 | 48 |
| Learner 22 | 42 |
| Learner 23 | 32 |
| Learner 24 | 26 |

| | |
|--------------|------|
| Learner 25 | 50 |
| Learner 26 | 34 |
| Learner 27 | 40 |
| Learner 28 | 42 |
| Learner 29 | 24 |
| Learner 30 | 48 |
| Learner 31 | 46 |
| Learner 32 | 52 |
| TOTAL | 1212 |

Table 4.3 indicates the score that each learner obtained in a pre-test. The scores ranged from 20% (lowest score) to 64% (highest score) and the total score (sum) was 1212. This pre-test data provided a baseline for measuring learners’ performance and identifying areas where instruction and support was needed to help them enrich their English vocabulary. Therefore, based on the lower scores and sum obtained, it was evident that learners English vocabulary was limited.

Figure 4.1 Frequency of learners ’pre-test scores

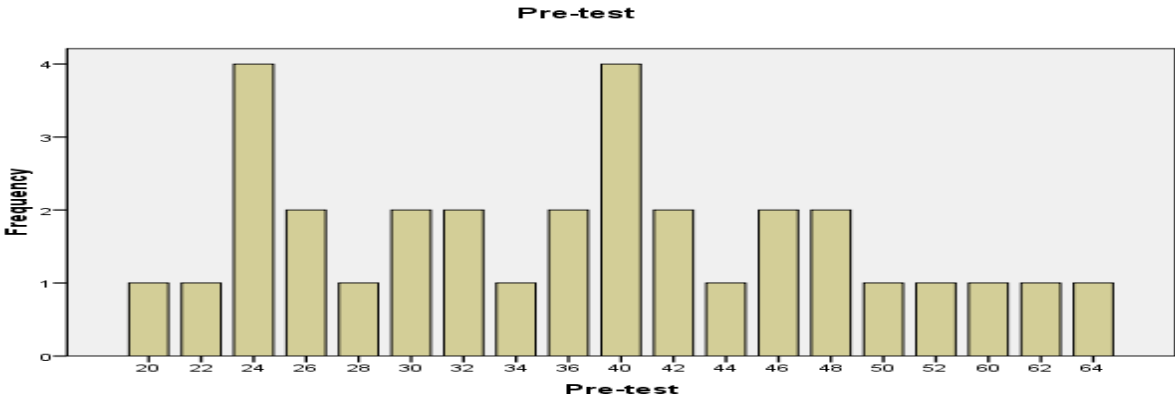


Figure 4.1 indicates the frequency of the scores that learners obtained in the pre-test. These frequencies are summarised as follows: 20 and 22: 1 learner each, 24 :4 learners, 26: 2 learners, 28: 1 learner, 30 and 32: 2 learners each, 36, 42 and 44: 2 learners each, 46 and 48: 1 learner each, 49: 4 learners, 50, 52, 60, 62 and 64: 1 learner each. These results indicate that the distribution of scores was quite diverse, with no dominant score or group of scores. The presence of singletons

suggests that many learners performed uniquely or differently from one another. The pairs and quads indicate that some learners performed similarly or close to others. The majority of learners scored between 20-44, while the remaining scores are scattered between 46-64. This distribution implies that the learners had varying levels of knowledge or understanding before the intervention but they shared a common issue of low performance (below 70%).

Table 4.4 Classification of learners’ pre-test scores

| Score range | Category | Frequency | Percentage(%) |
|-------------|-----------|-----------|---------------|
| 90-100 | Excellent | 0 | 0 |
| 80-89 | Very good | 0 | 0 |
| 70-79 | Good | 0 | 0 |
| 60-69 | Average | 3 | 9.4 |
| 50-59 | Poor | 2 | 6.3 |
| ≤49 | Very poor | 27 | 84.3 |
| Total | | 32 | 100 |

Table 4.4 above shows the classification of learners’ pre-test scores prior. None of the learners scored 90-100 (excellent), 80-89 (very good) or 70-79 (good). 27 learners scored 49 or below (very poor), indicating a significant proportion of learners with very limited knowledge of English vocabulary. 2 learners scored between 50-59 (poor) and 3 scored 60-69 (average). The concentration of lower scores indicates that none of learners had a strong foundation in English vocabulary and were struggling to demonstrate basic understanding of the English vocabulary. This is a significant concern, as vocabulary development is a fundamental aspect of language learning. These results provided a strong justification for the use of a vocabulary intervention (word mapping) to support their English vocabulary development.

4.2.1.2 Qualitative phase: Findings of the focus group discussions

The qualitative data collection phase aimed to build upon the initial quantitative results by providing a richer understanding of the learners’ poor performance, which was likely attributed to their limited English vocabulary. The focus group discussions, divided into four groups (A, B, C, and D), revealed five key factors that contributed to the learners’ limited English vocabulary. These factors were then grouped into themes through inductive thematic analysis using ATLAS.ti software as shown in Figure 4.2.

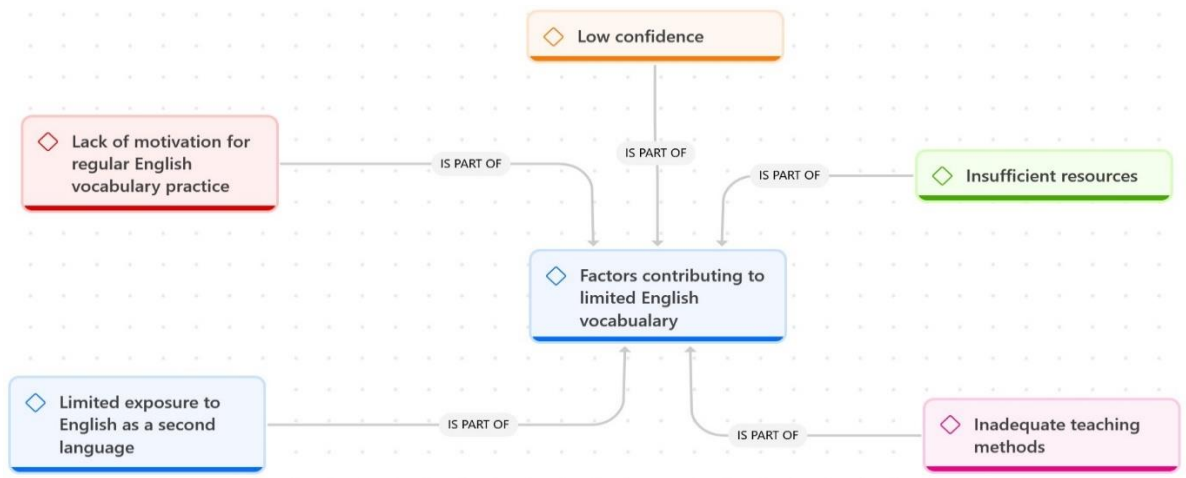


Figure 4.2 Factors contributing to limited English vocabulary

Figure 4.2 above highlights a significant issue in the ESL learning process for Grade 10 learners, which was the limited vocabulary they possessed. The diversity of factors contributing to this problem indicates that it was a complex issue that was not attributed to a single cause, but a combination of many factors. These included low confidence, lack of motivation for regular English vocabulary practice, limited exposure to English language, insufficient resources and inadequate teaching methods. These findings imply that learners’ limited English vocabulary was a multifaceted issue that required a comprehensive approach to address. Consequently, resolving this problem required a strategy that involved both researcher-led instruction and student-centered practices. The subsequent figures indicate learners’ responses on each factor.

4.2.1.2.1 Low confidence

The figure below depicts learners’ responses on low confidence.



Figure 4.3 Low confidence

The data in Figure 4.3 indicates that low confidence was a significant factor contributing to the limited English vocabulary of Grade 10 learners. In their responses, these learners mentioned that they lacked confidence in using English vocabulary due to fear of making mistakes and being ridiculed by their classmates if they used words incorrectly. These learners' fear of making mistakes in using English vocabulary suggests that they were concerned about being corrected or judged by their peers. This fear also led to a reluctance to take risks and experiment with new vocabulary, thus limiting their exposure to and acquisition of new words. Moreover, their fear of being laughed at by their classmates if they used English words incorrectly highlights the social pressures and stigma associated with English language learning. This created a sense of anxiety and self-consciousness, which further eroded their confidence in using English vocabulary.

4.2.1.2.2 Lack of motivation for regular English vocabulary practice

Figure 4. 4 highlights how learners' responded on the factor of lack of motivation for regular vocabulary practice.

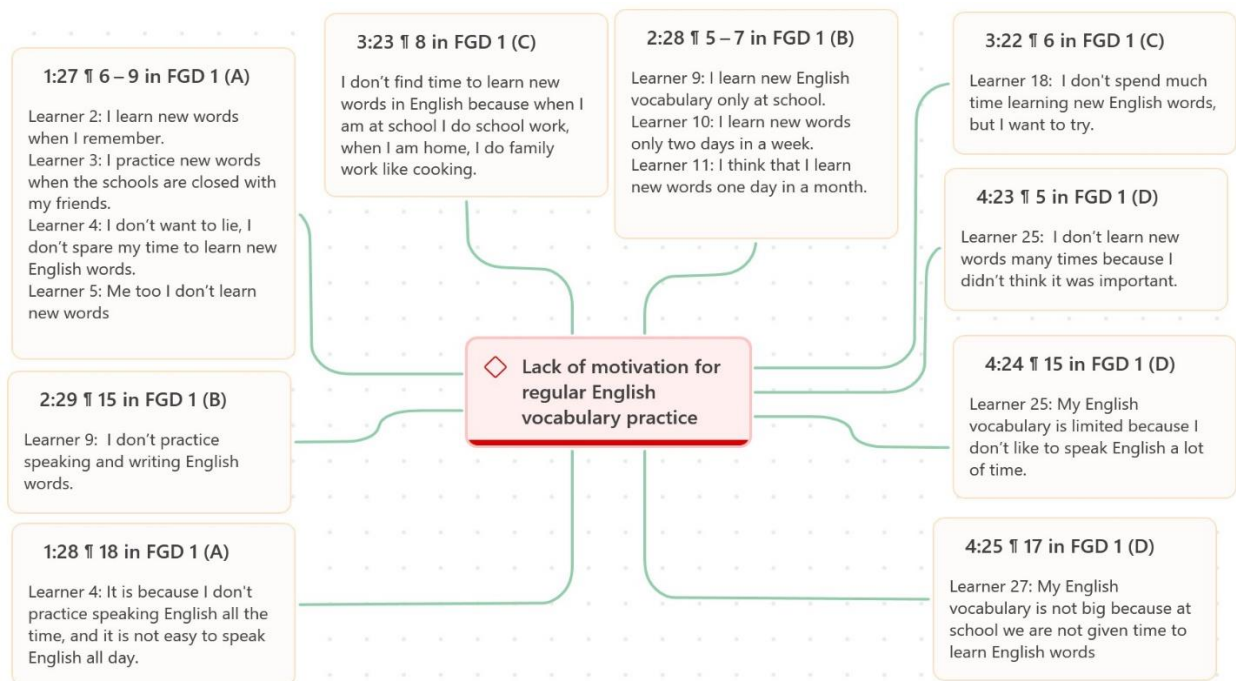


Figure 4.4 Lack of motivation for regular English vocabulary practice

Based on the details presented in Figure 4.5, it is clear that a significant number of learners reported that their limited English vocabulary was due to a lack of motivation for regular English vocabulary practice. This suggests that motivation is a vital factor in ESL learning, particularly when it comes to vocabulary acquisition. Furthermore, the learners' statements showing that they did not spare time to learn and practice English vocabulary implies that they lacked a sense of purpose in their language learning endeavours. Therefore, it was crucial that I assisted them to set specific, achievable English vocabulary goals and provided regular feedback on their progress.

4.2.1.2.3 Limited exposure to English language

As indicated in the figure below, some learners shared same sentiments on the limited exposure to English language. Their responses are illustrated as follows;

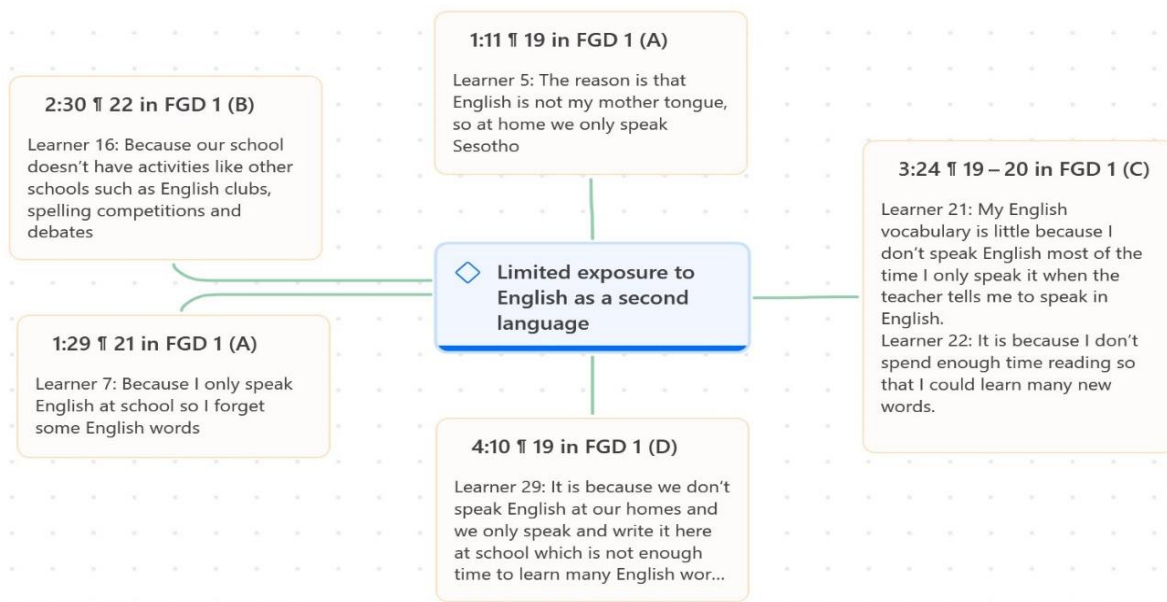


Figure 4.5 Limited exposure to English language

The findings from figure 4.5 show that a significant portion of learners struggled with developing their English vocabulary due to limited exposure to the language. This was due to the fact that they do not speak English regularly outside of school, as it is not their native language. This means that they were not being regularly immersed in the language, which hindered their ability to develop and expand their vocabulary. It appears that, this lack of exposure led to a decline in proficiency and fluency, making it more challenging for them to develop their vocabulary. The additional challenge mentioned by some learners was lack of reading English materials. Without access to

reading materials in English, these learners did not have opportunities to encounter new vocabulary and grammar structures, which are essential for language development.

4.2.1.2.4 Insufficient resources

Figure 4.6 highlights learners' responses with regards to insufficient resources as a factor contributing to their low English vocabulary.

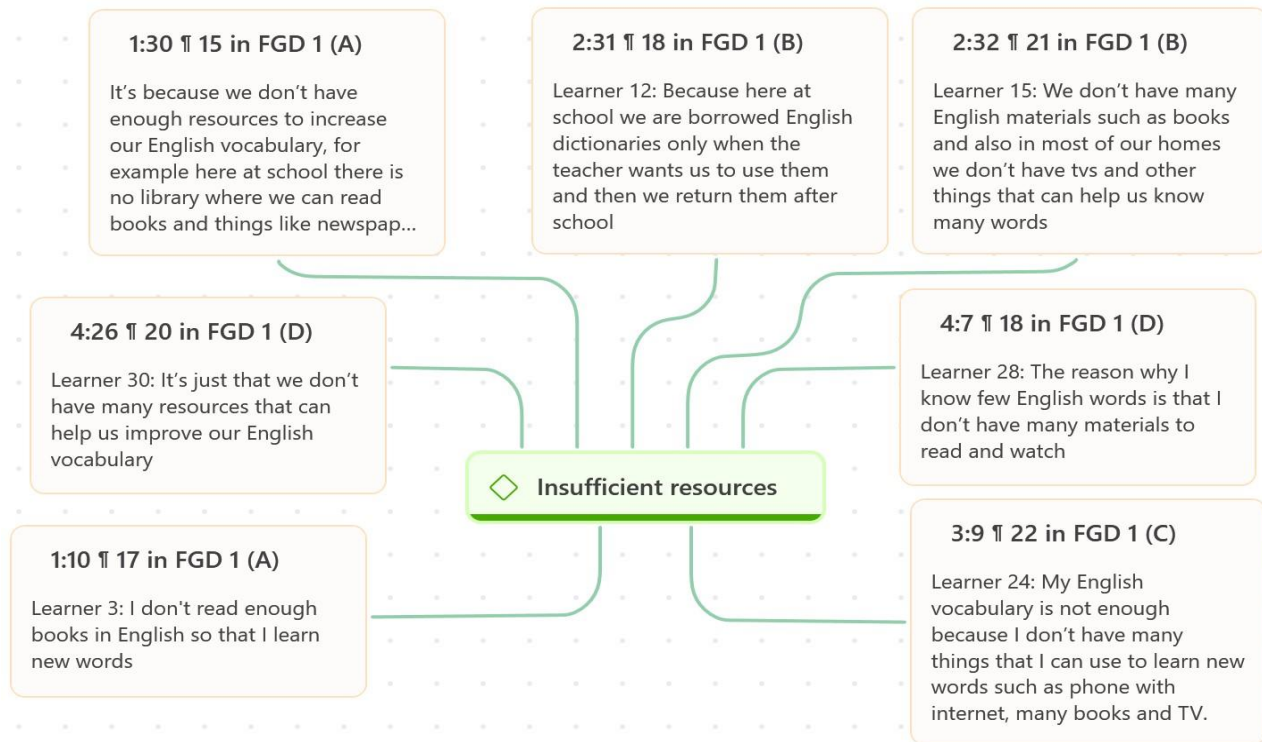


Figure 4.6 Insufficient resources

Drawing from the responses of learners from figure 4.6, it is evident that insufficient resources hindered their development of English vocabulary. These learners outlined that they did not have sufficient resources such as books, televisions and smart phones to enhance their vocabulary. Learners further revealed that their school does not have a library where they can access reading materials. It is undebatable that the absence of a library in the school deprives learners of a crucial source of reading materials that could aid vocabulary development. This emphasises the importance of providing adequate resources and infrastructure to support language learning.

