

Translanguaging as a pedagogical strategy to improve the reading comprehension of Grade 4 learners in a Limpopo primary school

by

Makgabo Rebecca Ledwaba

A dissertation submitted in fulfilment of the requirements for the degree of

Master of Arts in Linguistics

in the Unit for Academic Literacy

Faculty of Humanities

University of Pretoria

Supervisor: Dr N.A.Y. Boakye

October 2020

TABLE OF CONTENTS

LIST OF TABLES	v
LIST OF FIGURES	vi
LIST OF ABBREVIATIONS	vii
ACKNOWLEDGEMENTS	viii
ABSTRACT	ix
Chapter 1: Introduction.....	1
1.1 Introduction.....	1
1.2 Background.....	2
1.3 Reading comprehension and translanguaging	3
1.3.1 Reading comprehension.....	3
1.3.1.1 <i>Possible causes of poor reading comprehension of Grade 4 learners</i>	4
1.3.2 Translanguaging.....	4
1.4 Problem statement	6
1.5 Gaps in existing research	7
1.6 Research questions, objectives and hypotheses.....	8
1.6.1 Research questions.....	8
1.6.2 Aim and objectives of the study.....	9
1.6.3 Hypotheses	9
1.7 Methodology.....	9
1.7.1 Research design	10
1.7.2 Participants.....	10
1.7.3 Instrument	10
1.7.4 Research procedure	10
1.7.4.1 <i>Phase 1: Pre-test phase (question 1)</i>	11
1.7.4.2 <i>Phase 2: Intervention phase</i>	11
1.7.4.3 <i>Phase 3: Teachers' opinions and learners' views</i>	11
1.7.4.4 <i>Phase 4: Analysing pre- and post-intervention results</i>	11
1.7.4.5 <i>Phase 5: Evaluation and conclusion</i>	12
1.8 Conclusion	12
1.9 Structure of the thesis	12
Chapter 2: Literature review	13
2.1 Introduction.....	13
2.2 Reading theories	13
2.2.1 Bottom-up approach.....	13
2.2.2 Top-down model.....	14
2.2.3 Interactive model	15
2.3 Reading process	16
2.3.1 Lower-level processing.....	17
2.3.2 Higher-level processing	18
2.4 Reading comprehension.....	20
2.4.1 Reading comprehension and metacognition	22
2.4.2 Factors influencing reading comprehension	23
2.4.2.1 <i>Social aspects</i>	23
2.4.2.2 <i>Affective aspect of reading comprehension</i>	24
2.4.2.3 <i>Reading motivation</i>	25
2.5 Translanguaging as a pedagogical strategy	27
2.5.1 Distinction between translanguaging and code-switching.....	28
2.6 Issues pertaining to teaching and learning.....	30

2.6.1	Scaffolding	30
2.6.2	Zone of proximal development	31
2.6.3	Language transfer.....	32
2.7	Translanguaging in the classroom	34
2.8	Theoretical framework.....	39
2.10	Conclusion	42
Chapter 3:	Methodology	43
3.1	Introduction.....	43
3.2	Research design	43
3.3	Participants	44
3.4	Instruments	45
3.5	Data collection	46
3.5.1	Stage 1.....	46
3.5.2	Stage 2.....	46
3.5.3	Stage 3.....	47
3.6	Data analysis.....	47
3.6.1	Quantitative data	47
3.6.2	Qualitative data	47
3.7	Research procedure.....	47
3.7.1	Phase 1	47
3.7.2	Phase 2	48
3.7.2.1	<i>The intervention (example of lesson presentation) (Grade 4B intervention group)</i> 49	
3.7.2.2	<i>The pre-reading</i>	52
3.7.2.3	<i>The reading</i>	52
3.7.2.4	<i>The post-reading</i>	52
3.7.3	Phase 3	53
3.7.4	Phase 4	54
3.7.5	Phase 5	54
3.8	Ethical considerations	55
Chapter 4:	Presentation and discussion of data	57
4.1	Introduction.....	57
4.2	Presentation of learners' data.....	57
4.2.1	The socio-demographic characteristics of the learners	57
4.2.2	Learners' ANA test results.....	58
4.2.2.1	<i>Pre-test</i>	58
4.2.2.2	<i>Post-test</i>	61
4.2.2.3	<i>Inferential statistics (paired and independent t-tests)</i>	63
4.2.2.4	<i>Discussion</i>	67
4.2.3	Learners' questionnaire responses	69
4.2.4	Discussion	73
4.3	Presentation of teachers' data	75
4.3.1	Socio-demographic characteristics of the teachers	75
4.3.2	Quantitative analysis of teachers' responses to the questionnaire	76
4.3.3	Descriptive statistics of teachers' closed-ended questionnaire responses	77
4.3.3.1	<i>Summary</i>	78
4.3.3.2	<i>Discussion</i>	78
4.3.4	Qualitative analysis of teachers' open-ended questionnaires	81
4.3.4.1	<i>Summary</i>	85
4.3.4.2	<i>Discussion</i>	86

4.3.5	Cognitive outcome	87
4.3.6	Affective outcome.....	87
4.4	Integration of learners’ test results and questionnaire responses, and teachers’ closed- and open-ended questionnaire	88
4.5	Conclusion	90
Chapter 5:	Conclusion	91
5.1	Introduction.....	91
5.2	Research problem and theoretical framework	92
5.3	Summary of results	94
5.4	Significance of the study	97
5.5	Recommendations.....	98
5.5.1	Teaching strategies for reading comprehension	98
5.5.2	Professional development of teachers.....	99
5.5.3	Presentation of findings to the Head of Department and the school.....	100
5.6	Limitations and further research	100
5.6.1	Open-ended questionnaires versus interviews	101
5.6.2	Duration of the intervention.....	101
5.6.3	The scope of the study	101
5.7	Conclusion	102
REFERENCES.....		103
APPENDICES		122
Appendix A:	Ethical clearance from the University of Pretoria	122
Appendix B:	Informed consent for teachers	123
Appendix C:	Informed consent for parents/guardians	124
Appendix D:	Assent form for learners	126
Appendix E:	Ethical clearance from the School Principal of Paxana Primary School	128
Appendix F:	Ethical clearance from the Head of Department	129
Appendix G:	ANA 2014 comprehension test	131
Appendix H:	Questionnaires for Grade 4B learners	137
Appendix I:	Questionnaires for Grade 4 teachers	138

LIST OF TABLES

Table 2.1: Working memory processes for reading (Grabe & Stoller, 2011:14)	17
Table 4.1: Socio-demographics of the learners.....	57
Table 4.2: Grade 4A pre-test.....	59
Table 4.3: Grade 4B pre-test.....	60
Table 4.4: Grade 4A post-test	62
Table 4.5: Grade 4B post-test	62
Table 4.6: Paired t-test	64
Table 4.7: Independent t-test.....	65
Table 4.8: Responses to 10 questions on the integrated use of Sepedi and English.....	69
Table 4.9: The socio-demographic characteristics of teachers	76
Table 4.10: Means and standard deviation of teachers' questionnaire responses.....	77
Table 4.11: Benefits and disadvantages of using Sepedi and English.....	84

LIST OF FIGURES

Figure 2.1: Zone of proximal development diagram, Lev Vygotsky (1896–1934).....	31
Figure 2.2: Separate and common underlying proficiency (Cummins, 2007).....	33
Figure 2.3: Cummins’ dual iceberg model of language interdependence	40
Figure 3.1: Learners getting ready to write ANA test (pre-test).....	48
Figure 3.2: Examples of sight words	49
Figure 3.3: Researcher explaining vocabulary in English and Sepedi.....	50
Figure 3.4: Learners sighting difficult words	50
Figure 3.5: Learners matching sight words in English with sight words in Sepedi	50
Figure 3.6: Step 3: The researcher explaining all the sight words in English before reading the story to the learners.....	51
Figure 3.7: Learner showing understanding of a sight word	51
Figure 4.1: Bar graph showing level of agreement.....	72
Figure 4.2: Pictures showing learners’ participation	74
Figure 4.3 Teachers’ responses to closed-ended questionnaire	80

LIST OF ABBREVIATIONS

ANOVA	Analysis of variance
CALP	Cognitive academic language proficiency
CUP	Common underlying proficiency
DBE	Department of Basic Education
HIV	Human immunodeficiency virus
HL	Home language
IEA	International Association for the Evaluation of Educational Achievement
LoLT	Language of learning and teaching
PanSALB	Pan South African Language Board
PIRLS	Progress in International Reading Literacy Study
RQ	Research question
SACMEQ	Southern and Eastern Africa Consortium for Monitoring Education Quality
SUP	Separate underlying proficiency
ZPD	Zone of proximal development

ACKNOWLEDGEMENTS

Firstly, I would like to thank Almighty God for giving me the strength and courage to start and finish this work. Thank you, Lord.

I wish to express my sincere appreciation to my supervisor, Dr Naomi Boakye, who has the substance of a genius: she convincingly guided and encouraged me to be professional and do the right thing. Without her persistent help, the goal of this project would not have been achieved. The meetings and conversations were vital in inspiring me to think outside the box, from multiple perspectives, to form a comprehensive and objective critique. I am extremely grateful for our friendly chats at the end of our meetings. She has been more than a supervisor to me.

Thanks to the Research Ethics Committee for the words of encouragement after the approval of my research proposal.

I would like to thank Andries Masenge at the University of Pretoria for providing statistical advice and helping with statistical analysis. I appreciate his time and patience. I would also like to acknowledge Paxana Primary School for their participation and engagement in the study.

I cannot forget to thank Prof Moloko Sepota and Dr Malephohole Sefotho for reading and commenting on my work. My special thanks to Prof Leketi Makalela for being inspirational.

Thanks to my family for all the support they have shown me during the process of conducting this research. To my children, sorry for being too busy for you while I was writing this thesis. Thanks also to my husband Manana for bearing with me while I sat in the study room for hours on end, and for providing guidance. Finally, I would like to extend my sincere gratitude to my brother Josias for sacrificing his time accompanying me to and from the university and spending hours waiting for me while I met with my supervisor.

May the good Lord bless you all.

ABSTRACT

The low reading proficiency of Grade 4 learners is a major concern. The use of English (an additional language for the majority of learners in South Africa) as the language of learning and teaching (LoLT) may have contributed to the poor comprehension skills of these learners. The purpose of this research was to evaluate the use of translanguaging as a pedagogical strategy to improve the reading comprehension of Grade 4 learners in a primary school in Limpopo Province.

A mixed methods design was used for the study, which was conducted in five phases. In phase 1, 70 learners in a control group and an intervention group wrote a pre-test to determine their reading proficiency level, as well as to establish the homogeneity of the two groups (research question 1). In phase 2, an intervention based on a translanguaging reading instruction programme was conducted with the intervention group. In phase 3, the learners from both groups wrote a post-test at the end of the intervention, and the intervention group completed a questionnaire on the integrated use of Sepedi and English. In addition, six Grade 4 teachers from the school completed open- and closed-ended questionnaires. In phase 4, t-test analysis of learners' pre- and post-test results was used to determine the differences within and between the two groups. Quantitative analysis of the learners' questionnaire responses and the teachers' closed-ended questionnaire responses, together with qualitative analysis of the teachers' open-ended questionnaire responses, were used to answer research questions 3 and 4. In phase 5, the results of the qualitative and quantitative analyses were integrated and evaluated to determine the effectiveness of the intervention. While the pre-test results showed that the learners' reading proficiency level was below 50% for both groups, the results of the post-tests (independent and paired t-tests with effect sizes) showed that the intervention group had improved significantly more than the control group. The findings revealed that there was a statistically significant difference between the two groups. The questionnaire responses also showed benefits of the translanguaging approach, as indicated by the learners and the teachers. Based on the findings, recommendations were made for the adoption of a translanguaging teaching approach in schools. The dissertation concluded by showing the significance of the study, which lies in its finding that translanguaging can be used successfully as a pedagogical strategy to improve the reading comprehension of Grade 4 learners using Sepedi and English texts.

Keywords: translanguaging, reading comprehension, reading proficiency level, Grade 4 learners' pedagogy

Chapter 1: Introduction

1.1 Introduction

The ability to read proficiently is important for successful learning. Reading underlies all forms of academic activity and offers learners access to civic opportunities beyond schooling.

As reading is fundamental to writing (Alderson, 2000; Belcher, 1990; Butler, 2007) and writing is the channel through which students' academic performance is assessed, students largely depend on proficient reading to succeed academically.

Research has shown that proficient reading leads to successful academic performance. Learners who are proficient readers are usually more academically successful than poor readers (Pretorius, 2002; Taylor & Yu, 2009; Boakye & Mai, 2016). However, a large majority of SA learners have poor reading ability and struggle to read efficiently. These learners encounter huge challenges in reading. In South Africa, the results from large-scale national systemic literacy assessments in the first decade of this century drew attention to a literacy crisis. Learners were found to be at least three years below their expected reading proficiency level in both English and home languages other than English (Department of Education, 2005; Makalela, 2012; Pretorius & Currin, 2010). Further evidence of poor literacy is shown in South Africa's performance in the Progress in International Reading Literacy Study (PIRLS) (Mullis, Kennedy, Martin & Sainsbury, 2006; Mullis, Martin, Kennedy, Trong & Saisburg, 2009). The PIRLS assesses reading comprehension at Grade 4 and 5 levels in English and other languages. The results have consistently placed South Africa at the bottom of the low-performing countries (Mullis et al., 2006). The results of these assessments point to the poor comprehension skills of learners in both their home languages and English. However, for multilingual learners, research indicates that reading in a home/first language serves as a foundation for reading in the language of learning and teaching (LoLT). Thus, both the home language and the LoLT may work in synergy to improve reading ability in both languages.

The use of English (an additional language for the majority of learners in South Africa) as the LoLT has been shown to have contributed to the poor reading comprehension skills of learners (Heugh, 2006; Howie et al, 2008; Pretorius & Machete, 2004) A number of younger learners developed negative attitudes towards reading and writing owing to the use of English as the LoLT, and thus avoided these crucial academic activities. The majority of learners in the lower grades, especially those from rural areas, only start learning English at school, which creates a

problem when they progress to Grade 4 where the curriculum shifts from learning to read to reading to learn, and from mother-tongue instruction to English as the medium of instruction. Learners encounter challenges in the interpretation of texts and with answering examination questions. Thus, innovative instructional techniques/approaches are necessary to help these learners improve their reading of academic texts and overall reading proficiency.

The use of the first language as a resource could be a possible way to address reading challenges by allowing learners to approach reading and literacy activities from a known and comfortable position, using their knowledge of the first language to negotiate meaning (Makalela, 2015b; Matjila & Pretorius, 2004; Mkhize, 2016; Sefotho & Makalela, 2017; Ramani, Kekana, Modiba & Joseph, 2008). The use of various literacy practices and repertoires in the classroom removes the restrictions and use of restricted code, and allows learners to move back and forth between the LoLT and a home language (HL) other than the LoLT. This practice, referred to as translanguaging, is said to have positive effects on the learners' cognitive development, reading ability and identity affirmation, which consequently improves learning and fosters positive attitudes towards reading (Makalela, 2015b). The present study therefore sought to improve learners' reading comprehension in both Sepedi (home language) and English (LoLT) using a translanguaging approach.

1.2 Background

The South African Constitution (South Africa, 1996) declared eleven languages spoken in the country as official languages and afforded every child the right to be taught in any language of their choice, where this is reasonably practicable (Serfontein, 2013). These languages are isiZulu, isiXhosa, isiNdebele, SiSwati, Sepedi, Sesotho, Setswana, Xitsonga, Tshivenda, Afrikaans and English. In addition, the Language in Education Policy (Department of Basic Education, 1997) accorded school governing bodies (SGBs) the authority to decide on the school's language policy, in order to promote multilingualism in learning and teaching. Parents choose the LoLT on behalf of the learner in accordance with the Language in Education Policy (Department of Basic Education, 1997). Despite this directive, the issue of LoLT and the use of indigenous languages in schools still remains a point of contention. Section 29(2) of the Constitution now specifically protects the right to receive basic education in the language of one's choice where this is reasonably practicable (South Africa, 1996). Evidently, the majority of learners do the first three years of schooling (Foundation Phase) in their first language (L1) or HL as the LoLT. English is introduced as a first additional language (FAL) in Grade 1, and

the transition to English as the LoLT occurs in Grade 4. This means that many South African learners have the opportunity to read texts in at least two languages—in the HL at Foundation Phase and in English from Grade 4. The LoLT in the Foundation Phase in Maraba Circuit, where the school in this study is based, is Sepedi, and in Grade 4 (Intermediate Phase) there is a switch to English as the LoLT.

When learners switch from learning to read in the Foundation Phase to reading to learn in Grade 4, they also switch from learning English as a subject to using English as the LoLT, which in a number of schools is done without proper phasing in or scaffolding. Bruner (1983) defines scaffolding, in relation to children's learning, as a process of setting up the situation to make the child's entry easy and successful, and then gradually pulling back and handing the role to the child as he/she becomes skilled enough to manage it. It is within this context—of learners facing challenges in reading in English owing to the lack of scaffolding, among other factors, when English is introduced as the LoLT in Grade 4—that this study seeks to make a difference.

1.3 Reading comprehension and translanguaging

Reading comprehension (which is simply the ability to read and understand texts) and translanguaging (which is the use of more than one language to make meaning) are briefly discussed in this section. Both concepts are examined in greater detail in the literature review in Chapter 2.

1.3.1 Reading comprehension

According to Woolley (2011), reading comprehension is the process of making meaning from text, and the goal is therefore to gain an overall understanding of what is described in the text rather than to obtain meaning from isolated words or sentences. Snow (2002) maintains that reading comprehension involves the reader interacting with text to construct meaning. Accordingly, Grabe (2009) defines it as the level of understanding of text/messages. Tompkins (2011) concurs, and defines it as the ability to process text, understand its meaning, and integrate it with what the reader already knows. Based on the definitions given above, reading comprehension can be defined as the meaning-making of messages or text by the reader and the ability to answer questions to show understanding of a passage. Pardo (2011) indicates that once teachers understand what is involved in comprehending and how the factors of reader, text and context interact to create meaning, they can more easily teach their learners to comprehend effectively.

1.3.1.1 *Possible causes of poor reading comprehension of Grade 4 learners*

Reading researchers identify a number of factors (e.g. cognitive, social and affective) that influence a learner's reading comprehension (Alderson 2000; Grabe & Stoller 2002; Guthrie & Wigfield 2000; Taylor & Yu 2009; Wigfield & Lutz 2005). Furthermore, research shows that there are several underlying causes for poor reading comprehension. Among the reasons are the complex process of learning to read, the type of instruction, the method for decoding, prior knowledge and development of vocabulary (Caposey & Heider, 2003). Hausheer, Hansen & Dumas (2011) argue that poor reading skills affect both reading fluency and comprehension for elementary school students.

Research conducted by Klingner, Urbach, Golos, Brownell and Menon (2010) indicates that teachers of students with learning challenges and reading problems across several states and classroom settings had a tendency to focus on literacy skills related to phonological awareness and decoding, and strategies related to increasing comprehension were rarely observed and even less frequently explicitly taught. Jordai (2011) maintains that another aspect holding students back from comprehending literature is lack of fluency, or inability to participate, in reading behaviours such as making words, identifying words in a text, and writing words. There is therefore a need for teachers to incorporate and teach reading comprehension strategies in Grade 4. Although a brief overview of possible causes of poor reading comprehension has been provided in this section, factors influencing reading comprehension will be discussed in detail in the literature review in Chapter 2.

1.3.2 **Translanguaging**

Translanguaging is broadly defined as a pedagogical strategy that uses more than one language simultaneously (Lewis et al. 2012; Williams 2002). The term was first coined in Welsh "trawsieithu" by Williams (1994). It was first called "translinguifying" in English and then translated and made popular by Baker (2001) as "translanguaging". It refers to a pedagogical practice that alternates the use of two languages for input and output in the same lesson (Williams 1996). The purpose is to get information in one language and to work with that information in the other language. According to Williams (2002), the pedagogical practice of translanguaging works both ways, and increases comprehension in the two languages. Lewis et al. (2012) explain that, "translanguaging" uses the stronger language to develop the weaker one, and in this way, it implies a deep understanding of meaning, which can result in increased proficiency in the two languages.

Translanguaging is currently perceived as an approach to resolve the issue of poor reading literacy among multilingual readers (Creese & Blackledge, 2010; García, 2009a; Makalela, 2015b). García (2009a) has introduced translanguaging as a way to represent the fluid discursive practice of bilingual people. The pedagogical strategy labelled translanguaging binds the two (or more) languages together to foster the dynamic and integrative use of bilingual students' languages (Lasagabaster & García, 2014). Lasagabaster and García (2014) further argue that translanguaging creates a space in class where languages are smoothly incorporated and naturally accepted as a legitimate pedagogical practice. Based on the definition given, learners are given freedom to use their home languages, and diversity is thus considered. In this study, I consider translanguaging as a promising strategy. According to García & Wei (2014), not only does translanguaging promote comprehension of the content being taught, but it reinforces the weaker language as well. The weaker language in this study is English and the stronger language is Sepedi.

Boakye and Mbirimi (2015) argue that the use of translanguaging as a strategy for negotiating meaning could serve as a scaffold to enhance comprehension challenges faced by learners. Bruner (1983) defines scaffolding as a process of setting up the situation to make the child's entry easy and successful and then gradually pulling back as he/she becomes skilled enough to manage it. According to the definition given, learners who are unable to comprehend what they are reading on their own may be helped through scaffolding, using translanguaging as a teaching approach to allow learners to read independently. Furthermore, Makalela (2015b) defines translanguaging as a pedagogical practice in which learners are required to alternate between languages for the purposes of reading, writing and acquiring knowledge. According to this view, translanguaging allows learners to be free and actively involved in learning.

García (2009a) argues that translanguaging is indeed a powerful mechanism to construct understandings, to include others, and to mediate understanding across language groups. Furthermore, García (2009a) views translanguaging as an approach to bilingualism that is centred not on languages, but which is interpreted, understood and practised in schools as a means to enhance learners' cognitive, language and literacy abilities. According to this definition, translanguaging helps to promote bilingualism and gives indigenous languages a chance to be used in education and to help learners understand concepts better. It also fosters an understanding and acceptance of linguistic differences.

The aim of translanguaging is not only to help learners understand words, phrases and sentences during reading and learning in two languages, but also to use both languages to help them learn concepts and facilitate cognitive development. The thinking underlying translanguaging is that when all the languages present among the learners are used, the quality and depth of learning and reading will improve. In addition, the learner will grasp concepts better, participate more fully and master the content.

It is against this background that the study seeks to investigate translanguaging as a teaching approach for reading development in Grade 4 classrooms.

1.4 Problem statement

Various studies and assessments of South African learners show poor reading proficiency levels. Studies conducted by the Department of Basic Education (DBE) (2013) and other external agencies such as the International Association for the Evaluation of Educational Achievement (IEA) (Howie et al., 2008) and the Southern and Eastern Africa Consortium for Monitoring Education Quality (SACMEQ II) confirm the lower levels of literacy among South African learners (Murimba, 2005). These assessments show that the learners perform poorly at tasks related to reading.

The results of these assessments showed that learners were struggling to read and comprehend test questions (Cromley, 2009). In particular, learners seemed to struggle with fluency, vocabulary and comprehension. Makalela's (2012) study on the reading proficiency of learners in schools around Polokwane found that the learners had low reading proficiency in both English (the LoLT) and Sepedi (their home language).

The 2016 PIRLS results also showed that eight out of ten South African learners cannot read for meaning. In essence, 75% of Grade 4 learners cannot read for meaning in any language. A report by the Minister of Education on the SA 2016 PIRLS results showed low reading levels among learners in all provinces, with Limpopo Province having the highest percentage (90%) of learners with low reading proficiency (Howie, Van Staden, Tshele, Dowse & Zimmerman, 2012). In addition, South African Grade 4 learners achieved an average score of 253 in the PIRLS, which was far below the fixed international score of 500 (Howie et al., 2012). These results point to extremely low reading comprehension ability, which requires serious interventions using various pedagogical strategies or approaches.

The learners' poor literacy results and generally low academic performance in various tests have been attributed to a number of factors, including teachers' competence in teaching reading comprehension, the school environment, poor home conditions, and, in particular, inappropriate teaching methods and approaches to teaching reading in general (Howie et al., 2017; Greaney, 1996).

The transition from Grade 3 to Grade 4, where there is a switch to using English as the LoLT, contributes to learners' poor reading comprehension, as I have experienced in 24 years of teaching (14 years in Grade 3 and 10 years in the Intermediate Phase—Grade 4 to Grade 6). There is, therefore, a need to find effective ways to improve learners' reading comprehension, especially at the Grade 4 level. The study thus aims to use translanguaging as a scaffold to improve the reading proficiency of Grade 4 learners in both Sepedi (HL) and English (LoLT) and to evaluate its effectiveness. In particular, the intervention attempts to use translanguaging to improve the reading comprehension of Grade 4 learners in a rural school.

The study intends to evaluate an intervention to improve learners' reading comprehension using both Sepedi and English as interdependent languages in meaning-making, which is necessary due to learners' poor performance under the current monolingual approach and the haphazard code-switching method occasionally used by teachers.

1.5 Gaps in existing research

Despite the fact that, after the advent of democracy in 1994, the South African Constitution (South Africa, 1996), the Language in Education Policy (Department of Basic Education, 1997) and the Pan South African Language Board (PanSALB) denoted eleven official languages, which were supposed to receive equal status (Ntsoane, 2005), none of the nine indigenous African languages is officially used as the LoLT from Grade 4. In addition, learners' existing skills and literacy practices in their various languages are not acknowledged by their teachers in school. Yet the country's Constitution advocates for multilingual education. Although some rural schools have teachers code-switching between English and the home language in teaching and learning, this is done as a result of their low proficiency in English, and in a haphazard manner; consequently, this switching between languages does not provide learners with successful and systematic learning. Learners continue to face challenges in reading and learning in the LoLT, especially from Grade 4, when they are supposed to move from learning to read to reading to learn.

While extensive research has been conducted on improving learners' reading proficiency in English (e.g., Howie et al., 2012), very little is known about using translanguaging as a pedagogical approach to improve the reading proficiency of learners in both their home languages and English. In order to fill this gap of knowledge in the field and deepen our understanding of multilingual reading processes in the foundation years, there is a need for a study of this nature to push the boundaries of knowledge and advance successful reading in more than one language at the same time.

Research on reading comprehension in primary schools is limited, and that on Grade 4 in relation to intervention is non-existent. Although Makalela (2012) has done some work using Grade 5 learners, attention has not been given to Grade 4 learners.

There is a need to examine learners in Grade 4 due to the increasing number of learners who cannot read with understanding at the Grade 4 level and the fact that emphasis is shifted from learning to read in Grades 1 to 3, to reading to learn in Grade 4.

The aim and objectives of the research are identified, and the research design for investigating translanguaging as a pedagogical strategy to improve the reading comprehension of Grade 4 learners, as well as designing and testing an intervention for the target group at Paxana Primary School, are briefly outlined below.

1.6 Research questions, objectives and hypotheses

This section presents the research questions, the aims and objectives, and the hypotheses.

1.6.1 Research questions

In relation to the issues discussed above, five research questions were formulated for the purpose of the study.

1. What is the reading proficiency level of the cohort of Grade 4 learners?
2. What translanguaging teaching approach can be used to improve Grade 4 learners' reading comprehension of Sepedi and English texts?
3. What are learners' views on the integrated use of Sepedi and English to improve their reading comprehension in English and Sepedi?
4. What are teachers' opinions on the use of translanguaging as a pedagogical approach to improve learners' reading comprehension of English and Sepedi texts?

5. How effective is the use of translanguaging as a pedagogical strategy to improve learners' reading comprehension in both English and Sepedi?