4.2.1.2.5 Inadequate teaching methods

Figure 4.7 demonstrates different responses of learners on the inadequate teaching methods as a factor contributing to their limited English vocabulary.

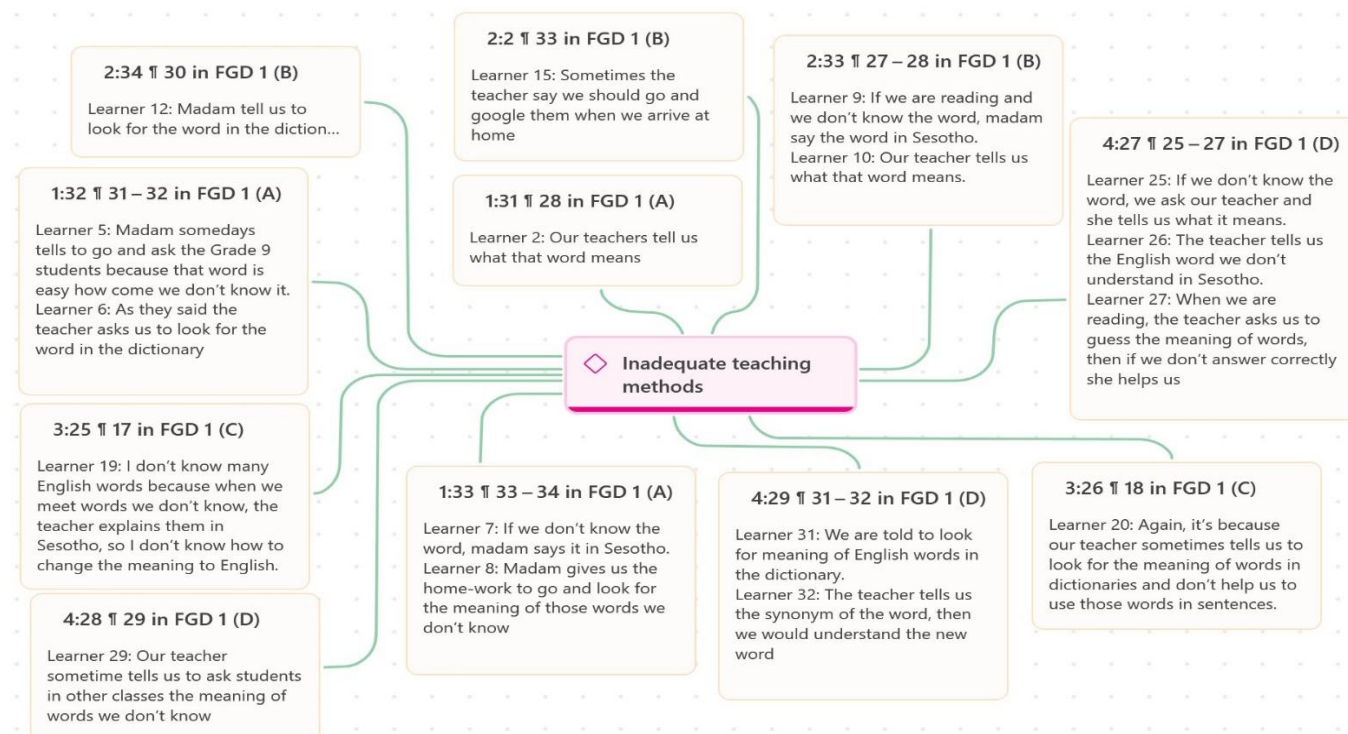


Figure 4.7 Inadequate teaching methods

As Illustrated in Figure 4.7 above, learners grappled with the teaching methods employed by their teachers in relation to English vocabulary. To be precise, these learners stipulated that when they do not know the word, their teacher ask them to look it in the dictionary, google it or tells them what the word means in their L1(Sesotho). They further stated that their teacher tells them to ask others what the word means. This information indicates that students believed these approaches were ineffective in aiding their comprehension and acquisition of new vocabulary. This may be due to several reasons including lack of access to dictionaries or online resources. Moreover, telling learners the word's meaning in their native language or asking them to look it up may not provide sufficient context for understanding the word's meaning and usage in English. In addition, relying solely on asking other students what a word means may not provide accurate information.

In alignment with the presented qualitative findings for this research question, low confidence, lack of motivation for regular English vocabulary practice, limited exposure to English language, insufficient resources and inadequate teaching methods emerged as the factors that contributed to Grade 10 learners' limited English vocabulary. These findings provided an indepth understanding of the quantitative data which demonstrated low performance of learners in the pre-test.

4.2.2 RQ2: Why do Grade 10 learners utilise certain strategies to develop their English vocabulary?

The primary goal of this research question was to identify the techniques that Grade 10 learners used to develop their English vocabulary. A semi-structured questionnaire was employed to gather both numerical and descriptive data on whether the strategies students reported using helped or hindered their vocabulary development.

4.2.2.1 Quantitative phase: Results of the structured questions of a questionnaire

The questionnaire started with a series of structured questions to gather numerical data on the strategies that learners employed to build their vocabulary. The following table summarises the responses provided by the learners for each question.

Table 4.5 summary of learners' responses on structured questions

| Question | Yes | | No | |
|--|----------------------|-----------------------|----------------------|----------------------|
| | Frequency (f) | Percentage (%) | Frequency (f) | Percentage(%) |
| 1. Do you believe vocabulary is important in your ESL learning? | 29 | 91 | 3 | 9 |
| 2. Do you engage in English vocabulary activities outside the class? | 27 | 84 | 5 | 16 |
| 3. Are there any strategies that you have found particularly effective in learning and retaining new vocabulary? | 10 | 31 | 22 | 69 |

| | | | | |
|--|-----------|----|-----------|-----|
| 4. Have you used any multi-sensory approaches to learn English vocabulary? | 9 | 28 | 23 | 72 |
| 5. Have you ever heard or utilised word mapping strategy to develop your English vocabulary? | 0 | 0 | 32 | 100 |
| Mean (\bar{x}) | 15 | | 17 | |

The table above shows that structured questions were administered among 32 Grade 10 learners to comprehend the techniques they employed to enhance their English vocabulary. Five yes or no questions were asked to gather responses. The results highlighted that most learners (91%) agreed that vocabulary is important in English language learning, while only 9% disagreed. When asked if they engaged in vocabulary activities outside the classroom, 84% of learners said yes and 16% said no. However, only 31% of learners reported finding effective strategies for improving their vocabulary, while 69% did not. The majority of learners (72%) had not used multi-sensory approaches to learn vocabulary, and none of the learners reported using word mapping strategies to develop their vocabulary. The analysis finally revealed that the mean of “yes” answers was lower (15) than the mean of “no” answers (17).

To obtain a deeper insight into how 10th-grade learners expanded their English vocabulary, it was essential to supplement quantitative data with qualitative data. This involved asking unstructured questions to gather learners’ perspectives on their strategies for improving vocabulary and how these approaches affected their performance, particularly in light of the issues that emerged during the pre-test and focus group discussions.

4.2.2.2 Qualitative phase: Findings of the unstructured questions of a questionnaire

This section of the questionnaire sought to comprehend the strategies Grade 10 learners used to improve their English vocabulary, building on the findings from the structured questions. The responses of learners were thematised through ATLAS.ti program and six key distinct approaches emerged which are visually represented in Figure 4.8.

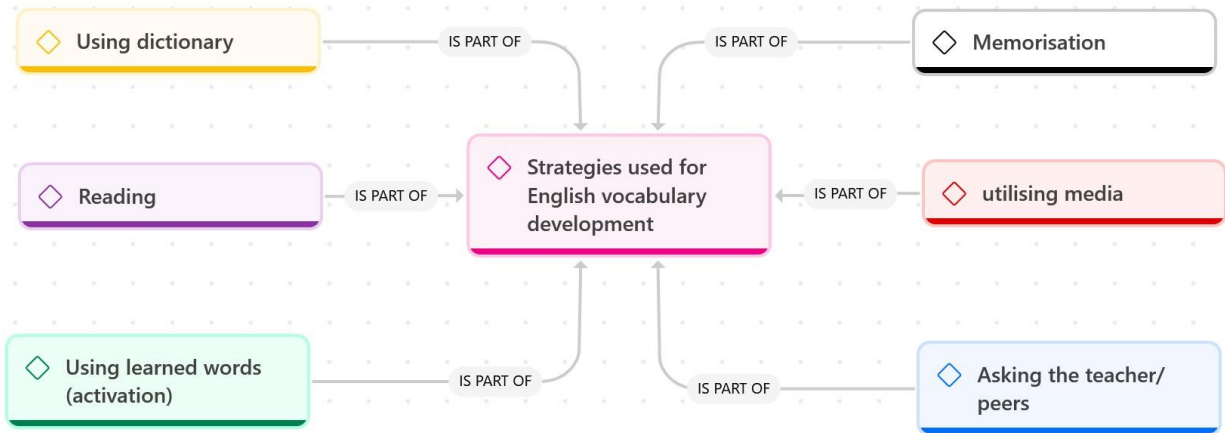


Figure 4.8 Strategies employed for English vocabulary development

As depicted in Figure 4.9, Grade 10 learners used a range of techniques to expand their English vocabulary, such as using dictionary, memorisation, reading and utilising media. The analysis indicates that learners used a combination of top-down and bottom-up approaches to develop their vocabulary. This analysis further highlights the importance of a multifaceted approach to vocabulary learning, which acknowledges the various needs and learning preferences of students.

4.2.2.2.1 Using dictionary

Figure 4.9 displays the opinions of learners on the use of dictionaries.

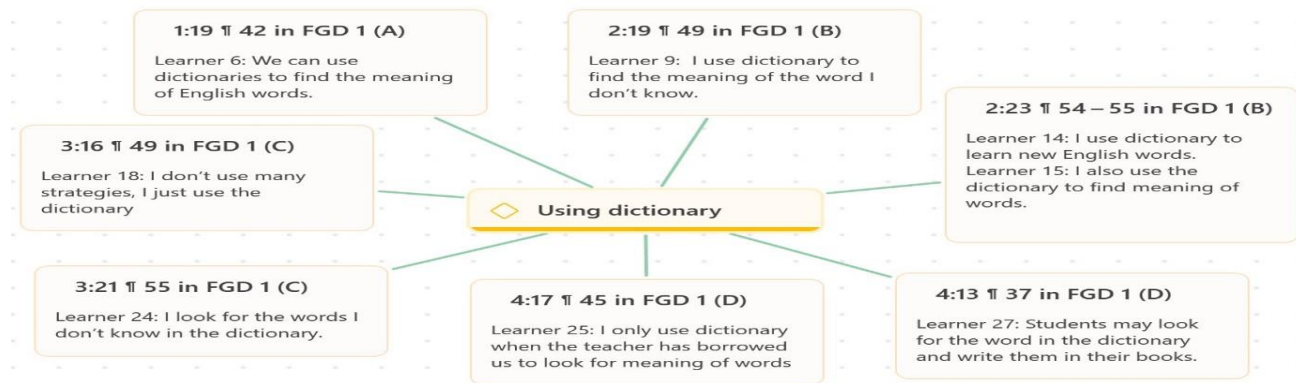


Figure 4.9 Using dictionary

Figure 4.10 shows that a significant number of learners used dictionaries to enhance their English vocabulary. Dictionary utilisation is a common strategy for learners to improve their vocabulary as they are reliable sources of word meanings, pronunciation and usage examples, which can help learners expand their vocabulary. While dictionaries remain a valuable tool for learning English vocabulary, their limitations cannot be ignored. For instance, relying solely on dictionaries can

lead to passive learning, where learners memorise definitions without actively engaging with the language. This can lead to a lack of understanding of word relationships, leading to poor recall and application in real-life situations. Ultimately, the impact of using dictionaries to learn English vocabulary depended on how effectively these learners integrated it into their learning routine.

4.2.2.2.2 Reading

The below figure indicates learners' responses in relation to reading as a strategy for their English vocabulary development.

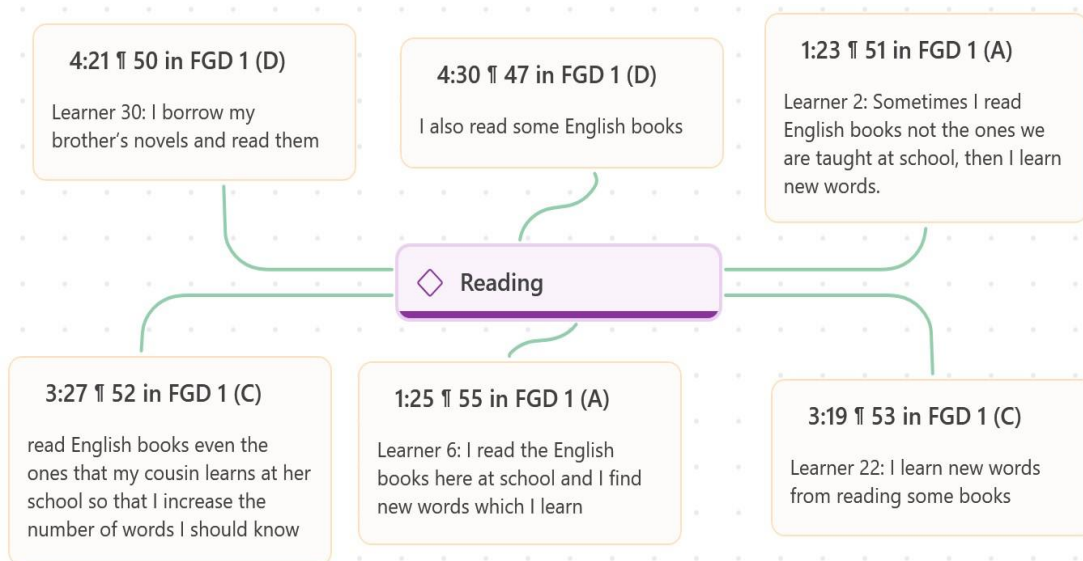


Figure 4.10 Reading

Figure 4.11 shows that reading was one of the strategies that Grade 10 learners utilised to develop their English vocabulary. Learners showed that they read English books and novels to enrich their English vocabulary development. Using different types of reading materials by learners indicated individual differences in learning styles, interests or motivations. As a result, these differences were considered when designing instruction and providing recommendations for supplementary reading materials.

4.2.2.2.3 Memorisation

Among the strategies that Grade 10 learners employed to develop their English vocabulary was memorising words. Their responses are depicted in the following diagram;

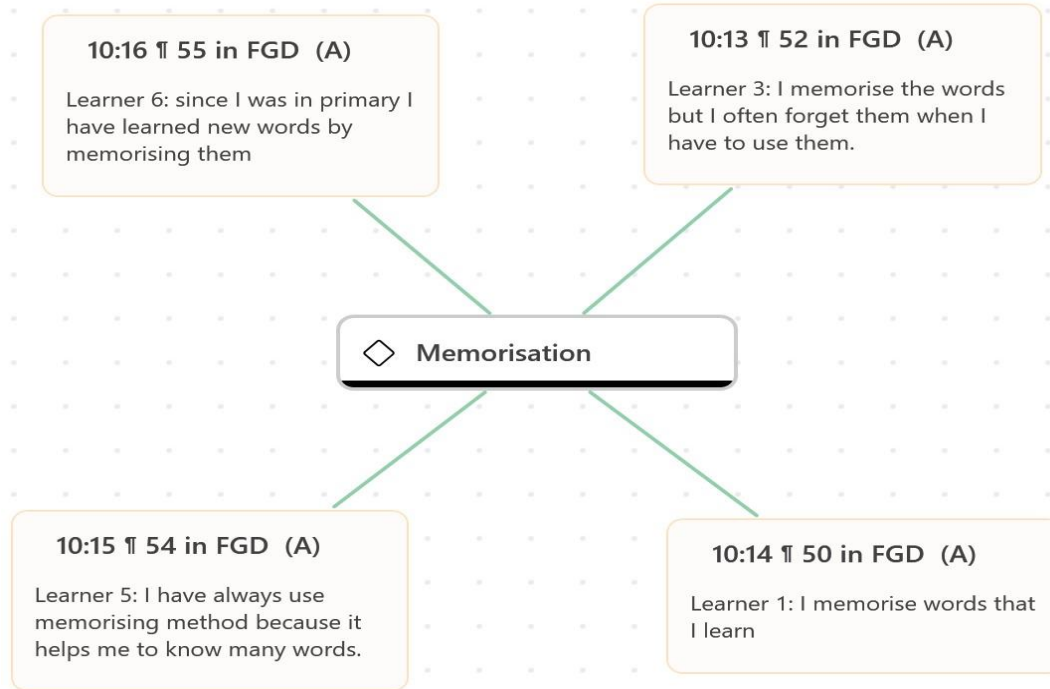


Figure 4.11 Memorisation

Based on figure 4.12, learners used memorisation to develop their English vocabulary. The learners in question stated that they memorised new words they learned and tried as much as they could not to forget them. This suggests that these learners relied heavily on rote memorisation to learn new words, rather than understanding their meanings, contexts or relationships. While memorisation can be a useful strategy for short-term retention, it may not lead to deeper comprehension or long-term retention of vocabulary. By being aware of the overreliance on memorisation, there was an adaption of teaching methods to promote more effective and sustainable vocabulary acquisition strategies in this study.

4.2.2.2.4 Utilising media

The following figure demonstrates how learners responded to using media in learning English vocabulary.

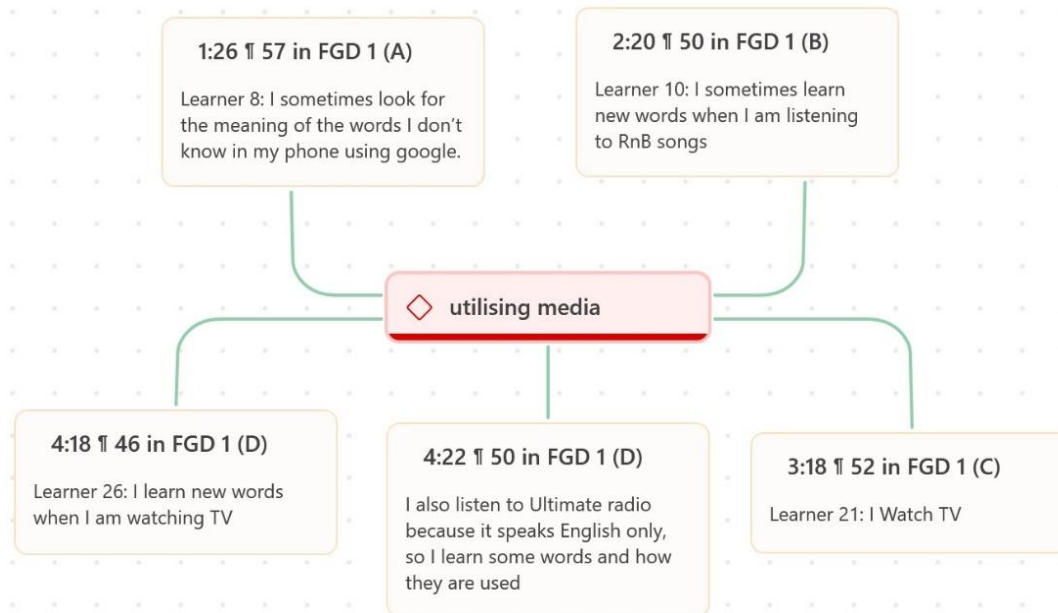


Figure 4.12 Using media

As shown in figure 4.12, learners pointed out that they utilised media to enrich their English vocabulary development. In their responses they showed that they watched televisions and movies, listened to English music, radios and used their phones to google. Through the use of these multiple media platforms, learners can be exposed to authentic language use and idioms as they could pick up new words, phrases and expressions in context, which can help them improve their vocabulary retention. While the learners may be exposed to new vocabulary through media, the quality of the exposure may not be optimal. For example, they may be exposed to colloquialisms or slang that are not suitable for formal language use. Thus, it is important for teachers to provide guidance on appropriate utilisation of these resources and develop explicit learning methods to reinforce learners' vocabulary acquisition.

4.2.2.2.5 Asking the teacher/peers

Figure 4.13 illustrates how learners responded to the strategy of seeking help from teachers or peers to improve their English vocabulary skills.

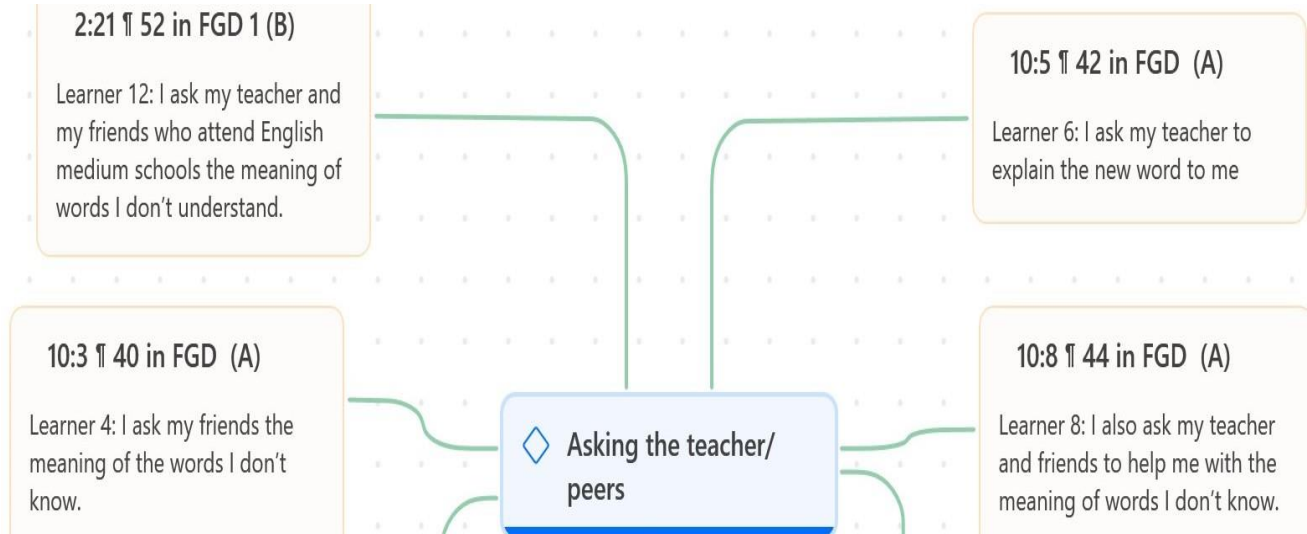


Figure 4.13 Asking the teacher/peers

Figure 4.13 indicates that some learners asked the teacher/peers to develop their English vocabulary. This highlights the importance of providing learners with explicit vocabulary instruction, encouraging them to ask questions and seek clarification when encountering unfamiliar words. The results further emphasise the significance of providing opportunities for peer-to-peer learning. However, overreliance on seeking help from others indicates that these learners struggled with autonomous learning and were not confident in their ability to acquire new vocabulary on their own. Therefore, there was a need for incorporation of both explicit instruction, peer-to-peer learning opportunities and encouragement of self-directed learning habits to ensure that all Grade 10 learners efficiently and effectively developed their English vocabulary.

4.2.2.2.6 Using learned words(activation)

The figure below illustrates learners' responses in terms of using previously learned words.

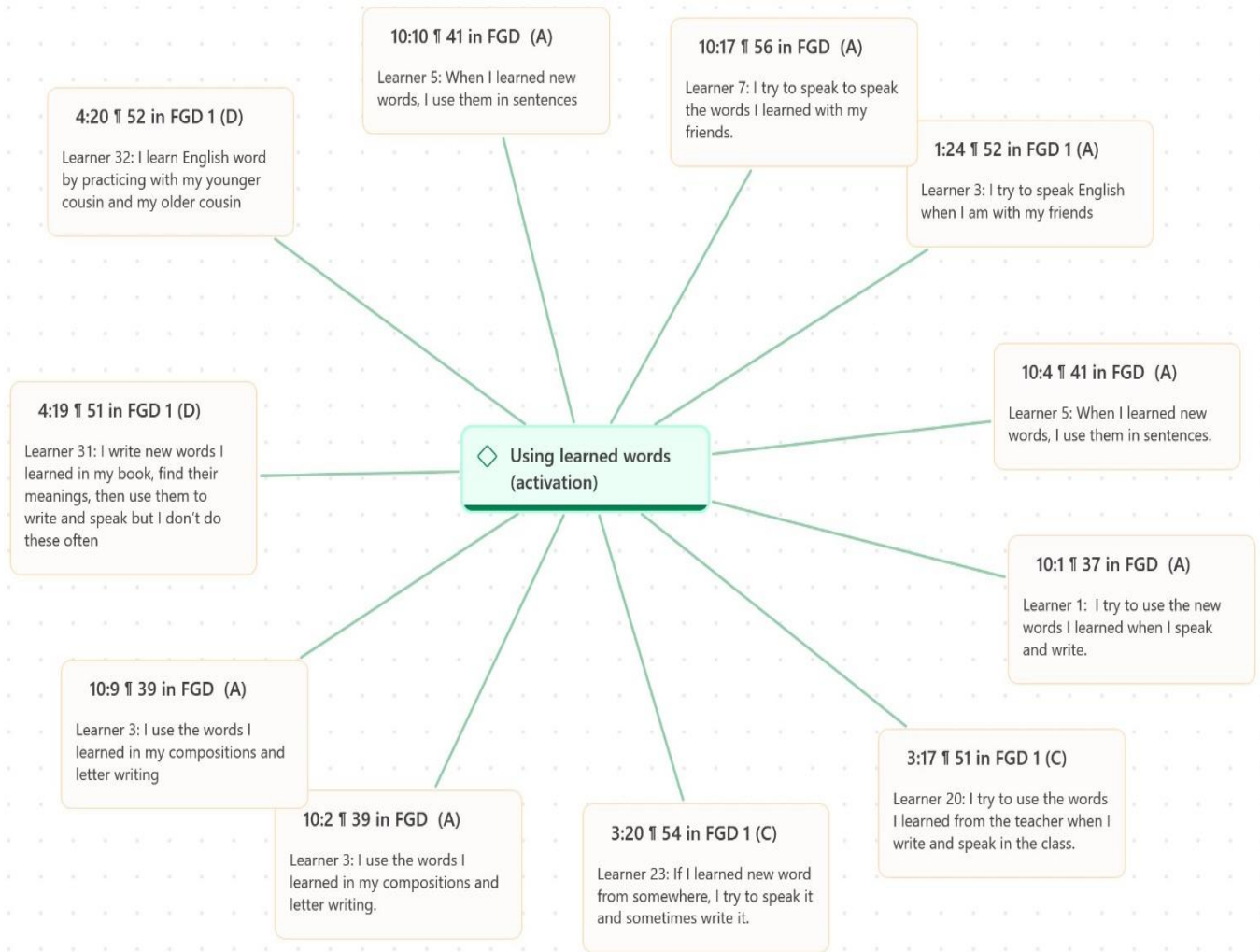


Figure 4.14 Using learned word(activation)

As depicted in figure 4.14, a significant number of learners reported using learned words to improve their English vocabulary. These learners attempted to practice English vocabulary with peers or siblings, although it was not a frequent activity. They also used learned words in both direct and indirect writing tasks. Generally, this analysis suggests that these learners were willing to enrich and take initiative in their English vocabulary development. But, they required more support and opportunities to practice and apply new vocabulary in meaningful ways.

Based on the indicated qualitative findings for this research question, Grade 10 learners used various strategies to expand their English vocabulary, which included using dictionaries, memorisation, reading, utilising media, asking the teacher/peers and using learned word(activation). Despite these efforts, the learners' English vocabulary remained limited indicating that these strategies were not employed effectively. Therefore, incorporating word mapping strategy into this study was necessary to determine if it would enhance their English vocabulary development. Generally, these qualitative findings provided a thorough understanding of the results of the structured questions presented initially.

4.3 The transformative phase

The analysis of the factors influencing Grade 10 learners' English vocabulary development during the diagnostic phase was a critical foundation for successfully implementing word mapping in the subsequent transformative phase. By examining these factors, it became clear that word mapping was a crucial element for achieving meaningful change. As a result, Research Question 3 was explored in this phase to better understand its significance.

4.3.1 RQ3: How can word mapping be employed to enhance the development of Grade 10 learners' English vocabulary?

This research question was aimed to explore how word mapping was effectively implemented to enrich the English vocabulary development of 10th-grade learners. To address this question, I collaborated with the learners to design and engage in various word mapping activities, which were tailored to their needs. This was achieved through an action research cycle, as described in the data generation procedure. This research question was also important for reflecting on both successes and setbacks of word mapping on Grade 10 learners' English vocabulary development, allowing for improvement and experiential learning.

4.3.1.1 Quantitative phase: Results of the post-test

This phase began with quantitative data collection and analysis of the post-test, followed by qualitative analysis of reflective journal to provide deeper insights into the results. The post-test was useful in evaluating whether the word mapping activities had improved learners' scores from the pre-test. The following table indicates the results of the post-test scores;

Table 4.6 Learners' post-test scores

| Learner | Score (%) |
|----------------|------------------|
| Learner 1 | 78 |
| Learner 2 | 82 |
| Learner 3 | 74 |
| Learner 4 | 84 |
| Learner 5 | 76 |
| Learner 6 | 80 |
| Learner 7 | 74 |
| Learner 8 | 78 |
| Learner 9 | 84 |
| Learner 10 | 80 |
| Learner 11 | 88 |
| Learner 12 | 76 |
| Learner 13 | 86 |
| Learner 14 | 90 |
| Learner 15 | 76 |
| Learner 16 | 80 |
| Learner 17 | 86 |
| Learner 18 | 82 |
| Learner 19 | 88 |
| Learner 20 | 84 |
| Learner 21 | 76 |
| Learner 22 | 90 |
| Learner 23 | 84 |
| Learner 24 | 78 |
| Learner 25 | 92 |
| Learner 26 | 88 |
| Learner 27 | 78 |
| Learner 28 | 86 |

| | |
|--------------|------|
| Learner 29 | 82 |
| Learner 30 | 90 |
| Learner 31 | 78 |
| Learner 32 | 88 |
| TOTAL | 2636 |

Table 4.6 shows post-test scores that learners obtained after being exposed to word mapping technique. The scores ranged from 74% to 92%, indicating that the learners demonstrated a wide range of understanding and retention of the material. The total score of 2636 suggests a significant improvement in learners’ comprehension and retention of the material after being exposed to the word mapping technique. These results imply that word mapping was a valuable tool in enhancing learners’ understanding and retention. Whether teachers, learners or simply people looking to improve their learning skills, this technique is definitely worth exploring.

Figure 4.15 Frequency of learners’ post-test scores

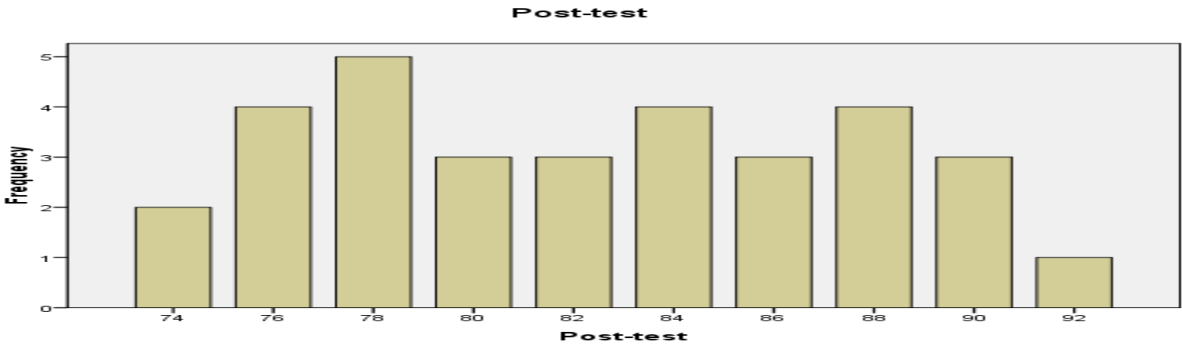


Figure 4.15 demonstrates the frequency of learner’s scores in the post-test. There were four scores with a frequency of 3 (80, 82, 86 and 90). Then three scores had a frequency of 4 (76, 84 and 88). There was one score with the highest frequency of 5 (78). Following is one score with a frequency of 2 (74). Lastly, it was one score with a frequency of 1 (92). The data suggests that the majority of learners scored between 76 and 90, with most of them scoring around 80-88. The score of 78 stands out as having the highest frequency of any single score. The score of 92 has the lowest frequency, indicating that only 1 learner achieved this score. Compared to the frequencies in the pre-test, these results indicate a significant improvement in the frequencies of the post-test,

implying that the intervention (word mapping) employed was indeed beneficial in increasing learners' performance and development of their English vocabulary.

Table 4.7 Classification of learners' post-test scores

| Score range | Category | Frequency | Percentage(%) |
|-------------|-----------|-----------|---------------|
| 90-100 | Excellent | 4 | 12.5 |
| 80-89 | Very good | 17 | 53.1 |
| 70-79 | Good | 11 | 34.4 |
| 60-69 | Average | 0 | 0 |
| 50-59 | Poor | 0 | 0 |
| ≤49 | Very poor | 0 | 0 |
| Total | | 32 | 100 |

Table 4.7 indicates the classification of learners' scores after a word mapping intervention. The results show that 4 learners scored 90-100 (excellent), 17 scored 80-89 (very good) and 11 learners scored 70-79 (good). There were no learners who scored 60-69 (average), 50-59 (poor), or 49 or below (very poor). The results suggest that word mapping intervention positively impacted learners' knowledge of English vocabulary. All learners scored above 70%, indicating a significant improvement in their vocabulary development. Moreover, there was a noticeable shift towards higher score ranges, with a significant proportion of learners scoring in the excellent and very good ranges (21 out of 32). These results support the claim that word mapping can be an effective technique for improving vocabulary knowledge.

4.3.1.2 Qualitative phase: Findings of the reflective journal

The qualitative phase was crucial in uncovering the reasons behind the changes observed in the post-test results after implementing the word mapping intervention. The reflective journal revealed the skills learners developed during the intervention, which can be attributed to the improved performance seen in the post-test scores. Figure 4.16 illustrates these findings.