1.6.2 Aim and objectives of the study

The aim of the research project on which I report in this dissertation was to evaluate the use of translanguaging as a pedagogical strategy to improve the reading comprehension of Grade 4 learners at Paxana Primary School in Maraba Circuit, Limpopo Province. The main objectives in relation to the aim of the study are:

1. To determine the reading proficiency level of the cohort of Grade 4 learners
2. To outline a reading intervention using both Sepedi and English in a translanguaging approach to instruction
3. To investigate learners' views on the integrated use of Sepedi and English to improve their reading comprehension of English and Sepedi texts
4. To investigate teachers' opinions on the use of translanguaging as a pedagogical approach to improve learners' reading comprehension of English and Sepedi texts
5. To determine the effectiveness of translanguaging as a pedagogical approach to improve learners' reading comprehension in both English and Sepedi

1.6.3 Hypotheses

Research questions 1 and 5 can be formulated as testable hypotheses:

Hypothesis 1 (RQ1): The reading proficiency level of the cohort of Grade 4 learners would be below the required standard and would be the same for both intervention and control groups.

Hypothesis 2: The main hypothesis of the study relates to Question 5: that the use of translanguaging as a pedagogical approach will improve the reading comprehension of Grade 4 learners in Sepedi and English, and would therefore be an effective approach.

The remaining questions, question 2, 3 and 4, are descriptive research questions.

1.7 Methodology

The research design, research procedure and other methodological aspects of the study are briefly discussed in this section, with a detailed discussion following in Chapter 3.

1.7.1 Research design

A mixed methods design was used for the research project. The main method of analysis was quantitative, with qualitative methodology added to gain greater insight. This type of mixed methods design can be characterised as convergent parallel mixed methods (Bryman, 2006).

According to Creswell and Plano Clark (2011), a mixed methods approach provides a better understanding of research problems than either approach alone. This gives the researcher an opportunity to obtain a greater insight into the issue under investigation.

More details about the participants, instruments and procedures will be provided in Chapter 4.

1.7.2 Participants

McMillan and Schumacher (2001) define population as a group of elements of cases that conform to specific criteria. It is intended that the results of research be generalizable. In this study, the participants are members of a primary school in Maraba Circuit, Capricorn South District in Limpopo Province. The participants are 70 Grade 4 learners split into two groups: one consisting of 25 boys and 10 girls (Grade 4A), and the other consisting of 20 girls and 15 boys (Grade 4B).

1.7.3 Instrument

The main instruments for the study are the 2014 ANA test (in the public domain) and the questionnaires (open-ended and closed-ended) compiled by the researcher.

1.7.4 Research procedure

The study was organised in five phases:

Phase 1: Obtaining and analysing data to determine the reading proficiency level and homogeneity of the two groups of Grade 4 learners from the ANA test to answer research question 1

Phase 2: Using the results from phase 1 and the theoretical discussion in the literature review to inform the write-up of a translanguaging reading instruction programme to answer research question 2

Phase 3: Conducting an intervention based on the reading instruction programme

Phase 4: Finding out teachers' opinions (closed- and open-ended questionnaires) and learners' views (closed-ended questionnaires) on the use of Sepedi and English (translanguaging) as a teaching approach to answer research questions 3 and 4, as well as conducting a post-test for both the intervention and the control

Phase 5: Analysing quantitative data (pre- and post-tests) using t-test and closed-ended questionnaires using descriptive analysis. Analysing qualitative data through content analysis to evaluate and draw conclusions from the results of the quantitative and qualitative data, first separately and then in relation to each other in answer to question 5

1.7.4.1 Phase 1: Pre-test phase (question 1)

In this phase, the ANA test was written by 70 Grade 4 learners. The test comprises eight questions on sequencing of events and four reading comprehension questions. ANOVA was used to analyse the test results to determine the reading proficiency level of the cohort of Grade 4 learners.

1.7.4.2 Phase 2: Intervention phase

The results from phase 1 and the theoretical discussion in the literature review were used to structure a translanguaging reading instruction programme, which was administered to the intervention group (Grade 4B).

1.7.4.3 Phase 3: Teachers' opinions and learners' views

Descriptive analysis was used to analyse the quantitative closed-ended questionnaire data, and content analysis was used to analyse the qualitative open-ended questionnaire data, in order to find out the teachers' opinions and learners' views on the integrated use of Sepedi and English to improve reading comprehension.

1.7.4.4 Phase 4: Analysing pre- and post-intervention results

In order to determine the reading proficiency levels of the learners after the intervention, and the effectiveness of the intervention programme, quantitative analysis using t-test was conducted on the learners' pre- and post-intervention ANA test results.

1.7.4.5 *Phase 5: Evaluation and conclusion*

In order to determine the effectiveness of the intervention programme using a translanguaging approach, the quantitative qualitative data were integrated. The effectiveness of translanguaging as a pedagogical strategy to improve learners' reading comprehension was evaluated and conclusions drawn.

The detailed research design of the study, population, methods of data collection, as well as ethical issues are discussed in Chapter 3. The specific details of the intervention are also outlined in Chapter 3.

1.8 **Conclusion**

This chapter has set the focus of the study. It has discussed the background to the study; the research problem of Grade 4 learners' poor reading comprehension and the possible reasons for the identified reading shortfalls; the aim, objectives and hypothesis of the study; and the methodological aspects. It has also briefly outlined the concept of reading comprehension and translanguaging as a pedagogical strategy to improve reading comprehension. The next chapter discusses the relevant literature in relation to the study

1.9 **Structure of the thesis**

Chapter 1 provides a brief overview of the research, presenting the research problem, research questions and a brief introduction to the methodology. The literature review, which is provided in Chapter 2, discusses relevant theories of reading, reading comprehension, factors influencing reading comprehension, translanguaging as a pedagogical strategy and the theoretical framework. Chapter 3 provides detailed information on the research methodology. Chapter 4 presents the quantitative and qualitative data and discusses the results. Chapter 5 discusses integration of the quantitative and qualitative data for validation and differences, and concludes the dissertation by evaluating the extent to which the research questions have been answered, as well as providing recommendations and the limitations of the study. The following chapter focuses on models of reading, reading comprehension and translanguaging.

Chapter 2: Literature review

2.1 Introduction

This section will provide a discussion of the related literature. First, theories of reading will be explained, followed by an explanation of what constitutes reading comprehension and the factors influencing it. Thereafter, translanguaging as a pedagogical approach to teaching is discussed. The chapter concludes with a theoretical framework of Cummins' (2000) dual iceberg theory.

2.2 Reading theories

Various reading models have attempted to explain the reading process. The three main models that have been used to explain reading are the bottom-up, top-down and interactive models, which are explained below. However, the models represent metaphorical generalisation that stems from comprehension research conducted over the past three decades (Grabe & Stoller, 2011). Grabe and Stoller (2011) argue that these models serve a useful purpose as an initiation into thinking about reading comprehension, but do not take into account more recent research advances.

2.2.1 Bottom-up approach

The bottom-up approach, predominant from about 1950 to 1965 (Alexander & Fox, 2008), emphasises skills and explains reading as decoding of individual sounds to derive the meaning of words. This approach is associated with behaviourism and with 'phonics' approaches to the teaching of reading (Alderson, 2000; Alexander & Fox, 2008). It describes the word-by-word, sentence-by-sentence patterning of the text by the reader to create meaning. The bottom-up model is also referred to as stimulus- or text-driven processing (Lovrich, 2006). Advocates of bottom-up processing, such as McKenzie-Brown (2006), believe language relies heavily on decoding the sounds and letters of a language into words, clauses and sentences. As argued by Brunfaut (2008), the bottom-up theory does not cover the full picture of the reading process. Furthermore, Lovrich (2006) maintains that during bottom-up processing of a word, the orthography and phonology of the word is noticed.

The bottom-up theory states that a reader will build their understanding from the individual letter and word combination in the text. Therefore, the reader must look at the details of the text to figure out what the individual letters and words mean. Bottom-up models suggest that

all reading follows a mechanical pattern in which the reader creates a piece-by-piece mental translation of the information in the text, with little interference from their own background knowledge (Grabe & Stoller, 2011). Bilokcuoglu (2012) argues that texts are constructed from the smallest to the largest units of letters, words, phrases, clauses, sentences and texts, in collaboration with grammatical knowledge. On the other hand, Liu (2010) maintains that the emphasis of this approach is on texts that are written or printed, and claims that meaning is the result of a process in which reading proceeds from part to whole. Furthermore, Skudiene (2002) contends that the disadvantage of the bottom-up approach is that it cannot be used at the level of advanced language learners because learners have the capability to decode graphical input automatically. Another shortfall is that if too much cognitive energy and processing time is taken up by decoding of words, there is little memory and attentional capacity for comprehension.

2.2.2 Top-down model

In view of the inadequacies of the bottom-up approach, the top down approach to reading became predominant between 1966 and 1975 (Alexander & Fox 2008). Liu (2010) referred to the top-down reading theory as concept-driven. As a response to the need for an alternative approach in place of bottom-up processing, the top-down reading theory emphasises what the reader already knows about the topic of the text. During top-down processing of a word, lexical knowledge can be used to identify the incoming word as it is connected to knowledge of other related words or concepts (Lovrich, 2006). The top-down theory posits that reading is primarily directed by reader goals and expectations (Grabe & Stoller, 2011). According to this theory of reading, the reader creates meaning and understanding by activating their background knowledge. Grabe and Stoller (2011) further argue that inferencing is a prominent feature of the top-down theory.

Advocates of the top-down theory, including Lovrich (2006) and Stanovich (1986), argue that background knowledge, previous experience of a situation, context, and topic play primary roles in comprehension. Boakye (2012) explains that the emphasis of the top-down model is on the construction of meaning. In order for the readers to achieve comprehension, they have to construct and reorganise a text mentally, linking new information to that which already exists in memory and forming new, coherent mental pictures. The understanding here is that the mind is the engine to facilitate the addition of new information to that which the reader already has. For example, Skudiene (2002) examined which model of reading (top-down or bottom-up) is

emphasised during pre-, during-, and post-reading activities for intermediate English language learners. The results of this research exhibited that most of the pre-reading and during-reading activities were based on top-down theory. In the top-down reading model, the emphasis is placed on the learner's engagement with the text, and the goal of the model, as explained, is to enable active reading. The study will use the top-down approach to generate meaning by using the knowledge learners have acquired to make predictions based on the title of the comprehension passage.

2.2.3 Interactive model

In search of a more appropriate teaching approach that can account for what occurs during the reading process, the interactive reading theory was introduced. Rumelthart (1985) defines this approach as a combination of top-down and bottom-up processing in which both data-driven sensory information and non-sensory information are processed simultaneously. Abraham (2002) states that an interactive approach demands that teachers activate the students' schema during the pre-reading phase by helping them to recognise the knowledge that they already have about the topic of a text. Grabe and Stoller (2011) argue that the compromise to satisfy everyone seems to be to propose interactive models of reading, again as a general metaphorical explanation, and behind this view is that one can take useful ideas from the bottom-up perspective and combine them with key ideas from a top-down view.

Dong (2018) contends that the interactive theory is superior to the first two theories in that it covers both perspectives and better reflects the nature of reading and the reading process. The interactive theory states that both the bottom-up theory and the top-down theory interact to give the reader a prediction about the text. When a reader does not form an immediate prediction, he/she reads more closely, using bottom-up processing. The theory also assumes that the reader eventually settles upon an interpretation of a text using a combination of lower-level comprehension skills and a variety of higher-level comprehension skills.

An interactive model of reading comprehension has the reader building their understanding by using their previous knowledge about the topic and the clues from the text together. When learners can use all forms of knowledge at their disposal to read, their understanding of a text will be richer than if they solely depend upon the text. Both bottom-up, lower-level decoding skills and top-down, higher-level comprehension, as well as extralinguistic elements, interact to produce successful comprehension of texts. This interaction is extensively described by Grabe and Stoller (2011), as illustrated in Table 2.1 and explained below.

The interactive theory of reading is considered the most comprehensive description of the reading process. It combines elements of both bottom-up and top-down reading simultaneously. For example, learners may begin reading a text using top-down strategies to comprehend the text, and then shift to bottom-up strategies when they encounter unfamiliar or difficult words. The learners then use bottom-up strategies to decode the new word before reading further. Interactive recognition of letters (bottom-up processes) leads to recognition of words, which leads to comprehension (bottom to top). Top-down processes can influence lower-level processing strategies, affecting readers' expectation about words and meanings and thus helping them recognise words faster (top to bottom), whereas the bottom-up approach assumes that the initiation of higher-level processes, such as the use of background knowledge, should await lower-level decoding processes.

The inadequacies of both bottom-up and top-down approaches indicate that an explanation of reading cannot be obtained by any one plausible theory. Instead, an explanation of reading that integrates both approaches seems to be a more plausible model.

In this study, learners will read a text using top-down strategies to comprehend the text, and they will shift to a bottom-up approach when they encounter difficult or unfamiliar words; therefore, the elements of bottom-up and top-down approaches will be combined. From the perspective of the interactive model, the researcher will use both bottom-up and top-down approaches to help learners understand the text during the intervention. The learners will use their knowledge of the genre to predict what will be in the text. The interactive approach will therefore be used for the intervention as learners will use background knowledge, expectations, assumptions, and questions and engage in pre-reading strategies, such as previewing the text and predicting and activating knowledge. Learners become more capable of engaging in abstract and logical thought as well as gaining more in reading comprehension when they read interactively.

2.3 Reading process

In relation to the discussion on reading theories, this section presents the actual processes of reading. According to Grabe and Stoller (2011), the actual process of reading involves both lower-level and higher-level processing. The lower-level processes translate the written code into meaningful language units, while the higher-level processes combine these units into

meaningful and coherent mental representation. The process described by Grabe and Stoller (2011) is illustrated in Table 2.1 below.

Table 2.1: Working memory processes for reading (Grabe & Stoller, 2011:14)

Lower-level processes	Higher-level processes
Lexical access	Text model of comprehension
Syntactic parsing	Situation model of reader interpretation
Semantic proposition formation	Situation model of reader interpretation
	Executive control processes

2.3.1 Lower-level processing

The most fundamental requirement for fluent reading comprehension is rapid and automatic word recognition (or lexical access—the calling up of the meaning of a word as it is recognised). Fluent L1 readers can reorganise almost all of the words they encounter (98–100% of all words in a text), at least at some basic meaning level. They also recognise four to five words per second (Pressley, 2006). Furthermore, Grabe (2009) argues that for fluent readers, lexical access is automatic and very fast. It cannot be readily reflected on consciously and it cannot be suppressed, meaning that when the eyes see a word, the reader cannot stop themselves from accessing meaning. This generates automaticity.

In addition to word recognition, Grabe and Stoller (2011) argue that a fluent reader is able to take in and store words together so that basic grammatical information can be extracted (a process known as syntactic parsing) to support clause-level meaning. They further contend that syntactic parsing helps to disambiguate the meanings of words that have multiple meanings out of context, and moreover, it helps a reader to determine what pronouns the definite articles refer to in prior text. A third process that starts up automatically as we begin any reading task is the process of combining word meaning and structural information into basic clause-level meaning units (semantic proposition formation).

The three processes discussed above—that is lexical access or word recognition, syntactic parsing and semantic proposition formation—are typically seen as lower-level processes that occur relatively automatically for the fluent reader (Grabe & Stoller, 2011).

Lower-level processes such as decoding undergo tremendous changes in early childhood and typically become more automated during the first grades of elementary school (Kendeou, Papadopoulos, & Spanoudis, 2012). Grabe and Stoller (2011) identify the importance of proposition meaning units in the building of a text's main idea to gain comprehension. In addition, Hannon (2012) and Perfetti and Adlof (2012) argue that lower-level processes include fast, automatic lexico-syntactic processing. Moreover, the automatising of letter-sound relations is the foundation of all alphabetic reading and supports syllabic reading systems as well (Chow, McBride-Chang & Burgess, 2005; He, Wang & Anderson, 2005). Research on reading has shown that beginning readers need to establish strong linkages between orthographic forms and the sounds of the language (Ehri, 2006; Cain & Oakhill, 2012; Rayner, Pollatsek, Ashby & Lofton, 2012).

2.3.2 Higher-level processing

Higher-level processes involve the coordination of ideas from a text that represent the main points and supporting ideas to form a meaning representation of the text (i.e. a text model of reading comprehension). On the other hand, as the reader continues processing text information and new meaning units are added, those ideas that are used repeatedly and that form usable linkages to other information begin to be viewed as the main ideas of the text. More technically, they become, and remain, more active in the network (Grabe & Stoller, 2011). Background knowledge plays a supporting role and helps the reader anticipate the discourse organisation of the text as well as disambiguate word-level and clausal meanings as new information is incorporated into the text model (Grabe & Stoller, 2011).

At the same time that the text model of comprehension is being built by the reader, the reader begins to project a likely direction that the reading will take. This projection is influenced by background knowledge, inference, reader goals, reader motivation, task, text difficulty, and reader attitudes towards the text, task and author. Immediately, the reader begins to interpret the information from the text in terms of their own goals, feelings and background expectations. This reader interpretation (the situation model of reader interpretation) is built on and around the emerging text model (Grabe & Stoller, 2011).

These higher-level processes interact in more complex ways and require higher cognitive abilities. The text model of comprehension is essentially a linguistic one, whereas the situational model involves extralinguistic elements (Grabe & Stoller, 2011).

Text-model and situation-model construction require the abilities to oversee or monitor comprehension, use strategies as needed, reassess and re-establish goals and repair comprehension problems. How such an attentional monitor (an aspect of executive control processing in working memory) might operate cognitively is not entirely clear (Grabe & Stoller, 2011).

The working memory processes for reading comprehension fall into two categories: lower-level processes that involve translating the written code into meaningful language units, and higher-level processes that involve combining these units into a meaningful and coherent mental representation (Kendeou & Trevors, 2012; Van den Broek & Espin, 2012; Van den Broek, Rapp & Kendeou, 2005). Furthermore, both lower-level and higher-level processes of reading comprehension begin to develop before reading education starts, and they independently predict reading comprehension ability at a later stage (Kendou, Van den Broek, White & Lynch, 2009).

Higher-level processes involve the coordination of ideas from a text to form a meaning representation of the text. On the other hand, background knowledge, inferencing, reading goals, reader attitudes, reader motivation and strategies for text and task difficulty are used for the interpretation of the text (the situational model of reader interpretation) (Grabe & Stoller 2002). Higher-level processing involves extracting explicit and implicit information from the text and integrating this text-based information with prior knowledge (Hannon, 2012).

Higher-level processing is not better, or more difficult; it is just that it is closer to conscious introspection on the part of the reader. Overall, comprehension of a text is created when the reader builds a semantic network of ideas drawn from the text to form a text model comprehension (Kintsch, 2012). Kintsch (2012) maintains that the text model of comprehension requires that semantic information from clause-level processing be combined in a network of central ideas and references that recur in the text. He further explains that the situational model is built upon the text model to establish what the reader decides is necessary, relevant, appropriate and useful. The active reader interprets the text to decide what it should mean to them, and that interpretation is the information that is stored in long-term memory as learned information.

Learners are expected to integrate and combine aspects of the text model and the situation model when engaging in reading comprehension. Incorrect or incomplete background knowledge could affect interpretation of text. In the context of the situation model of reader

interpretation, low motivation could also lead to shallow processing. It is therefore essential for all the aspects to be present. Besides the linguistic text model and the extralinguistic situational model for higher-level processes, executive control processes (e.g. metacognitive strategies) are used to oversee or monitor comprehension. Strategies, reassessment and reestablishment of goals are used to address problems with comprehension. In effect, executive control processes are used to assess understanding of a text and evaluate the level of comprehension.

2.4 Reading comprehension

According to Woolley (2011), reading comprehension is the process of making meaning from text, and the goal is therefore to gain an overall understanding of what is described in the text rather than to obtain meaning from isolated words or sentences. Furthermore, Veeravagu Muthusamy, Marimuthu and Subrayan (2010) defined reading comprehension as a thinking process by which a reader selects facts, information, or ideas from printed materials; determines the meanings the author intended to transmit; decides how these meanings relate to previous knowledge; and judges their appropriateness and worth for meeting the reader's own objectives. Grabe (2009) defines reading comprehension as the ability to process text, understand its meaning and integrate this with what the reader already knows. Another definition is that reading comprehension is a complex interaction among automatic and strategic cognitive processes that enables the reader to create a mental representation of the text (Van den Broek & Espin, 2012). According to Babayiğit and Stainthorp (2011), vocabulary knowledge can influence reading comprehension in two ways: by directly affecting it through its effect on the semantics of the text, and indirectly through its effect on reading skills.

Sadeghi (2007) considered reading comprehension in relation to two main factors: internal and external. Internal factors related to the reader included cognitive abilities and strategies, background knowledge and affective characteristics. External factors included text modality, text characteristics, time and place of reading. Roe and Smith (2012) conceptualised reading comprehension as an act of general and specific communication which involves literal and higher-order comprehension. Pardo (2011) indicates that once teachers understand what is involved in comprehending and how the factors of reader, text and context interact to create meaning, they can more easily teach their learners to comprehend effectively.

Based on the above information, reading comprehension can be defined as the ability to read with understanding, a way of interpreting the meaning of the content and gathering information, as well as the ability to comprehend what is read. The above definitions emphasise thinking while reading. In other words, the reader applies their mind while reading for meaning. A clear explanation of what reading entails is important for reading instruction so that reading lessons can be undertaken appropriately and effectively to promote meaningful reading by learners.

The importance of addressing the challenges of learners' reading literacy development and teachers reading instruction has been disclosed by a small number of studies outlining South African learners 'poor performance in small –scale, national and regional literacy assessment. (Department of Education (DoeE), 2003; Moloi & Strauss; 2005; Pretorius & Mmapuru, 2007.) The severity of the situation was emphasised by the South African learner achievement results from PIRLS 2006, implemented for the first time in South Africa during 2005 with a sample of Grade 4 and Grade 5 learners. The results indicated that learners in both grades were battling to develop the reading literacy competencies to make a successful transition to reading to learn in the latter primary school years (Howie, Venter, van Staden, Zimmerman, Long, Du Toit. Scherman V & Archer, 2008).

South Africa participated in the PIRLS again in 2011; this time with the majority of the sampled Grade 4 South African learners completing a new assessment known as prePIRLS 2011. PrePIRLS is a shorter, easier test at a lower level of cognitive demand. The South African Grade 4 learners still performed at a lower level overall on an easier assessment in comparison to their counterparts internationally (Howie, Van Staden, Tshele, and Dowse & Zimmerman 2012.)

In South Africa there has been a need in research outlining primary school teachers' reading literacy teaching practices especially in the Intermediate Phase. O' Sullivan (2003) argues that the literature on teaching reading to young learners in developing countries is limited. Perry (2008) verifies this by stating that although literacy development in early schooling in Africa has received increased attention from scholars, it is still under-represented in the scholarly literature. In this study the teaching strategy in reading comprehension is discussed to address the reading proficiency level of the cohort of Grade 4 learners.

2.4.1 Reading comprehension and metacognition

Metacognition is an essential factor that influences both overall learning and second language learning. Studies of children's reading and metacognition (planning and reviewing of strategies) suggest that skilled readers are dynamic readers who predict what is going to happen in the text. It is asserted that when readers predict before reading, they activate past memories and experiences and test themselves as to whether they have sufficient knowledge about the present topic in order to comprehend the text (Dole, Duffy, Roehler & Pearson, 1991; Glazer, 1994). Prediction strategies help promote overall story understanding and engagement with the text information during reading and enable readers to verify their understanding of the text (Block, 2004; Pearson & Duke, 2002).

Readers usually verify their prediction by monitoring meaning and occasionally employing fix-up strategies, such as returning to previously read passages or reading on when their predictions of events within the text fail to materialise (Kintsch, 1992; Zinar, 2000). Regarding metacognition, Alderson (2000) states that self-regulation strategies like planning ahead, testing one's own comprehension, and being aware of and revising the strategies being used are also typical reading strategies of fluent readers. He concurs with Grabe (1991) that metacognitive strategies are used by fluent readers and that these strategies play a significant role in reading comprehension. In a similar vein, McNeil (1987:104) states that metacognition refers to one's awareness of what one's purposes for reading are, how to proceed in achieving these purposes, and how to regulate one's progress through self-checking of comprehension. Furthermore, Anderson (1999) argues that whereas an efficient approach to tasks is in a more active, strategic, and flexible fashion, poor readers' passivity is reflected in their lack of prediction and monitoring activities. It seems therefore that an inability to use metacognition or executive control processes in reading will lead to poor reading comprehension.

Teachers may support this verification process by asking questions such as 'What clues helped you make this prediction?' After the story is finished, readers may be asked, 'What part of your prediction came true?' These types of questions can become a framework to model the questioning so that readers can eventually internalise self-questioning and self-monitoring strategies. There is evidence that self-questioning strategies help students to develop metacognitive skills by monitoring their own responses (Block, 2004; Pressley, 2002). According to Livingston (2003), metacognition refers to higher-order thinking that involves active control over the cognitive processes engaged during learning. On the other hand, Wong

(2015) defines it as the process of understanding how you learn, what you need to learn, and finally, which strategies or techniques would be the most effective and the best matched to the learning task. Furthermore, Vandergrift, Goh, Mareschal and Tafaghodtari (2006) state that metacognition is basically both self-reflection and self-direction.

Readers have relative difficulty detecting coherence breaks in texts, which ultimately may result in less coherent mental representation of texts (Cain & Oakhill, 2007). For example, during reading, the ability to derive meaning is normally enhanced when there is a reduction in the cognitive load of a reader's reading memory and the reader can decode the words and phrases fluently and bring meaning to the unfamiliar vocabulary encountered (Daneman & Green, 1986; Manset-Williamson & Nelson, 2005; Pressley, 1988). According to Boulware-Gooden, Carreker, Thornhill and Joshi (2007), the use of metacognitive strategies helps students to think about their thinking before, during, and after they read.

In the current study, learners in the intervention group were made to predict in order to achieve comprehension. The purpose of the prediction was to enable the learners to think about the text during the pre-reading, during-reading and post-reading stages. High-order and low-order questions were used to facilitate comprehension. Metacognitive skills were ignited in the learners so that they could detect the problems they encountered while reading and to enable them to monitor their understanding, as the objective in this study was for learners to comprehend what they read, i.e. to read with understanding. Metacognition relates to cognitive strategies that focus on the reader's ability to sequence, establish whole partnerships, compare and contrast, determine cause and effect, summarise, as well as hypothesise and predict. It also enables the reader to select and extract relevant points from texts, as well as infer and conclude from texts (Fontanini, 2004; Urquhart & Weir, 1998). These abilities are required in reading, and comprehension involves the reader's ability to monitor these processes, hence the importance of metacognition in reading comprehension.

2.4.2 Factors influencing reading comprehension

Reading researchers identify a number of factors (social and affective) that influence learners' reading comprehension.

2.4.2.1 *Social aspects*

Reading is perceived as a social activity by many reading researchers (e.g. Gee, 2008; Street, 2001; Verhoeven & Snow, 2001). Verhoeven and Snow (2001) perceive reading as a cognitive

activity and a social practice. The social view of reading is based on social constructivist views of learning, which emphasise the importance of culture and identity as expressed in social norms, rules and understanding (Boakye, 2012). Woolley (2011) argues that learners are shaped by their social identity and that they bring this to a learning activity. The claim is that the reader's cultural values and social environment influence their comprehension of the text.

Social factors such as early interaction with reading, literacy interactions with family members and the literacy activities of significant others (i.e. social literacy) and educational factors such as the school literacy environment and literacy instruction have been identified as important for developing reading proficiency (Currin & Pretorious, 2010; Taylor & Yu, 2009).

A number of researchers, such as Boakye (2017), Bus (2001), Dörnyei and Ushioda (2010), Guthrie and Wigfield (2000) and McKenna (2001), argue that significant adults, such as parents and teachers, greatly influence learners' literacy activities. Bus (2001) found that children who interact with parents become better readers than those who have little interaction. Also, interaction with family members who read tends to have a positive influence on learners' reading behaviour, attitude and reading habits, which assists in improving and developing their reading proficiency. At the school level, appropriate reading instruction in a print-rich environment instils reading motivation and propels students to read frequently. Boakye (2012) agrees, and argues that the home environment, family and social community of which an individual is a part influence their reading behaviour and reading development. She points out that the home environment exerts a great influence on learners' reading ability. In other words, homes that are print-poor have adverse effects on learners' reading habits, as children from print-poor homes are not consistently exposed to printed material and have limited exposure to print before starting school. Wigfield and Asher (1993) argue that social factors such as parental interaction in the home environment play a critical role in determining children's achievement and performance in school.

2.4.2.2 Affective aspect of reading comprehension

In addition to the social aspects, the reader's affect also influences their reading comprehension. As explained by Guthrie (2008), aspects such as motivation and attitude play an important role in reading comprehension. Learners with low self-esteem may be afraid to attempt a reading task as they are sure that they will fail. According to Grabe and Stoller (2002), the affective dimension is pertinent to reading comprehension as it contributes to the learner's willingness to read frequently and to become involved in the reading. Affective factors such as

motivation, interest and attitude have been discussed as important in reading development (Boakye, 2017; Boakye, Somerville & Debusho, 2014; Grabe & Stoller, 2002; Guthrie, 2008). The affective dimension is considered important because it drives the cognitive (Alvermann, 2002). As Guthrie and Wigfield (2000) intimate, people read not only because they have the ability to read but because they are motivated to do so.

Alvermann, Phelps and Ridgeway (2007) point out that feelings, attitudes, motivations, interests and other affective responses of the reader are used in interacting with text. According to these advocates, the affective responses are crucial for reading development.

According to the theory of Reasoned Action, as explained by Al-Suqri and Al-Kharusi (2015), one factor that has a bearing on learner performance is attitude. According to this theory, the act of believing that one can perform a task can result in a positive outcome. In other words, a positive attitude can result in better performance because when an attitude is formed, it can shape the way learners think, feel, understand and behave.

2.4.2.3 Reading motivation

Motivation is usually associated with goals, values and beliefs (Deci & Ryan, 2000). Based on this, Guthrie and Wigfield (2000: 405) define reading motivation as “the individual’s personal goals, values, and beliefs with regard to the topics, processes and outcomes of reading”. Motivation is divided into two categories: intrinsic and extrinsic.

Guthrie (2008) indicates that reading comprehension improves when learners are engaged in reading or are intrinsically motivated. According to Wigfield (1993), in the classroom, teachers can promote and develop learners’ motivation for reading by creating communities of learners who support each other in completing difficult tasks. Nandi and Snyman (2017) argue that when children are motivated to read, they tend to enjoy reading and gain confidence in their ability to read. Thus, children develop an appreciation for reading, which enables them to read with enthusiasm and curiosity, and to think critically about the challenges of the text.

Boakye (2012) cites the studies of Deci and Ryan (2000), Dörnyei (2001) and Guthrie and Knowles (2001) to explain that the two main categories of motivation are intrinsic and extrinsic. Intrinsic motivation is described as the desire to engage in a task or activity for its own sake, and it involves mastery and learning goals, curiosity, involvement and preference for challenge. Extrinsic motivation, on the other hand, refers to external rewards and recognition as the goals of reading.

In addition to motivation, other factors such as interest, self-efficacy and attitudes also influence learners' reading proficiency. Hidi and Anderson (1992), as well as Schiefele (1992) define interest as the enduring attraction to a topic even before a particular text is read. Interest is associated with motivation and leads to intrinsic motivation. Thus, a high interest in reading activities and the type of text in question will lead to intrinsic motivation, which will help improve learners' reading proficiency. Pajares (2006) explains self-efficacy as the way students judge their competence. Characteristics and attributes of self-efficacy in reading, as expressed by students, include beliefs about their capabilities regarding reading different texts, preference for reading challenging books and confidence in their reading skills. High self-efficacy has been known to correlate with high reading proficiency (Pajares 2006). Guthrie explains attitude as the liking of a task (Guthrie & Knowles, 2001; Guthrie & Wigfield, 2000). Reading attitudes are usually formed by early experiences of reading. Students with negative attitudes towards reading were shown to have had few or no pleasurable early reading experiences, and mostly negative experiences of early reading in school. These affective factors are all linked to motivation, as high levels increase the learner's motivation (Guthrie and Wigfield 2000).

Guthrie and Knowles (2001) explain that learners who have higher levels of intrinsic motivation are more likely to use cognitive strategies and to be more self-regulating. It is the responsibility of teachers to make reading interesting and enjoyable for learners, and thus develop learners' motivation and enable them to believe in themselves. One way to achieve this is by allowing learners to use their home language to engage in reading tasks. This will enable them to self-regulate. Research on reading motivation indicates that learners achieve positive results in reading comprehension tasks using English texts if a multilingual approach is adopted (Mbirimi-Hungwe, 2016). Childs (2016) points out that a learner's reading motivation can be influenced by the use of languages they are familiar with. She contends that when a learner's home language is not the same as the LoLT, it could impact teaching and learning and negatively influence motivation. She argues that in situations where learners are encouraged to use insights gained from a familiar language to help them use the target language, as in the case of translanguaging, it can be an affirming experience, which may increase motivation and facilitate more effective learning. Thus, translanguaging as a multilingual reading strategy involving Sepedi and English will be used with Grade 4 learners in the reading comprehension of texts.

2.5 Translanguaging as a pedagogical strategy

Translanguaging is a planned, systematic use of two languages for both teaching and learning in the same lesson (Li, 2017). The term translanguaging was introduced by Cen Williams, a Welsh scholar, in 1994 to refer to a pedagogical practice which deliberately switches the language mode of input and output in bilingual classrooms. This definition was taken up by Baker (2003, 2011), who elaborated that it is the process of making meaning, shaping experiences, and gaining understanding and knowledge through the use of two languages. From this perspective, meaning-making may involve the use of two languages (L1 and L2) in concept formation. Makalela (2012) defines translanguaging as a pedagogical practice in which learners are required to alternate between languages for the purposes of reading, writing and acquiring knowledge. Estyn (2002: 3) states that “the skills involved in dual literacy are sometimes called translanguaging or transliterative skills.” Gruyter (2011: 8) states that “translanguaging is a naturally-occurring phenomenon for multilingual students.” According to this view, many learners who know more than one language use translanguaging without being aware that they are using it. It occurs unintentionally during interactions when one of their peers does not understand the text. According to Mwindi and Van der Walt (2015), learners engage in it surreptitiously to make meaning.

Boakye and Mbirimi (2015) argue that the use of translanguaging as a strategy for negotiating meaning could serve as a scaffold to enhance comprehension challenges faced by learners. Bruner (1983) defines scaffolding as a process of setting up a situation to make the child’s entry easy and successful and then gradually pulling back as they become skilled enough to manage it. According to the definition given, learners who are unable to comprehend what they are reading on their own may be helped through scaffolding, using translanguaging as a teaching approach to allow them to read independently with understanding.

The concept of translanguaging has highlighted the essential role that emergent bilinguals’ linguistic and social resources play in their learning and meaning-making in classrooms (García & Kleyn, 2016). A translanguaging lens provides teachers with a novel way to understand students’ language practices as dynamic and as socially constructed (Palmer & Martínez, 2016). Williams (1994, in Baker 2003) points out that in African countries, where the rate of English use in state schools is very low, and the learners’ low proficiency in English acts as a barrier to their learning of subject content, translanguaging may be a positive approach.

McCabe's (2015) study conducted in Limpopo to find out if code-switching is a resource for achieving academic literacy yielded positive results. She uses the term code-switching to describe the need for teachers to shift their attention to translanguaging in the classroom. García and Li (2014) argue that translanguaging differs from the notion of code-switching in that it refers not simply to shifting between two languages, but to speakers' construction and use of original and complex interrelated discourse practices that cannot be easily assigned to one or another traditional definition of language, but that make up the speakers' complete repertoire.

It may be postulated that code-switching is a form of translanguaging that has been a topic of research for several decades. It is a phenomenon based on bilingualism, which Sander (2009) defines simply as the ability to speak and understand two languages. Eastman (1992) defines code-switching as the use of more than one language in the course of a single communicative episode. Code-switching is usually a relatively short move from the LoLT to the home language of learners, and then a switch back to the LoLT. Translanguaging, however, is used in a planned manner, where the home language is used as the language of input and the LoLT as the language of output.

2.5.1 Distinction between translanguaging and code-switching

Translanguaging is a different way of viewing and interpreting bilingual language performances than the prevalent theory of code-switching (García, Johnson & Seltzer, 2017). Deibert (2008) defines code-switching as the term for different languages coming into contact with one another in a conversation. He explains that bilingual and multilingual speakers tend to code-switch. Code-switching is therefore a bilingual-mode activity in which more than one language, typically the speaker's native language (L1) and second language (L2), are used intrasententially (where the switching occurs within a sentence) or intersententially (where the switching occurs after a sentence) (Cook, 2001). According to Gluth (2008), code-switching is the mixing of elements of two linguistic varieties within a single utterance or text. This implies the code switching is not practised only orally, but is also practised in a written form and would involve biliteracy, which will be discussed later in this chapter. Code-switching has not been welcomed in traditional L2 classrooms, where the learner's target language and native language are clearly divided, and the target language has to be the official language in the classroom.

Code-switching is the exercise of an individual's ability to select a language according to the interlocutor, the situational context, the topic of the conversation and other factors that influence communication. Participants are often able to switch languages within an

interactional sequence in accordance with sociolinguistic rules and without violating specific grammatical rules (Cantone, 2007). Switching from one language to another can happen intentionally or unintentionally, but whatever the case, the purpose of code-switching may be cognitive (to bring about a better comprehension) or social (to show solidarity with other speakers of the same language). Many researchers now admit that code-switching commonly takes place in multilingual contexts, not simply due to lack of knowledge of a particular language, but for different communicative functions. The concept of code-switching is based on the premise that emergent bilinguals switch between languages that exist independently from each other (García et al., 2017). In a nutshell, translanguaging can be used as a teaching and learning approach in education, while code-switching is used daily or in a social context, not in education as a strategy by bilingual or multilingual speakers.

All these views suggest that translanguaging is similar to code-switching and involves the use of two or more languages. However, translanguaging may refer to the use of two or more languages in classroom or learning context and to the process by which bilingual students perform bilingually in myriad ways when reading, writing, taking notes and discussing (García, 2009a). Translanguaging cannot be used haphazardly. It seems to be a more systematic and organised pedagogical approach. In other words, translanguaging is more systematic and more organised, and it is a better means of applying multilingualism in teaching. Through a translanguaging lens, reading has been re-envisioned as a “unified process” (Kabuto, 2017: 56). Zapata and Laman (2016) maintain that opening up opportunities for translanguaging in the classroom sends an important message to emergent bilinguals that their multilingual practices and their experiences are essential and meaningful to their development and learning. During the intervention, the researcher will acknowledge the learners’ home language and encourage them to use their entire repertoire of language practices as they read. Through strategic classroom language planning that combines two or more languages in a systematic way within the same learning activity, translanguaging seeks to assist multilingual speakers in making meaning, shaping experiences, and gaining deeper understandings and knowledge of the languages in use and even of the content that is being taught (Baker, 2003; Williams, 1996). This explains the preference for and use of translanguaging as a pedagogical strategy during the intervention in this study.

2.6 Issues pertaining to teaching and learning

Learning-related aspects, such as scaffolding, zone of proximal development (ZPD) and transfer are discussed in this section. With regard to scaffolding, the level of assistance given to learners is continually adjusted in relation to their level of performance. The intervention also applies ZPD and will hopefully promote language transfer between the two languages, (Sepedi and English) through translanguaging. In other words, the concepts learnt in Sepedi can be processed in English and the meaning transferred from Sepedi to English. Lems, Miller and Soro (2010) define language transfer as the action, conscious or unconscious, of applying features of a first language in the learning of a new language. Learners may transfer meanings of words and concepts between Sepedi and English.

2.6.1 Scaffolding

Scaffolding is a metaphor used to describe the balance between challenge and support that adults intentionally or unintentionally create when teaching a child a novel task (Siobhan & Richards, 2006). Norbert (2012: 2923) explains the concept of scaffolding as “a reciprocal feedback process in which a more expert other (teacher or peer with greater expertise) interacts with a less knowledgeable learner, with the goal of providing the kind of conceptual support that enables the learner over time to be able to work with the task content or idea independently.” This means that learners who are unable to perform a task on their own are helped through scaffolding by someone else to enable them to work independently. On the other hand, Copple and Bredekamp (2009) argue that scaffolding is a key feature of effective teaching, where the adult (in this study the teacher) continually adjusts their level of help in response to the learner’s level of performance. In the classroom, scaffolding can include modelling a skill, providing hints or cues, and adapting material or activity. Therefore, scaffolding will be used in the intervention, during the pre-reading, where key concepts/words will be explained in Sepedi and English. During the pre-reading, learners will actively interact with their peers and the teacher to understand the text, answer the comprehension questions independently and construct new concepts. Activities in the scaffolding provided by the teacher will support the learners as they are led through the ZPD; i.e., words too difficult for the learners to master on their own will be explored with the guidance and encouragement of the teacher in the intervention process. Keywords in the reading comprehension will be explained for learners to understand the comprehension test. The teacher will guide and encourage the learners during reading.

2.6.2 Zone of proximal development

The ZPD has been defined as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance, or in collaboration with more capable peers” (Vygotsky, 1978: 86). The gap between what learners can do unaided and what they cannot do is the ZPD. The basic idea of the ZPD is the need to identify where a learner is and the level of guidance they will need to achieve the next step in a task. Taking up to this idea, Richard and Kilgo (2010) view scaffolding as a concept related to Vygotsky’s notion of the ZPD. It refers to the assistance given to a child by adults and peers that allows the child to function independently and construct new concepts. The concept of the ZPD is widely used in the study of children’s mental development as it relates to education. Vygotsky (1978) defines the term “Zone of Proximal Development” as the distance between the actual developmental level, as determined by independent problem-solving, and the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers. This simply means that there are activities that children can do on their own and those that need support from a peer or an adult. In this sense, it is only within the ZPD that scaffolding can occur.

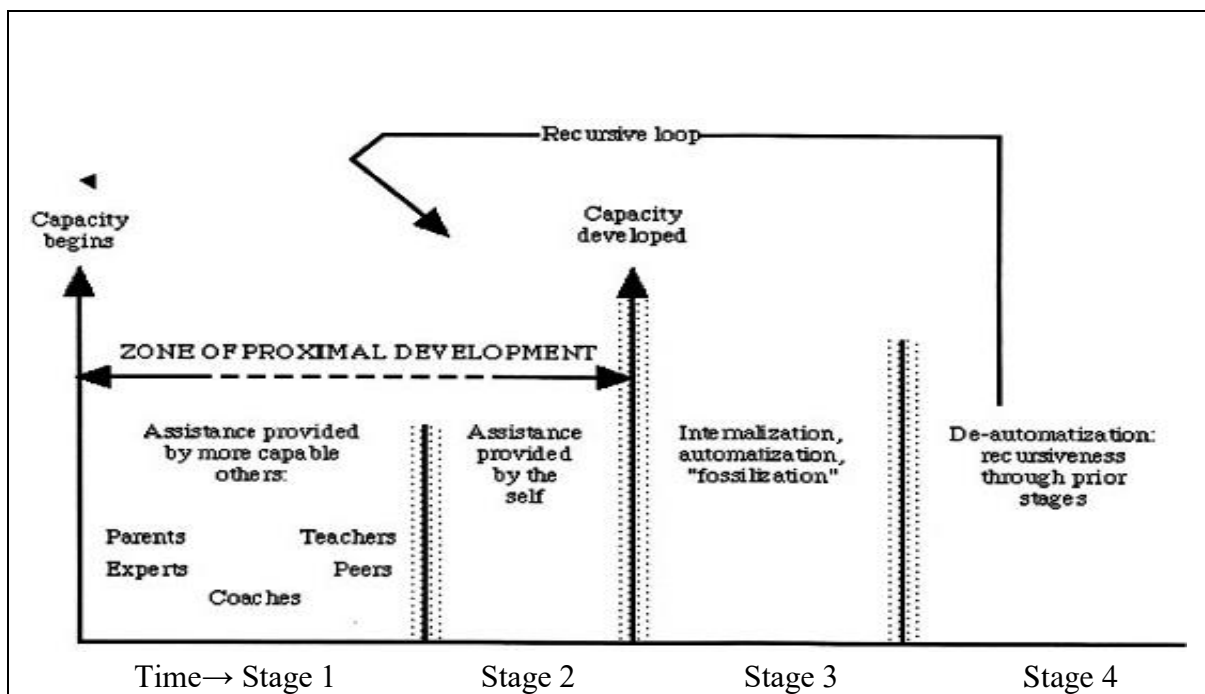


Figure 2.1: Zone of proximal development diagram, Lev Vygotsky (1896–1934)

The ZPD occurs between the first stage and the second stage. In the third stage, the task is performed automatically after being internalised, and according to Vygotsky, is fossilised. In the above diagram, the first stage demonstrates how children develop language and speech by relying on others, such as teachers, for performing a task. In the second stage, learners use prior knowledge to carry out the task without guidance.

In scaffolding instruction, a more knowledgeable other provides scaffolding or support to facilitate the learner's development. The scaffolding facilitates a learner's ability to build on prior knowledge and internalise new information. The activities provided in scaffolding instruction are just beyond the level of what the learner can do alone (Olson & Platt, 2000). This helps the learner to develop cognitively and to do tasks independently. According to McKenzie (1999), scaffolding helps learners to perform tasks more easily. When dealing with learners who are learning a new language (English) in Grade 4, a strong form of scaffolding may be offered by using Sepedi. If learners do not understand a task presented in English, using Sepedi may remove one barrier, and thus provide a scaffold.

Providing the appropriate assistance through scaffolding will give the learners a boost to read with understanding. The idea is that learners learn best when working together with others during a joint collaboration. In this study, allowing learners to engage in Sepedi, and English will assist in comprehension. It is through such engagements or discussions that learners learn and internalise new concepts. In the intervention, these techniques will enable the learners to understand difficult words in order to make meaning from the text.

2.6.3 Language transfer

Lems, Miller and Soro (2010) define language transfer as the action, conscious or unconscious, of applying features of a first language in the learning of a new language. Learners may therefore compare sounds, words, syntax and concepts between their own language and one they are learning.

The concept of transfer is central to this study as it highlights the value of using two languages in teaching and learning. This implies that L1 is a foundation for L2 learning, and the stronger the learner's home language, the more likely it is that they will develop L2 competence. Due to cross-linguistic influence, language competence and performance in L1 may be needed by the learner to be able to transfer skills to L2.

Cummins (2007) is one of the leading advocates of bilingual education, and his argument is based on the concept of transfer. He argues that language competence is a unified entity in which the different languages a learner speaks interact with each other to form what he calls a common underlying proficiency (CUP).

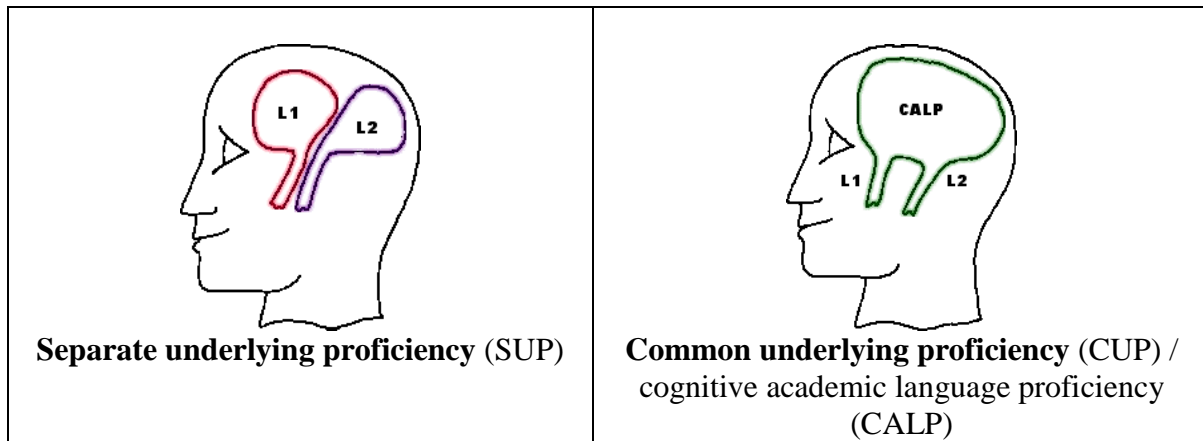


Figure 2.2: Separate and common underlying proficiency (Cummins, 2007)

The above figures represent the separate underlying proficiency (SUP) and common underlying proficiency (CUP) models by Cummins (2007). In the diagram on the left, the brain is shown as having two separate balloons, each with its own input. In the diagram on the right, the brain has only one balloon, but with two inlets.

According to Cummins (2007: 131), “cognitive academic language proficiency (CALP) underlying literacy skills in L1 and L2 are assumed to be interdependent”, and therefore as working together, or helping each other. For example, literacy in Sepedi can help a learner to become literate in L2. In the SUP model, when a learner learns concepts and skills in the L1, only the L1 balloon increases in content and the L2 balloon remains the same, and no transfer occurs. In the CUP model, when literacy or academic skills are introduced in L1, the L2 balloon also gains in size. In this model, it is believed that gains made in L1 result in gains in L2. Equally, gains in L2 affect competence in L1.

CALP is required in context-reduced academic situations where higher-order thinking skills like predicting, sequencing, generalising and analysis are required by the curriculum. CALP is specific to the context of schooling (Cummins, 2000). According to Cummins (2007), the CUP model of bilingualism, based on the interdependence hypothesis, would predict that the stronger the learners’ CALP in their L1, the more likely it is that they will develop higher CALP in their L2. This suggests that when learners are allowed to use their L1 as a medium of instruction and learning, the stronger their CALP will be in their L2.

2.7 Translanguaging in the classroom

Gruyter (2011) states that translanguaging is a naturally occurring phenomenon for multilingual students. This means that many learners who know more than one language use translanguaging without being aware that they are doing so. It occurs unintentionally during conversation when one of their peers does not understand the second language; they may switch back to their mother tongue that everyone in their group understands.

Through strategic classroom language planning that combines two or more languages in a systematic way within the same learning activity, translanguaging seeks to assist multilingual speakers in making meaning, shaping experiences, and gaining deeper understanding and knowledge of the languages in use and even the content that is being taught (Baker, 2003; Williams, 1996). Baker (2011) states that translanguaging and transliteracy may promote a deeper understanding of subject matter. According to Alexander (2012), using more than one language provides learners with versatility, flexibility and multiple access points to knowledge. Learners will be actively involved, and their love of reading will increase as they will understand what they are reading.

García (2009a) suggests that in a multilingual context, the home language can be used during the introduction phase to allow learners to engage in their linguistic repertoires based on different cultures. The suggestion of using the home language in a multilingual context during the introduction phase will encourage even the shy and introverted learners to be actively involved. García (2009a) argues that translanguaging is indeed a powerful mechanism to construct understanding, to include others, and to mediate understanding across the groups. In addition, she views translanguaging as an approach to bilingualism that is centred not on languages but on the observable, natural communicative practice of bilinguals and, if properly interpreted, understood and practised in schools, as a means to enhance learners' cognitive, language and literacy abilities. García (2014) offers the definition of translanguaging in education as a process by which learners and teachers interact in complex discursive practices that include all the language practices of learners in order to develop new language practices and sustain old ones, communicate and appropriate knowledge, and give voice to new socio-political realities by interrogating linguistic inequality. This will help and include learners at all levels of understanding. Learners will freely engage with teachers, and their vocabulary will increase.

Childs (2016) argues that translanguaging is a means of providing planned and systematic use of learners' home language and the LoLT in order to foster meaning-making and learning. Translanguaging should not be used haphazardly, but rather the use of languages should be well planned to make learning more meaningful. Childs (2016) maintains that translanguaging is a practice used by multilingual individuals to move between the languages that they know in order to communicate in a range of social contexts, and their language repertoire is understood as one system, rather than as a collection of discrete languages. She further contends that in situations where learners are encouraged to use insights gained from one language to help them use another language, this can be an affirming experience and may facilitate more effective learning. Insights gained from the home language (Sepedi) will help learners to understand, to be actively involved during reading and, hopefully, to understand the content of texts better.

Both Williams and Baker use the term translanguaging to refer to a strategy which aims to help build up learners' cognitive development using two languages. Williams (2002) suggests that translanguaging often uses the stronger language to develop the weaker language, thereby contributing towards the potentially relatively balanced development of a child's languages. Through children's L1 experience, they are likely to have developed an understanding of concepts they will encounter in their early reading of L2 (Cummins, Baker & Hornberger, 2001). However, it may be possible that concepts learnt in the weaker language can also contribute to the development of the stronger language.

The aim of translanguaging is not only to help learners understand words, phrases and sentences during reading and learning in two languages, but to use both languages to help them learn concepts and facilitate cognitive development. The thinking underlying translanguaging is that when all the languages present among the learners are used, the quality and depth of learning and reading will improve. In addition, the learner will grasp concepts better, participate more fully and master the content.

Makalela (2015c) contends that when more than one language is used to access the same content, the learners develop a deeper understanding of the subject matter. For language teaching classes, translanguaging is a useful strategy to develop a weaker language through cross-transfer of skills between linguistic repertoires that learners already possess. The home language, which is stronger, will assist the weaker language during reading comprehension. Learners already have the basic skills (vocabulary) in their home language.

Translanguaging gives learners freedom to use their languages in any way they find productive while encountering new ideas. This means that when a teacher introduces a task in English, the learners will feel free to discuss and try to make sense of the task using English (Murphy, 2011).

Baker (2001, 2006, 2011) explains that translanguaging and transliteracy may promote a deeper and fuller understanding of the subject matter. Estyn (2002) states that the skills involved in dual literacy are sometimes called translanguaging or transliterative skills.

Gruyter emphasises the pedagogic value of translanguaging by explaining that in addition to everyday interaction, translanguaging can also occur with minimal pedagogical effort from the teachers (Gruyter, 2011). This view seems to suggest that translanguaging is not a strategy that requires a great deal of planning or preparation, but can be used almost spontaneously and without thought. Moyles, Georgeson and Payler (2011) state that translanguaging promotes a language identity which is brighter and more intense than a monolingual one. It can also lead people beyond the constraints of the current monolingual ideology of the English system and encourage them to think differently about language pedagogy. Skutnabb-Kangas (2009: 151) points out that “it is translanguaging itself that enables us to make sense of the multilingual worlds.”

Baker (2011) further argues that translanguaging attempts to develop academic language skills in both languages, leading to a fuller bilingualism and biliteracy. Translanguaging includes the reprocessing of content, and it may lead to deeper understanding and learning. With the use of translanguaging as a teaching and learning strategy, learners will expand their knowledge, extend and intensify what they have learned through one language (English) in school through discussion with the parents at home in the other language (mother tongue) (Baker, 2011).

García (2009a) argues that translanguaging is indeed a powerful mechanism to construct understandings, to include others, and to mediate understandings across language groups. Furthermore, she views translanguaging as an approach to bilingualism that is centred not on languages, but on the observable, natural communicative practice of bilinguals and, if properly interpreted, understood and practised in schools, as a means to enhance learners’ cognitive, language and literacy abilities (García, 2009a, 2009b). From this perspective, translanguaging helps to promote bilingualism and gives indigenous languages a chance to be used in education and to help learners understand concepts better by helping them construct meaning.