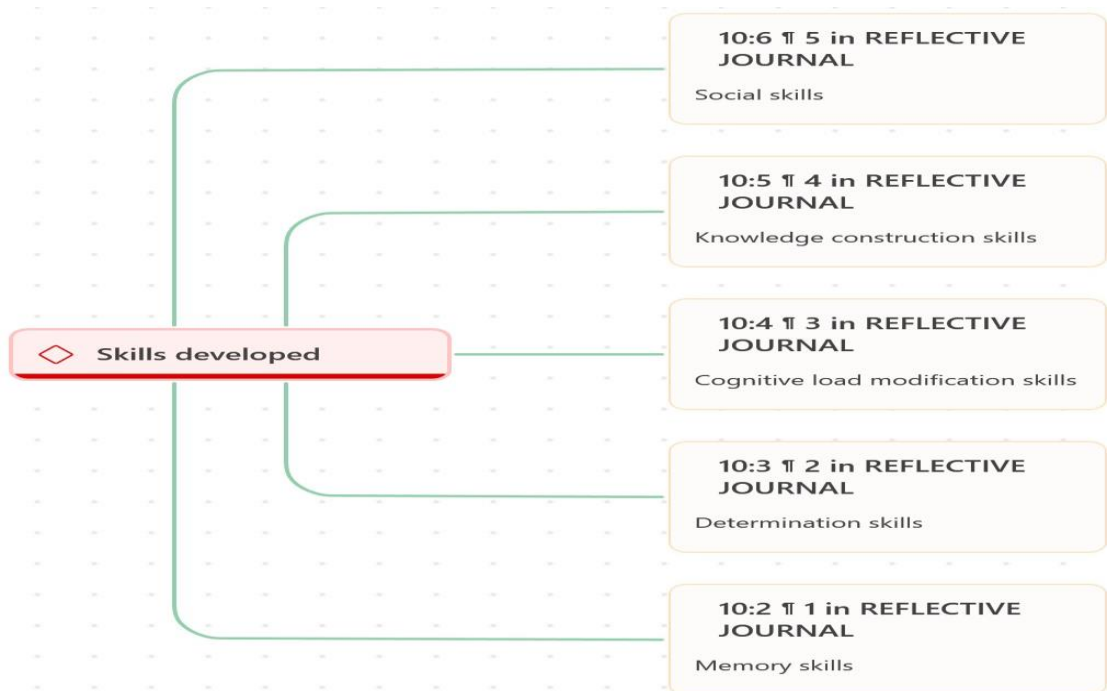


Figure 4.16 findings of reflective journal

Figure 4.16 depicts skills learners acquired, as revealed in the reflective journal. These skills, including memory, determination, cognitive load modification, knowledge construction and social skills, were essential in enabling learners to demonstrate improved performance on the post-test.

4.4 The reflective phase

The reflective phase was a turning point, enabling deeper and critical thinking about word mapping experience. This reflection helped to reinforce the vocabulary knowledge gained in the previous transformative phase and an overall development in ESL instruction and learning. In this phase, research question 4 was explored.

4.4.1 RQ4: How does the process of word mapping impact the English vocabulary speaking and writing skills of Grade 10 learners?

The goal of this research question was to identify how word mapping impacted English vocabulary speaking and writing skills of Grade 10 learners. This research question allowed both the researcher and learners to explore deeper consequences of this approach on learners' English vocabulary development and overall language skills, including their proficiency.

4.4.1.1 Quantitative phase: Results of descriptive statistics (pre-test and post-test)

Descriptive statistics of the pre-test and post-test were followed by qualitative data (focus group discussions) to provide a deeper understanding of the results. The descriptive statistics allowed for a comparison between the pre-test and post-test data, which enabled the drawing of a general conclusion on whether word mapping had a positive impact on English vocabulary development in Grade 10 learners. The analysis of the results is presented below;

Table 4.8. Descriptive Statistics

| | N | Minimum | Maximum | Sum | Mean | Std. Deviation |
|-----------|----|---------|---------|---------|---------|----------------|
| Pre-test | 32 | 20 | 64 | 1212 | 37.87 | 11.999 |
| Post-test | 32 | 74.00 | 92.00 | 2636.00 | 82.3750 | 5.26553 |
| Valid N | 32 | | | | | |

Table 4.8 shows that the number of learners in both pre and post-tests were 32. In the pre-test the minimum score was 20 and the maximum score was 64. Conversely, in the post-test the minimum score was 74 and the maximum score was 92. The sum of the learners' scores in the pre-test was 1212 whereas in the post-test it was 2636. Additionally, the mean of the pre-test was 37.87 whilst the mean of the post-test was 82.370. Lastly, the standard deviation of the pre-test was 11.999 while of the post-test was 5.26553. The data suggests that there had been a significant improvement in the learners' performance from pre-test to post-test.

The range of scores, sums and means increased, indicating that the learners had demonstrated a greater range of abilities in the post-test compared to the pre-test. The decrease in standard deviation from 11.999 to 5.26553 suggests that the scores were more consistent, showing that the learners had achieved a higher level of uniformity and consistency in their performance. These findings serve as evident that the intervention provided between pre-test and post-test had a positive impact on the learners' performance, leading to significant improvements in their English vocabulary knowledge.

4.4.1.2 Qualitative phase: Findings of the focus group discussions

The qualitative phase aimed to gain a deeper understanding of how word mapping impacted learners' English vocabulary skills, building on the significant improvements revealed in the initial descriptive statistics. This phase involved focus group discussions with learners to gather in-depth insights and provide a richer complement to the quantitative results. The analysis yielded six key findings, which are visually represented in Figure 4.17

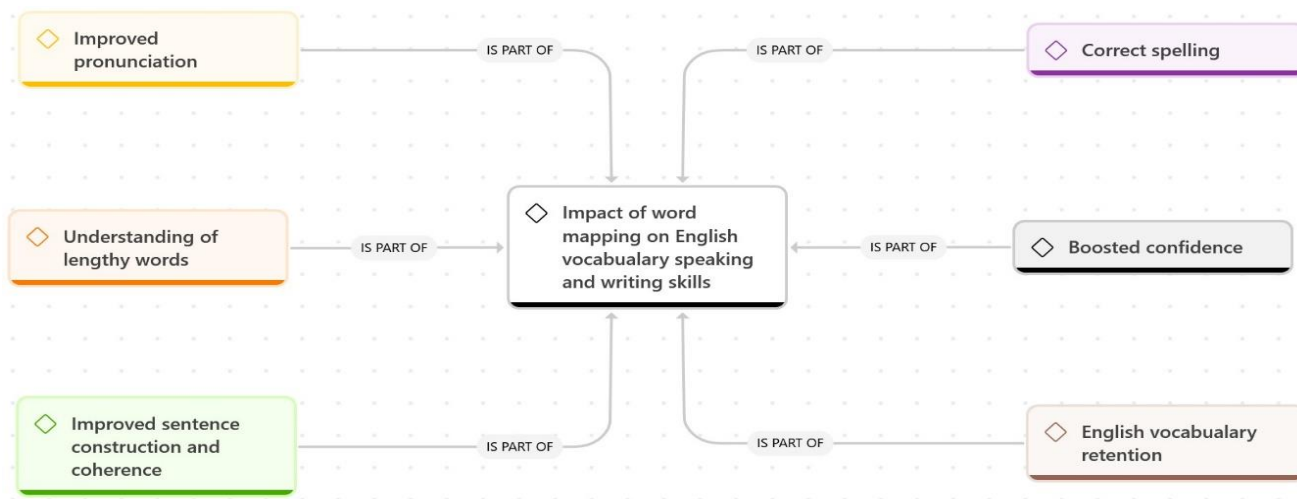


Figure 4.17 Impact of word mapping on English vocabulary speaking and writing skills

Figure 4.18 is a representation of Grade 10 learners' opinions and experiences on the impact of word mapping on their English vocabulary speaking and writing skills. The six impacts identified include improved pronunciation, correct spelling, understanding of lengthy words, retention, boosted confidence as well as improved sentence construction and logic. These benefits can be attributed to the visual representation of words used in word mapping, which helped learners to connect new vocabulary to their existing knowledge and build a stronger foundation for future language learning. Generally, the findings imply that word mapping was an effective instructional strategy for improving English vocabulary skills and performance of Grade 10 learners. The subsequent figures demonstrate learners' responses on each key-finding.

4.4.1.2.1 Improved Pronunciation

The below figure indicates learner' responses on improved pronunciation as a result of word mapping strategy.

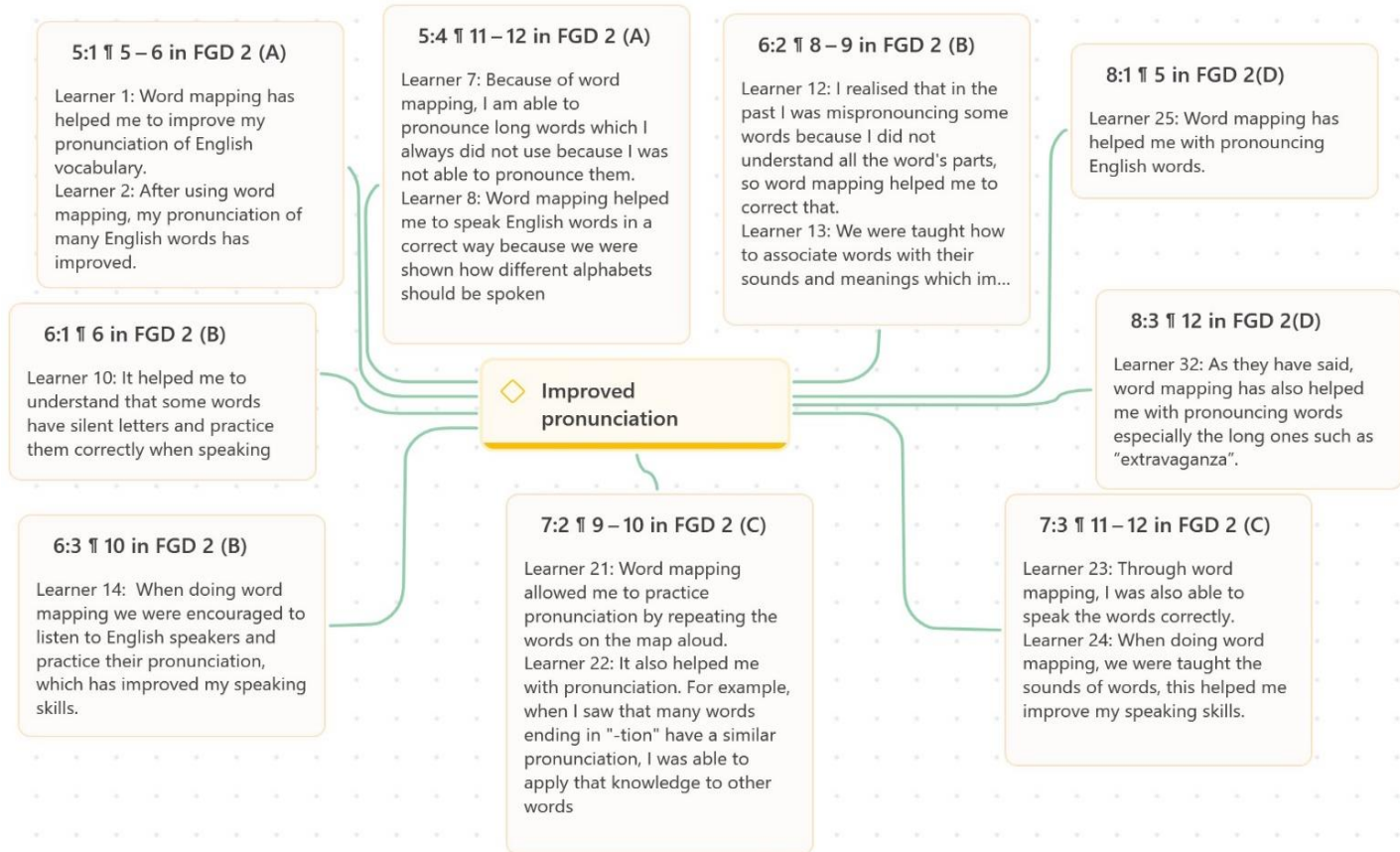


Figure 4. 18 Improved pronunciation

The data in figure 4.19 indicates that word mapping positively impacted learners' English vocabulary pronunciation, with a significant number of learners reporting an improvement. The specific findings that learners were able to pronounce words with silent letters and long words correctly, which was previously a struggle for them is particularly noteworthy. Silent letters and long words can be challenging for non-native English speakers to pronounce accurately. The findings that learners were able to master these types of words after using word mapping suggests that the technique assisted them to understand phonetic relationships and linguistic patterns in English. These findings imply that word mapping could be a valuable tool for language learners who struggle with vocabulary pronunciation. They also imply that word mapping can help learners develop phonological awareness, as it requires them to break down words into individual sounds and identify the relationships between sounds and letters.

4.4.1.2.2 Correct spelling

The below figure depicts learners' responses with regards to correct spelling.

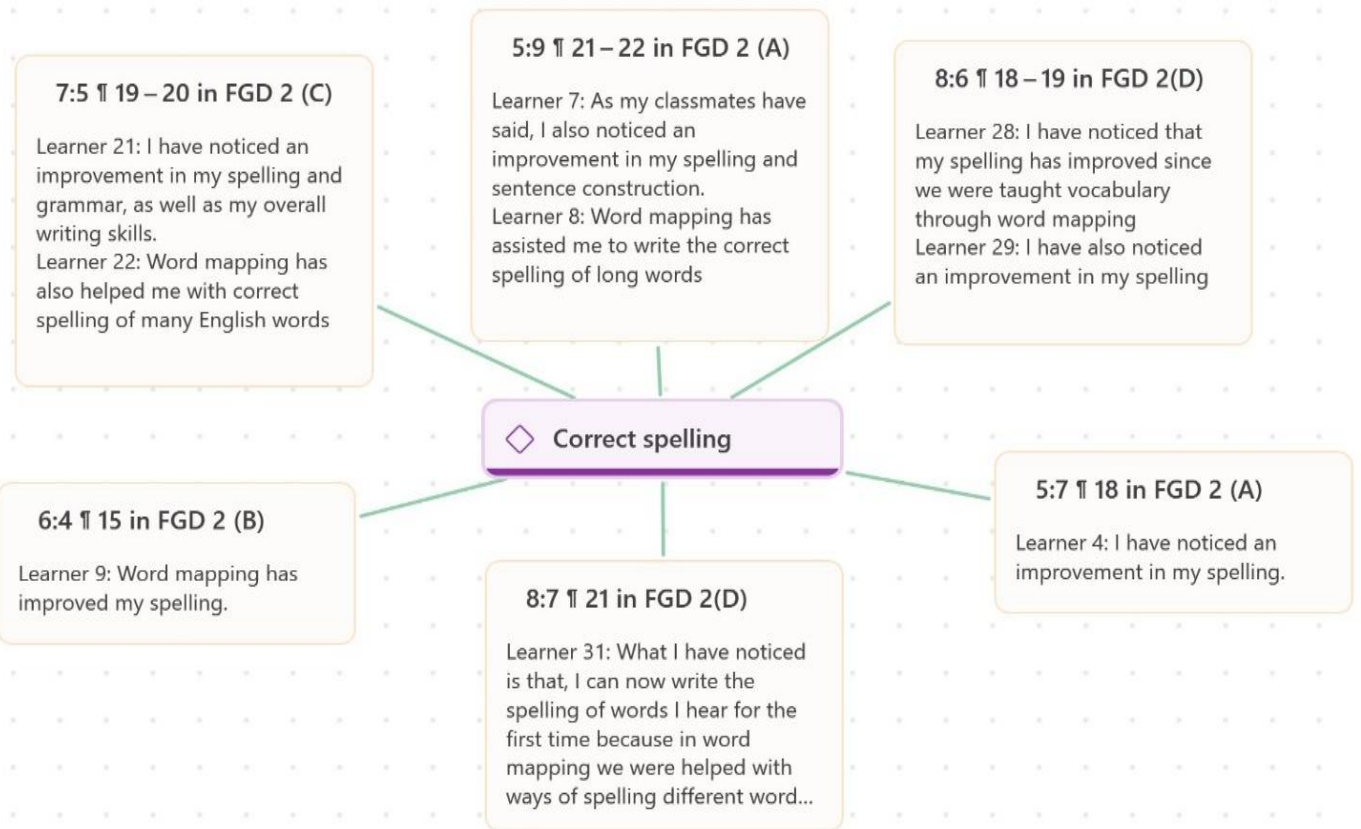


Figure 4.19 Correct spelling

Figure 4.19 serves as evidence that word mapping intervention assisted some Grade 10 learners with correct spelling. These learners pointed that after word mapping, they had noticed an overall improvement in their spelling, including that of long words. The data suggests that word mapping is an effective strategy for improving learners' spelling abilities, particularly with longer words. This is because word mapping helps learners to visualise the structure of words, making it easier to recognise patterns and relationships between letters and sounds.

4.4.1.2.3 Understanding of lengthy words

Figure 4.20 highlights learners' responses in relation to lengthy words.

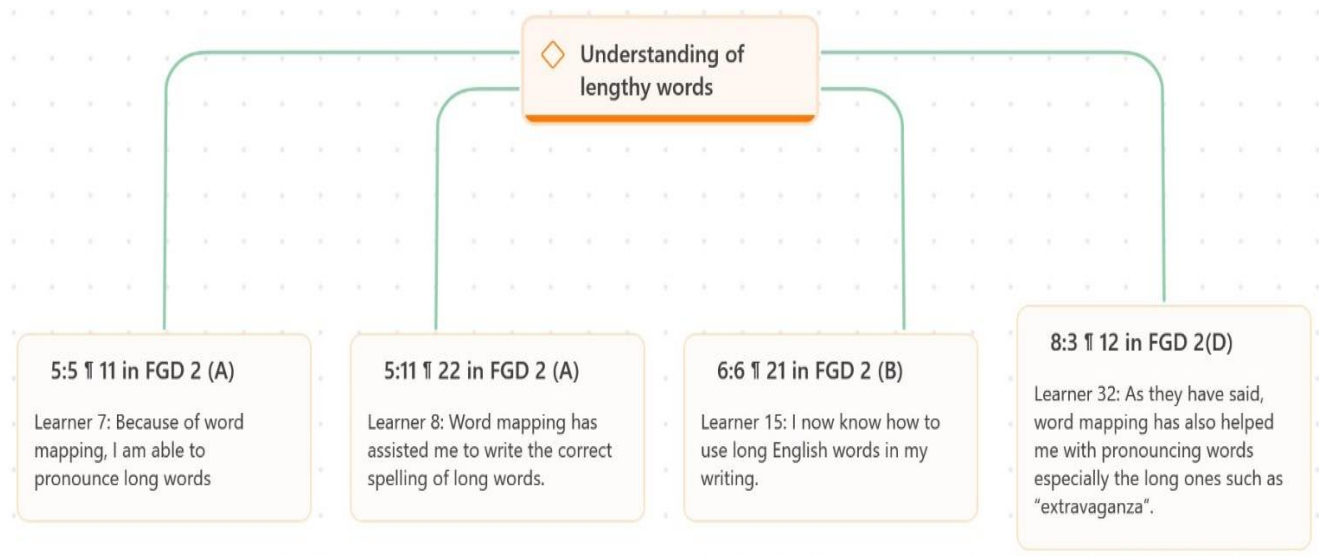


Figure 4.20 Understanding of lengthy words

The evidence presented in figure 4.20 shows that learners acknowledged that word mapping assisted them to pronounce and write long words. In essence, word mapping is a visual technique that helped these learners associate written words with their meanings, sounds and structures, making it easier to comprehend and produce the words.

4.4.1.2.4 English vocabulary retention

The below figure demonstrates how learners' responded with regards to English vocabulary retention as an impact of word mapping on their English vocabulary speaking and writing skills.

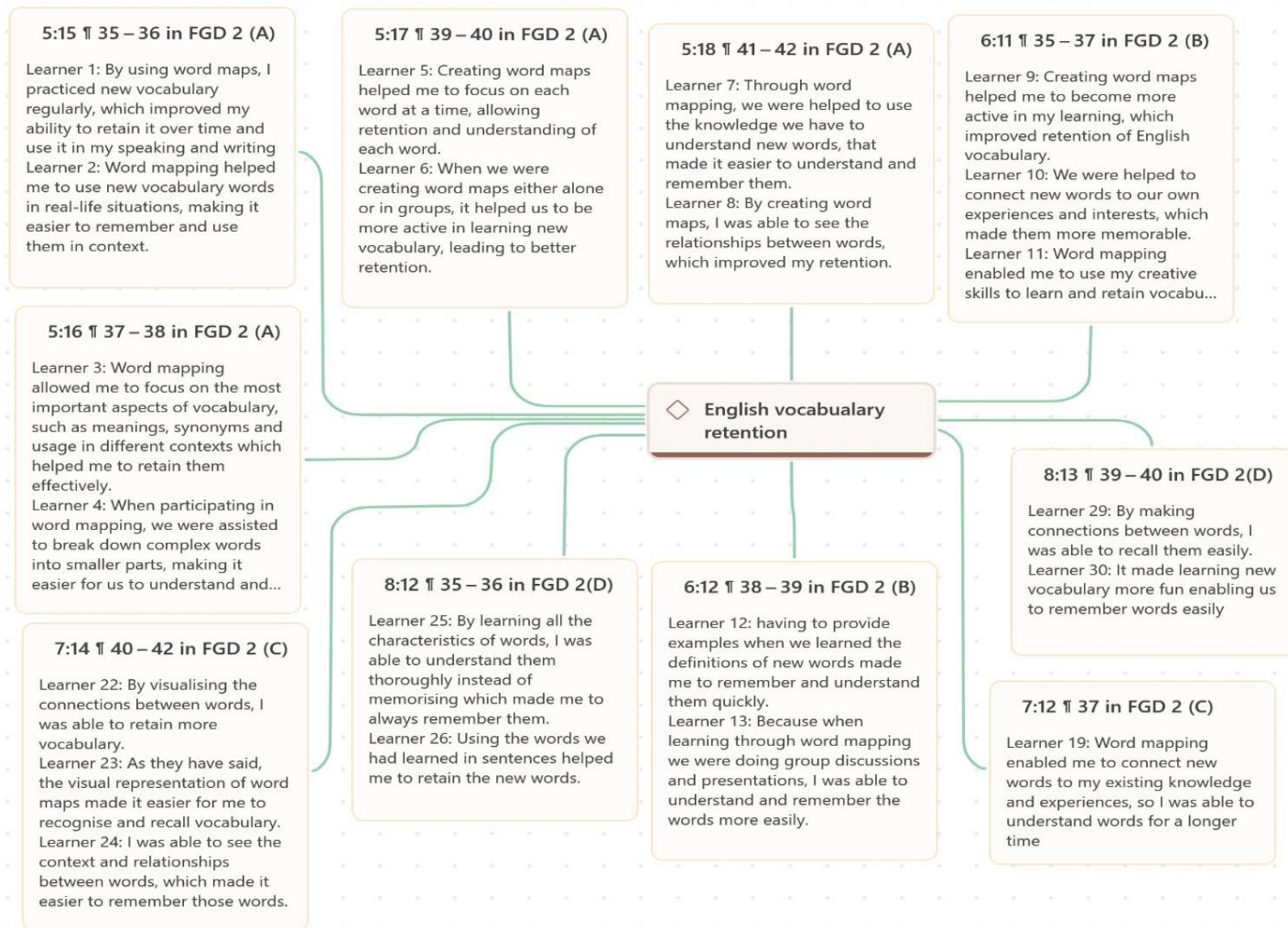


Figure 4.21 English vocabulary retention

As shown in figure 4.21, majority of learners claimed that word mapping intervention helped them with English vocabulary retention. For instance, learners showed that in word mapping they practiced vocabulary regularly and used it in real-life situations which assisted them to retain such words easily. Learners further highlighted that making connections between words, using prior knowledge and learning characteristics of words helped them not just to memorise words but to have a thorough understanding which aided in their retention of such words. All these were vital in enhancing their overall English vocabulary speaking and writing skills. In summary, the findings suggest that word mapping is an important instructional strategy for improving vocabulary retention. This approach can be incorporated into language learning materials and instructional activities to help learners develop a more effective vocabulary.

4.4.1.2.5 Boosted confidence

Figure 4.22 shows learners' answers on how word mapping boosted their confidence of English vocabulary speaking and writing.

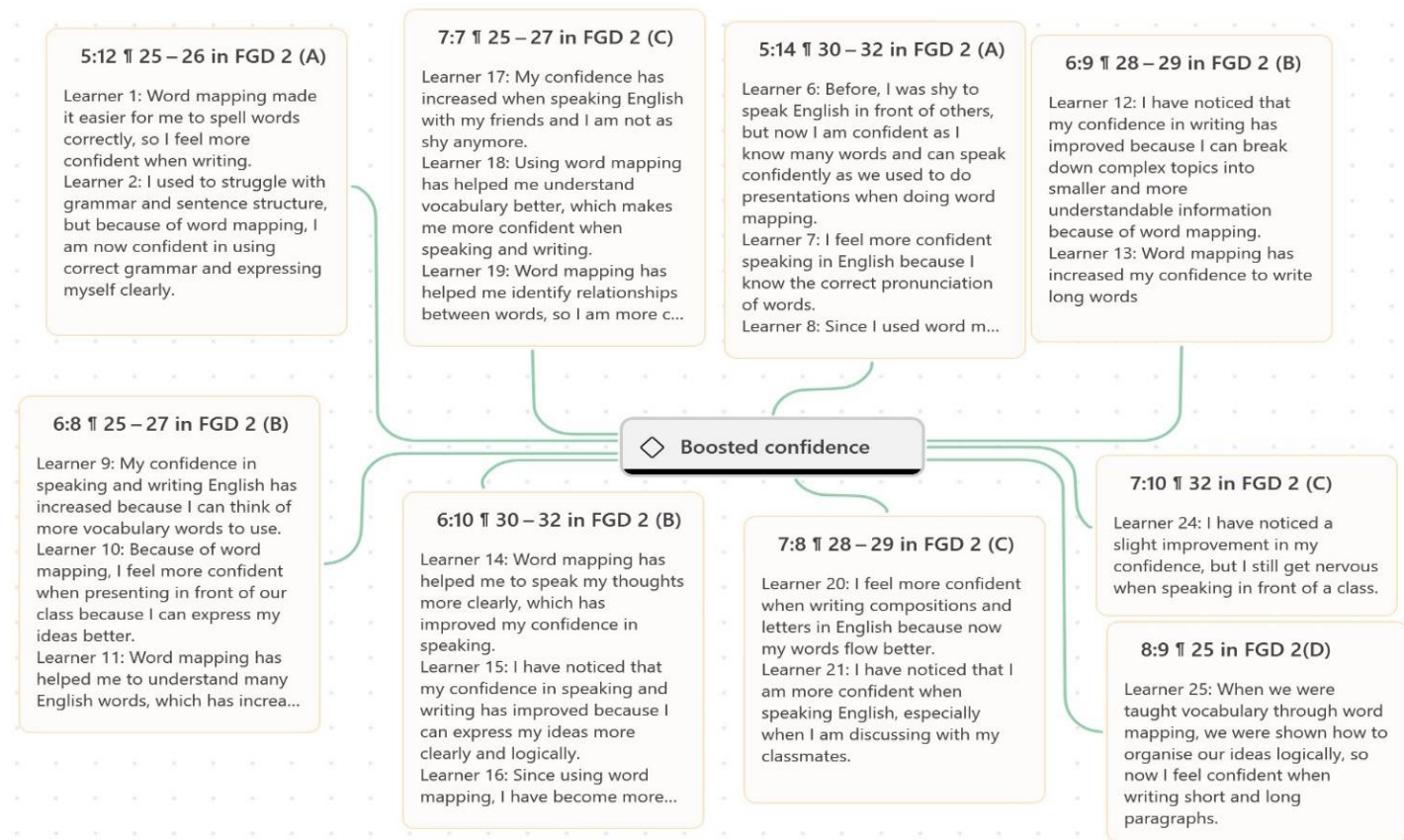


Figure 4.22 Boosted confidence

As indicated in figure 4.22, many learners postulated that word mapping had boosted their confidence of English vocabulary speaking and writing. These learners showed that word mapping assisted them with pronunciation, spelling, sentence structure or construction, grammar, coherence and retention of vast vocabulary. As a result, their confidence to write, speak and even participate in class discussions and presentations improved. The improvements in these various language skills are interconnected and complementary. For example, better pronunciation and spelling contributed to improved sentence structure and grammar, which in turn facilitated clearer communication and more effective expression of ideas. The general implication of these findings is that word mapping should be considered as a vital instructional tool for improving learners' confidence and language skills.

4.4.1.2.6 Improved sentence construction and coherence

The figure shown below depicts learners' responses based on sentence construction and coherence after being exposed to word mapping intervention.

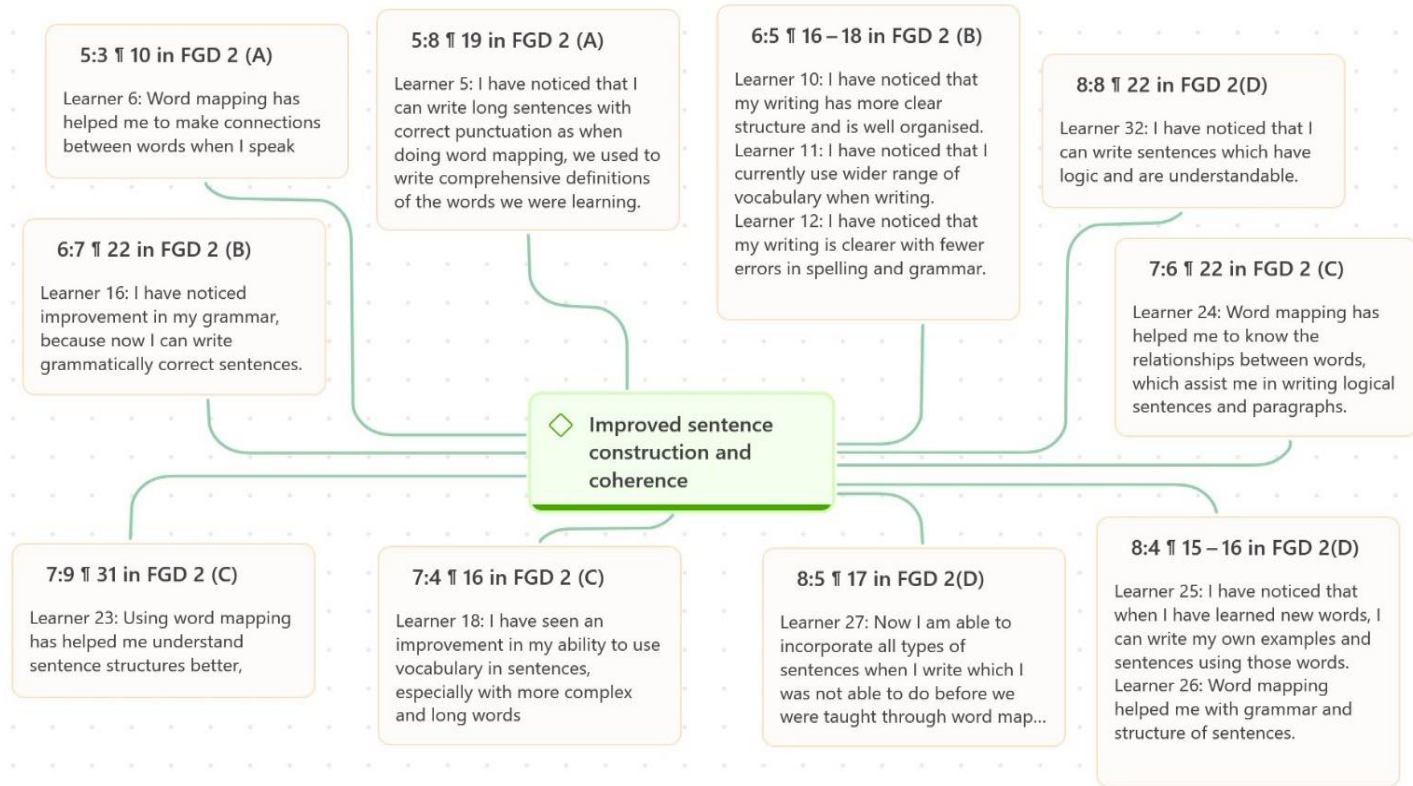


Figure 4.23 Improved sentence structure and coherence

The above figure depicts that majority of learners stipulated that after they were exposed to word mapping, their sentence construction and coherence improved. These learners highlighted that they were now able to write grammatically correct sentences with correct punctuation, use complex vocabulary in sentences, use their own examples and write logical sentences. These findings indicate that word mapping helped them to organise their thoughts, structure their sentences more effectively and build a stronger foundation in vocabulary and grammar. In addition, they imply that word mapping facilitated the development of their critical thinking, problem-solving skills and helped them to write their ideas in a clear and coherent manner. In general, the findings offer an important understanding about the possible advantages of employing word mapping as an educational tool for improving learners' sentence construction and coherence.

In line with the stated qualitative findings for this research question, improved pronunciation, correct spelling, understanding lengthy words, English vocabulary retention, boosted confidence as well as improved sentence construction and coherence emerged as the positive impacts of word mapping on Grade 10 learners' English vocabulary speaking and writing skills. In summary, these qualitative findings complemented the quantitative results which indicated a significant improvement in the learners' post-test scores based on the descriptive statistics provided. This led to the conclusion that the implementation of word mapping enhanced Grade 10 learners' English vocabulary development and proficiency.

4.5 Conclusion

This chapter detailed the results and findings from both quantitative and qualitative data, offering a comprehensive understanding of the research. The analysis has addressed the four research questions of this study. It further confirmed that word mapping had a positive impact on English vocabulary development of Grade 10 secondary learners. The next chapter discusses the results and findings.

CHAPTER 5: DISCUSSIONS OF THE FINDINGS

5.0 Introduction

Chapter 4 indicated the analysis, presentation and interpretation of data generated from different sources, including tests, questionnaires, focus groups discussions and reflective journal. This chapter discusses the study's results and findings, which were derived from the research questions. Additionally, it examines the alignment of these findings with the participatory action research cycle's three phases: diagnostic, transformative and reflective. The discussions are linked to the relevant literature and theoretical framework that guided this study.

5.1 The diagnostic phase

5.1.1 RQ1: What factors contribute to limited English vocabulary of Grade 10 learners?

This research question examined the factors that led to limited English vocabulary of Grade 10 learners. The study employed sequential explanatory mixed-methods approach. As a result, the discussion will unfold in a logical sequence, beginning with the quantitative discussions and then building upon them with qualitative insights.

5.1.1.1 Quantitative phase: Discussions of the pre-test results

The pre-test results showed that learners' vocabulary scores ranged from 20% to 64%, indicating that none of them had a solid foundation in English vocabulary. These results imply that Grade 10 learners had more passive vocabulary than productive vocabulary, meaning they were able to recognise words but struggled to use them in their own communication. This is consistent with the notion of passive vocabulary as described by Salam and Nurnisa (2021). Additionally, the results are in line with Schmitt & Schmitt (2014) who contend that learners often have more passive vocabulary than productive vocabulary. In an ESL classroom, it is important to develop both receptive and productive vocabulary to effectively express meaning and convey thoughts (Karendra, 2016). Therefore, Grade 10 learners needed to acquire both types of vocabulary to improve their communication skills. In general, the results underscore the importance of a focused strategy for teaching vocabulary that encompasses both receptive and productive language skills to improve learners' communication proficiency.

5.1.1.2 Qualitative phase: Discussions of the focus-group discussions

The focus group discussions shed light on five significant factors that hindered the learners' vocabulary development, which are discussed thoroughly in this section.