Translanguaging as an educational approach has been shown to have socio-cultural, affective and cognitive benefits. Thus, translanguaging may improve learners' comprehension of texts. It is hoped that the use of translanguaging will provide deeper processing and digestion of the content knowledge during reading comprehension. According to its proponents, translanguaging empowers both the learner and the teacher, transforms the power relations, and focuses the processes of teaching and learning on making meaning, enhancing experience, and developing identity (García, 2009a; Creese & Blackledge, 2010).

For this study, translanguaging was used during reading instruction, where the home language was used to scaffold key concepts in the pre-reading phase, with all learners actively involved in attempting to understand the content. The home language was used as the language of input, and the LoLT (English) was used as the language of output. Both the learner and the teacher could use both languages as a strategy to bring about better learning in Grade 4. The reading comprehension process was learner-centred, with learners using the two languages to derive meaning.

Makalela (2015b) reported an intervention with 60 students of teacher training in South Africa. They all had a Nguni language as their L1 (isiZulu, siSwati isiXhosa, or isiNdebele) and they were learning Sepedi as an additional language. The experimental group used translanguaging as a teaching strategy, while the control group had a more traditional monolingual approach. The translanguaging strategy used consisted of contrasting and extending meanings using English and the students' L1 during the teaching and learning of Sepedi as an additional language. Student were also asked to brainstorm in any language while working in groups to read texts in their first languages, and retell the stories in the target languages.

Another study undertaken by Makalela (2015c) was a bilingual story-retelling in a primary school. Learners reflected on their understanding of the text they were asked to read and reproduced it in both their home language (Sepedi) and English. The original text was a Sepedi text entitled 'Moeno le Setso sa Bakgakga'. The design showed three texts, one in English, and another in Sepedi and the last one in both English and Sepedi. Re-telling of the story in the three texts gave the learners an opportunity to move back and forth between the languages and produce the three inputs as represented: English, Sepedi and alternation of Sepedi and English.

Hungwe (2019) also used translanguaging as an approach in teaching paraphrasing to enhance reading comprehension using a group of first-year multilingual medical students. The study was conducted at a university in South Africa. Participants were required to discuss the ideas

of the text, using all the languages at their disposal. The participants discussed unfamiliar words and used the dictionary to look up meanings in their languages. Each group was asked to split into two smaller groups of three students. One group of three was supposed to write a paraphrase of the author's ideas in English using their own words. The other three had to write ideas in their home languages. Finally, they had to come together as a group of six and discuss in any language they felt comfortable with and finally fuse their paraphrases to present the ideas of the paragraph in English. The objectives of the study was to show how paraphrasing as a strategy can be combined with a Translingual approach to instruct students explicitly on how to read and comprehend texts. The results from this study showed that students indeed had a mammoth task working out meaning when faced with unfamiliar words, and the students demonstrated a shallow understanding of the text. However, through collaboration and discussion using student's home language, students gained a deeper understanding of the texts (Hungwe 2019).

Charamba and Zano (2019) investigated the role played by home language (Sesotho) in the academic performance of science students in a high school in the Free State province of South Africa. Using both experimental and control groups, they found higher academic performance in the experimental group. The students in the control group were taught in English, the language of instruction, while the experimental group was taught in both English and Sesotho. In addition to being taught in their home language (Sesotho), students in the experimental group were also given learning materials written in their home language. The students were then given tasks in groups to discuss and write the characteristics of mixtures and compounds. The instructions were explained in both English and Sesotho to the experimental group. The students first wrote their answers in Sesotho and then the same answers were also written in English. The researchers administered pre- and post-tests to both the control and experimental groups.

The findings showed that the experimental group had performed better. The control group had a mean of 38% and the experimental group had a mean of 52%. In addition, 80% of the students in the experimental group passed the test against the control group's pass rate of 46, 6% (Charamba & Zano 2019:10). They conclude that the use of the home language as an additional resource in teaching, plays a pivotal role in the academic performance of students (Charamba & Zano 2019).

Makalela (2014) provides a description of how translanguaging has been used at the University of the Witwatersrand in teaching Sepedi. He studied students' interaction in and out of the classroom using social networks and multilingual blogs. The research proved that translanguaging approaches in the Sepedi class dismantled the language boundaries between the nine Bantustan languages (Makalela 2014). Makalela (2014) notes that this approach enabled students to increase their pool of vocabulary and concept extensions in the target language. An increase in motivation to learn Sepedi, which was the language being taught, was also a positive outcome to the multilingual resource that student had at their disposal in their social spheres (Makalela 2014).

The translanguaging framework is discussed below.

2.8 Theoretical framework

Using a translanguaging approach to teaching and learning, the study is premised on Cummins' (2000) dual iceberg theory. Cummins (2000) explains that cognitive academic language proficiency (CALP), as the name suggests, is the basis for learners' ability to cope with the academic demands placed upon them in the various subjects. Cummins (2000) states that conceptual knowledge developed in one language helps to make input in the other language comprehensible. For example, if a learner already understands the concepts of "justice" or "honesty" in their own language, all they have to do is acquire the labels for the terms in English.

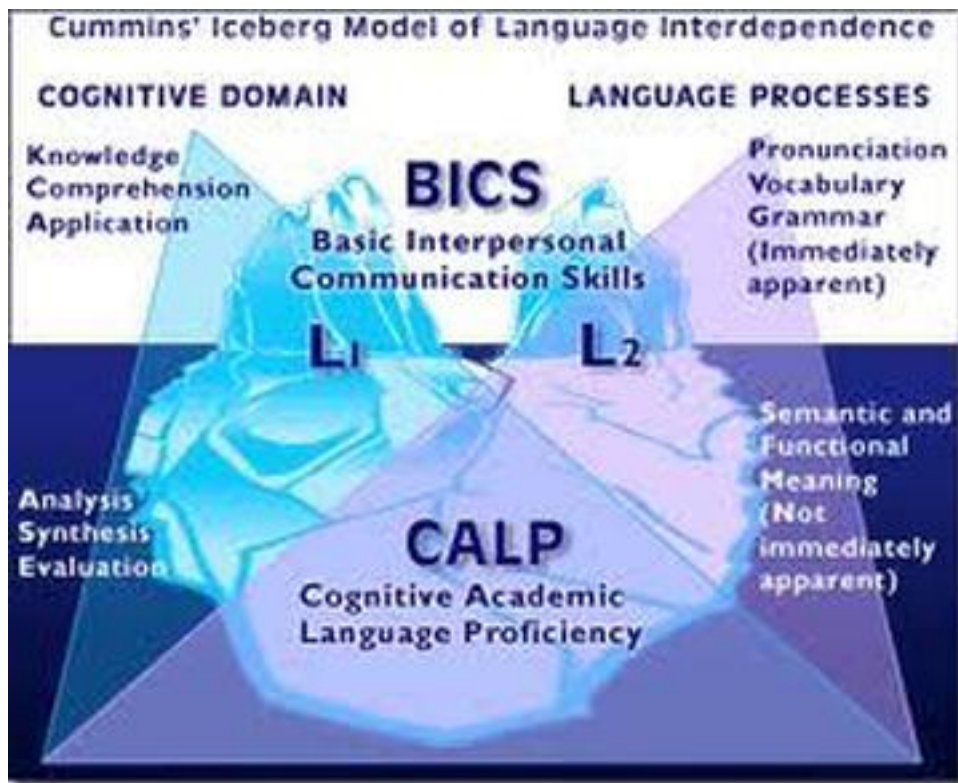


Figure 2.3: Cummins' dual iceberg model of language interdependence

Baker (2011) concurs with Cummins and explains that, irrespective of the language in which a person is operating, the thought that accompanies talking, reading, writing and listening comes from the same central engine. In other words, when a person owns two or more languages, there is one integrated source of thought. According to Baker's (2003, 2011) definition of translinguaging as a process of making meaning, shaping experience, and gaining understanding and knowledge through the use of two languages, meaning-making and efficient reading comprehension may involve the use of two languages (L1 and L2) if the reader has them at their disposal. Cummins (1991) argues that although the two languages may seem separate on the surface, they are actually quite interdependent at the deeper level of cognitive functions, and it is well established that learners who learn to read and write in their first language are able to readily transfer those abilities to a second language. However, there is a language inception that should be attained, as explained by Grabe and Stoller (2011). Translinguaging as a pedagogy was initially related to bilingual education and refers to 'building bilingual students' language practices flexibility in order to develop new understanding and new language practices' (Garcia, Flores & Woodley 2012:52)

The linguistic interdependence theory proposed by Cummins (1979) posits that bilinguals do not separately store two languages; instead, there is a cognitive interdependence known as the common underlying proficiency. The assumption is that regardless of the differences in languages, proficiencies that require higher and cognitively demanding skills should be common across languages. Recent studies have extended Cummins' theory and discovered that while one language is being used, the other language does not remain dormant, but instead becomes activated (Hoshino & Thierry, 2012). In other words, because inferential and evaluative comprehension involves higher-order thinking skills, such skills should be common across languages. Thus, the use of both the learner's HL (Sepedi) and LoLT (English) was used interdependently to improve learners' reading comprehension.

Canagarajah (2011) reasons that, in multilingual environments, translanguaging takes place when students use their entire linguistic repertoire strategically to learn. Baker (2011) refers to translanguaging as the use of two languages to make meaning, gain understanding and gain knowledge. However, according to Garcia and Wei (2014) translanguaging does not refer to two separate language practices or to a hybrid mixture of languages; instead, it refers to as single linguistic repertoire.

Garcia and Wei (2014) also argue for less rigid criteria of proficiency in terms of languages for example in this study Sepedi and English and focused on the users' flexibility in their use of their entire linguistic repertoire. They argue in favour of moving from seeing two languages as separate entities, recognizing that we have one linguistic repertoire at our disposal. Garcia (2009:307-308), further argue that translanguaging is very much a part of identity formation. She describes it as a "powerful mechanism to construct understanding, to include others, and to mediate understanding across the group".

Garcia and Wei (2014) premise translanguaging within the recent critical post-structural parade model shift in applied linguistics. Advocates of this school of thought (Garcia & Wei 2014; Makalela 2016; Makoni & Pennycook 2007; May 2014; Ndlovu 2017) question the notion of languages being separate and disconnected entities. The paradigm questions the homogeneity, boundedness and stability of languages in favour of mobility, mixing and historical embedding in the study of language (Blommaert & Rampton 2011). Garcia and Wei (2014) view translanguaging as a new language practice which emerges from exchanges among people with different histories. In fact, according to Wei (2016), translanguaging is a process that transcends the notion of movement between languages.

This study argues that learners enter classrooms with rich linguistic repertoires (Carrol & Morales 2016) that require recognition and utilisation for meaning-making and understanding of the subject matter. Mgijima and Makalela (2016) contend for a literacy model that integrates learners' linguistic repertoires in order to enhance reading development at an early stage.

The study is grounded on the argument of Lewis, Jones and Baker (2012) that the use of one language through translanguaging helps to develop the other. In addition the use of students' L1 helps students to understand the meaning of new and difficult words and explains complex syntactic rules (Hussein 2013).

In order for the learners to gain a full understanding of the texts that they read, I argue that translanguaging involves reading the text in home language and the language of instruction and discussing the content in both languages, in this study Sepedi and English. This study intends to show that translanguaging as a pedagogical strategy enhances comprehension in learners.

2.10 Conclusion

Translanguaging could therefore be used during reading to develop learners' language proficiency in both their home language and the LoLT. It will help learners construct meaning during reading comprehension and will also give an indigenous language (Sepedi) a chance to be used in education to help learners understand concepts better. As an educational approach, translanguaging could provide many benefits, such as social, affective and, most importantly, cognitive. It is clear from the literature that translanguaging is perceived as a pedagogic tool in teaching and learning. With the background of this understanding, the next chapter spells out the research design for the study, which focuses on instances of translanguaging as a pedagogical strategy in reading comprehension in Grade 4. The chapter focusses on the methodological aspects of the study.

Chapter 3: Methodology

3.1 Introduction

This chapter presents the methodology of the study. It describes the research design and methodological norms such as participants, instruments, and research procedure, comprising methods of data collection and analysis that address the research questions of the study. First, the mixed methods design used for the study is explained. Second, the methodological aspects such as participants and instruments are presented, and finally, the ethical considerations for the study are discussed.

3.2 Research design

A mixed methods design that comprises both quantitative and qualitative research methods was used for this study. Mixed method research is a research design, which involves philosophical assumptions that guide the direction of the collection and analysis of data using a combination of qualitative and quantitative approaches in many phases in the research process (Creswell 2003). It focuses on collecting data, analysing, and mixing both quantitative and qualitative data in a single study. Tashakkori and Creswell (2007) state that a mixed methods research design is ‘research in which the investigator collects and analyse data, integrates the findings and draws inferences using both qualitative and quantitative approaches or methods in a single study’. According to Creswell (2003), the central premise of a mixed methods design is that the use of quantitative and qualitative approaches in combination provides a better understanding of the research problem than the use of either approach alone.

According to Ivankova, Creswell and Sticks (2009), a mixed methods approach allows for a more complete understanding of the research problem and gives the researcher an opportunity to obtain an overall picture and greater insights into the phenomenon under investigation. Wills (2008) points out that the great strength of qualitative research is that it is naturalistic and focuses on real people in real situations. In this study, the real people are the learners and teachers at Paxana Primary School. Marshall and Rossman (2011) also explain that qualitative research is an approach that allows a researcher to examine people’s experiences in detail. Quantitative methodology, on the other hand, relies on measurement and uses various scales for precise information (Bless & Achola, 2006). While the quantitative arm of the study, based on the ANA and test results, was to find the level of understanding in reading comprehension, the qualitative component, based on questionnaire surveys, was to find the perception of

learners and teachers regarding the usage of translanguaging as a pedagogical strategy in reading comprehension. This study used a convergent parallel mixed methods design in relation to the research problem, the main aim of the study and the research questions. Convergent mixed methods research design was used to provide a complete understanding of the research problem. The decision to choose a convergent design was based on the fact that it addresses the different ways in which the quantitative and qualitative strands of the study relate to each other (Bryman, 2006). A strand is a component of a study that encompasses the basic process of conducting quantitative or qualitative research: posing a question, collecting data, analysing data and interpreting results based on that data (Teddlie & Tashakkorie, 2009).

The purpose of the convergent design is “to obtain different but complementary data on the same topic” (Morse, 1991: 122). Patton (1990) contends that convergent design allows the researcher to illustrate quantitative results with qualitative findings, synthesising complementary quantitative and qualitative results to develop a more complete understanding of a phenomenon.

In this study, a convergent research design was used; one type of data was integrated into the other, and the combined data was analysed. The results of open-ended questionnaires provided a useful supplement to the quantitative data and give a better understanding of translanguaging as a pedagogical strategy in reading comprehension. The interpretation involved comparing or combining the results from the qualitative and quantitative methods. The results of the ANA test (pre-test and post-test), as well as the closed- and open-ended questionnaires administered to the Grade 4A (control) and Grade 4B (intervention) groups at Paxana Primary School was collected concurrently, data was analysed separately, the results was merged, and the combined results was interpreted in light of the research questions. The convergence, divergence, contradictions or relationships between the quantitative and qualitative data was analysed and discussed.

This type of mixed methods design is characterised as a convergent parallel mixed methods design.

3.3 Participants

The participants were 70 Grade 4 learners and six Grade 4 teachers at Paxana primary School. There were 35 Grade 4A learners (control group), 25 boys and 10 girls and 35 Grade 4B

learners (intervention group) 15 boys and 20 girls. Their age range was between 10 and 12 years. There were three female and three male teachers. Five of them were between 25 and 35 years. The sixth teacher was between 35 and 40 years.

The school was chosen as it is a feeder of the four neighbouring high schools. All the four high schools had a general concern for the poor reading comprehension skills of their Grade eight learners. The learners could not read for meaning in English or Sepedi. There is also a high failure rate of Grade eight learners in the four Secondary schools. The school was chosen because of the concerns of the neighbouring high schools, and also due to its proximity and convenience for the researcher.

3.4 Instruments

Two main instruments were used for the study: the 2014 ANA test and questionnaires (administered to learners and teachers). The ANA test consisted of 16 questions (15 comprehension questions and one question on sequence of events based on the passage (see Appendix G). The learner questionnaire consisted of 10 closed-ended questions on a five-point Likert scale (strongly agree, agree, uncertain, disagree and strongly disagree) and the teacher questionnaire consisted of closed-ended questions and five open-ended questions (see appendices H and I for the questionnaires)

The Annual National Assessment (ANA) measures progress in learner achievement in literacy and numeracy to the South African public the performance of learners in the General Education and Training (GET) band who were assessed in Numeracy and Literacy using national standardised test. The ANA results provide a situated context for a better understanding of learner performance of lower levels of the system from Grades one to nine. It serves as an early warning system of potential problems that may emerge in the Further Education and Training level. Furthermore the ANA results provide the education sector with valuable information on the performance of the learners at the school, district and province levels and also supply information on the performance of the individual learner. It is used to identify the critical areas of weakness and to subsequently develop relevant interventions for improving learning and teaching in schools. The diagnostic report analysis of the Languages of ANA for Grades 4-6 and 9 reflects challenges in both Home language (HL) and First additional language, which is English. The findings of the assessment have been classified into two broad categories- (1) comprehension (lack of understanding of the text, inability to analyse a text and identify the

lesson of a text, difficulty in expressing feelings or giving an opinion about a text) (DBE .2014). Based on the 2014 ANA report which showed challenges in student's comprehension of both HL and FAL (English), the researcher used the 2014 ANA test as an instrument to measure the reading proficiency level of the cohort of Grade 4 learners in Paxana Primary and to determine the effectiveness of the intervention.

3.5 Data collection

The data collection was undertaken in three stages in the second semester, from the second week after the reopening of schools, from July to October. Learners completed the assent forms at the beginning of the semester and were given informed consent forms to be completed by their parents or guardians. The teachers also completed informed consent forms before responding to the questionnaire. The period between the pre-test, and the post-test was 12 weeks, as the pre-test was administered at the end of July and the post-test was administered at the end of October.

3.5.1 Stage 1

The 2014 ANA test (pre-test) was distributed to all the Grade 4A and Grade 4B learners by the researcher at the end of July after consent and assent forms had been collected. Permission was requested from the language teachers to use their periods for the test. According to the class time table, English and Sepedi were allocated one hour (60 minutes) each, daily from Monday to Friday. The test was written within an hour during one of the English periods of 60 minutes for both Grade 4B and Grade 4A.

3.5.2 Stage 2

The second stage was the intervention lessons using translinguaging as a pedagogical strategy in the intervention group. A PowerPoint lesson presentation with clear pictures related to the comprehension passage was used. Sight words, or keywords, relevant to the text were discussed and explained in Sepedi. Photographs were taken during the teaching and learning process to provide evidence of the classroom environment. At the end of the intervention, questionnaires were distributed to learners and teachers during two class periods: first period for Grade 4A (control group) and second period for Grade 4B (intervention group).

3.5.3 Stage 3

The 2014 ANA test (post-test) was distributed to the Grade 4A class (control group) and the Grade 4B class (intervention group) in the last week of October. The test was administered during one of the English class double periods, which is 60 minutes.

3.6 Data analysis

3.6.1 Quantitative data

The data comprising the ANA test (pre-test and post-test) responses were analysed quantitatively using analysis of variance (ANOVA). As a statistical method, ANOVA was used to make simultaneous comparisons between means in order to answer research question 1. Pre- and post-test results were analysed using a t-test to compare the Grade 4A (control group) and Grade 4B (intervention group) learners' reading proficiency levels. In addition, the closed-ended questionnaire data of the learners and the teachers were analysed using descriptive analysis in order to answer research questions 3 and 4.

3.6.2 Qualitative data

Open-ended questionnaire responses from the teachers were analysed using content analysis to identify, examine and interpret main themes and patterns in textual data and determine how these patterns and themes help to answer research question 4. Common themes or patterns were analysed, then the data were discussed and interpreted to explain the findings.

The results of the qualitative and quantitative analyses were drawn together to derive an understanding of the effectiveness of translanguaging as a pedagogical strategy in reading comprehension.

3.7 Research procedure

The study was organised in five phases.

3.7.1 Phase 1

Collecting and analysing data from the pre-test to determine the reading proficiency level of the learners and the homogeneity of the two groups of Grade 4 learners. In this phase of the study, 15 questions (14 comprehension questions and one question on sequence of events based

on the passage) were answered by 70 Grade 4 learners (Grade 4A and Grade 4B) to determine their reading proficiency level (research question 1).



Figure 3.1: Learners getting ready to write ANA test (pre-test)

3.7.2 Phase 2

Using the results from phase 1 (learners' performance in ANA test) and the theoretical discussion on reading comprehension and translanguaging in the literature review, instructional guidelines were compiled for the intervention. The instructional guidelines were compiled with a focus on translanguaging as a teaching approach. The intervention programme also considered the literature review and the results of the pre-test. The activities associated with the lessons are provided in Table 3.1. Based on the instructional guidelines, an intervention, which included a PowerPoint lesson presentation, was conducted with the intervention group (Grade 4B). The researcher compiled a planned PowerPoint lesson using translanguaging as a pedagogical strategy for reading comprehension. The lesson was divided into three sections—pre-reading, reading and post-reading—based on the model for reading instruction. Social and affective theories influencing reading instruction were also taken into consideration during the intervention programme. For example, learners were asked to first discuss the story in pairs, then to summarise and share the story with the whole class. As some learners willingly raised their hands to read for the whole class, other learners were motivated to raise their hands too. Learners who read well were praised and applauded, which motivated them. According to Dörnyei (2001), praise and rewards can serve as motivation incentives for learners. Besides the whole class reading, which was rewarded to build motivation, learners were also told to read the story to their parents at home in order to increase their interest and motivation.

3.7.2.1 *The intervention (example of lesson presentation) (Grade 4B intervention group)*

A PowerPoint lesson was presented during a 30-minute class period. Sight words written in English and Sepedi (e.g. wound, unconscious, discovered, aid, HIV, infection, utulla, fetele idibala, thusa) were presented to the learners.



Figure 3.2: Examples of sight words

A follow-up picture of a young boy, wounded and bleeding, was shown to the learners.

Learners were allowed to talk about the picture—what they thought might have happened to the young boy and what they would have done if they were around. Learners discussed the picture with their peers and later shared their discussions in Sepedi and English. The title of the story, “Schoolgirls save boy’s life”, was read by the whole class. Using the title of the story, learners were asked to predict what the story would be about orally. The majority of learners participated eagerly.

Learners were then invited to the teacher’s table to pick sight words and read the words aloud to the class (unconscious, discovered, protect, HIV, rescue, aid, infection, wound). The whole class followed the reader by also reading aloud. Learners were instructed to give the meaning of each word by writing sentences and later reading them aloud to the class. Some of their sentences did not make sense. Sight words were put on the chalkboard for learners to remember.



Figure 3.3: Researcher explaining vocabulary in English and Sepedi



Figure 3.4: Learners sighting difficult words



Figure 3.5: Learners matching sight words in English with sight words in Sepedi



Figure 3.6: Step 3: The researcher explaining all the sight words in English before reading the story to the learners



Figure 3.7: Learner showing understanding of a sight word

Learners read the story together with the teacher (shared reading). The following questions were asked during reading.

1. Why was the boy unconscious?
2. If you were at the scene what would you do?
3. What do you think Benny would do after his recovery?
4. How did Benny injure himself?
5. Why did the girls have a first aid kit with them?
6. The girls wore gloves to infection.
7. If you were the one to be awarded, how would you feel?

The teacher gave each learner the story to read silently and to underline the keywords (unconscious, discovered, protect, award, wound, HIV) before they retold the story orally in Sepedi and in English.

3.7.2.2 *The pre-reading*

Scaffolding: Words that were too difficult for the learners to master on their own were explained by the researcher. The teacher asked learners what to do if someone is involved in an accident. The aim was to find out if they already knew, before reading the story, how to use a first aid kit and what to do if someone is bleeding. Learners learned new vocabulary words: infection, HIV, discovered, unconscious, possible, aid, wound, and protection. Sight words were displayed for learners to recognise letters. The model helped learners understand the comprehension passage during the intervention. The learners used the pictures and the title of the story to predict what would be in the text (top-down), and their understanding of affixation to guess meaning (bottom-up). Learners made oral predictions of what the story would be about, and every learner's prediction was correct. Learners who could not express themselves in English were allowed to make their predictions in Sepedi, and others were requested by the teacher to repeat in English what was said in Sepedi. The researcher allowed learners to show understanding of the title of the story ("Schoolgirls save boy's life") by explaining it in Sepedi, and they read it as "Basetsana ba sekolo ba phološa bophelo ba mošimane". Not all learners were able to translate the title of the story into Sepedi. The translation helped all learners understand the title and gave them an idea of what the story would be about.

3.7.2.3 *The reading*

During reading, learners were asked a high-order question, a middle-order question and a low-order question related to the comprehension passage; some learners struggled to answer the questions. The following questions were asked: "How would you feel if you were Benny?" (high-order question), "What do you think is the reason for the two girls to wear gloves?" (middle-order question) and "What is the name of the boy who was injured?" (Low-order question).

Learners were given the opportunity to discuss the story in Sepedi and in English. Sepedi keywords and English keywords were displayed on the chalkboard those who were struggling to recognise and remember them. Learners were asked to sequence the events in the comprehension passage orally, i.e. what happened first, second, third and last.

3.7.2.4 *The post-reading*

Learners were arranged in groups of six. Their task was to identify the main idea of the story and give a reason for their answer. They were allowed to use English and Sepedi when

reporting. One learner represented each group and reported the group's inputs orally. In their groups, one learner shared his/her inputs first in Sepedi, then another repeated these inputs in English (translanguaging). Learners were told that they were allowed to have the discussions using English and Sepedi.

The last activity given to learners individually was to summarise the story in one paragraph in English and Sepedi. The activities of the intervention group, in comparison to the control group, are presented in Table 3.1.

Table 3.1: Activities done in the intervention group compared to the control group

Control group (Grade 4 A)	Intervention group (Grade 4 B)
Sight words were explained in English only.	Sight words were explained in Sepedi.
Learners discussed the story with peers in English only.	Learners discussed the story with peers in English and Sepedi.
Learners retold the story in English only.	Learners retold the story orally in Sepedi and in English.
There was no matching and learners were not active.	Learners were actively involved in matching Sepedi words with English words.
Learners did not understand the comprehension passage because the majority were not able to answer the questions orally.	Learners showed their understanding of the comprehension passage by answering questions orally.

3.7.3 Phase 3

The closed-ended questionnaires were completed by 35 Grade 4B (intervention group) learners and were analysed using descriptive statistics to determine learners' views on the integrated use of Sepedi and English to improve their reading comprehension in English and Sepedi.

The closed-ended questionnaires were completed by six Grade 4 teachers at the school and analysed using descriptive statistics to determine their opinions on the use of translanguaging as a pedagogical approach to improve learners' reading proficiency in English and Sepedi. In addition, the open-ended questionnaire was analysed using content analysis.

3.7.4 Phase 4

To determine the effectiveness of the intervention programme, quantitative analysis of the pre-test and post-test results was used to determine the differences within and between the groups. Specifically, the learners' responses before and after the intervention were descriptively compared and statistically analysed using a t-test to determine the effectiveness of the use of translanguaging as a pedagogical strategy to improve the reading proficiency of learners in both Sepedi and English.

3.7.5 Phase 5

As the study used a convergent parallel mixed methods design, the results of the ANA test were analysed quantitatively, and the questionnaire responses were analysed both quantitatively and qualitatively. The two data sets were then integrated to determine the effectiveness of the intervention and the use of translanguaging as a pedagogical approach.

The research questions and corresponding data collection and analysis are presented in Table 3.2.