5.1.1.2.1 Low confidence

The findings indicated that low confidence was a significant factor contributing to the limited English vocabulary of Grade 10 learners. For instance, learner10 said; *even if I learned new words, I am not confident to use them, so I use the words I already know because I fear making mistakes.* Another learner added; *as they have said, I sometimes become afraid to try using new words in English because they will laugh at me when I don't speak it correctly.* These findings align with the findings of Surmanov & Azimova (2020) which revealed that lack of confidence contributed to learners' difficulties to comprehend English vocabulary, consequently, they were unable to remember the vocabulary they had learned.

Based on the findings of the current study, it appeared that learners prioritised using familiar words over attempting to learn new ones, thus resulting in low English vocabulary. This was problematic because learners with restricted vocabulary face greater difficulties in understanding language suitable for their grade level, engaging in class discussions, and efficiently completing projects and tests (Al-Dulaimi, 2022). In similar vein, Rohmatillah (2017) points out that inadequate vocabulary can make communication challenging and hinder language proficiency. To address this issue, educators should focus on building learners' confidence by providing opportunities for them to practice speaking and writing in a safe and supportive environment, while also providing feedback and support. Furthermore, instructors can foster a growth mindset, emphasising that learning ESL is a process and that mistakes are an inevitable aspect of that journey. By addressing learners' confidence issues, teachers can help create an environment that allows a more adventurous approach to language learning, leading to improved vocabulary development and overall language proficiency.

5.1.1.2.2 Lack of motivation for regular English vocabulary practice

The findings revealed that a significant number of learners' limited English vocabulary was due to a lack of motivation for regular English vocabulary practice. This suggests that motivation plays a crucial role in vocabulary acquisition. In this regard learner 4 disclosed; *I don't want to lie, I don't spare time to learn new English words.* In support learner 25 postulated; *I don't learn new words many time because I didn't think it was important.* As outlined by Lastiri (2023), lack of

motivation significantly impacts learners' English vocabulary development. When learners lack motivation, their engagement with language learning decreases, leading to several adverse effects on vocabulary acquisition (Lastiri, 2023). Hence, Grade 10 learners' motivation levels significantly impacted their willingness to practice English vocabulary regularly. This emphasises the significance of motivating learners to view vocabulary acquisition as a personal investment, which can enhance their ESL communication skills and overall performance.

The findings further imply that learners such as learner 25 needed guidance on why vocabulary expansion is essential for effective communication and language proficiency. In line, Al-Dulaimi (2022) emphasises that possessing a rich vocabulary is crucial for successful communication in a language. Therefore, vocabulary should be acknowledged as a crucial tool for enhancing different language skills. Conforming to Arianti et al (2022) without vocabulary, learners may be unable to comprehend the foreign languages they acquire. Thus, to solve the issue of lack of motivation for regular vocabulary practices among learners, teachers can make English vocabulary learning enjoyable and engaging through interactive activities, games, word maps and real-life scenarios. Again, they can incorporate authentic materials that reflect learners' interests and needs.

5.1.1.2.3 Limited exposure to English language

Grade 10 learners highlighted that they struggled with developing their English vocabulary due to limited exposure to the language. For example, learner 5 said; *the reason is that English is not my mother tongue, so at home we only speak Sesotho*. Another learner noted; *because I speak English only at school, so I forget some English words*. Learner 16 also revealed; *because our school doesn't have activities such as English clubs, spelling competitions and debates*. These findings are in line with the perspectives of Staden (2016) who concurs that the richness of learners' vocabulary is influenced by the opportunities they have to develop a broad lexicon, which is tied to their exposure to a language-rich environment. In the same vein, Stoffelsma (2019) argue that learners' vocabulary growth is shaped by their family background and educational setting. Thus, learners who are frequently exposed to the English language are more likely to possess a greater vocabulary than those from less linguistic environments or lower socio-economic situations.

These findings indicate that limited exposure to English can hinder learners' ability to develop a rich vocabulary, making it difficult for them to express themselves effectively in writing and speaking. As such, the findings have implications for educators and policymakers, suggesting the

need for innovative strategies to increase English language exposure and engagement outside of the classroom to support learners' vocabulary development. In line, Blachowicz & Fisher (2015) propose protocols necessary for teaching vocabulary within school curricula which include provision of rich and varied language experiences as well as diverse language contexts to enrich vocabulary. Parents, schools and communities could also work together to promote English usage in daily life, even if it is just a few minutes a day, to supplement what learners learn in school.

5.1.1.2.4 Insufficient resources

Drawing from the responses of learners, it was evident that insufficient resources hindered their development of English vocabulary. For instance, learner 30 said; *it's just that we don't have many resources to improve our English vocabulary.* Another learner claimed; *it's because we don't have enough resources to increase our English vocabulary, for example, here at school, there is no library where we can read books and things like newspapers.* Learner 12 also added; *because here at school we are borrowed English dictionaries only when the teacher wants us to use them, then we return them after the school.* These findings align with the ideas of Madrid (2023) who stipulate that lack of resources is a major problem influencing learners' limited English vocabulary development. Without adequate resources such as textbooks, newspapers or online tools, learners struggle to practice new words and it restricts exposure to idiomatic expressions and nuanced vocabulary which are essential for vocabulary retention and expansion (Madrid, 2023).

In Lesotho, particularly in rural or marginalised schools, the lack of English resources is a significant challenge. This scarcity of resources means that learners from these schools often have limited English vocabulary. Instead of relying on the government to supply additional resources, educators should take the initiative to discover innovative methods for teaching vocabulary with readily available materials. Simple teaching aids such as word maps, pictures, and speaking activities such as role-plays, spelling bees, and debates can help learners build their vocabulary without relying on external resources. Generally, these findings demonstrate the need for educators and policy makers to recognise the importance of providing sufficient resources to support language learning. By addressing these challenges, teachers can develop a more supportive learning atmosphere that promotes independence, involvement, and successful ESL learning.

5.1.1.2.5 Inadequate teaching methods

The findings indicated that some learners grappled with the teaching methods employed by their teachers in relation to English vocabulary. In line, learner 25 said; *if we don't know the word, we ask our teacher and she tells us what it means*. Adding to that, learner 26 stated; *the teacher tells us the English word we don't understand in Sesotho*. Learner 18 also noted; *again, it's because our teacher tells us to look for the meaning of words in the dictionaries and don't help us to use words in sentences*. These responses imply that learners felt that these methods were not effective in helping them understand and learn new vocabulary. These findings are comparable to those of the study carried out by Al-Seghayer (2015) who found that some Saudi Arabian teachers employed outdated teaching methods and relied heavily on learners' native language, leading to limited English vocabulary among learners. In as much as native language translation method can sometimes positively impact learners' vocabulary acquisition (Khan, 2016), educators should do it accordingly and balance it with other effective teaching methods to create a comprehensive vocabulary learning experience.

In line with these findings, it could be deduced that Grade 10 teachers used ineffective English vocabulary teaching methods due to the fact that vocabulary learning lacks specific rules, unlike syntax and phonology (Siddiqua, 2016). As a result, they were not familiar with strategies that could promote vocabulary development in their students. This is concerning, given the importance of English vocabulary mastery in Lesotho secondary schools, where English is the language of instruction from Grade 4 onwards (MoET, 2021). With sufficient vocabulary, learners can better understand instructions and communicate effectively across various subjects. Therefore, it is crucial that teachers re-evaluate their vocabulary teaching approaches and provide learners with more autonomy and support in their language learning journey.

5.1.2 RQ2: Why do Grade 10 learners utilise certain strategies to develop their English vocabulary?

This research question explored the strategies Grade 10 learners utilised to enhance their English vocabulary. The discussions are based on data collected through a semi-structured questionnaire, which gathered both quantitative and qualitative information. This data helped to determine whether the strategies reported by learners were effective or not in enhancing their vocabulary development.

5.1.2.1 Quantitative phase: Discussions of the structured section of a questionnaire

The data from the structured questions showed that almost all learners (91%) believed that learning vocabulary is crucial for English language proficiency, while only a small minority (9%) disagreed. In line, Afzal (2019) points out that vocabulary assist learners to improve their learning skills and can act as a bridge between the four language skills. In the same ways, Wardani (2015) mentions that the expansion and development of vocabulary play a crucial role in communication and gaining knowledge. Thus, it was essential that learners understood the significance of vocabulary in their ESL learning. When it came to extracurricular vocabulary practice, the majority of learners (84%) reported doing so outside of class, but only (31%) found effective ways to improve their vocabulary skills, leaving 69% struggling to find helpful methods. It was further revealed that most learners (72%) had not used a multi-sensory approaches to learn vocabulary, and not a single learner reported using word mapping strategy to build their vocabulary.

This data indicates that Grade 10 learners recognised the significance of vocabulary in mastering the English language, but many struggled to find effective methods to improve their vocabulary skills. This suggests that they may have not been receiving sufficient guidance or support from teachers on how to develop their vocabulary outside of class. Furthermore, it appears that they lacked access to reliable and high-quality resources that could have aided their vocabulary development. The limited vocabulary of learners may be attributed to these ineffective strategies they used, which is concerning since many language experts believe that vocabulary plays a vital role in the processes of ESL teaching and learning (Karendra, 2016; Afzal, 2019). Hence, it was necessary for learners to adopt effective strategies to significantly improve their vocabulary. Overall, this data highlights the importance of providing learners with the support and resources they need to develop effective vocabulary skills outside of class.

5.1.2.2 Qualitative phase: Discussions of the unstructured section of a questionnaire

To fully understand how Grade 10 learners improved their English vocabulary, it was crucial to complement numerical data from structured questions with in-depth data from unstructured questions to gather learners' insights on the strategies they used and how they impacted their vocabulary development.

5.1.2.2.1 Using dictionary

The findings showed that some Grade 10 learners relied on dictionaries to develop their English vocabulary. For example, learner 24 said; *I look for the word I don't know in the dictionary*. Similarly, learner 18 revealed; *I don't use many strategies, I just use the dictionary*. In alignment with these findings, Mohamad et al. (2017) state that usage of dictionaries is a useful strategy for vocabulary acquisition as they provide quick access to word meanings, pronunciations, synonyms and antonyms. In the same way, Hatch & Brown (1995) claim that learners can encounter new words with different sources including dictionaries as they provide, exposure to a broader range of words. However, relying solely on dictionary definitions can hinder comprehension as learners may miss nuances, idiomatic expressions and context-specific meanings (Shah et al., 2022; Mohamad et al., 2017).

It can be inferred from the findings that as a result of over-reliance on dictionaries, Grade 10 learners' effective understanding of English vocabulary was hindered. In this line, educators can solve this issue by introducing learners to a range of vocabulary development strategies, such as encouraging them to think critically about word meanings and connotations. They can also use authentic materials that contain complex vocabulary to assist learners have a more nuanced comprehension of language. By recognising the limitations of relying solely on dictionaries and addressing them, teachers can help learners develop more effective vocabulary strategies and improve their overall language proficiency.

5.1.2.2.2 Reading

The findings revealed that reading was one of the strategies that Grade 10 learners utilised to develop their English vocabulary. In line learner 30 stipulated; *I borrow my brother's novels and read them*. Learner 22 also said; *I learn new words from reading some books*. These findings concur with the study carried out by Wardani (2015) which discovered that some of the strategies that learners utilised in vocabulary learning included extensive reading of books or articles. Stoffelsma (2019) also emphasise that key strategies for effective vocabulary teaching should include promoting independent reading. Additionally, the findings align with the research conducted by Goundar (2019) which indicated that 91% of the learners developed their vocabulary by reading different types of English texts.

While learners reported using reading as a way to improve their English vocabulary, their responses revealed that they rarely read a wide range of English materials. As a result, their vocabulary levels remained limited. To tackle this problem, educators should offer a variety of reading resources in the classroom, while learners ought to be motivated to embrace the habit of extensive reading to enhance their vocabulary. This is significant as extensive reading fosters a deeper understanding of words, cultivates substantial lexicon, promotes fluency, correct spelling and makes English learning enjoyable (Liu & Zhang, 2018).

5.1.2.2.3 Memorisation

Grade 10 learners reported that they used memorisation to develop their English vocabulary. For instance, learner 6 disclosed; *since I was in primary, I have learned new words by memorising them*. In a similar vein, learner 3 pointed; *I memorise the words, but I often forget them when I have to use them*. In line, Rosyada-AS (2023) postulates that memorisation is one of the techniques that learners can utilise to learn vocabulary, as active participation of learners in vocabulary through intentional memorisation helps in the acquisition and retention of lexical knowledge. It appears that by utilising this cognitive strategy, learners can improve their language abilities and accelerate the learning of English vocabulary, leading to increased fluency and effective communication abilities.

However, memorising words without understanding their meaning or context can lead to surface-level learning, where learners are unable to use the words in a meaningful way (Nation, 2013). Additionally, Schmitt, (2000) argues that memorisation may not lead to long-term retention if not reinforced through regular practice and use. While memorisation has its benefits, it is crucial to complement it with more dynamic learning strategies such as contextual learning, exposure to real-life language, and practical application. By striking a balance between these approaches, learners can develop more effective and long-lasting vocabulary acquisition and retention.

5.1.2.2.4 Using media

The findings indicated that some Grade 10 learners utilised media to enrich their English vocabulary development. For example, learner 26 stated; *I learn new words when I am watching TV*. Another learner said; *I listen to Ultimate radio because it speaks English only, so I learn some words and how they are used*. Learner 10 also noted; *I sometimes learn new words when I am listening to RnB songs*. These findings align with a study conducted by Wardani (2015) which discovered that some of the strategies that learners can utilise in vocabulary learning include

watching movies or televisions and listening to music or YouTube. Similarly, Hatch & Brown (1995) mention that learners can encounter new words with sources such as televisions and radios.

In accordance with Rosyada-AS (2023), the multifaceted utilisation of media resources in vocabulary learning provides personalised and adaptable methods to meet the unique needs and preferences of learners. By integrating media, educators can cater to various learning styles and preferences, fostering a more engaging and inclusive educational atmosphere that promotes effective vocabulary acquisition. Moreover, Rosyada-AS (2023) suggests that this integration not only improves learners' language skills but also enhances their digital literacy, providing them with the crucial competencies required to navigate and engage with the continually changing media technology landscape.

Although utilising media can be beneficial for language learners, there are also some potential negative impacts on English vocabulary development. This is because learners may pick up incorrect pronunciations, slangs, informal language or adopt accents from characters they hear which can affect their spoken English (Lestari & Yositha, 2016; Uzzaman & Roy, 2019). While these reflect real-world communication, learners might struggle with understanding or using these in appropriate contexts as media might not always align with real-life situations (Ebrahimi & Bazaee, 2016). To mitigate these negative effects, learners can supplement media with other language activities, use subtitles to understand context and pronunciation and actively engage by discussing scenes, writing summaries or creating vocabulary lists (Sabouri & Zohrabi, 2015). In summation, these findings show that it is vital to expose learners to diverse opportunities for vocabulary development, including utilising media as an additional resource, while also being mindful of both its benefits and drawbacks.

5.1.2.2.5 Asking the teacher/peers

Some of the Grade 10 learners disclosed that they asked their teacher/peers for the meaning of words they did not know in order to develop their English vocabulary. For instance, learner 12 indicated; *I ask my teacher and my friends who attend English medium schools the meaning of the words I don't understand*. In the same way learner 4 mentioned; *I ask my friend the meaning of the words I don't know*. These findings emphasise the need for teachers to encourage students to ask questions when encountering unfamiliar words. They also underscore the value of peer-to-peer learning, where learners can learn from one another. These align with Schmitt's (1997) theory

which indicates that learners should rely on the social context in which they learn new words. They can achieve this by engaging in communication or interaction with people surrounding them, such as classmates, teachers and friends (Ali, 2021).

These findings are also concurrent to the research conducted by Goundar (2019), which showed that some respondents acquired new vocabulary from their teacher. Nonetheless, it should be noted that relying too heavily on seeking help from others, may lead to lack of confidence in independent learning. Overall, this data highlights that allowing a collaborative and supportive learning environment, where learners feel empowered to seek help from others is very fruitful. However, they should also be able to engage in independent learning just as Sumarta (2016) advises learners to independently explore the meaning of unknown vocabulary using structural knowledge or reference materials.

5.1.2.2.6 Using learned word(activation)

The findings depicted that a significant number of learners reported utilising learned words to improve their English vocabulary. For instance, learner 5 said; *when I learned new words, I use them in sentences*. Learner 3 also claimed; *I use the words I learned in my composition and letter writing*. In similar lines, learner 7 stipulated; *I try to speak the words I learned with my friends*. In support of these findings, Hatch & Brown (1995) and Susanto (2023) state that learners should use words in sentences, collocations and in diverse contexts in order to improve their vocabulary. Using the newly learned English vocabulary either verbally or in writing can help learners to retain vocabulary easily whereby associating a word with something interesting or personally relevant would increase the likelihood of retention (Kandybovich, 2017). For instance, if learners are football fans, remembering the word “unstoppable” in a sentence like “Messi is unstoppable” is more effective than learning it in isolation and memorising it (Kandybovich, 2017).

Generally, these findings suggest that these learners were actively engaging with the vocabulary they learn and incorporating it into their daily language use. This is a positive sign, as it indicated that the learners were not just passively receiving new words, but actively used them in developing their language abilities. This underscores the significance of providing opportunities for learners to practice using new vocabulary in various contexts which can help them develop a deeper understanding of new vocabulary. Although Grade 10 learners used various methods to expand their English vocabulary as discussed, their vocabulary remained limited. This suggests that their

strategies were not yielding the desired results. Therefore, implementing the word mapping approach into this study was deemed necessary to explore its potential to improve students' English vocabulary development.

5.2 The transformative phase

5.2.1 RQ3: How can word mapping be employed to enhance the development of Grade 10 learners' English vocabulary?

This research question focused on how word mapping was implemented to develop the English vocabulary of 10th-grade learners. The process was conducted through an interactive action research cycle as demonstrated earlier, which allowed for the exploration of both the successes and challenges and the identification of areas for improvement.

5.2.1.1 Quantitative phase: Discussions of the post-test results

Post-test results revealed a significant improvement in learners' scores after implementing word mapping activities. The post-test scores, ranging from 74% to 92%, were substantially higher than the pre-test scores, which ranged from 20% to 64%. This suggests that the learners had a better understanding and retained more vocabulary after using the word mapping technique. Overall, the data indicates that word mapping was an effective tool in enhancing Grade 10 learners' English vocabulary retention and comprehension. These results align with the research conducted by Ronaghi et al (2015), which highlighted that after a post-test, the experimental group outperformed the control group suggesting that word mapping significantly improved the vocabulary of Iranian EFL learners.

The study's results also align with Wardani's (2015) research, which indicated an improvement in the number of learners who successfully passed the test after being taught through word mapping, suggesting the usefulness of the method in vocabulary learning. In line with these results, it can be concluded that word mapping is a very useful technique for improving learners' English vocabulary performance and for cultivating extensive lexicon among learners at different levels of education. In concurrence, Karendra et al. (2016) stipulate that word mapping is a versatile technique that learners can utilise in any subject and at any level, either individually, in groups or as a full class. In summary, the results suggest that teachers should consider incorporating this strategy into their instructional practice to reinforce learning and promote deeper understanding of English vocabulary.

5.2.1.2 Qualitative phase: Discussions of the reflective journal

The reflective journal was crucial in uncovering the reasons behind the changes observed in the post-test results after implementing the word mapping intervention. The discussions of the five key skills learners developed during the intervention, which can be attributed to the improved performance seen in the post-test scores are provided in this section.

5.2.1.2.1 Memory skills

The reflective journal revealed that Grade 10 learners' memory skills improved after incorporating word mapping into their learning. This improvement was attributed to the various activities used in word mapping, such as presentations and question-answer sessions, which helped learners retain previously learned vocabulary. These activities were guided by established guidelines of (Schmitt, 1997; Martins, 2021; Catalán, 2003). To ensure learners' working memories were not overwhelmed, I also tailored my approach to align with cognitive load theory, which suggests that working memory has limited capacity and should not be burdened with excessive information.

In accordance with Miller (1956), individuals can handle a restricted amount of information, approximately seven plus or minus two items at a time. Consequently, when learners are presented with too much information, they struggle to retain it (Shibli & West, 2018). Thus, my teaching approach limited vocabulary learning to four English words per lesson, allowing for immediate transfer of new words to long-term memory. This strategy helped learners to store new knowledge and leverage their existing knowledge when learning new material, reducing cognitive overload, aligning with van Merriënboer et al.'s (2003) ideas. By following this approach, Grade 10 learners' memory skills were developed, ultimately retaining a vast English vocabulary.

5.2.1.2.2 Determination skills

Based on the reflective journal, learners developed determination skills as they independently discovered the meanings of words without relying on others. This aligns with Schmitt's (1997) theory on vocabulary learning strategies. According to Sumarta (2016) learners are more likely to retain vocabulary when they use determination strategies, such as making individual guesses, exploring word meanings and using prior knowledge or reference materials. Thus, I provided Grade 10 learners with the opportunity to utilise various resources, guessing techniques and structural knowledge to learn and understand unfamiliar words before learning them collectively as a class. This approach fostered critical thinking, independence and determination, ultimately leading to learners acquiring a significant amount of vocabulary. These findings suggest that word

mapping implementation can be an effective way to promote learner autonomy, critical thinking, and determination in vocabulary acquisition. By offering learners with opportunities to participate in autonomous learning activities and using diverse resources and strategies, teachers can cultivate a sense of ownership and agency in learners.

5.2.1.2.3 Cognitive load modification skills

The findings of the reflective journal showed that word mapping intervention improved Grade 10 learners' skills in managing their cognitive load. By applying cognitive load theory, I adjusted the learning materials to minimise unnecessary distractions and reduce mental overload as suggested by (Sweller et al., 1998). This allowed learners to have more mental resources available for retaining and retrieving information in long-term memory (Skulmoswki & Xu, 2021). To achieve this, I assisted learners in simplifying difficult vocabulary concepts into smaller, more manageable chunks of information, which made it easier for them to learn and retain, ultimately reducing their cognitive burden.

To reduce cognitive load, another recommended strategy is to present information in a gradual and progressive way, starting with simple examples that demonstrate a complete solution (Van Merriënboer et al., 2003). This approach provides scaffolding support for learners, allowing them to learn independently without constant teacher guidance. Following this principle, I helped to learners develop vocabulary acquisition skills by introducing simpler words first, followed by more complex terms. By then allowing them to continue the process with minimal assistance, I enabled them to adjust their own cognitive loads. This skill not only benefited vocabulary development but also enhanced Grade 10 learners' overall ESL learning abilities. Generally, the findings suggest that by applying cognitive load theory in word mapping implementation, learners can develop greater independence and management of their cognitive loads in language learning.

5.2.1.2.4 Knowledge construction skills

The reflective journal' findings revealed that Grade 10 learners improved their ability to construct knowledge after using word mapping. This was accomplished by incorporating the principles of social constructivism, specifically mutual support and scaffolding, as proposed by Vygotsky (1978). Through scaffolding, I provided gradual guidance to help learners master necessary skills and develop self-regulation as recommended by William and Mary (2015). This promoted growth in their thinking, language skills and knowledge construction. To further enhance learners' knowledge construction skills, I utilised learner-centered methods such as discussions,

brainstorming and collaborative learning as suggested by Akpan et al. (2020). By employing these methods, I created a dynamic learning environment that fostered creativity, critical thinking and problem-solving. This did not only enhance learners' knowledge construction skills but also promoted a sense of community and social learning. In overall, the findings imply that educators can use word mapping as a tool to promote knowledge construction in learners, particularly by incorporating scaffolding, mutual support and learner-centered methods.

5.2.1.2.5 Social skills

The findings highlighted that Grade 10 learners' social skills were improved after being exposed to word mapping. This was achieved through the incorporation of social constructivism theory and Schmitt's theory of vocabulary learning strategies which emphasise that learning is fundamentally shaped by social interactions and collaborative engagement with others (Ali, 2021; Kapur, 2018). Consequently, in this study, vocabulary teaching and learning was collaborative, wherein meanings were constructed through mutual support as suggested by (Zhang et al., 2013). Additionally, I ensured that learners of varying abilities learned from each other, encouraging a sense of shared knowledge ownership (Wood et al., 1976). This collaborative approach led to a culture of teamwork, resulting in improved vocabulary development and post-test performance. Generally, the findings demonstrate the necessity of social interaction and collaboration in promoting vocabulary learning and social skill development. By incorporating these elements into teaching practices, teachers can create effective learning environments that promote student engagement, motivation, inclusivity and achievement.

5.3 The transformative phase

5.3.1 RQ4: How does the process of word mapping impact the English vocabulary speaking and writing skills of Grade 10 learners?

This research question identified how word mapping impacted English vocabulary speaking and writing skills of Grade 10 learners. The discussions of this research question focus on exploring deeper consequences of this approach on learners' English vocabulary development and overall language skills.

5.3.1.1 Quantitative phase: Discussions of the descriptive statistics (pre-test and post-test)

The descriptive statistical analysis of the pre-test and post-test data enabled a conclusion to be drawn about the effect of word mapping on English vocabulary development in Grade 10 learners. The results showed that in the pre-test, the minimum score was 20, maximum score 64, and mean

37.87, indicating a relatively low level of vocabulary knowledge. In contrast, in the post-test, the minimum score increased to 74, maximum score to 92, and mean score to 82.37, suggesting a significant improvement in vocabulary knowledge. Additionally, the decrease in standard deviation from 11.99 to 5.26 implies that the scores became more consistent and uniform. These results demonstrate that the word mapping technique had a positive impact on the learners' English vocabulary performance and development.

The results align with the literature review, which suggests that word mapping is a powerful technique for teaching vocabulary, as it assists students to identify the relationships between words and develop a comprehensive understanding their meanings (Wardani, 2015; Widyawanti, 2016). The employment of word mapping in this study led to the significant gains observed in the post-test. Furthermore, it enabled learners to adjust their existing framework of English vocabulary and construct new meanings for unfamiliar words (Al- Dulaimi, 2022), ultimately leading to these notable improvements. In summary, the results strongly support the efficacy of word mapping in improving English vocabulary development specifically in ESL learners.

5.3.1.2 Qualitative phase: Discussions of data from the focus group discussions

The focus group discussions aimed to gather in-depth insights on how word mapping impacted learners' English vocabulary skills, building on the significant improvements revealed in the initial descriptive statistics. Six key themes which emerged in the findings are discussed in this section.

5.3.1.2.1 Improved pronunciation

The findings revealed that the implementation of word mapping enhanced Grade 10 learners' English vocabulary pronunciation. For instance, learner 25 said; *word mapping has helped me with pronouncing English words*. In the same way, learner 14 postulated; *it has helped me to understand that some words have silent letters and practice them correctly when speaking*. Prior to the implementation of word mapping, most learners struggled with pronouncing many words. Research by Afzal (2019) and Thornbury (2004) illustrate that many English language learners face challenges when expanding their vocabulary, including pronunciation difficulties. A study by Surmanov & Azimova (2020) found that pronunciation mistakes were the most common error in vocabulary learning, with 60 words mispronounced by participants. Similarly, in this study, many learners struggled to accurately pronounce words containing silent letters, such as "martyr". As

Rohmatillah (2017) posit that, words with silent letters can be problematic for ESL speakers, leading to errors in both pronunciation and spelling.

The other reason why learners struggled with pronunciation seem to have been due to their lack of understanding of the fundamental elements of speech, including syllables, stress patterns, and rhythms. As AL-Dulaimi (2022) highlights, the varying stresses in polysyllabic words add to the complexity of word pronunciation. To address this issue, I helped learners comprehend the different stresses of the words they were learning and utilised the International Phonetic Alphabet (IPA). According to Britannica (2023), IPA enables language users to accurately represent and analyse spoken language sounds, thereby improving pronunciation. By incorporating these vocabulary instruction methods, I enhanced vocabulary accuracy and deepened learners' understanding of the intricate relationships between sounds and letters, resulting in the significant pronunciation improvements reported by the learners.

5.3.1.2.2 Correct spelling

The data showed that word mapping intervention assisted Grade 10 learners with correct spelling. For example, learner 31 disclosed; *what I have noticed is that I can now write the spelling of words I hear for the first time because in word mapping we were helped with ways of spelling different words*. Adding to that, learner 4 stated; *I have noticed an improvement in my spelling*. Spelling is a significant obstacle in vocabulary acquisition, as the pronunciation of an English word does not always reveal its correct spelling (Susanto, 2023; Al-Dulaimi, 2022; Afzal, 2019). This highlights the importance of considering spelling when teaching vocabulary.

Research has shown that incorporating spelling activities can improve the retention and assimilation of new words, ultimately contributing to better vocabulary understanding (Rosyada-AS, 2023). Therefore, it was essential to focus on improving the spelling skills of Grade 10 learners to help them build a strong foundation in vocabulary. By providing learners with strategies for spelling unfamiliar words, the intervention helped them in gaining a more profound comprehension of word structure and phonics as well as to develop a more automatic and accurate way of decoding words. Overall, the findings imply that teachers should consider incorporating word mapping as a tool to support spelling instruction in their classrooms.

5.3.1.2.3 Understanding of lengthy words

The research findings showed that learners credited word mapping with helping them to accurately pronounce and write long words. For instance, learner 8 revealed; *word mapping has assisted me to write the correct spelling of long words*. Learner 32 added; *as they have said, word mapping has also helped me with pronouncing words, especially the long ones such as “extravaganza”*. English vocabulary instruction and learning can be challenging due to lengthy words as noted by (Thornbury, 2004). Additionally, studies by Abuhabil et al. (2021) and Surmanov & Azimova (2020) found that longer and more complex words are harder to learn and remember compared to shorter and simpler ones. In the case of Grade 10 learners, words such as “telecommunication” were particularly difficult to master, while shorter words such as “cease” were easier to learn. Therefore, it was crucial to dedicate attention to both short and lengthy words.

The improvements identified by learners can be attributed to the fact that word mapping allowed them to visually organise and structure the sounds and letters of long words, making it easier to remember and spell. The findings suggest that word mapping is a valuable tool for language learners seeking to improve their writing and pronunciation skills, particularly when dealing with complex or lengthy words. Teachers can also incorporate word mapping into their instruction alongside other techniques, such as phonics and explicit spelling practice, to provide a comprehensive support system.

5.3.1.2.4 English vocabulary retention

Learners revealed that word mapping intervention helped them with English vocabulary retention. For instance, learner 22 mentioned; *by visualising the connections between words, I was able to retain more vocabulary*. Learner 7 also said; *through word mapping we were helped to use the knowledge we have to understand new words, that made it easier to understand and learn them*. By incorporating three learning theories; Schmitt’s Vocabulary Learning Strategies (1997), Vygotsky’s Social Constructivism (1978), and Sweller’s Cognitive Load Theory (1988), learners were able to effectively retain English vocabulary. These theories guided them in understanding, retaining, recalling, and applying unfamiliar words in both spoken and written contexts.

This was significant as developing and retaining a robust English vocabulary is crucial for improving skills in listening, speaking, reading, and writing (Alqahtani, 2015; Rohmatillah, 2017). As Scott and Nagy (1997) affirmed, having a good vocabulary is essential for conveying one’s thoughts, while grammar alone is insufficient. In summary, the findings suggest that word mapping

engages learners' cognitive abilities, such as visual processing, semantic association, and memory consolidation, which can improve vocabulary retention. This method can therefore be integrated into language learning resources and lesson plans to help students build a stronger vocabulary foundation.

5.3.1.2.5 Boosted confidence

The research findings showed that Grade 10 learners' confidence in using English vocabulary for speaking and writing improved after using word mapping. For example, learner 1 said; *word mapping made it easier for me to spell words correctly, so I feel more confident when writing*. In the similar lines, learner 9 mentioned; *my confidence in speaking and writing English has increased because I can think of more vocabulary words to use*. Learner 21 also postulated; *I have noticed that I am more confident when speaking English, especially when I am discussing with my friends*. These comments suggest that the general communication skills of the learners improved, leading to increased confidence.

Different studies have shown that limited vocabulary can hinder language proficiency and make communication difficult (Rohmatillah, 2017), resulting in reduced confidence. Similarly, Al-Dulaimi (2022) argued that students with limited vocabulary struggle to understand language correctly and participate in class discussions effectively, which can further erode confidence. Thus, implementing word mapping in this study was instrumental in boosting the learners' confidence in English speaking and writing. The implication of these findings is that, by providing a visual representation of words and their relationships, word mapping may help learners to better organise and retrieve vocabulary knowledge, leading to increased confidence in their English language abilities.

5.3.1.2.6 Improved sentence structure and coherence

Some Grade 10 learners acknowledged that their sentence construction and coherence improved as a result of word mapping intervention. For instance, learner 23 highlighted; *using word mapping has helped me understand sentence structures better*. Learner 24 also said; *word mapping has helped me to know the relationship between words, which assists me in writing logical sentences and paragraphs*. These findings imply that word mapping helped learners to organise their thoughts, improve sentence structure and build a stronger foundation in vocabulary. In line, research by Susanto (2023) and Hatch & Brown (1995) suggests that teachers can help learners

understand vocabulary by encouraging them to use words in sentences, collocations and various contexts.

According to Qomariyah & Nafisah (2020), repetition and multiple exposures are also important in enhancing effective word usage and logic in writing. However, Ronaghi et al. (2015) argues that repeated exposure is often neglected. In this study, I provided multiple opportunities for learners to incorporate new vocabulary in their speaking and writing, which helped to solidify their understanding and promoted effective sentence construction, logic and coherence. Generally, the findings suggest that, by using word mapping, learners can better understand sentence structures, organise their thoughts, build stronger vocabulary, and write more logical sentences and paragraphs. As a result, teachers can implement this method to involve learners in more interactive and visual learning experiences, which can enhance their overall proficiency in the ESL.

5.4 Conclusion

This chapter discussed the results and findings of the study, which were in alignment with sequential explanatory mixed-methods approach, participatory action research phases and research questions. The chapter incorporated the relevant literature and theoretical framework that underpinned the research to provide context and relevance to the Lesotho setting. The subsequent chapter presents a conclusion of the entire study.

CHAPTER 6: Conclusion

6.0 Introduction

This chapter concludes the study by summarising its key findings and highlighting their relevance to existing research in the field of English language and linguistics, specifically with regard to vocabulary. The chapter then offers practical implications for teaching and learning, making recommendations that could be useful for educators and researchers in the field. Additionally, it acknowledges the study's limitations and suggests potential areas for future investigation.

6.1 Summary of the Findings

This study explored the effectiveness of word mapping as a strategy for improving English vocabulary skills among Grade 10 learners at a secondary school in Roma. The research found that, prior to the intervention, several factors hindered learners' vocabulary development, including low self-confidence, lack of motivation to practise regularly, limited exposure to the English language, inadequate resources, and ineffective teaching methods. Additionally, ineffective strategies employed by learners, such as over-reliance on rote memorisation and the dictionary, also contributed to their limited vocabulary. The study further revealed that the word mapping intervention was successful in enhancing students' vocabulary proficiency and development. As a result of the strategy, learners demonstrated improved speaking and writing skills, including better pronunciation, spelling, and comprehension of complex words. Word mapping also boosted their confidence, helped them construct coherent sentences, and enhanced their critical thinking abilities. All the words learned through this method became a foundation for deeper understanding and retention of material, aligning with the word mapping's goals of facilitating easier learning and fostering engaged, imaginative, and critical thinking.