Table 3.2: The research questions and associated data collection and analysis

Data	Research question	Analysis
The first set of quantitative data from the ANA (pre-test and post-test) was used to answer research questions 1 and 2.	<p>Questions 1 and 2</p> <p>RQ1: What is the reading proficiency level of the cohort of Grade 4 learners?</p> <p>RQ2: What teaching programme can be used to improve Grade 4 learners' reading comprehension of Sepedi and English texts?</p>	ANOVA
The findings of research question 1 and 2, together with the theoretical discussion, were used to draw up the intervention programme in answer to research question 3.	<p>Question 3</p> <p>RQ3: What are learners' views on the integrated use of Sepedi and English to improve their reading comprehension in English and Sepedi?</p>	Descriptive statistics
<p>The second set of quantitative data, produced by the intervention programme, assisted to answer questions 4 and 5.</p> <p>Data from the pre-test, post-test and questionnaires were used to determine the effectiveness and perceptions of translanguaging as a pedagogical strategy in reading comprehension.</p>	<p>Questions 4 and 5</p> <p>RQ4: What are the teachers' opinions on the use of translanguaging as a pedagogical approach to improve learners' reading comprehension in English and Sepedi?</p> <p>RQ5: How effective is the use of translanguaging as a pedagogical strategy to improve learners' reading comprehension in both English and Sepedi?</p>	<p>Descriptive statistics</p> <p>Content analysis</p> <p>T-test</p> <p>(Integration of quantitative and qualitative data)</p>

3.8 Ethical considerations

Ethical issues were considered in all phases of the research. Informed consent and assent forms were obtained from the participants and their parents or guardians. Fair explanation of the procedures to be followed and their purposes, a description of the attendant discomforts and risks to be reasonably expected, and an indication that the person is free to withdraw consent and to discontinue participation in the project at any time without prejudice were some of the guidelines followed to ensure reasonably informed consent. The obligation to protect the anonymity of research participants and to keep research data confidential was all-inclusive. The information will not be used for any purpose other than for the writing up of this research.

The researcher ensured that participation of the sampled population was voluntary and without harm. No pressure was imposed on the participants to participate. The researcher disclosed the purpose of the study to allow participants to make an informed decision as to whether or not to provide data. The researcher remained objective so that the final product would be value-free. The consent forms were completed by all participants: the principal, the teachers and the parents on behalf of learners. The learners completed assent forms. In addition, ethical issues were explained to the learners in English and in their home language. The researcher was granted permission from the Department of Education, Limpopo District Office, to undertake the study. The Department of Education's permission was used to gain access to the circuit and the school in order to administer questionnaires and tests and implement the intervention. The obligation to protect the anonymity of the research participants and to keep the research data confidential was all-inclusive. The researcher promised confidentiality to protect the participants' right to privacy. Thus, the information would only be used for research purposes. Also, the participants' true identities would not be disclosed in the presentation of information, in order to ensure anonymity. In addition, they were told that participation is voluntary and they could withdraw from the study at any time. Furthermore, it was guaranteed that neither participation nor non-participation would be disadvantaging in any way. In addition, ethical clearance was requested from the Research Proposal Committee of the Faculty of Humanities, University of Pretoria.

3.9 Conclusion

This chapter has shown the convergence, divergence and the relationship between the quantitative and qualitative data analyses. In addition, the research questions have been presented and the associated data collection and analyses, together with the research procedure have been described. Furthermore, the activities done in the intervention group compared to the control group have been presented. The next chapter focuses on the presentation of both the quantitative and the qualitative data.

Chapter 4: Presentation and discussion of data

4.1 Introduction

The previous chapter presented the methodological aspects of the study. These included the research design, participants, research instruments, and the methods used for data collection and analysis. This chapter presents the data and discussion of the findings. The data consist of a quantitative analysis of the learners' results on the ANA test and the responses to questionnaires from learners and teachers, as well as qualitative analysis of teachers' interview responses. The ANA test (pre-test) was used to determine the reading proficiency level of the cohort of Grade 4 learners in a primary school in Maraba Circuit, Capricorn North District, Limpopo Province. The post-test was used to determine improvements in learners' test scores. The closed-ended questionnaire responses of the learners were used to determine the learners' opinions of the intervention, and the responses from the teachers' interviews were used to determine the teachers' opinions on the use of translinguaging as a pedagogical strategy. The three sets of data (test results, learners' questionnaire responses, and teachers' questionnaire responses) are presented separately, and then integrated to determine the effectiveness of the intervention.

4.2 Presentation of learners' data

4.2.1 The socio-demographic characteristics of the learners

Demographic data were collected from 70 learners: 25 boys and 10 girls in Grade 4A, and 20 girls and 15 boys in Grade 4B (the intervention group) at Paxana Primary, a public school. Their socio-demographic characteristics indicate their gender, age and their home language. The learners were between the ages of 10 and 12 years and all spoke Sepedi as their home language. Gender, age and home language are not the focus of this research; hence they will not be discussed further. The detailed demographic information is given in Table 4.1.

Table 4.1: Socio-demographics of the learners

Variable	Category	N	%
Gender	Boys	40	57
	Girls	30	43
	Total	70	100
Grade 4A	Boys	25	71
	Girls	10	29

	Total	35	100
Grade 4B	Boys	15	43
	Girls	20	57
	Total	35	100
Home language	Sepedi	70	100
Age	10–12 years	70	100

4.2.2 Learners' ANA test results

Annual National Assessment (ANA) is carried out in the Foundation Phase and Intermediate Phase in South African schools. It was introduced by the DBE in 2011 to measure the quality of learning outcomes in the education system. ANA focuses on the learners' performance in the early years of schooling (Grade 1 to 6) and also in Grade 9, and it provides yearly feedback to teachers and parents on learners' achievement in literacy and numeracy. The provincial (Limpopo) average percentage mark for Grade 4 First Additional Language in 2014 was 36.3% and that for Home Language was 50.5% (DBE, 2014). As indicated in Chapter 3, Grade 4 learners wrote the 2014 ANA test before and after the intervention. The exercise was voluntary and had to be consented to by parents. Although there were 70 learners in total, the learners who wrote the pre-test numbered 65 (30 learners in Grade 4A and 35 learners in Grade 4B). Five learners in Grade 4A were absent on the day of writing the pre-test. The post-test, however, was written by all 70 learners (35 learners in Grade 4A and 35 learners in Grade 4B). The five learners who were absent on the day of administering the pre-test were present on the day when the post-test was administered. The socio-demographic characteristics of the learners, the descriptive and inferential statistics of the test, and the results are presented and discussed in the following subsections.

4.2.2.1 *Pre-test*

The pre-test was used to determine the reading proficiency level of the cohort of Grade 4 learners and to answer research question 1 (What is the reading proficiency level of the cohort of Grade 4 learners?). As mentioned earlier, the learners were given the 2014 ANA test, consisting of two sections. Section A was on comprehension for 16 marks and section B was on sequencing of events for 4 marks (see Appendix G) with a total mark of 20 for both sections. The learners wrote the test at the beginning of the second semester. It was marked by the researcher and validated by the two Grade 4 language teachers. The test results were analysed statistically using ANOVA tests. As a statistical method, ANOVA is used for making simultaneous comparisons between means.

The results were analysed to find the reading proficiency level of the learners and to determine the homogeneity of the two groups, i.e. the control group (Grade 4A) and the intervention group (Grade 4B). First, descriptive statistics are presented, followed by inferential statistics, in an attempt to answer research question 1. The descriptive statistics give a general overview of the results, whereas the inferential statistics show the statistical relationship between variables.

The results were calculated in percentages, and therefore the means, standard deviation, and maximum and minimum figures are all in percentages. The pre-test results show that the learners' reading proficiency was below 50% for both grades. The percentage mean for Grade 4A was 30.17, and for Grade 4B it was 39.17.

Descriptive statistics for Grade 4A (control group)

As shown in Table 4.2 below, the number of learners in Grade 4A who wrote the pre-test was 30, as five learners were absent when the pre-test was administered owing to their participation in a Foundation for Learning competition (Reading Aloud and Mathematics).

For Grade 4A, the percentage mean was 30.17, with a standard deviation of 15.00. The highest mark obtained was 65%. However, the lowest mark was 10%, showing a wide range in the learners' performance, which is further shown in the high standard deviation of 15.00.

Section A of the pre-test showed a percentage mean of 33.33 with a standard deviation of 17.85, and the percentage mean for section B was 17.50 with a standard deviation of 13.37. Whereas the highest mark obtained for section A was 68%, the highest mark for section B was only 50%, with some learners obtaining zero. The results (a low percentage mean of 17.50 and maximum percentage of 50%) show that the learners performed poorly in section B (sequencing of events) for the pre-test. The percentage means and standard deviations, as well as the highest and lowest marks of the pre-test for Grade 4A are presented in Table 4.2 below.

Table 4.2: Grade 4A pre-test

Variable	N	Mean	Std Dev	Minimum	Maximum
Pre-test section A	30	33.33	17.85	6.25	68.75
Pre-test section B	30	17.50	13.37	0.00	50.00
Total	30	30.17	15.00	10.00	65.00

Descriptive statistics for Grade 4B (intervention group)

The number of learners in Grade 4B who wrote the pre-test was 35. The total percentage mean for pre-test section A was 39.29 with a standard deviation of 16.31. The percentage mean for pre-test section B was 38.89 with a standard deviation of 18.37. The total percentage mean was 39.17 with a standard deviation of 14.42. The learners seemed to have performed better in section A than in section B, but with a slight difference of 1.12. The Grade 4B learners performed poorly in section B (sequencing of events) in the pre-test. The highest mark obtained for section A was 75%, whereas the highest mark obtained for section B was 50%, with the lowest being zero. There were vast differences in the results, as shown in the high standard deviations of 16.31 for section A and 18.37 for section B. The percentage means and standard deviations, as well as the minimum and maximum percentages obtained, are presented in Table 4.3 below.

Table 4.3: Grade 4B pre-test

Variable	N	Mean	Std Dev	Minimum	Maximum
Pre-test section A	35	39.29	16.31	6.25	75.00
Pre-test section B	35	38.89	18.37	0.00	50.00
Total	35	39.17	14.42	15.00	65.00

Summary

The total percentage mean in the pre-test for Grade 4B was 39.17 with a standard deviation of 14.42, showing a wide variation illustrated by the minimum of 15.00 and maximum of 65.00. The percentage mean for section A was 39.29, which was higher than that of Grade 4A (33.33). The highest mark of 75.00 for section A was also higher than that of Grade 4A, which was 68.75. For section B, the difference between the two groups was much greater. It was 38.89 for Grade 4B, with a standard deviation of 18.37, whereas the Grade 4A learners only recorded a percentage mean of 17.50 for section B. The learners in Grade 4B performed relatively better in the pre-test section A than in section B, but with a small difference (section A 39.29; section B 38.89), unlike the Grade 4A learners whose performance difference between the two sections was much larger (section A 33.33; section B 17.50). Overall, the learners did not do well in section B, the sequencing of events question, but Grade 4A performed dismally in this section.

The Grade 4A learners seemed to be weaker than the Grade 4B learners, given their level of performance in the pre-test. The Grade 4B learners outperformed the Grade 4A learners with a

difference of 5.96 in the pre-test section A (comprehension) and by 21.39 in the pre-test section B (sequencing of events). The total percentage mean of Grade 4B is also 9.00 higher than the total percentage mean of Grade 4A. Although the overall difference between the two groups is not extremely high and was not statistically significant, their performance on section B showed a huge difference of 21.39 and was statistically significant at a 0.5 significance level. Nevertheless, learners in both groups had a low reading proficiency level, as shown in the overall percentage mean of less than 50. Although learners in both groups did not answer section B well, Grade 4B learners were somewhat better than Grade 4A learners. The reading proficiency level of the cohort of Grade 4 learners can be considered to be low, and the groups fairly similar in terms of section A. The results of the descriptive data assisted in answering question 1 (What is the reading proficiency level of the cohort of Grade 4 learners?). The pre-test results align with Jordoi's (2011) explanation that one aspect that holds learners back from comprehending literature is their lack of fluency, or inability in reading behaviours such as making words, identifying words in a text, and writing words. These learners clearly lack fluency and the ability to identify words in a text.

4.2.2.2 *Post-test*

Descriptive statistics for Grade 4A (post-test)

The descriptive statistics for the Grade 4A (control group) post-test, as presented in Table 4.4, show that the learners' performance had improved for section A but had dropped for section B. The percentage mean of section A was 42.14 with a standard deviation of 22.55, showing a wide variation in performance. The maximum mark was 100.00, and the minimum mark was zero. However, the learners' performance in section A showed an improved mean of 42.14 compared to the pre-test mean of 33.33, an 8.81 improvement. The percentage mean for section B was 12.14 with a standard deviation of 20.45, which was worse than the pre-test mean of 17.50. Although the Grade 4A learners performed poorly in section B of the pre-test (17.50), they had performed worse compared to the post-test results (12.14). The total percentage mean was 34.29 with a standard deviation of 18.40, a minimum of 5.00 and a maximum of 80. The mean score of the post-test is higher than the mean score of the pre-test by 4.12. The means and standard deviations, as well as minimum and maximum scores, are presented below in Table 4.4.

Table 4.4: Grade 4A post-test

Variable	N	Mean	Std Dev	Minimum	Maximum
Post-test section A	35	42.14	22.55	0.00	100.00
Post-test section B	35	12.14	20.45	0.00	50.00
Total	35	34.29	18.40	5.00	80.00

Descriptive statistics for Grade 4B (post-test)

The descriptive statistics for the Grade 4B (intervention group) post-test are presented in Table 4.5. The percentage mean for section A was 59.11 with a standard deviation of 22.35. The minimum score was 18.75 and the maximum was 93.75. The percentage mean for section B was 47.86 with a high standard deviation of 40.39. The minimum possible score was zero and the maximum was 100. The percentage mean of the combined sections A and B was 57.00, with a standard deviation of 23.52. The minimum score was 15.00 and the maximum score was 95.00. The percentage mean of section A (comprehension) is higher than the percentage mean for section B (sequencing of events). The standard deviation of 18.37 for section B in the pre-test is lower than the standard deviation of 40.39 in the post-test. The means, standard deviations, and minimum and maximum scores are presented in Table 4.5 below.

Table 4.5: Grade 4B post-test

Variable	N	Mean	Std Dev	Minimum	Maximum
Post-test section A	35	59.11	22.35	18.75	93.75
Post-test section B	35	47.86	40.39	0.00	100.00
Total	35	57.00	23.52	15.00	95.00

Summary

Comparing the two groups, Grade 4A learners seem to be weaker, as their level of performance is far below that of the Grade 4B learners with a difference of 23.29 in the total percentage mean for the post-test. For section A of the post-test there was a difference of 16.97 between the two groups of learners. Learners in Grade 4B improved their performance for section B of the post-test, in contrast to the Grade 4A learners who regressed in their performance in section B. Learners in both groups seemed to struggle with section B, as shown in the pre-test results. They performed poorly in section B in the pre-test with a minimum mark of zero and a maximum mark of only 50 for both groups. After the intervention, in the post-test, the lowest

mark was still zero for both groups, but the control group still had a maximum mark of 50. However, for the intervention group, Grade 4B, although the lowest mark for section B was still zero, the highest mark had increased from 50 to 100 and the percentage mean had improved from 38.89 to 47.86. This meant that some learners were able to obtain full marks for section B in the post-test. The Grade 4B learners had improved for both sections A and B, whereas the Grade 4A learners had only improved for section A and had regressed in their performance for section B. The results of Grade 4B confirms the argument of Boakye and Mbirimi (2015) that the use of translanguaging as a strategy of negotiating meaning could serve as a scaffold to enhance comprehension challenges faced by learners. The intervention using translanguaging in Grade 4B improved the results.

4.2.2.3 *Inferential statistics (paired and independent t-tests)*

Paired t-tests are used when the two groups under comparison are dependent on each other, and independent t-tests are used when the two groups are independent of each other. Independent t-tests are usually used in cases where the experimental subjects are divided into two independent groups, with one group treated with A and the other group treated with B (Kim, 2015). The two groups in this study are the control group (Grade 4A) and the intervention group (Grade 4B). Paired and independent t-tests were used to analyse the differences between the control (Grade 4A) and intervention (Grade 4B) groups. This section discusses the statistical results of the paired t-test, comparing the pre-test and post-test of each group, and the independent t-test, comparing differences in the post-test across groups, to determine the difference in the level of improvement between Grade 4A and Grade 4B. While the descriptive statistics showed that the pre-test results were different from the post-test for both groups, the paired and independent t-tests showed the statistical significance of these differences.

Paired t-test

The results of the pre- and post-tests for each group were analysed using a paired t-test to determine if there were any statistically significant differences. The results of the paired t-test showed the following:

- For the control group (Grade 4A), although there were differences between the pre- and post-test section A and the pre- and post-test section B, only the difference between the pre- and post-test results of section A was statistically significant, with a p-value of 0.0065 significant, at a 0.05 significance level. There was no statistically significant difference in the pre- and post-test results of section B. However, the total mark for

both sections A and B was statistically significant at $p < 0.05$ ($p = 0.0245$). The results of the paired t-test reflected a statistically significant difference at a p value of 0.05. This rejects the null hypothesis.

- For the intervention group (Grade 4B), there was a statistically significant difference between the pre- and post-test results for section A at a p-value of 0.0005 significant, at a 0.05 significance level. Similar to the control group, there was no significant difference between the pre- and post-test results of section B for the intervention group. The total mark of the combined sections A and B pre- and post-tests for the intervention group was statistically significant at $p = 0.0014$. The probability value is > 0.05 . This accepts the null hypothesis. The paired t-test results showing p-values are given in Table 4.6 below.

Table 4.6: Paired t-test

Grade 4A				Grade 4B			
	Pre	Post	p-value		Pre	Post	p-value
Section A	32.11	41.16	0.0065	Section A	39.29	59.11	0.0005
Section B	16.38	11.21	0.2641	Section B	38.57	47.86	0.2582
Total	28.97	35.17	0.0245	Total	38.71	57	0.0014

Grade 4A DF=2.8 t-value=2.38 Pr>0.0245

Grade 4B DF=34 t-value=3.47 Pr>0.0014

The differences in the marks for both section A and the overall total for the control (Grade 4A) and intervention group (Grade 4B) were statistically significant. For section A, the difference between the pre- and post-test for the intervention group was statistically significant at $p = 0.0005$, and for the control group it was significant at $p = 0.0065$. These differences show that the percentage means for the pre- and post-tests were statistically significant and showed improvement for section A in both groups. The difference between the groups' marks for section B was not significant, although the intervention class improved and the control group regressed according to the percentage means. Overall, the intervention group (Grade 4B) improved significantly more than the control group. The results for section B indicate that the learners experienced challenges with sequencing events in order to summarise or comprehend a text. The fact that the control group regressed in section B means that intensive intervention is needed to improve the learners' ability in sequencing, as this has implications for understanding texts. A multilingual approach, as used in the intervention group, may be a viable approach as the learners in the intervention group improved, as shown in the percentage means.

Independent t-test

This section presents analyses of the improvement scores from the independent t-test. The results show a statistically significant difference between Grade 4A and Grade 4B for both sections A and B, as well as the overall total. For section A the difference between the groups was statistically significant at $p=0.0023$. For section B the difference was statistically significant at 0.0001 , and for the combined total of the two sections the difference was statistically significant at 0.0001 . The results with significant p-values are given in Table 4.7 below.

Table 4.7: Independent t-test

Grade 4A vs. Grade 4B (post-test)			
	4A (control)	4B (intervention)	p-value
Section A	42.14	59.11	0.0023
Section B	12.14	47.86	0.0001
Total	34.29	57	0.0001

DF=64.2 t-value=-4.50 $p<0.0001$

The results of the post-tests across the two groups were analysed using an independent t-test to determine if there were any statistically significant differences between them. The analysis from the independent t-test showed that there was a statistically significant difference between the control (Grade 4A) and the intervention (Grade 4B) groups in section A, with a p-value of 0.0023 significant, at a 0.05 significance level. Although the two groups improved for section A, the intervention group improved more than the control group. For section B the statistically significant difference between the two groups was at a p-value of 0.0001 significant, at a 0.05 significance level. The difference in the two groups was also shown in the total percentage mean, which was statistically significant at $p=0.0001$. The intervention group had improved more than the control group with the p-value of DF=64.2, t-value=4.50, $p<0.0001$ significant at a 0.05 significance level.

These results show that the intervention group (Grade 4B) learners had improved more than the control group, with the control group regressing on section B. The improvement of the intervention group was statistically significant for section A, for section B, and also for the combined total. The results confirm the statement made by Makalela (2015c) that when more than one language is used to access the same content, the learners develop a deeper understanding of the subject matter.

Effect sizes

Coe (2002) defines effect size as a simple way of quantifying the difference between two groups that has many advantages over the use of tests of statistical significance alone. He maintains that effect size emphasises the size of the difference rather than confounding this with sample size. Coe (2002) further explains that effect size is a simple and straightforward way to quantify the effect of an intervention relative to some benchmark. Effect sizes, in his view, are used to gauge the extent of difference between two groups and can be regarded as a true measure of significance. In other words, as indicated by Coe (2002), it allows the researcher to move from the simplistic idea of whether the intervention worked or not to a far more sophisticated position of how well the intervention worked in the context. As a general rule, 0.2 is considered a small effect size (Coe, 2002). Coe (2002) reports that Cohen places an effect size of 0.5 as medium and one of 0.8 as grossly perceptible, and therefore large.

To determine what effect the intervention had on the learners, an effect size procedure using Cohen's *d* was applied to the control (Grade 4A) and intervention (Grade 4B) groups. This procedure is important for "quantifying the effectiveness of a particular intervention" (Coe, 2002: 2). The effect sizes were calculated to emphasise the size of the difference between the intervention group and the control group.

For the paired t-test, the statistically significant difference of $p=0.0065$ for section A of the control group had an effect size of 0.546, which is considered medium. The statistically significant difference of $p=0.025$ for the total mark showed an effect of 0.441, which is considered small. For the intervention group, the significant difference of $p=0.0005$ showed an effect size of 0.650, which is considered above medium, and the significant difference of 0.0014 for the overall total showed an effect of 0.587, which is considered medium. Whereas the control group had medium and small effect sizes in their improvement, the intervention group had medium and above. Thus, the paired t-test showed that the effect sizes of the intervention group were larger than those for the control group, which indicates that the improvement of the intervention group had a higher effect.

The independent t-test, which was statistically significant at $p=0.0023$ for section A, showed an effect size difference of 0.756, which can be considered large. For section B the statistically significant difference between the two groups was $p=0.0001$ with an effect size of 1.116. The difference between the two groups for the total mark was statistically significant at $p=0.0001$, with an effect size of 1.076, showing a large effect size. Coe (2002) states that, in education,

an effect size above 1.000 is considered significantly large. Thus, the independent t-test comparing the performance of the two groups after the intervention showed highly perceptible effect sizes and indicated that the improvement of the intervention group had a very large effect.

4.2.2.4 *Discussion*

This section discusses the results of the analyses and attempts to answer the first and second research questions. Regarding the first research question, in finding out the reading proficiency level of the cohort of Grade 4 learners in the pre-test, the descriptive statistics from ANOVA tests showed that the learners' reading comprehension level was low, while the intervention group performed slightly better. The two groups of learners could be said to be homogeneous in the sense that they obtained similar percentages in section A but performed poorly in section B, and their overall total for both sections was below average (below 50%).

The below-average results of the two groups confirm the discussion in Chapter 2 indicating that learners have challenges in reading and cannot read with understanding. The PIRLS, which assesses the reading comprehension of Grade 4 and Grade 5 learners in English and other languages, has consistently shown that South African learners achieved the lowest score of all 45 education systems (Howie, Venter, Van Staden, Zimmerman, Long, Du Toit, Scherman & Archer, 2008). These poor results are explained by the discussion in Chapter 1 regarding the fact that learners are found to be at least three years below their expected reading proficiency (Department of Education, 2005; Makalela, 2012; Pretorius & Currin, 2010). Further evidence of poor literacy performance is seen in South Africa's participation in the PIRLS (Mullis et al., 2006; Mullis et al., 2009). It was also discussed in Chapter 1 that the results have consistently placed South Africa at the bottom of the low-performing countries (Mullis et al., 2006), and it was indicated in Chapter 2 that South African Grade 4 learners achieved an average score of 253 in the PIRLS, which was far below the fixed international score of 500 (Howie et al., 2012), pointing to extremely low reading comprehension ability, which will require serious intervention using various pedagogical strategies or approaches.

Whereas the descriptive statistics showed that the post-test scores differed from the pre-test scores in terms of learners' reading and comprehension skills, the results of the t-test showed the statistical significance of these differences. There were marked differences in the pre- and post-intervention results with a p-value of 0.005. However, section B (sequencing of events) did not show statistically significant results in the paired t-test for both groups. It seems that learners encountered challenges in the interpretation of texts and in answering sequencing test

questions to yield expected results. This is supported by the 2016 PIRLS results that showed that eight out of ten South African learners cannot read for meaning.

It was expected that there would be a measure of improvement in Grade 4B as translanguaging was used during the intervention (Makalela, 2012). The question was whether there were differences in the level of improvement between Grade 4A (control) and Grade 4B (intervention). Did the intervention group improve more than the control group and were the improvements statistically significant?

In terms of the paired and independent t-tests, after the intervention, the intervention group had shown improvement in both sections A and B, as well as the combined total. The paired t-test showed statistically significant improvement for section A and the combined total. The independent t-test showed statistically significant improvement for sections A and B, as well as the combined total. Thus, the intervention group had improved more than the control group with statistically significant results.

Tables 4.6 (paired t-test) and 4.7 (independent t-test) show statistically significant improvements for the intervention group in section A and section B. The intervention using translanguaging seemed to have proved to be beneficial in improving the learners' reading comprehension. This is supported by Makalela's (2015c) position that when more than one language is used to access the same content, the learners develop a deeper understanding of the subject matter.

It can be concluded that in terms of reading and comprehension strategies, there was statistically significant difference for both the paired t-test and the independent t-test. In general, Grade 4B learners improved significantly in both section A and section B after the intervention. The fact that the intervention group showed significant improvement in both sections indicates that Grade 4B learners might have developed reading and comprehension skills. These results align with Makalela's (2015b) study on the use of translanguaging techniques to facilitate reading development in the home language (Sepedi) and additional language (English) in a primary school in a rural area. One of the findings from his study was that the learners' ability to produce and expand meaning of the original texts in the same language improved. In his intervention, the learners reflected on their understanding of the text they were asked to read in both their home language (Sepedi) and English. The current study, using translanguaging in a similar manner, also showed improvement in learners' reading comprehension, as evidenced in the results of both the paired and independent t-tests.

The next section discusses the efficacy of the intervention using quantitative data, based on the intervention group's (Grade 4B) responses to the questionnaire.

4.2.3 Learners' questionnaire responses

As indicated in Chapter 3, learners were asked to fill in a questionnaire, which consisted of 10 questions that required learners to indicate their views on the integrated use of Sepedi and English to improve their reading comprehension (research question 3). The internal consistency and reliability of the instrument were measured using Cronbach's alpha. A higher value of Cronbach's alpha signified that the instrument was reliable. According to Manerikar and Manerikar (2015), if Cronbach's alpha is $\geq .9$ then it is excellent for use in high-stakes testing. A Cronbach's alpha of $\geq .7$ is good and can be used for low-stakes testing, $\geq .6$ is acceptable, and $\leq .5$ is unacceptable. The Cronbach's alpha was above .5 and therefore considered fairly acceptable.

Learners were asked to indicate their level of agreement regarding 10 issues relating to the integrated use of Sepedi and English to improve their reading comprehension, on a five-point Likert scale that ranged from 1 (strongly agree) to 5 (strongly disagree). The means and standard deviations (SD) are given for each statement. Means below 2 are considered low and rated positive, whereas means above 2 are considered high and rated negative. The descriptive statistics with percentages, means and standard deviations are given below.

Table 4.8: Responses to 10 questions on the integrated use of Sepedi and English

	Strongly agree		Agree		Uncertain		Disagree		Strongly disagree		Mean	Std. Dev
	N	%	N	%	N	%	N	%	N	%		
Q1: I enjoyed reading the same text in Sepedi and in English.	28	80.0	7	20.0	0	0.0	0	0.0	0	0.0	1.20	0.406
Q2: I feel free and confident to engage with other learners and my teacher using Sepedi and English (translanguaging) during reading.	11	31.4	19	54.3	5	14.3	0	0.0	0	0.0	1.83	0.664
Q3: I understand reading comprehension	22	62.9	12	34.3	1	2.9	0	0.0	0	0.0	1.40	0.553

questions better when important or difficult words in the English and Sepedi passages were well explained in Sepedi.												
Q4: If all assessments are conducted in both Sepedi and English I think I would do better and get higher marks.	19	54.3	14	40.0	2	5.7	0	0.0	0	0.0	1.51	0.612
Q5: I enjoyed discussing the passages in Sepedi and English with my classmates during reading comprehension lessons.	19	54.3	13	37.1	3	8.6	0	0.0	0	0.0	1.54	0.657
Q6: I would like all Grade 4 teachers to allow the use of both Sepedi and English during reading comprehension lessons.	19	54.3	9	25.7	4	11.4	3	8.6	0	0.0	1.74	0.980
Q7: When I used Sepedi and English to understand the passages we read, I understood it better.	17	48.6	13	37.1	5	14.3	0	0.0	0	0.0	1.66	0.725
Q8: I felt very much motivated when Sepedi and English were allowed during teaching and learning to discuss the passages we read.	21	60.0	8	22.9	4	11.4	2	5.7	0	0.0	1.63	0.850
Q9: Reading in English and Sepedi makes me want to read more.	26	74.3	8	22.9	1	2.9	0	0.0	0	0.0	1.29	0.850
Q10: I can use Sepedi to summarise the story read in English because difficult words were	20	57.1	12	34.3	2	5.7	0	0.0	1	2.9	1.57	0.850

explained in Sepedi during reading and we were allowed to discuss the comprehension passage in Sepedi.																				
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Summary

The learners' responses to the questionnaire were highly positive with all the mean scores being less than 2. The descriptive statistics showed that for question one, all the learners responded in agreement that they enjoyed reading the same text in Sepedi and English. The mean score was 1.20 and the standard deviation was 0.4. For question two, 85.7% of the learners (M=1.83; SD=0.64) agreed that they felt free and confident in engaging with other learners and the teacher. Fourteen percent (14.3%) were uncertain for question two. For question three, it was also obtained that 97.1% of learners (M=1.40; SD=0.553) understood reading comprehension questions better when important or difficult words in English were explained in Sepedi and 3% were uncertain. The majority of learners (94.3%; M=1.51; SD=0.612) agreed with the statement in question four: "If all assessments are conducted in both Sepedi and English, I think I would do better and get higher marks." Question five also had the majority of learners (91.4%; M=1.54; SD=0.657) agreeing that they enjoyed discussing the passages in Sepedi and English. For question six, only 8.6% (M=1.74; SD=0.980) disagreed that they would like all Grade 4 learners to allow the use of both Sepedi and English. The majority (80%) agreed, and 11.4% were uncertain. Question seven also had the majority of learners (85.7%; M=1.66; SD=0.725) agreeing that they understand better when Sepedi and English are used to understand the passage. For question eight, 82.9% (M=1.63; SD=0.850) agreed that they felt highly motivated when Sepedi and English were used to discuss the passage. The majority of learners (96%; M=1.29; SD=0.850) agreed to the statement in question nine, that reading in English and Sepedi makes them want to read more. For question ten, an overwhelming majority (91.4%; M=1.57; SD=0.850) agreed that they can use Sepedi to summarise the story in English.

The overall responses to the statements show that learners hold positive views on the integrated use of Sepedi and English to improve their reading comprehension. The descriptive statistics showed that all the learners (100%) responded positively. All the mean scores are below 2, which indicates that an overwhelming majority of the learners agreed with the statements and gave positive responses. The 100% positive response confirms the statement given by

Alexander (2012) that, using more than one language provides learners with versatility, flexibility and multiple access points to knowledge.

The level of agreement of the intervention group (Grade 4B) is shown in the bar graph below.

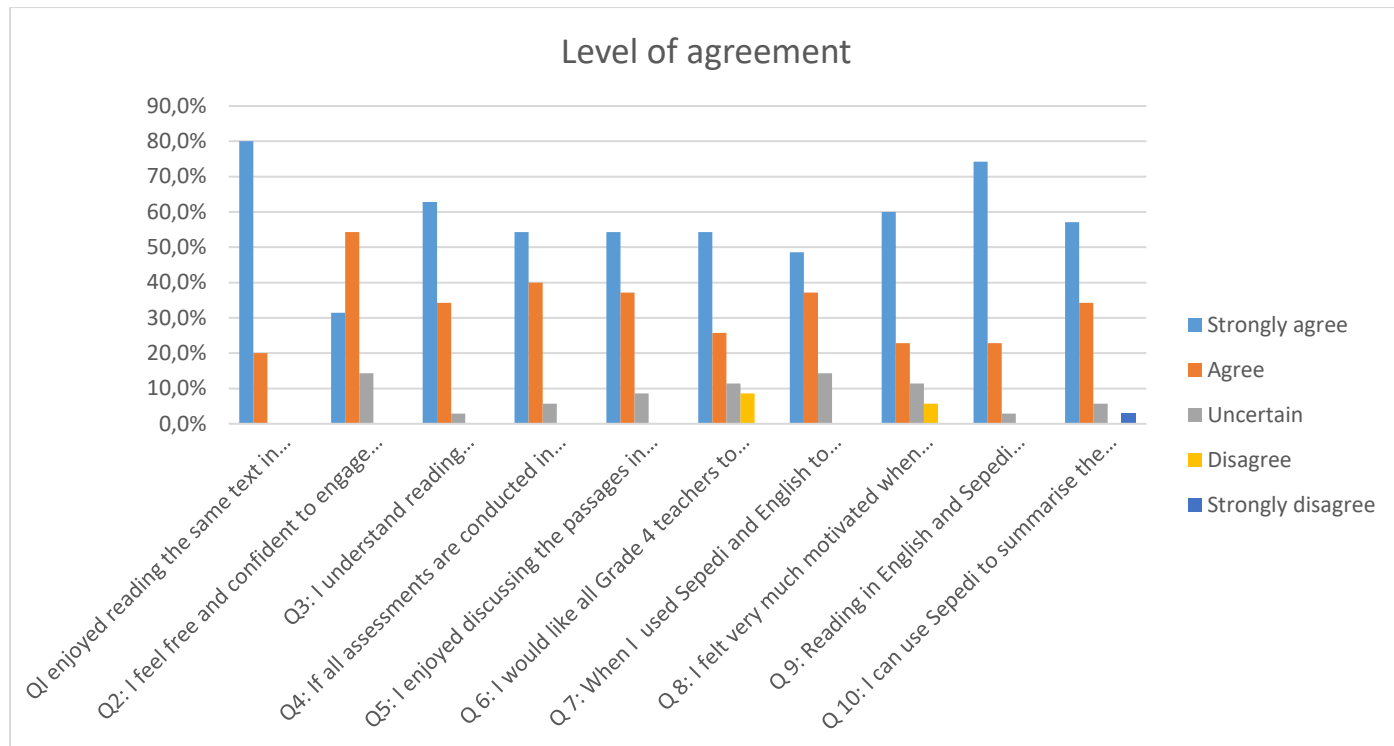


Figure 4.1: Bar graph showing level of agreement

In sum, considering the learners' responses given in Table 4.8 and the bar graph in Figure 4.1, the learners were positive about the integrated use of Sepedi and English. Their responses pointed to several benefits of the intervention. They agreed that it improved their comprehension. Only 8.6% of learners disagreed that they would like all teachers to allow them to use both Sepedi and English during reading comprehension. In addition, only 14.3% of the learners were uncertain that they understood the passage read when Sepedi and English were used, and only 1% strongly disagreed that they use Sepedi to summarise the story they have read in English. They also agreed that it provided enjoyment: 80% of the Grade 4B learners strongly agreed that they enjoyed reading the same text in Sepedi and English and 20% agreed. Furthermore, it was evident that the intervention increased the learners' motivation. This is shown in the fact that 74.3% of the learners indicated that reading in English and Sepedi makes them want to read more, 82.9% stated that they were highly motivated when both languages were used, and 85.7% stated that they felt more confident.

4.2.4 Discussion

The results of the data show that Grade 4B learners (intervention group) acknowledge the integration of Sepedi and English as helpful in reading comprehension. The learners' overwhelming approval of the translanguaging approach confirms Makalela's (2015b) theory that when more than one language is used to access the same content, learners develop a deeper understanding of the subject matter. The overall responses to the statements shown on the bar graph above reflect positive views of the learners on the integrated use of Sepedi and English to improve their reading comprehension. Eighty percent of the learners enjoyed reading the same text in Sepedi and in English, hence they performed well in section B (sequence of events) of the post-test, unlike the control group, which regressed. Sixty-three percent of the learners strongly agreed and 34.3% agreed that they understand comprehension questions better when important or difficult words in the English passage are well explained in Sepedi. This has been proved by the independent results presented in the inferential statistics (post-test), which showed that the intervention group (Grade 4B) performed better than the control group (Grade 4A). As explained by Guthrie (2008), the reader's affect, such as motivation and attitude, plays an important role in their reading comprehension. For example, an overwhelming majority (83%) agreed the statement: "I felt very motivated when Sepedi and English were allowed during teaching to discuss the passage we read". The Grade 4B learners were also observed to be generally enthusiastic and motivated during the intervention lessons. A similar observation was made by Mokolo (2014) in a primary school in Limpopo Province, in a study on translanguaging in Grade 3. Mokolo observed a teacher allowing and encouraging learners to use their own language to make sense of unfamiliar stories and texts in English. The teacher initiated peer interpretation, where learners were encouraged to understand the task by using their mother tongue, which enabled them to participate actively in meaning-making. Learners were allowed to talk to each other in their own language in an English lesson, and they were encouraged to share their understanding with each other and learn from each other. The observation is supported by Hidi and Harackiewicz's (2000) suggestion that by focusing on the interest of learners in the classroom, educators can find ways to foster students' involvement and increase the level of motivation and participation. The findings showed that learners understood reading comprehension better when important or difficult English words were explained in Sepedi. This confirms Cummins' (2007) theory that cognitive/academic underlying skills in L1 and L2 are assumed to be interdependent. Furthermore, Cummins

(2000) supports the view that conceptual knowledge developed in one language helps to make input in another language comprehensible.

The majority of the learners felt motivated and their confidence was increased when Sepedi and English were integrated. This is supported by the study taken up by Hungwe (2019), which found that encouragement during class discussion to use students' linguistic and cultural background helped the students to grasp the general meaning of an article. It further confirms Guthrie and Knowles's (2001) explanation that learners who have higher levels of intrinsic motivation are more likely to use cognitive strategies and to be more self-regulating. Furthermore, the learners' positive views are supported by Alexander's (2012) argument that the use of more than one language provides learners with versatility, flexibility and multiple access points to knowledge. This is supported by the study by Creese and Blackledge (2010), which showed that as participants engage in flexible bilingualism, the boundaries between languages become permeable. In their study, they observed that teachers and students constructed and participated in a flexible bilingual pedagogy in assemblies and classrooms of Chinese and Gujarati community language schools in the United Kingdom.

The pictures below show learners actively involved in class and competing with each other to post keywords with similar meanings in English and Sepedi on the chalkboard during one of the intervention lessons. One of the outputs of the translanguaging intervention was the learners' ability to reproduce and expand the meanings of keywords in Sepedi and match them with keywords in English.



Figure 4.2: Pictures showing learners' participation

The pictures above show learners' participation and indication of understanding of the text. They were asked to read and underline keywords and give their meaning in both their home language (Sepedi) and English. As shown in the picture, production of keywords in Sepedi gave the learners a sense of ownership and confidence as co-producers of knowledge. Learners were highly motivated in executing the activity. Studies of children's reading and

metacognition (planning and reviewing strategies) suggest that skilled readers are dynamic readers who predict what is going to happen in the text. The learners read the title of the story and predicted what the text would be about. This is justified by Block (2004) and Pearson and Duke (2002), who assert that prediction strategies help promote overall story understanding, as well as engagement with the text information during reading. This also enables readers to verify their understanding of the text.

4.3 Presentation of teachers' data

4.3.1 Socio-demographic characteristics of the teachers

The first part of the questionnaire required teachers to indicate their socio-demographic characteristics, including age, gender, professional qualifications, teaching experience and the subject and grade they teach. The analysis of the teachers' socio-demographic data showed that all of them have a teaching qualification (Senior Teachers Diploma) and were qualified to teach Grade 4—either one of the languages (English and Sepedi) or the content subjects (Natural Sciences, Social Sciences and Mathematics). Of the six teachers who participated, five (83%) were between 25 and 35 years old and one was between 35 and 40 years old. The majority of the teachers (83%), that is five of them, had six to ten years of teaching experience, while one had 11–25 years. Thus, all six participants had adequate teaching experience. This information is presented in Table 4.9 below.

Table 4.9: The socio-demographic characteristics of teachers

Variable	Category	Number	%
Age	25–35 years A	5	83
	35–40 years B	1	17
Gender	Male	3	50
	Female	3	50
Professional qualifications	Senior Teachers Diploma	6	100
Academic qualification	Undergraduate	1	17
	Postgraduate	5	83
Subject taught	English C	2	32
	Sepedi D	1	17
	Social Sciences E	1	17
	Natural Sciences F	1	17
	Mathematics G	1	17
Teaching experience	6–10 years H	5	83
	11–25 years I	1	17
Grade	4	6	100

4.3.2 Quantitative analysis of teachers' responses to the questionnaire

The questionnaire consisted of an open-ended section and a closed-ended section. For the closed-ended section, the teachers were asked to indicate their level of agreement regarding five issues on the use of translanguaging as a pedagogical approach to improve learners' reading comprehension of English and Sepedi texts. The closed-ended questionnaire (section 1) consisted of five questions on a five-point Likert scale that ranged from 1 (strongly agree) to 5 (strongly disagree) and five questions for the open-ended section in which teachers provided their general views. The questionnaire is provided in Appendix I.

The internal consistency and reliability of the instrument was measured using Cronbach's alpha. A higher value of Cronbach's alpha signified that the instrument was reliable. According to Manerikar and Manerikar (2015), if Cronbach's alpha is ≥ 0.9 then it is excellent for use in high-stakes testing. A Cronbach's alpha of $\geq .7$ is good and can be used for low-stakes testing, ≥ 0.6 is acceptable, and ≥ 0.5 is unacceptable. The Cronbach's alpha for the teachers' questionnaire was 0.8 and therefore considered good, and thus the instrument was reliable.

4.3.3 Descriptive statistics of teachers' closed-ended questionnaire responses

The descriptive statistics of the teachers' responses stating their opinions on the use of translanguaging as a pedagogical approach to improve learners' reading comprehension of Sepedi and English texts are presented below. The responses were measured on a five-point Likert scale that ranged from 1 (strongly agree) to 5 (strongly disagree). A mean below 2 was rated positive in agreement with the statement, whereas a mean above 2 meant that teachers were in disagreement. The descriptive statistics with percentages, means and standard deviations are given in Table 4.10.

Table 4.10: Means and standard deviation of teachers' questionnaire responses

	Strongly agree		Agree		Uncertain		Disagree		Strongly disagree		N	Mean	SD
	N	%	N	%	N	%	N	%	N	%			
Q1: I have observed learners using both Sepedi and English during reading comprehension lessons in the classroom.	4	66.7	2	33.3	0	0.0	0	0.0	0	0.0	6	1.33	0.516
Q2: I allow learners to discuss in Sepedi as well as the language of learning and teaching, English.	4	66.7	2	33.3	0	0.0	0	0.0	0	0.0	6	1.33	0.516
Q3: I usually use Sepedi as well as the LoLT (English) to explain concepts and ideas if it seems learners have not grasped them.	3	50.0	2	33.3	0	0.0	1	16.7	0	0.0	6	1.83	1.169
Q4: I usually give learners the opportunity to explain to each other in Sepedi when I notice that some learners have not grasped the concept in English.	6	100.0	0	0.0	0	0.0	0	0.0	0	0.0	6	1.00	0.000
Q5: I always encourage other	4	66.7	1	16.7	0	0.0	1	16.7	0	0.0	6	1.67	1.211

With regard to allowing learners to discuss in Sepedi as well as English (question two), all six teachers (100%) indicated that they do allow learners to discuss in Sepedi as well in English. This is supported by the study conducted by Charamba (2020) in a Natural Sciences class at a public high school in Viljoensdrift, where learners were given academic tasks to do in groups and were allowed and encouraged to use their mother tongue (Sotho) during the discussions and to translate their final responses into English, the LoLT. Charamba (2020) concluded that scientific knowledge can be discussed in any language and the use of translanguaging gives multilingual students equal opportunities to partake in class discussions, resulting in better comprehension of scientific concepts. On whether the teachers usually use Sepedi and English to explain concepts and ideas (question three), 88.3% agreed that they do use both languages to explain concepts. Similarly, Creese and Blackledge (2010) report of teachers who narrated a story in Mandarin, keeping to the storyline, and explained the story in English, emphasising the story's moral. They point out that the use of bilingual questions, repetition and translation across languages, and simultaneous literacies to engage students, establishes students' identity positions, keeps the pedagogic tasks moving, and negotiates meaning in the school classrooms.

On whether teachers give learners opportunities to explain to each other in Sepedi (question four), all the teachers agreed that they do allow learners to explain to each other in Sepedi when they notice that some learners have not grasped the concept in English. This confirms Garcia's (2009) statement that translanguaging is indeed a powerful mechanism to construct understanding, to include others, and to mediate understanding across the group. With regard to whether teachers encourage each other to allow learners in Grade 4 to discuss the given passage in Sepedi, and later answer related questions in English (question five), the majority (83.4%) agreed.

These results show that the majority of the teachers have some form of translanguaging going on in their classrooms. The overwhelmingly positive response to question four could be related to reading comprehension and for explanation purposes. The level of agreement of the teachers for the closed-ended questionnaire is presented in the bar graph, Figure 4.3, below.

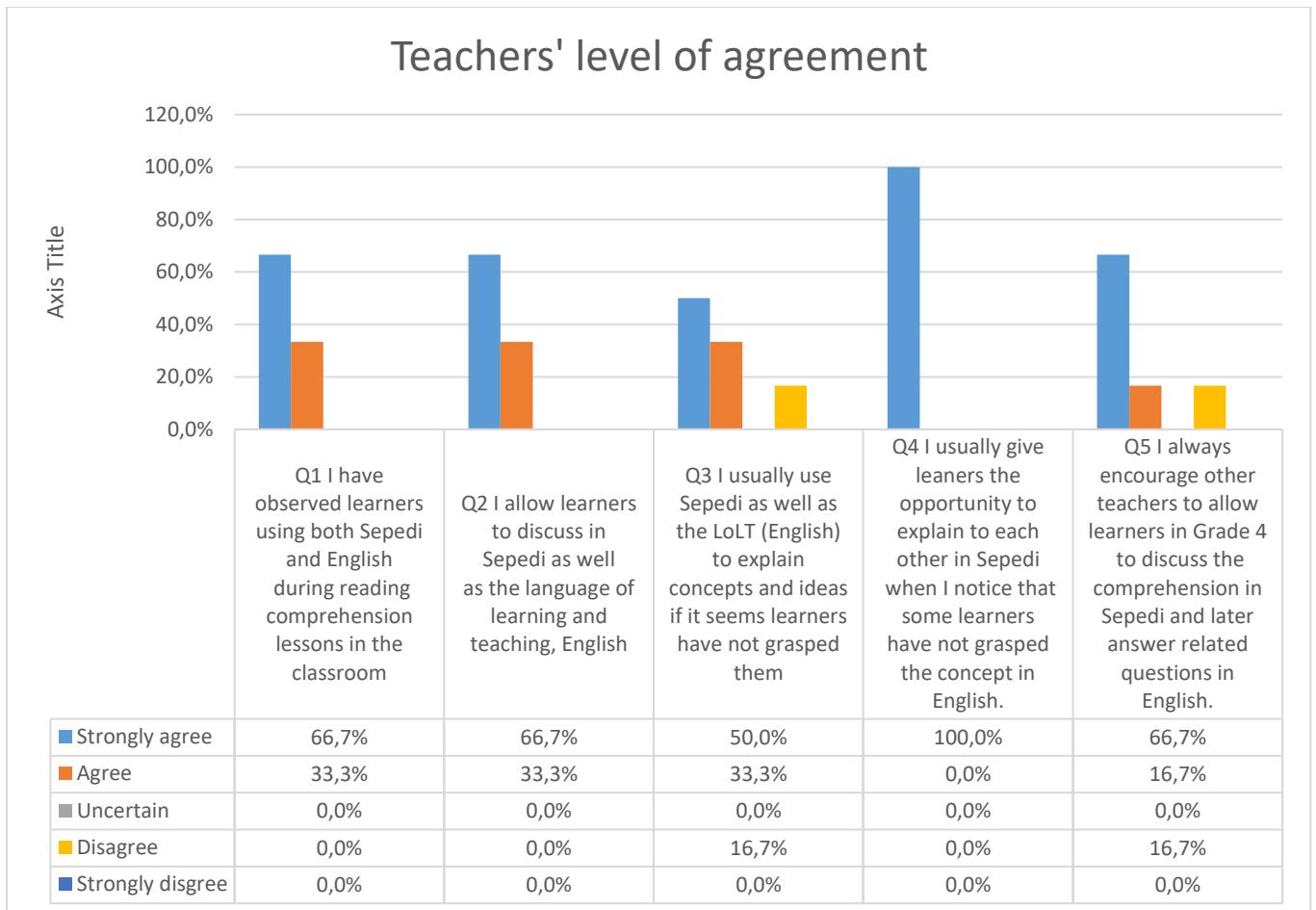


Figure 4.3 Teachers' responses to closed-ended questionnaire

Table 4.10 and Figure 4.3 above show that the teachers' answers to the questionnaire in relation to their opinions on the use of translanguaging as a pedagogical approach to improve learners' reading comprehension in English and Sepedi were very positive and that teachers were in favour of using translanguaging to assist with learners' comprehension.

Responses from teachers on their opinions on translanguaging showed that the concept might have been acknowledged as a useful strategy to improve the reading comprehension of Grade 4 learners. These results show that most of the teachers are willing to allow learners to engage in translanguaging during reading comprehension lessons. Questions one, two, four and five yielded high results of strongly agree. The table shows 0% uncertain responses for all questions. All the teachers had observed learners using both Sepedi and English during reading comprehension lessons in the classroom. The results of the data show that most of the teachers use translanguaging during reading comprehension and allow learners to use Sepedi and English during discussions. The results confirm the statement made by Zapata and Laman

(2016) that opening up opportunities for translanguaging in the classroom sends an important message to emergent bilinguals that their multilingual practices and their experiences are essential and meaningful to their development and learning

4.3.4 Qualitative analysis of teachers' open-ended questionnaires

Responses to the five open-ended questions on translanguaging as a pedagogical approach to improve learners' reading comprehension in English and Sepedi were analysed using recurrent themes and in relation to the literature on translanguaging. The qualitative data were included to gain more insight into teachers' opinions on translanguaging. During data analysis, the researcher compared all the responses to the questionnaire and coded themes that emerged. The findings that were obvious were also sorted, and the most compelling evidence that addressed research question 4 were selected. The responses were compiled first to determine whether a respondent was for or against translanguaging and to determine the common threads of each response. Pseudonyms have been used to present the teachers' responses. The questions are as follows:

Question 6: If you have used the home language in addition to English in your classes as a teacher, briefly explain how this approach has been beneficial or not in improving learners' reading comprehension.

Question 7: As a teacher, do you think allowing learners to use their home language during discussions in class helps to promote understanding? If yes, why? If no, why not?

Question 8: What are your views as a teacher regarding the use of English as the only language of learning and teaching in Grade 4?

Question 9: Suggest ways in which Sepedi and English (translanguaging) can be used more effectively to improve the reading comprehension of learners.

Question 10: In your words, describe in which situation using Sepedi and English for teaching is beneficial and which situation it is disadvantageous.

Question six was aimed at finding out the comprehension benefits of using more than one language for teaching and learning in the classroom. The data showed that five of the six teachers (83%) had used more than one language for teaching and learning. One teacher (17%) did not respond to this question. The five teachers who responded reported that using the home language in addition to English (LoLT) has been beneficial to them because their learners

participate better, seem to understand better and are more confident when expressing their opinions. It helped their learners to develop English and Sepedi vocabulary. Makalela (2015c) points out that when more than one language is used to access the same content, the learners develop a deeper understanding of the subject matter. In addition, using a home language and the target language for teaching was considered by the majority of teachers (83%) as a strategy that promotes understanding. Phuti, a female teacher between 23 and 35 years of age who teaches Social Sciences, reported: *“Using more than one language in my classroom has helped my learners gain better understanding, and more confidence in expressing their opinion, because they are able to use their home language/mother tongue to explain what was taught in class.”* This lends support to García’s (2009) suggestion that in a multilingual context, the home language can be used during the introduction phase to allow learners to engage in their linguistic repertoires based on different cultures. The teachers’ responses showed a general consensus that using the home language in addition to the LoLT in their classes promotes understanding of concepts and difficult vocabulary, as well as increasing the learners’ confidence.

Question seven was aimed at seeking teachers’ thinking regarding allowing learners to use Sepedi (home language) during discussion and how it helps to promote understanding. The data showed that all the teachers allow learners to discuss in their home language. They indicated that discussion in the classroom becomes lively as most learners are actively involved and seem to understand the content better in their home language. This confirms the argument by Alexander (2012) that using more than one language provides learners with versatility, flexibility and multiple access points to knowledge. The responses from teachers, *“Some learners, especially the slow learners, won’t cope and won’t understand at all if we use English as the language of learning and teaching”* and *“We all think in our language before we could translate our thought to English”*, show that the teachers valued the usage of home language as it promotes understanding.

Question eight of the questionnaire sought teachers’ views regarding the use of English as the only LoLT in Grade 4. The responses showed that (50%) of the teachers view using English as the only LoLT as disadvantaging most of the learners as they cannot express themselves properly in English. In other words, the teacher’s responses show that the learners have low language proficiency in the English language, in particular CALP. The teachers further indicated that the majority of the learners are slow learners and would not cope well academically if only English were used in the classroom. In his response, Lesiba (male Natural

Sciences teacher) wrote: *“Some learners, especially the slow learners won’t cope and won’t understand at all if we use English as the only language of teaching and learning.”* Kgabo (female Mathematics teacher) wrote: *“I think using English only as a LoLT in Grade 4 will promote memorising but not understanding. Learners will understand very little of the subject matter.”* Kwena (female English teacher) preferred the use of home language, but in specific domains. She stated that *“Learners need to be allowed the chance to express themselves in whatever language to stimulate thinking and learning so that they can make a relation between languages but teachers need to be careful not to teach subject in home language but rather use it to check progress and understanding.”* According to Mologadi (female Natural Sciences teacher), the home language can be used among the learners to help understanding and for the teacher to check for understanding, but not for teaching. It seems that, being an English language teacher, she argues for proficiency in the language.