6.2 Pedagogical Implications

The findings of this study have significant implications for English language teaching in Lesotho. First, they indicate that one major challenge faced by ESL learners is their limited vocabulary, which impedes their ability to communicate effectively in English and comprehend its meaning in context, resulting in declining English language proficiency over time. Another challenge is that many teachers lack sufficient subject knowledge and pedagogical expertise in English, making it difficult for them to teach a wide range of vocabulary. Furthermore, the study highlights the

importance of vocabulary learning strategies, as proposed by Schmitt (1970), which emphasise learner autonomy and active participation in the learning process. This research suggests that word mapping is an effective method that encourages learners to explore relationships between words and make connections between new material (Widyawanti, 2016). Consequently, incorporating word mapping into language teaching practices can enhance vocabulary development, a crucial skill for effective communication and comprehension. Finally, the study has implications for teacher training programmes, suggesting that teachers should be equipped with the knowledge and skills to teach vocabulary effectively, as inadequate teaching methods are perceived as a major contributing factor to the vocabulary gap.

6.3 Recommendations

This research presents tailored recommendations for different stakeholders based on its results and findings.

6.3.1 National Curriculum Development Centre (NCDC)

The National Curriculum Development Centre should consider revising the Integrated Curriculum to incorporate explicit English vocabulary instruction in secondary schools. This would enable learners to develop communicative competence and functional literacy skills. Additionally, it should assist in providing teachers with specialised training and professional development opportunities to learn effective English vocabulary teaching methods, such as word mapping. Furthermore, NCDC should consider introducing English vocabulary assessments to encourage teacher and learner engagement, while also ensuring that ESL resources are readily available and accessible to all.

6.3.2 Teachers

English teachers are encouraged to utilise interactive and engaging approaches, such as word mapping, to help students develop their vocabulary skills. Additionally, they should focus on assessing learners' vocabulary fluency and proficiency, which can foster critical thinking and accelerate mastery of English vocabulary. The study further suggests that teachers implement collaborative learning approaches to enhance learners' understanding of vocabulary concepts while promoting active participation. Lastly, teachers should acknowledge and respect the varied

linguistic and socio-economic backgrounds of their learners, recognising how these factors influence learning outcomes, and create an inclusive environment that values and honours each student's unique experiences.

6.3.3 Learners

In alignment with the findings, it is suggested that learners make a conscious effort to learn English vocabulary not just in school, but also outside the classroom. This can be achieved by using a variety of sources, including online resources, media platforms, word mapping activities, and reading materials such as articles, magazines, and newspapers. Additionally, learners should develop a habit of extensive reading and engage in peer learning, discussions, and knowledge construction to accelerate their vocabulary development and overall proficiency in English.

6.3.4 Parents and Community

To support the development of English vocabulary in learners, it is recommended that teachers, parents, guardians, and the community work together to extend learning beyond the classroom. By fostering a collaborative approach, they can create a comprehensive learning environment, consequently providing learners with a more well-rounded educational experience.

6.4 Limitations of the Study

This research, which aimed to employ word mapping to enhance Grade 10 learners' English vocabulary development, yielded valuable results, but it is crucial to acknowledge its limitations. One potential limitation is that the sampling method might not have favoured certain classes, as they did not get the opportunity to develop their English vocabulary through word mapping. However, focusing on a single class allowed for a more in-depth examination of participants' progress. The study's reliance on a single school and class also restricted the ability to compare findings with other educational settings, making it difficult to generalise the results to a broader population. Additionally, the time frame of the study may not have captured the long-term effects of word mapping on learners' vocabulary development. Furthermore, this research did not explore whether age and gender play a significant role in English vocabulary acquisition. Despite these limitations, data collection and the implementation of word mapping occurred effectively without overwhelming the participants.

6.5 Areas for Further Research

This study suggests several avenues for future research. As highlighted in the problem statement, there is a significant lack of research on English vocabulary development, particularly in the context of Lesotho, emphasising the need for more studies in this area. To build on this study's findings, future researchers are advised to conduct their studies across multiple school types, including public, private, and international schools, to enable meaningful comparisons. Moreover, it is recommended that word mapping be used in longitudinal studies to examine its long-term effects on students' English vocabulary skills. Additionally, future studies could investigate the effectiveness of various language teaching strategies beyond word mapping in promoting vocabulary development. Finally, researchers could explore whether age and gender have a significant impact on English vocabulary learning to offer deeper insights into the factors influencing vocabulary acquisition.

6.6 Conclusion

This chapter concluded the study by summarising the main findings, discussing their pedagogical implications, and providing recommendations. It further identified the study's limitations and suggested avenues for future research. The research's discoveries and insights shed light on the English vocabulary struggles faced by learners and demonstrate the potential of word mapping as a valuable strategy for ESL learners to build a strong vocabulary foundation. This chapter also serves as a precursor to the reference list.

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APPENDICES

Appendix 1: Parental consent

Dear parent/ guardian

I extend my sincere greetings to you. I am 'Malesia Maboe, a second-year Master of Arts in Education student at the National University of Lesotho, with student number 2013053723. I am seeking your permission for your child to participate in my research project as part of my graduate studies. The title of my research is; *“Employing word mapping to enhance English vocabulary development of Grade 10 learners at a secondary school in Roma.”* I am conducting this study due the worrying trend of declining academic performance among secondary school students in English language, which I believe is attributed to their limited English vocabulary. My aim is to help Grade 10 learners improve their English vocabulary by implementing a word mapping intervention, and I would like your child to be part of this effort.

Data collection methods will involve tests, questionnaire, focus group discussions and reflective journal. Learners' voices from interviews will also be recorded and transcribed for data analysis. More importantly, I am going to adhere to ethical principles that include ensuring your child's confidentiality and anonymity. Rest assured, no risks are linked to participating in this research. It is crucial to emphasise that your child's participation is entirely voluntary. If you allow your child to take part in the study, please sign the attached consent form and ensure that it is returned to the school. For any inquiries or additional information, feel free to reach out to me at +266 63193010 and malesia62@gmail.com.

Thank you for agreeing to allow your child to take part in this study.

Yours Sincerely

'Malesia Agnes Maboe

Consent form

- I am informed about the requirements of my child's participation.
- I acknowledge that my child's involvement in the study is voluntary and has the right to withdraw at any time without explanation.
- I am aware that there are no potential risks associated with my child participating in this research.

- I understand that my child's data will be kept confidential and will remain anonymous.
- All of my all my questions about the research have been thoroughly answered to my satisfaction.

In light of the above conditions, I agree that my child should participate in this research.

Parent/guardian's signature: _____ Parent/guardian's name _____

Date: _____

Appendix 2: Test

$\frac{20}{25} = 80\%$

LEARNERS' ENGLISH VOCABULARY P [redacted]

Name: _____ Date: ____/____/____ Time: _____ Grade: 10 Total marks: 25

Section A: Multiple choice questions
Circle the correct answer for each question.

1. Which of the following is the type or example of infrastructure?
A) School trip
B) Elections
C) Shopping
 D) Telecommunications

2. What is a "chef"?
A) A person who responds to fire emergencies
 B) A professional cook
C) An intelligent student
D) A big city

3. The following are examples or brands of "laptop" except?
 A) Lenovo
B) Desktop
C) HP
D) Acer

4. Which of the following is not a continent?
 A) Lesotho
B) Asia
C) Europe
D) Africa

5. Select the word which is not an "adventurous" activity?
A) Cycling
B) Snowboarding
 C) Babysitting
D) Sailing

(5marks)

SECTION B: Matching exercise
Match each vocabulary word from the list with its corresponding definition.

| Vocabulary word | Definition |
|-----------------|---|
| 1. Apartment | (a) A form of government or political system with a ruler who controls almost part of government, inherits it from parents or relatives and rules until he/she dies or abducts. |
| 2. Neurologist | (b) Vocabulary of a language. |
| 3. Martyr | (c) A doctor who specialises in treating diseases of the nervous system, which include the brain and spinal cord. |
| 4. Lexicon | (d) A set of room for living in especially on one floor of a building. |
| 5. Monarchy | (e) A person who is killed or persecuted because of his/her religious or political beliefs. |

(5 marks)

SECTION C: Fill-in Questions

Fill in the blank spaces with the words provided below;

governance, juvenile delinquent, neurologist, apartment, souvenir

- Lineo came from being a juvenile delinquent to obtaining a law degree at the age of 22.
- I want to keep this souvenir photo very safe.
- Mary has started seeing a governance for her brain damage.
- Lesotho needs a better neurologist to develop.
- You will find us at our apartment.

(5marks)

3

SECTION D: True or false questions

Read each statement and indicate whether it is true/false.

1. A spinster is a masculine noun of widow. True
2. There are only 3 continents in the world. False
3. A conjunction is a word that is used to connect words, phrases and clauses. True
4. Pleasant is a synonym of angry. True
5. Juvenile delinquents are more likely to miss getting an education than non-delinquent kids. True

(5 marks)

2

SECTION E: Sentence construction

Write sentences using the following English vocabulary:

1. Chandelier
2. Resort
3. Extravaganza
4. Citizen
5. Flowerpot

(5 marks)

1. I see Chandelier when I watch TV
2. I saw Chandelier at Movie at the cinema
3. I Resort to my vacation
4. I am going to Citizen on Tuesday.
5. I bought flowerpot last night

Appendix 3: Questionnaire

Dear learner

I extend my warm regards to you. I am 'Malesia Maboe, a second-year Master of Arts in Education student at the National University of Lesotho, with student number 2013053723. I am conducting a research project as part of my graduate studies titled; *“Employing word mapping to enhance English vocabulary development of Grade 10 learners at a secondary school in Roma.”*

I am conducting this study due the worrying trend of declining academic performance among secondary school students in English language, which I believe is attributed to their limited English vocabulary. My aim is to help Grade 10 learners improve their English vocabulary by implementing a word mapping intervention, and I humbly seek your participation in this participatory action research.

Please be aware that your participation is voluntary, and I am going to maintain confidentiality and respect your anonymity throughout the process. Therefore, please feel free to answer the questions honestly and to the best of your ability. You will only need less than an hour to complete this questionnaire. Thank you for agreeing to participate in this study.

NB: Please do not write your name and kindly answer all the questions.

Section 1: Demographic information

What is your gender?

- (a) Male
- (b) Female

How old are you?

- (a) 14
- (b) 15
- (c) 16
- (d) 17
- (e) 18 and above

Section 1: Structured questions

Circle **yes** or **no** for each of the following questions:

1. Do you believe English vocabulary learning is important in your ESL learning? (**Yes/ No**).
2. Do you engage in any English vocabulary activities outside the class? (**Yes/No**).
3. Are there any strategies that you have found particularly effective in learning and retaining new vocabulary? (**Yes/ No**).
4. Have you used any multi-sensory approaches to learn English vocabulary? (**Yes/ No**).
5. Have you ever heard or used word mapping technique to develop your English vocabulary? (**Yes/ No**).

Section 2: Unstructured questions

1. How effective is dictionary usage in your English vocabulary development?

.....
.....
.....

2. Describe some of the strategies that learners can utilise to expand their English vocabulary beside the dictionary?

.....
.....
.....

3. Among these strategies, explain which specific ones you use to enrich your English vocabulary.

.....
.....

4. How do these strategies assist you to remember and use English vocabulary appropriately?

.....
.....
.....

5. Why do you think your English vocabulary is still low despite using these methods?

.....
.....
.....

Appendix 4: Focus group discussions guide 1

Title of the study: *Employing word mapping to enhance English vocabulary development of Grade 10 learners at a secondary school in Roma.*

NB: Kindly know that your involvement is voluntary, and I am going to adhere to ethical principles that include ensuring your confidentiality and anonymity. Your voices are going to be recorded and transcribed for data analysis. The recordings will be securely kept and destroyed once their purpose has been fulfilled. Therefore, feel free to respond openly and honestly. Your willingness to take part in this study is highly appreciated.

1. How often do you dedicate your time to learn new English vocabulary?
2. Explain factors that cause your English vocabulary to be limited.
3. What measures have you taken to minimise this problem?
4. In what ways do your teachers assist you to understand unfamiliar English words?
5. In your view, what could be done to support learners in expanding their English vocabulary?

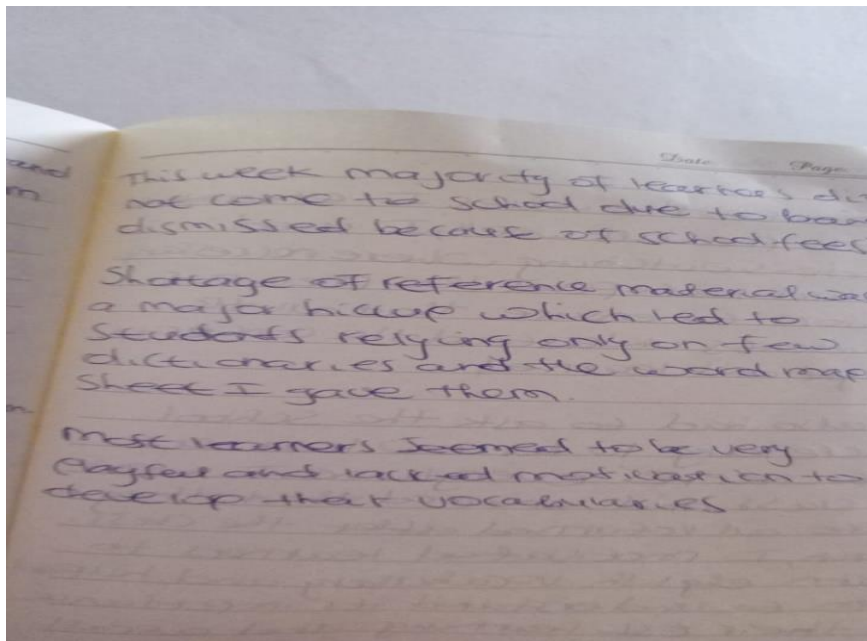
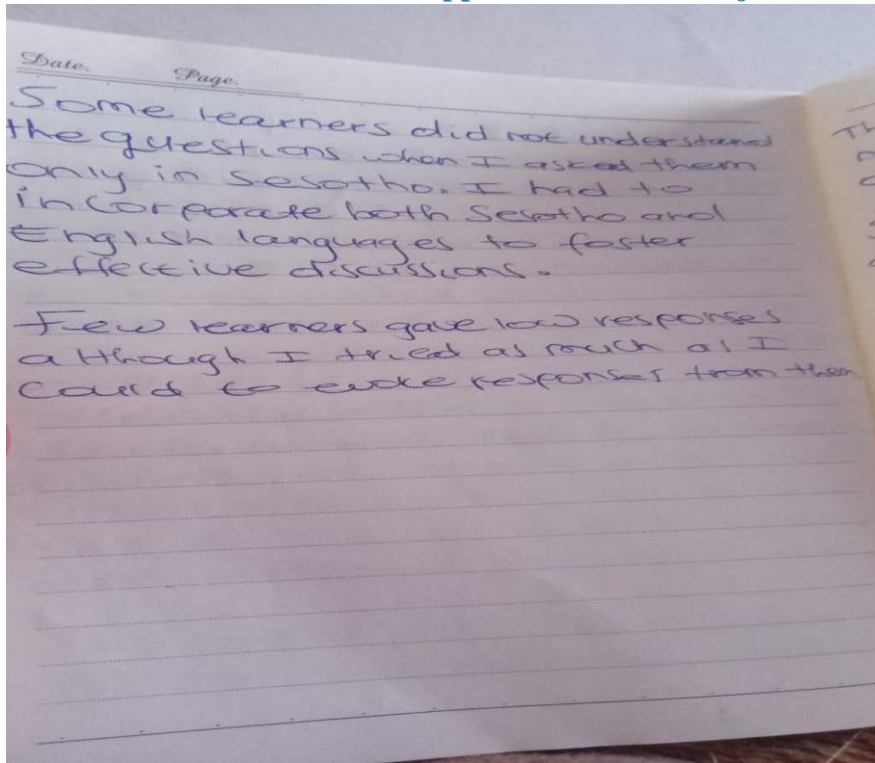
Appendix 5: Focus group discussion guide 2

Title of the study: *Employing word mapping to enhance English vocabulary development Grade 10 learners at a secondary school in Roma.*

NB: Kindly know that your involvement is voluntary, and I am going to adhere to ethical principles that include ensuring your confidentiality and anonymity. Your voices are going to be recorded and transcribed for data analysis. The recordings will be securely kept and destroyed once their purpose has been fulfilled. Therefore, feel free to respond openly and honestly. Your willingness to take part in this study is highly appreciated.

1. In what ways have word mapping helped you to become a better English language speaker?
2. Which improvements have you noticed in your English vocabulary writing skills since incorporating word mapping into your study routine?
3. What changes have you identified in your overall confidence levels when speaking or writing in English since utilising word mapping?
4. In what ways did word mapping contribute to better retention of English vocabulary over time which could assist you in speaking and writing?
5. In your opinion, do you believe that word mapping is a valuable tool for improving English vocabulary skills for ESL learners at the grade 10 level? Why or why not?

Appendix 6: Reflective journal



Date: _____ Page: _____

To solve the issues I encountered in the previous week, I used code-switching where necessary. I had to repeat the previous lessons to ensure that all the students understood the concepts taught and learned.

I also had to ask the school secretary to borrow learners dictionaries everytime I went to class and ensured that they were all returned after the class. Again, I motivated learners to learn English vocabulary and helped them to understand its importance in their ESL learning and overall performance.

Appendix 7: Turnitin similarity report

'MALESIA MABOEE'S THESIS.docx

ORIGINALITY REPORT

| | | | |
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