The other 50% of the teachers were of the view that English should be the only LoLT in Grade 4 because English is used as a medium of instruction in school and it is the language for communication. It is also the language for examinations, tests and all assessments. Phuti (male Social Sciences teacher) stated: *“I think that this would be a great idea to implement and since English is the medium of communication for tasks, and examinations are also written in English, this would only be beneficial to learners in terms of understanding English better and overall progress.”* Pinkie (female Sepedi teacher) wrote: *“It is good because their level of understanding is increased, so they extend their views in the knowledge of the subject.”* Mokgethoa (male English teacher) wrote: *“Learners must be taught in English and practice English even at home when communicating.”*

Question nine of the questionnaire sought suggestions on ways in which Sepedi and English can be used more effectively to improve the reading comprehension of learners. The responses from the six teachers are given below:

Phuti wrote: *“Write words in Sepedi and convert to English every time. Sometimes learners are able to grasp when you communicate in Sepedi and then to English.”*

Kgabo wrote: *“Let learners find the words they don’t understand in the comprehension passage. Let them find the meaning of those words in both English and Sepedi dictionary. Learners should develop their own dictionaries whereby they will be writing the meaning of the words they do not understand in both English and Sepedi.”*

Mologadi had this to say: *“After learners have read a comprehension passage several times, they should be allowed to give a summary orally or written task in their home language (Sepedi) and then write it in English because they then don’t need to constantly go back and do reference checks on what happened in comprehension passage because it is registered in their mind.”*

Mokgethoa wrote: *“Translanguaging should not be done only on comprehension test, but in all subjects.”* Mokgethoa does not state how it can be used but merely suggests that it should be used in all subjects.

Matsobane wrote: *“The use of teaching aids will make the work easier. The teacher shows the learners the word in Sepedi or English and request the learners to explain it.”*

Pinkie wrote: *“If it is Sepedi lesson, English words should also be used and also during English lesson, Sepedi words should be used to promote understanding of concepts.”*

The teachers seem to have positive opinions about translanguaging as a pedagogical strategy in reading comprehension and across other subjects.

Responses to question ten, which asked teachers to describe situations in which using Sepedi and English for teaching is beneficial and in which it is disadvantageous, are presented in Table 4.11 below.

Table 4.11: Benefits and disadvantages of using Sepedi and English

Beneficial:	Disadvantageous:
Matsobane wrote: <i>“It is beneficial whereby learners do not understand certain words in English.”</i>	Matsobane wrote: <i>“If the teacher does not understand or speak Sepedi”</i>
Kgabo wrote: <i>“It is also a great advantage because I check their understanding in both languages”</i>	Kgabo wrote: <i>“In tertiary learners will find it difficult to communicate in English”.</i>
Mokgethoa wrote: <i>“It is beneficial for learners to understand what they learn first in their home language”</i>	Mokgethoa wrote: <i>“It is disadvantageous if the teacher does not know Sepedi.”</i>

Pinkie wrote: <i>“It is beneficial because learners understand what they learn.”</i>	Pinkie wrote: <i>“Assessment is in English only.”</i>
Mologadi wrote: <i>“It is beneficial to learners because they think in Sepedi before they can express themselves in English”</i>	Mologadi wrote: <i>“Sepedi is not used countrywide, areas where English is only used it will be difficult to express oneself. Learners who cannot express themselves in English will never interact with the English speakers.”</i>
Phuti wrote: <i>“Learners will understand the passage very well and will be able to answer questions in Sepedi and English.”</i>	Phuti wrote: <i>“Learners will only grasp Sepedi words and will be unable to write in English”</i>

4.3.4.1 Summary

Responses from teachers regarding their opinions on transanguaging showed that the concept might have been acknowledged as a useful strategy to improve the reading comprehension of Grade 4 learners. These results show that most of the teachers are willing to allow learners to engage in transanguaging during reading comprehension lessons. Questions one, two, four and five yielded high results of strongly agree. The table shows 0% uncertain responses for all questions. There is a small percentage (7.7%) of teachers who have not observed learners using both Sepedi and English during reading comprehension lessons in the classroom. The majority of teachers (61.5%) have observed the learners using both languages in discussions.

The results of the data show that most of the teachers use transanguaging during reading comprehension lessons and allow learners to use Sepedi and English during discussions. Two sets of data were gathered in order to answer research question 4: What are the teacher’s opinions on the use of transanguaging as a pedagogical approach to improve learners’ reading comprehension in both English and Sepedi texts? The quantitative data presented in the bar chart (Figure 4.3 above) represent teachers’ responses of strongly agree, agree, uncertain, disagree and strongly agree to questions from the questionnaire. The results of the qualitative data also provided teachers’ suggestions for how transanguaging can be used as a pedagogical strategy to improve reading comprehension. One important suggestion was that transanguaging should be used across the curriculum and not only in reading comprehension.

4.3.4.2 *Discussion*

The questionnaire helped to investigate opinions on the use of translanguaging as a pedagogical approach to improve learners' reading comprehension in English and Sepedi. The results of the data show that most of the teachers use translanguaging as a pedagogical strategy. They allow learners to use Sepedi and English during reading comprehension lessons. The teachers appreciate the use of home language in teaching as they claim that it promotes understanding. This supports Baker's (2003, 2011) view of translanguaging as the process of making meaning, shaping experience, and gaining understanding and knowledge through the use of two languages. Makalela (2015c) also contends that when more than one language is used to access content, learners develop a deeper understanding of the subject matter. However, it may be that concepts learnt in the stronger language (Sepedi) can also contribute to the development of the weaker language (English). If teachers see the value of using the home language alongside English in the classroom and are already doing so, then measures should be taken to enable them to use the approach in a more systematic and structured way.

As shown in the results, all the teachers indicated that discussions in the classroom become lively when two languages (home language and English) are used, as most learners are actively involved and seem to understand the content better. It seems to ignite their thinking and increase their self-confidence. This supports Alexander's (2012) argument that using more than one language provides learners with versatility, flexibility and multiple access points to knowledge. The responses show that the teachers value the usage of home language as it promotes understanding. Although teachers are positive about using two languages as a pedagogical tool, one female teacher stated that the use of translanguaging is advantageous only during teaching and learning but that it is not beneficial when assessment is done only in English.

One of the male teachers suggested that translanguaging should not only be used for reading comprehension lessons, but in all subjects, including Mathematics and Science. In his view, since it seems to be a useful pedagogical strategy, it should be used across the curriculum. Another suggestion by a female teacher was that there should be proper planning when using translanguaging. The results of the data show that most of the teachers use the home language and English for teaching and learning. However, because they have not been formally introduced to the concept, these teachers might be using it in an ad hoc and haphazard manner. Li (2017) cautions that translanguaging should be a planned, systematic use of two languages

for both teaching and learning. Furthermore, Childs (2016) argues that translanguaging is a means of providing planned and systematic use of learners' home language and the LoLT in order to foster meaning-making and learning. Translanguaging should not be used haphazardly; rather, the use of languages should be well planned to make learning meaningful.

The resulting cognitive and affective themes identified are as follows:

4.3.5 Cognitive outcome

Translanguaging gives learners a better understanding of what is read, as well as skills in thinking, remembering, applying, evaluating and creating. Furthermore, for vocabulary development, Creese and Blackledge (2010: 111) offer some hints for translanguaging, explaining that “the term is given in one language and explained in another language.” Baker’s (2011) observation about the value of translanguaging in enhancing higher planes of cognition is instructive in that “to read and discuss a topic in one language, and then to write about it in another language, means that the subject matter has to be processed and digested” (Baker, 2011: 289). This is supported by Kendeou, Van den Broek, Helder and Karlsson (2014), who contend that to understand a sentence one must visually process the individual words, identify and access their phonological and semantic representations and connect these representations to form an understanding of the underlying meaning. Translanguaging enables learners to engage in this process using both the home language and English to obtain meaning and achieve the outcome of understanding. García (2009) states that translanguaging in a bilingual classroom helps to facilitate effective learning of content and languages.

4.3.6 Affective outcome

Translanguaging builds learners' confidence in expressing themselves and encourages active participation. This is supported by the study undertaken by Makalela (2015b), in which retelling of the story through three texts gave the learners an opportunity to move back and forth between the languages and produce the three inputs: English, Sepedi and alternation between Sepedi and English. Production of a Sepedi output from the Sepedi text gave the learners a sense of ownership and confidence as co-producers of knowledge. Makalela (2015b) further maintains that one identifies one's voice through rewriting, summarising, retelling and evidence of a deepened comprehension of the text. In his intervention, he observed that the learners publishing their work on the wall was competitive and required a continued effort to read in one language and write in a different language. The teacher involved in the intervention

also observed learners going to the wall to read each other's work during the study time or at any time they had a break. The teacher usually saw many of them going to the corner without him sending them there. He believed they were doing so because they were the producers of the texts. Makalela (2015b) points out that the teacher was aware that publication of the learners' texts was an effective way of promoting incidental reading. Nandi and Snyman (2017) support this, noting that when children are motivated to read, they tend to enjoy reading and gain confidence in their ability to read. Thus, translanguaging empowers both the learner and the teacher, transforms the power relation, and focuses the processes of teaching and learning on making meaning, enhancing experience, and developing identity (García, 2009; Creese & Blackledge, 2010). As Guthrie and Knowles (2001) point out, learners who have higher levels of motivation are more likely to use cognitive strategies and to be more self-regulating.

4.4 Integration of learners' test results and questionnaire responses, and teachers' closed- and open-ended questionnaire

Findings from the quantitative data revealed a positive effect of the intervention. The qualitative data gave a deeper understanding of the findings from the quantitative data. The two data sets (quantitative and qualitative) are discussed in relation to each other below to show how translanguaging as a pedagogical strategy can yield positive results in reading comprehension.

The quantitative data were analysed using descriptive and inferential statistics. T-test results from the learners' comprehension tests showed that translanguaging in reading lessons improved the reading comprehension of the intervention group during the intervention (§4.2.2.2). Descriptive statistics from the learners' questionnaire responses showed that the intervention group (Grade 4B) had benefited from the integrated use of Sepedi (home language) and English (LoLT), and learners were very positive about the translanguaging approach used for the intervention (§4.2.3). Descriptive statistics from the teachers' closed-ended questionnaires pointed to positive views and opinions on using translanguaging as a pedagogical strategy in reading comprehension (§4.3.2.1). Additional findings from the teachers' questionnaire responses showed that a majority of the teachers do use both English and the home language (Sepedi) in teaching and learning and allow learners to use both languages as well. The teachers have found the integrated use of the two languages useful in improving learners' understanding and were very positive about such an approach. The

findings from the learners' test results, as well as the teacher and learner questionnaires, lend evidence to the argument that the use of translanguaging is beneficial in improving learners' reading comprehension.

The qualitative data from the teachers' open-ended questionnaire were analysed and summarised under cognitive and affective themes. The responses showed that the teachers were positive about the use of the home language and English for teaching and learning purposes and reported cognitive (understanding, comprehension, facilitation of learning, etc.) and affective (confidence, motivation, increased participation, etc.) benefits. Learners' responses to the questionnaires gave important insights into how the integration of Sepedi and English used in the intervention impacted their reading comprehension of English and Sepedi texts. Thus, findings from the qualitative data (open-ended questionnaire) revealed positive opinions of translanguaging as a pedagogical strategy from the perspective of teachers and gave deeper understanding of the findings from the quantitative data.

The use of translanguaging as a pedagogical strategy in the intervention was aimed at giving learners a deeper understanding of texts and a higher level of comprehension. Learners indicated that they understood the reading comprehension questions better when keywords or difficult words in English were explained in Sepedi. A majority of the learners reported that they felt free and confident to engage with other learners and their teacher when using Sepedi and English during the reading lessons. A study of learners' language learning preference conducted by Bartlett (2017) lends support to this finding. Bartlett (2017) investigated learners' opinions about the incorporation of their L1 (Japanese) into the L2 (English) classroom. The study found that learners preferred to have the option of using Japanese with the teacher that it allowed for them to feel more confident and comfortable trying to communicate. Furthermore, the study found that learners were better able to grasp the concept being taught if they heard it explained in Japanese by the instructor, who could use both languages as teaching tools.

The reports given by the teachers that they allow learners to discuss in Sepedi as well as English (LoLT) to gain understanding is in line with Cummins, Baker and Hornberger's (2001) argument that, through children's L1 experience, they are likely to develop an understanding of concepts they encounter in their L2 reading.

In summary, the qualitative data clarified the quantitative findings and shed light on how the differences between the control and intervention groups occurred, as well as how the relatively higher improvement for the intervention group was achieved. Learners' and teachers'

responses to questionnaires supported the positive effect of translanguaging as a pedagogical strategy in reading comprehension.

4.5 Conclusion

This chapter presented the findings of the study. Results of the quantitative findings of the comprehension test shed light on the reading proficiency levels of the cohort of Grade 4 learners and showed that there was a statistically significant difference between the control group and the intervention group, with the intervention group demonstrating higher reading proficiency levels after the intervention. Results of the quantitative findings from learners' and teachers' questionnaires, as well as the qualitative findings from teachers' questionnaires, shed more light on the use of both the home language and the LoLT (i.e. translanguaging) as a pedagogical strategy in reading comprehension.

The next and final chapter concludes the dissertation by summarising the main issues of the investigation, summarising the answers to the research questions posed in Chapter 1, discussing the limitations of the research, and making a number of recommendations.

Chapter 5: Conclusion

5.1 Introduction

Reading comprehension is critical for the academic performance of all learners, particularly Grade 4 learners. Grade 4 is a crucial stage for the majority of South African children because they start their learning from Grade 1 to 3 in their home language (mother tongue) and then switch to English in Grade 4. Therefore, for the majority of learners entering Grade 4, the LoLT changes from their home language to English, resulting in more than 80% of the learners being taught in a second language (mostly English, which is a first language for less than 10% of the population) (Van Staden & Howie, 2008: 3). Ultimately, learners who cannot read for meaning in English in Grade 4 are at risk of failing to proceed to the next grade, which may impede their subsequent academic progress.

Thus, the aim of this research study was to evaluate the use of translanguaging as a pedagogical strategy to improve the reading comprehension of Grade 4 learners at Paxana Primary School. The main objectives were to (1) determine the reading proficiency level of the cohort of Grade 4 learners; (2) outline and administer a reading intervention using both Sepedi and English in a translanguaging approach for instruction; (3) investigate learners' views on the integrated use of Sepedi and English to improve their reading comprehension of English and Sepedi texts; (4) investigate teachers' opinions on the use of translanguaging as a pedagogical approach to improve learners' reading comprehension; and (5) determine the effectiveness of translanguaging as a pedagogical approach to improve learners' reading comprehension in both English and Sepedi. In relation to the aim and objectives, the following research questions were formulated.

1. What is the reading proficiency level of the cohort of Grade 4 learners?
2. What teaching approach can be used to improve Grade 4 learners' reading comprehension of Sepedi and English texts?
3. What are learners' views on the integrated use of Sepedi and English to improve their reading comprehension in English and Sepedi?
4. What are teachers' opinions on the use of translanguaging as a pedagogical approach to improve learners' reading comprehension?
5. How effective is the use of translanguaging as a pedagogical strategy to improve learners' reading comprehension in both English and Sepedi?

In gathering information to answer the research questions, the researcher used both quantitative and qualitative methods. Learners wrote a reading comprehension test to answer the first research question. For the teaching approach, a translanguaging programme was designed to answer the second research question. In addition, learners completed questionnaires that were analysed quantitatively to answer the third research question. To answer the fourth research question, teachers were given questionnaires with the first (closed-ended) section analysed quantitatively and the second (open-ended) section analysed qualitatively. Finally, the learners' pre- and post-test results, as well as the teachers' and learners' responses to the questionnaires were integrated to answer the last research question. This chapter endeavours to establish the extent to which the research questions have been answered in order to draw conclusions from the findings. The chapter will restate the research problem and sum up the theoretical and conceptual framework. The findings will be summarised, conclusions will be drawn, some limitations of this research will be spelt out, and the significance and implications of the study will be highlighted before recommendations are made.

5.2 Research problem and theoretical framework

Various studies and assessments of most South African learners show poor reading proficiency levels. The 2016 PIRLS results showed that 78% of South African Grade 4 learners were not able to reach the lowest benchmark (Howie et al., 2017). South African Grade 4 learners achieved an average score of 253 in the PIRLS 2006, which was far below the fixed international score of 500 (Howie et al., 2012). The learners who did not obtain the lowest benchmark failed to locate explicit information or reproduce information from a text (Howie et al., 2012). The learners' failure to correctly answer basic comprehension questions may indicate their inability to read on their own and/or understand basic information in the text (Howie et al., 2017). A report by the Minister of Education on the 2016 PIRLS results showed low reading levels of South African learners in all provinces, with Limpopo Province (the province in which the study was undertaken) having the highest percentage (90%) of learners with low reading proficiency (Howie et al., 2012).

In Grade 4, learners are required to read for comprehension in the LoLT, English. However, most of the learners cannot read for meaning at this level, either in their home language or in English. One of the reasons for this poor reading ability is the transition from Grade 3 to Grade 4, where there is a switch from home language to English as the LoLT. Makalela's (2012) study on the reading proficiency of learners in schools around Polokwane in Limpopo Province found

that the learners had low reading proficiency in both English and Sepedi. The learners in Limpopo Province are not alone in facing this reading dilemma, as the problem exists in other provinces as well. Various attempts have been made to address this educational challenge in South African schools.

In attempting to find a solution to this reading challenge for learners in schools situated in rural areas, this study used translanguaging as a pedagogical strategy, using both Sepedi and English to improve Grade 4 learners' reading comprehension. Integration of Sepedi and English was used for instruction to develop learners' reading proficiency.

The pedagogical strategy labelled translanguaging binds the two (or more) languages together, “fosters the dynamic and integrated use of bilingual students’ languages” (Lasagabaster & García, 2014: 557), and creates a space in class where languages are smoothly incorporated and naturally accepted as a “legitimate pedagogical practice” (Lasagabaster & García, 2014: 1). In this study the researcher used translanguaging as a pedagogical strategy in the intervention group, where learners participated in peer discussions and interactions with the researcher in the two languages. During reading, Sepedi words were used alongside English words. In order for learners to understand the words in English better, pictures were placed next to each word as this was seen by the researcher as the easiest way to explain the meaning of a word to learners. Learners were able to confidently summarise the story orally in Sepedi and in English. This confirms García and Li’s (2014) explanation that not only does translanguaging promote comprehension of the content being taught, but it reinforces the weaker language as well. Another technique used in translanguaging entails that “the term is given in one language and explained in another language” (Creese & Blackledge, 2010: 111, 112). In this study, English terms were explained in Sepedi.

Cummins’ (2000) dual iceberg theory was used as a theoretical framework and guiding principle for the current research because its theoretical perspective and factors relate to the research problem. The theoretical framework explains that cognitive academic language proficiency (CALP), as the name suggests, is the basis for learners’ ability to cope with the academic demands placed upon them in the various subjects. Cummins (2000) emphasises that conceptual knowledge developed in one language helps to make input in the other language comprehensible. For example, if a learner already understands the concepts of ‘justice’ or ‘honesty’ in their own language, all they have to do is acquire the labels for the terms in English. The words ‘accident’, ‘wound’, ‘unconscious’, ‘infection’, ‘award’ and ‘aid’ were acquired in

Sepedi. Hoshino and Thierry (2011, 2012) concur that while one language is being used, the other language does not remain dormant; instead, it becomes activated. In other words, the stronger language assists the weaker one. Thus, learners' HL (Sepedi) and LoLT (English) were used interdependently to improve their reading comprehension. This is supported by Baker's (2003, 2011) definition of translanguaging as a process of making meaning, shaping experience, and gaining understanding and knowledge through the use of two languages (L1 and L2) if the reader has them at their disposal. Based on Cummins' (2007) theory that cognitive academic proficiencies underlying literacy skills in L1 and L2 are assumed to be interdependent, the interdependence of Sepedi and English was used during the intervention. Sepedi was used to promote understanding, and production was in English. Thus, the study, conducted with Grade 4 learners at Paxana Primary School, was in line with the interdependence theory.

5.3 Summary of results

In order to answer the five research questions highlighted in the introduction, both quantitative and qualitative data were collected. Learners wrote the 2014 ANA test and completed a closed-ended questionnaire. The participants were 70 learners, 35 in Grade 4A (control group) and 35 in Grade 4B (intervention group), from a primary school in Limpopo Province. To give further insight into the information obtained from the learners' pre-test and post-test, six teachers from the selected primary school completed a closed- and open-ended questionnaire. The ANA pre- and post-tests were analysed using t-tests. The closed-ended questionnaires were analysed using ANOVA, and the open-ended questionnaires were analysed qualitatively through content analysis.

In relation to research question 1, the objective was to determine the reading proficiency level of the learners and the homogeneity of the two groups (Grade 4A, the intervention group, and Grade 4B, the control group) in the pre-test. The descriptive statistics and inferential statistics were presented. The pre-test results were below 50% for both groups. Although both groups showed low reading proficiency levels, Grade 4A seemed to be weaker, as their class average was below that of Grade 4B. The results of the pre-test show that the groups were homogeneous and not vastly different.

With regard to research question 2, the objective was to outline and administer a reading intervention using both Sepedi and English in a translanguaging approach to instruction. A

translanguaging reading intervention was planned and administered to the Grade 4B learners, as explained in the previous paragraph.

In relation to research question 3, the objective was to investigate learners' views on the integrated use of Sepedi and English to improve their comprehension of English and Sepedi texts. Questionnaires were collected from learners, and responses from the learners' questionnaire showed that their views were positive towards the integration of Sepedi and English for teaching and learning and reported both cognitive and affective benefits. The learners' responses revealed that the use of the home language (Sepedi) to explain the texts in the LoLT (English) enhanced comprehension. All the mean scores of the questionnaires were less than 2, on a scale of 1 (positive) to 5 (negative).

In relation to research question 4, the objective was to investigate teachers' opinions on the use of translanguaging as a pedagogical approach to improve learners' reading comprehension of English and Sepedi texts. The teachers completed a closed- and open-ended questionnaire. Their responses to the translanguaging approach were highly positive with mean scores for the closed-ended Likert scale questionnaire below 2, in agreement with the statements given. An overwhelming majority agreed that there were comprehension benefits to using more than one language for teaching and learning. The positive views were also expressed in the open-ended questionnaire, as illustrated by the following statement from one of the teachers: *"Using more than one language in my classroom has helped my learners gain better understanding, and more confidence in expressing their opinion, because they are able to use their home language/mother tongue to explain what was taught in class."* On seeking teachers' views regarding the use of English as the only LoLT in Grade 4, 50% of the teachers view using English as the only LoLT as disadvantaging most of the learners, as they cannot express themselves properly in English. One of the teacher respondents stated: *"Some learners, especially the slow learners won't cope and won't understand at all if we use English as the only language of teaching and learning."* However, some of the teachers were of the view that English should be the only LoLT in Grade 4 because it is used as a medium of instruction in schools and is the official language of communication: *"Learners must be taught in English and practice English even at home when communicating."* Thus, the teachers were very positive about the use of translanguaging as a pedagogical approach to improve learner's comprehension and learning.

The fifth and final objective, relating to research question 5, was to determine the effectiveness of translanguaging as a pedagogical approach to improve learners' reading comprehension. This objective was addressed using mainly the quantitative data from the learners' tests and questionnaires. Pre- and post-tests were analysed using t-tests. The results of the pre- and post-tests for each group were analysed using a paired t-test to determine if there were any statistically significant differences. For the control group (Grade 4A), although there were differences in the pre- and post-tests in both sections A and B, only the difference between the pre- and post-test results of section A was statistically significant, showing improvement with a p-value of 0.0065 significant at 0.05. There was no statistically significant difference in the pre- and post-test results of section B, which means the control group did not improve in their performance for section B. In fact, they performed worse in the post-test than in the pre-test for section B. This indicates that without rigorous intervention, learners' ability to sequence events in a text in order to gain better understanding declines. On the other hand, the intervention group (Grade 4 B) improved in both sections of the post-test, though only the improvement in section A was statistically significant according to the paired t-test results. Thus, the intervention group improved in both sections of the post-test, but the control group regressed in their performance for section B. The difference in total marks of Grade 4B (intervention group) for pre- and post-tests was statistically significant at $p < 0.05$ ($p = 0.0014$) with mean scores of 38.71 (pre-test) and 57 (post-test). The total mark of Grade 4A (control group) was significant at $p < 0.05$ ($p = 0.0245$) with mean scores of 30.17 (pre-test) and 34.29 (post-test). The results showed that the intervention group (Grade 4B) had improved significantly in the post-test, unlike the control group.

The independent t-test that compared the two groups showed that the intervention group had improved more than the control group, and this was statistically significant for both sections A and B of the test. This shows that the translanguaging intervention was successful. Without translanguaging as a pedagogical strategy, the reading comprehension for the control group (Grade 4A) did not improve significantly and in all sections. As shown by Makalela (2015c), Baker (2003, 2011), García (2014) and Cummins (2007), and indicated by Boakye and Mbirimi (2015), translanguaging assists in the process of making meaning and gaining understanding. The success of the translanguaging strategy in reading comprehension instruction has been further confirmed by the results of this study. A translanguaging approach in reading instruction is recommended for improving learners' reading comprehension.

The effectiveness of the intervention was further evaluated from the descriptive analysis on questionnaire results and by applying content analysis to the survey questionnaire responses. The quantitative data showed that learners' comprehension levels improved for the intervention group. Learners' and teachers' opinions on the use of translanguaging as a pedagogical approach to improve learners' reading comprehension were overwhelmingly positive, as indicated by mean scores below 2.

The hypothesis that the reading proficiency level of the cohort of Grade 4 learners would be below the required standard and would be the same for both intervention and control groups was confirmed. The main hypothesis, which states that translanguaging as a pedagogical approach will improve the reading comprehension of Grade 4 learners in Sepedi and English, and would therefore be an effective approach, was also confirmed.

5.4 Significance of the study

The study contributes to the debate on translanguaging. It has shown that translanguaging can be used successfully as a pedagogical strategy to improve the reading comprehension of Grade 4 learners using Sepedi and English texts. This study provides insight into how translanguaging can be used to assist learners to read with meaning and the use of their home language (Sepedi) to support and facilitate their acquisition of English. As seen in the intervention data, translanguaging can be a useful pedagogical strategy in helping learners grasp concepts in their second language. The research shows that for learners to read with understanding, they could use their stronger language (in this case Sepedi) to understand the story, and then answer questions in English, the LoLT. Thus, the findings show the effectiveness of translanguaging in comprehension, as the intervention group outperformed the control group in the comprehension test.

There were also affective benefits of using translanguaging as a pedagogical strategy, as it made the teaching and learning environment lively, motivating and non-threatening. It enabled the learners to freely interact with the teacher.

The findings of the study could be used to influence school management boards to reconsider their language policies. To this end, the outcome of the study would be made available to the School Management Team (SMT), and hopefully, this may influence the School Governing Body to review the school's language policy of using English as the only LoLT.

5.5 Recommendations

Learners are struggling to read with understanding. Techniques and teaching approaches that promote successful comprehension are recommended in addressing this dilemma. On the basis of the research findings, a number of recommendations are made in relation to: (1) the use of teaching strategies for reading comprehension; (2) professional development of teachers; and (3) support from the Limpopo Department of Education and school principals.

5.5.1 Teaching strategies for reading comprehension

- **Encouraging group discussions and allowing interactions among learners, as well as between learners and the teacher, using both the home language and English:** This is highly recommended in the reading comprehension class. Learners were allowed to sit in groups to read the story together. One learner led the group in summarising the story in Sepedi and another led the group in summarising it in English orally. Responses from all the teachers in this study showed that they allow learners to discuss what they have read in their home language.
- **Creating an interesting and motivating environment:** In this study, learners were excited to see bright pictures relating to the story shown on the overhead projector. During the introduction phase of the lesson, learners, together with the researcher, sang a song relevant to the story to make it interesting (“I am injured, what must I do? Call an ambulance! What is the emergency call number?”). During the intervention lesson, when a learner has given the correct answer, they were praised by the other learners and the teacher by their clapping hands twice and saying “Shine!” The classroom environment was interesting and lively. For those who gave the wrong answer, the learners and the researcher chorused, encouragingly: “Sorry, try again.”
- **Teaching and learning should be learner-centred:** In this study, teaching and learning was learner-centred, as learners were actively involved in group discussions and actively competed with one another in pasting Sepedi words against the English words. They also actively participated in orally summarising the story in Sepedi and English.
- **Encouraging collaboration during teaching and learning:** In this study, the intervention group (Grade 4B) sustained active engagement in group discussions, reading of the texts and interacting with the teacher using both English and Sepedi. Their responses to questions and matching of sight words showed the collaborative

quality of their interactions. It is also recommended that the language teachers collaborate in planning activities together. The use of translanguaging as a pedagogical strategy should be well planned. There should also be co-learning among the teachers and between the teacher and the learners, by engaging constructively with each other's ideas and offering suggestions for joint consideration, common purpose and sense of group belonging.

Coe (2002: 2) argues: “Effect size is a simple way of quantifying the difference between two groups that has many advantages over the use of tests of statistical significance alone. Effect size emphasises the size of the difference rather than confounding this with sample size.”

- **Teachers should create a lively environment by employing translanguaging pedagogy:** The use of translanguaging, using two languages for teaching, can be employed in the classrooms to help learners understand texts better.
- **Scaffolding should be used during teaching and learning for learners who are unable to perform a task on their own:** Through scaffolding, the learners can be helped by the teacher or peers to enable them to eventually work independently. Norbert (2012: 2923) defines the concept of scaffolding as “a reciprocal feedback process in which a more expert other (e.g. teacher or peer) interacts with a less knowledgeable learner, with the goal of providing the kind of conceptual support that enables the learner over time to be able to work with the content or idea independently”, and explains that it is important in supporting learners. During the intervention lessons, keywords were explained in both Sepedi and English, and learners were asked to generate sentences. Conversational questions and peer comments about the story were used. Learners also read the story in English and shared facts regarding the content in Sepedi. Furthermore, the researcher helped learners to read and understand the English text, modelling the correct pronunciation of the keywords, providing hints and supporting learners while they shared the story orally in Sepedi. Canagarajah (2011) maintains that conversational questions and peer comments are useful in scaffolding students to translanguage, and that teachers’ own use of L1 and L2 interchangeably in the class is another way of scaffolding.

5.5.2 Professional development of teachers

Teachers should understand that translanguaging as a pedagogical strategy in reading comprehension should be well planned and not done haphazardly. This study has revealed that

teachers and learners had positive attitudes to translanguaging through their views and opinions. Most of the teachers were of the view that the use of English as the only LoLT disadvantages most of the learners as they cannot express themselves in English, and that the slow learners do not cope well when only English is used. Some of the teachers suggested that keywords should be explained in Sepedi and learners should be allowed to express themselves in their home language (Sepedi). As explained by Childs (2016), translanguaging is a means of providing planned and systematic use of learners' home language and the LoLT in order to foster meaning-making and learning.

Based on the abovementioned findings, the researcher recommends that the Department of Basic Education and researchers who have studied translanguaging as a pedagogical strategy organise in-service training for language teachers. The training should be done, where possible, in schools, because at-job training seems to be more effective as most of the challenges can be dealt with as they occur. Advocacy and lesson demonstrations about translanguaging should be done by trained educators.

5.5.3 Presentation of findings to the Head of Department and the school

Findings in this study will be presented to the Head of the Limpopo Department of Education. With the results, the Department of Education will be aware of the problem of poor reading proficiency in Grade 4 and may encourage and support teachers in the province's schools to use the strategy.

The principal of the school where the research was undertaken, will be able to compare the results of Grade 4A (control) and Grade 4B (intervention). The study's evidence that translanguaging as a pedagogical approach to improve learners' reading comprehension will encourage her to support the use of this strategy to improve Grade 4 learners' reading proficiency and performance in other content subjects.

5.6 Limitations and further research

Although new knowledge has been verified through the research reported in this dissertation, there are some limitations, including use of research instruments such as interviews, the duration of the intervention and the scope of the study.

5.6.1 Open-ended questionnaires versus interviews

Although an open-ended questionnaire was used to elicit open responses, an in-depth interview would have enabled the researcher to establish meaning or the essence of a lived experience among the participants regarding their opinion of using translanguaging as a pedagogical strategy. The researcher would have had the opportunity to probe for further insight.

5.6.2 Duration of the intervention

The intervention could have been extended to a whole year, but was limited to the first part of the second semester, allowing a shorter duration of the intervention.

Due to administrative and time constraints for transcribing and other logistics, the researcher was unable to administer two ANA tests in both Sepedi and English. The cohort did not have the opportunity to write the test in Sepedi to determine their reading proficiency in their home language.

5.6.3 The scope of the study

The study was conducted in only one school, in one circuit and district. The results of the study can therefore not be generalised.

The current study suggests that translanguaging as a pedagogical approach in reading comprehension could be effective for improving Grade 4 learners' reading comprehension, but due to the small number of participants, these results cannot be used to make generalisations. As such, there is a gap for future researchers to pursue and investigate: (1) what would happen in cases where the teacher cannot speak Sepedi; and (2) what would happen in a multicultural class where all learners are not Sepedi speakers. A study across multiple schools in the province and across provinces would also be an interesting further investigation.

If translanguaging is perceived as a useful pedagogic strategy for reading, as shown in this study, then more classroom-centred research needs to be done in Grade 4 to identify instances of its occurrence. It would be important to examine if translanguaging is used as a tool for resolving difficult concepts by both the teacher and the learner in Grade 4, when learners start using English as the LoLT. This leaves room for further research into the strategy that is believed to be effective by the teachers and learners in this study.

5.7 Conclusion

This study has confirmed the findings of earlier studies which showed that translanguaging as a pedagogical strategy has a significant effect on reading comprehension. Boakye and Mbirimi (2015) argue that translanguaging is a strategy for negotiating meaning and could serve as a scaffold to enhance comprehension challenges faced by learners. Furthermore, the study corroborates Cummins, Baker and Hornberger's (2001) finding that through learners' L1 experience, they are likely to develop an understanding of concepts they will encounter in their early reading of L2. Makalela's (2015c) finding that when more than one language is used to access the same content, learners develop a deeper understanding of the subject matter, is also confirmed by this study. Furthermore, the study filled an important gap in the research literature by focusing on Grade 4 learners, as other studies focus on learners in the higher grades. The findings suggest that reading comprehension using translanguaging can be a more successful way of improving learners' reading comprehension. Translanguaging can be used to scaffold learners' understanding of keywords or concepts by proactively encouraging them to input in their home language and to produce (output) in the intended LoLT (Baker, 2011). There is therefore a need for teachers to take an active role in using translanguaging as a pedagogical strategy in reading comprehension lessons.

REFERENCES

- Abraham, P. (2002). TT skilled reading: Top-down, bottom-up. *Field Notes*, 10 (2); Retrieved on Nov 1, 2004, from <http://www.sabes.org/resources/fieldnotges/vol110/fn102.pdf>
- Alderson, J.C. (2000). *Assessing reading*. Cambridge: Cambridge University Press.
- Alexander, A., & Fox, E. (2008). Reading in perspective. In Fresch. M. (Ed), *An essential history of current reading practices*, pp. 12–32. Newark: International Reading Association Inc.
- Alexander, N. (2012). The centrality of the language question in the social sciences and humanities in post-apartheid South Africa. *South African Journal of Science*, 108 (9/10). <https://doi.org/10.4102/sajs.v108i9/10.1443>
- Al-Suqri, M.N., & Al-Kharusi, R.M. (2015). Ajzen and Fishbein's Theory of Reasoned Action (TRA) (1980). In M.N. Al-Suqri & A.S. Al-Aufi (Eds.), *Information seeking behaviour and technology adoption: Theories and trends*, pp. 188–204. IGI Global. <https://doi.org/10.4018/978-1>
- Alvermann, D.E. (2002). Effective literacy instruction for adolescents. *Journal of Literacy Research*, 34 (2), 189–208.
- Alvermann, D.E., Phelps, S.F., & Ridgeway, V.G. (2007). *Content and literacy: Succeeding in today's diverse classrooms*. New York: Pearson Education.
- ANA. (2011). *Report on the qualitative analysis of ANA 2011 results*. Pretoria: Department of Basic Education.
- ANA. (2014). *Report on the Annual National Assessment of 2014 Grade 1 to 6 & 9*. Pretoria: Department of Basic Education.
- Anderson, N.J. (1991). Individual differences in strategy use in second language reading and testing. *The Modern Language Journal*. 75 (4):460-472.
- Anderson, N.J. (1999). *Exploring second language reading: Issues and strategies*. Toronto: Heinle & Heinle Publishers.

- Annual National Assessments. (2012). A guideline for the interpretation and use of ANA results. Pretoria: Department of Basic Education. Article. February 2014.
<https://doi.org/10.1111/DRP.1205>
- Babayigit, S., & Stainthorp, R. (2011). Modeming the relationships between cognitive-linguistic skills and literacy skills: New insights from a transparent orthography. *Journal of Educational Psychology, 103*, 169–189. <https://doi.org/10.1037/a0021671>
- Baker, C. (2003). Biliteracy and transliteracy in Wales: Language planning and the Welsh National Curriculum, In N.H. Hornberger (Ed.), *Continua of biliteracy: An ecological framework for educational policy, research and practice in multilingual settings*, pp. 71–90. Clevedon: Multilingual Matters.
- Baker, C. (2006). *Foundation of bilingual education and bilingualism*, 4th edition. Clevedon, UK: Multilingual Matters.
- Baker, C. (2011). *Foundations of bilingual education and bilingualism*, 5th edition. Bristol: Multilingual Matters.
- Baker, C. (2001). *Foundations of bilingual education and bilingualism*, 3rd edition. Clevedon, UK: Multilingual Matters.
- Bartlett, K. (2017). The use of L1 in L2 classrooms in Japan: A survey of university student preferences. *Kwansei Gakuin University Humanities Review, 22* (1), 71–80.
- Belcher, D. (1990). How professors initiate non-native speakers into their disciplinary discourse communities. *Texas Papers in Foreign Languages Education, 1* (3): 2007–225.
- Bilokcuoglu, H. (2012). Theories of reading and their implications to the teaching of reading in ESL/EFL classes and places of schemata theory on foreign language reading comprehension. Retrieved 2014 from http://www.developingteachers.com/articles_tchtraining/readingpf_hasan.htm
- Bless, C., & Achola, P. (2006). *Fundamentals of social research methods – African perspective*. Cape Town: Juta & Co. Ltd.
- Block, C.C. (2004). *Teaching comprehension: The comprehension process approach*. Boston, MA: Pearson Education, Inc.

- Blommaert, J. & Rampton, B., (2011). 'Language and super-diversity', *Diversities* 13(2), 1-19
- Boakye, N., & Mai, M. (2016). A needs analysis for a discipline specific reading intervention. *English Language Teaching*, 9 (3), 235–247.
<https://doi.org/10.5539/elt.v9n3p235>.
- Boakye, N., Sommerville, J. & Debusho, L. (2014). The relationship between socio-affective factors & reading proficiency: Implications for tertiary reading instruction. *Journal for Language Teaching*, 48 (1), 173–213.
- Boakye, N.A. (2017). Extensive reading in a tertiary programme: Students' accounts of affective and cognitive benefits. *Reading & Writing*, 8 (1), a153.
<https://doi.org/10.4102/rw.v8:1.153>.
- Boakye, N.A., & Mbirimi, V. (2015). Multilingual pedagogy in higher education: Lecturers' perception of translanguaging in promoting academic literacy. In. L. Makalela (Ed.), *New directions in language and literacy education for multilingual classrooms in Africa*. Cape Town: CASA.
- Boulware-Gooden, R., Carreker, S., Thornhill, A., & Joshi, R.M. (2007). Instruction of metacognitive strategies enhances reading comprehension and vocabulary achievement of third-grade students. *Reading Teacher*, 6 (1), 70–77.
- Bruner, J.S. (1983). *Child's talk: Learning to use language*. Oxford: Oxford University.
- Brunfaut, T. (2008). *Foreign language reading for academic purposes*. Unpublished doctoral thesis. University of Antwerp, Antwerp.
- Bryman, A. (2006). Integrating quantitative and qualitative research: How is it done? *Qualitative Research*, 6 (1), 97–113.
- Bus, A. (2001). Parent-child book reading through the lens of attachment theory. In: L. Verhoeven & C.E. Snow (Eds), *Literacy and motivation: Reading engagement in individual and groups*, pp. 39–53. Mahwah, NJ: Lawrence Erlbaum Associates.
- Butler, H.G. (2007). *A framework for course design in academic writing for tertiary education*. Unpublished doctoral thesis. Pretoria: University of Pretoria.

- Cain, K., & Oakhill, J. (2007). Reading comprehension difficulties: Correlates, causes and consequences. In K. Cain & J. Oakhill (Eds.), *Children's comprehension in oral and written language: cognitive perspective*, pp. 41-75. New York: Guilford.
- Canagarajah, S. (2011). Codemeshing in academic writing: Identifying teachable strategies of translanguaging. *The Modern Language Journal*, 95 (3), 301–417.
<https://doi.org/10.1111/j.1540.4781.2011.01207.x>
- Cantone, K.F. (2007). *Code-switching in bilingual children*. Dordrecht: Springer.
- Caposey, T., & Heider, B. (2003). *Improving reading comprehension through cooperative learning*. Unpublished Dissertation. Chicago, IL: St. Xavier University & Pearson/Skylight.
- Carrol, K.S. & Morales, A.N.S., (2016). 'Using university students' L1 as resource: Translanguaging in a Puerto Rican ESL classroom', *Bilingual Research Journal* 39(3), 248-268. <https://doi.org/10.1080/15235882.2016.1240114>.
- Charamba, E & Zano K. (2019): *Effects of translanguaging as an intervention strategy in a South African Chemistry classroom*, *Bilingual Research journal*, DOI: 10.1080/15235882.2019.1631229.
- Charamba, E. (2020). Translanguaging in a multilingual class: A study of the relation between students' language and epistemological access in science. *International Journal of Science Education*. <https://doi.org/10.1080/09500693.2020.1783019>.
- Childs, M. (2016). Reflecting on translanguaging in multilingual classrooms: Harnessing the power of poetry and photography. *Educational Research for Social Change*, 5 (1), 22–40. <https://doi.org/10.17159/2221-4070/2016/v5ia2>.
- Chow, B., McBride-Chang, C., & Burgers, S. (2005). Phonological processing skills and early reading abilities in Hong Kong Chinese Kindergarten learning to read English as a second language. *Journal of Education Psychology*, 97, 81–87.
- Coe, R. (2002). It's the effect size, stupid: What effect size is and why it is important. Paper presented at the Annual Conference of the British Educational Research Association, University of Exeter, England, and 12–14 September.

- Cook, V.J. (2001). Using the first language in the classroom. *Canadian Modern Language Review*, 57, 402–423.
- Copple, C., & Bredekamp. (2009). *Developmentally appropriate practice in early childhood programs*. Washington, DC: National Association for the Education of Young Children.
- Creese, A., & Blackledge, A. (2010). Translanguaging in the bilingual classroom: A pedagogy for learning and teaching? *The Modern Language Journal*, 94 (1), 103–115.
- Creswell, J.W., & Plano Clark, V.L. (2011). *Designing and conducting mixed methods research*, 2nd edition. Thousand Oaks, CA: SAGE.
- Cromley, G. (2009). Reading achievement and science proficiency: International comparisons from the programme on international student assessment. *Reading Psychology*, 30 (2), 89–118. <https://doi.org/10.1080/02702710802274903>.
- Cummins, J. (1979). Linguistic interdependence and the educational development of bilingual children. *Review of Educational Research*, 49 (2), 22–251.
- Cummins, J. (1991). Language development and academic learning. In L. Malave and G. Duquette (Eds.), *Language, culture and cognition*. Clevedon: Multilingual Matters.
- Cummins, J. (2000). *Language power and pedagogy: Bilingual children in the crossfire*. Clevedon: Multilingual Matters Ltd.
- Cummins, J. (2007). *Cultural and linguistic diversity in education: A mainstream issue*. Clevedon: Multilingual Matters.
- Cummins, J., Baker, C., & Hornberger, N. (2001). *An introductory reader to the writings of Jim Cummins*. Clevedon: Multilingual Matters.
- Currin, S., & Pretorius, E.J. (2010). The culture of the sharp pencil: Can a literacy intervention lever school change? *Reading & Writing*, 1 (1), 23–14.
- Daneman, M., & Green, I. (1986). Individual difference in comprehending and producing words in context. *Journal of Memory and Language*, 25, 1–18.

- Deci, E.L., & Ryan, R.M. (2000). Self-determination theory and the facilitation of intrinsic motivation, social developmental and well-being. *American Psychologist*, 55 (1), 68–78.
- Deibert, A. (2008). *Code switching of Russian-German bilinguals*. Germany: GRIN Verlag.
- Department of Basic Education (2014), Report on the Annual National Assessment.
- Department of Basic Education. (1997). Language in Education Policy. Government Gazette No. 383, Vol. 17997.
- Department of Basic Education. (2003). National Curriculum Statement, 2003. Pretoria: DB
- Department of Basic Education. (2013). Reviewed literacy strategy for general education and training (GET). Limpopo Province.
- Department of Education (DoE) 2003. *Systemic Evaluation Foundation Phase Mainstream National report*. Pretoria: DoE.
- Department of Education (DoE). (2005). *Grade 6 Intermediate Phase Systemic Evaluation Report*. Pretoria: DoE. Available at <http://www.education.gov.za/LinkClick.aspx?fileticket=XmIJMoUwT78%3D&tabid=452&mid=1035>. Accessed 2 July 2014.
- Dole, J.A., Duffy, G.G., Roehler, L.R., & Pearson, P.D. (1991). Moving from the old to the new: Research on reading comprehension instruction. *Review of Educational Research*, 61 (2), 239–264.
- Dong, Y. (2018). An interactive teaching mode for the course of integrated English in the context of mobile material. *Journal of Jilin Engineering Normal University*, 34 (8), 71–73.
- Dörnyei, Z. (2001). *Motivational strategies in the language classroom*. Cambridge: Cambridge University Press.
- Dörnyei, Z., & Ushioda, E. (2010). *Teaching and researching motivation* (2nd edition). New York, NY: Longman Pearson.
- Eastman, C.M. (1992). *Code switching*. Clevedon: Multilingual Matters.

- Ehri, L. (2006). Alphabetic instruction helps students learn to read. In R. Joshi & P. Aaron (Eds.), *Handbook of orthography and literacy*, pp. 649–677. Mahwah, NJ: L. Erlbaum.
- Estyn. (2002). *Developing dual literacy: An Estyn discussion paper*. Cardiff: Estyn.
[http://www.estyn.org.uk/publications/Dual literacy.pdf](http://www.estyn.org.uk/publications/Dual%20literacy.pdf)
- Fontanini, I. (2004). Reading theories and some implications for the processing of linear texts and hypertexts. *Linguagem & Ensino*, 7 (2), 165–184.
- García, O. (2009a). *Bilingual education in the 21st century: A global perspective*. Miden, MA: Wiley/Blackwell.
- García, O. (2009b). Education, multilingualism and translanguaging in the 21st century. In A.K. Mohanty, M. Panda, R. Phillipson & T. Skutnabb-Kangas (Eds.), *Multilingual education for social justice: Globalising the local*. New Delhi: Orient Black Swan.
- García, O. (2014). TESOL translanguaging in NYS: Alternative perspectives. *NYS TESOL Journal*, 1(1).
- García, O., & Kleyn, T. (2016). *Translanguaging with multilingual students: Learning from classroom moments*. New York, NY: Routledge.
- García, O., & Li, W. (2014). *Translanguaging: Language, bilingualism and education*. New York, NY: Palgrave MacMillan.
- García, O., Flores, N. & Woodley, H.H. (2012). *Transgressing monolingualism and bilingual dualities: Translanguaging pedagogies*. In Yiakoumetti, A. (ed.), *Harnessing linguistic variation to improve education: Rethinking education*. Volume 5, pp. 45-75. Oxford: Peter Lang.
- García, O., Johnson, S.I., & Seltzer, K. (2017). *The translanguaging classroom: Leveraging student bilingualism for learning*. Philadelphia, PA: Caslon.
- Gee, J.P. (2008). *Social linguistics and literacies: Ideology in discourses*. London: Falmer Press.
- Glazer, S.M. (1994). Assessment: Collaborating with children to assess writing objectivity. *ERIC*, 24 (5), 108.

- Gluth, E. (2008). *Code-switching: Grammatical, pragmatic and psycholinguistic aspects. An Overview Paper*. Germany: GRIN Verlag.
- Grabe, W. (1991). Current development in second language reading research. *TESOL Quarterly*, 25 (3), 375–406.
- Grabe, W. (2009). *Reading in a second language: Moving from theory to practice*. New York, NY: Cambridge University Press.
- Grabe, W., & Stoller, F (2011) *Teaching and researching*, second edition. London: Routledge.
- Grabe, W., & Stoller, F. (2002). *Teaching and researching reading*. London: Pearson Education.
- Greaney, V. (1996). Reading in developing countries: Problems and issues. In V. Greaney (Ed.), *Promoting reading in developing countries*, pp. 5–34. Washington, DC: International Reading Association.
- Gruyter, W. (2011). *Translanguaging in the classroom: Emerging issues for research and pedagogy*. Canada: Mouton De Gruyter.
- Guthrie, J.T. (2008). *Reading motivation and engagement in middle and high school: Appraisal and intervention*. In J.T. Guthrie (Ed.), *Engaging adolescents in reading*, pp. 1–16. Thousand Oaks, CA: Corwin Press.
- Guthrie, J.T., & Knowles, K.T. (2001). Promoting reading motivation. In L. Verhoeven & C.E. Snow (Eds). *Literacy and motivation: Reading engagement in individuals and groups*, pp. 159–176. Mahwah, NJ: Lawrence Erlbaum Associates.
- Guthrie, J.T., & Wigfield, A. (2000). Engagement and motivation in reading. In: M.L. Karmil, P.B. Mosenthal, P.D. Pearson, & R. Barr (Eds.), *The handbook of reading research, Vol III*, pp. 404–420. Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Hamman, L. (2018). Translanguaging and positioning in two-way dual language classrooms: A case for criticality. *Language and Education*, 32(1), 21–42.
<https://doi.org/10.1080/09500782.2017.1384006>

- Hannon, B. (2012). Understanding the relative contributions of lower-level word processes, higher-level processes, and working memory to reading comprehension performance in proficient adult readers. *Reading Research Quarterly*, 47 (2), 125–152.
- Hausheer, R., Hansen, A., & Dumas, D. (2011). Improving reading fluency and comprehension among elementary students: Evaluation of a school remedial reading program. *Journal of School Counselling*, 9 (9).
- He, Y., Wang, Q., & Anderson, R. (2005). Chinese children's use of subcharacter information about pronunciation. *Journal of Educational Psychology*, 97, 572–579.
- Hidi, S., & Anderson, V. (1992). Situational interest and its impact on reading and expository writing. In A. Renninger, S. Hidi & A. Krapp (Eds.), *The role of interest in learning and development*, pp. 215–237. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Hidi, S., & Harackiewicz, J.M. (2000). Motivating the academically unmotivated: A critical issue for the 21st century. *Review of Educational Research*, 70 (2), 151–179.
- Hoshino, N., & Thierry, G. (2012). Do Spanish–English bilinguals have their fingers in two pies – or is it their toes? An electrophysiological investigation of semantic access in bilingual. *Frontiers in Psychology*, 3, 52–57.
- Hoshino, N., Thierry, G (2011). Language selection in bilingual word production: Electrophysiological evidence for cross-language competition. *Brain Research*, 1371, 100–109.
- Howie, S.J., Combrick, C., Roux, K., Tshele, M., Mokoena, G.M., & Palane, N.M. (2017). *PIRLS Literacy 2016 Progress in International Reading Literacy Study 2016: South African Children's Reading Literacy Achievement*. Pretoria: Centre for Evaluation and Assessment, University of Pretoria.
- Howie, S.J., Van Staden, S., Tshele, M., Dowse, C., & Zimmerman, L. (2012). *PIRLS 2011: South African children's reading literacy achievement summary report*. Pretoria: Centre for Evaluation and Assessment, University of Pretoria.
- Howie, S.J., Venter, E., Van Staden, S., Zimmerman, L., Long, C., Du Toit, C., Scherman, V., & Archer, E. (2008). *PIRLS 2006 Summary report: South African children's reading literacy achievement*. Pretoria: Centre for Evaluation and Assessment,

University of Pretoria. Retrieved June 26, 2014, from:
<https://web.up.ac.za/sitefiles/file/43/314/SA%20PIRLS%202006%20SUMMARY%20REPORT.pdf>

- Hungwe, V. (2019). Using a translanguaging approach in teaching approach in teaching paraphrasing to enhance reading comprehension in first-year students. *Reading & Writing, 10* (1), a216. <https://doi.org/10.4102/rw.v10i1.216>
- Hussein, B., (2013). 'Teaching and learning English as a second/foreign language through mother tongue: A field study', *Asian Social Science* 9(10), 175-180.
<https://doi.org/10.5539/ass.v9n10p175>
- Ivankova, N.V., Creswell, J.W., & Sticks, S.L. (2006). Using mixed methods sequential explanatory design: From theory to practice. *Field Methods, 18* (1), 3–20.
- Jordai, H. (2011). *Reading rate and comprehension*. Unpublished dissertation. Guilan University, Rasht, Iran University, Rasht, Iran.
- Kabuto, B. (2017). A socio-psycholinguistic perspective on biliteracy: The use of miscue analysis as a culturally relevant assessment tool. *Reading Horizons, 56*, 25–44.
- Kendeou, P., Papadopoulos, T.C., & Spanoudis, G. (2012). Processing demands of reading comprehension tests in young readers. *Learning and Instruction, 22* (5), 354–367.
- Kendeou, P., Trevors, G. (2012). Learning from texts we read: What does it take? In M.J. Lawson & J.R. Kirby (Eds.), *The quality of learning*, pp. 251–275. Cambridge: Cambridge University Press.
- Kendeou, P., Van den Broek, P., Helder, A., & Karlsson, J. (2014). A cognitive view of reading comprehension: Implications for reading difficulties. *Learning Disabilities Research & Practice, 29* (1).
- Kendou. P., Van den Broek, P., White, M.J., & Lynch, J.S. (2009). Predicting reading comprehension in early elementary school: The independent contributions of oral language and decoding skills. *Journal of Educational Psychology, 101* (4), 765–778.
- Kim, Y.S. (2015). Language and cognitive predictors of text comprehension: Evidence from multivariate analysis. *Child Development, 86* (1), 128–144.
<https://doi.org/10.1111/cdev.12293>

- Kintsch, W. (1992). A cognitive architecture for comprehension. In H.L. Pick, P. van den Broek & D.C. Knill (Eds.), *Cognition: Conceptual and methodological issues*, pp. 143–163. Washington, DC: American Psychological Association.
<https://doi.org/10.1037/10564-006>
- Kintsch, W. (2012). Psychological models of reading comprehension and their implications for assessment. In J. Sabatini, E. Albro, & T. O'Reilly (Eds.), *Measuring up: Advances in how to assess reading abilities*, pp. 21–38. Lanham, MD: Rowman & Littlefield Education.
- Klingner, J.K., Urbach, J., Golos, D., Brownell, M., & Menon, S. (2010). Teaching reading in the 21st century: A glimpse at how special education teachers promote reading comprehension. *Learning Disability Quarterly*, 33 (2), 59–74.
- Lasagabaster, D., & García, O. (2014). Translanguaging: Towards a dynamic model of bilingualism at school / Translanguaging: hacia un modelo denámico de bilinguismo en la escuela. *Cultura y Educación: Culture and Education*. 1–16.
<https://doi.org/10.1080/11356405.2014.973671>
- Lems, K., Miller, L.D., & Soro, T.M. (2010). *Teaching reading to English language learners: Insights from linguistics*. New York, NY: Guilford Press.
- Lewis, G., Jones, B. & Baker, C. (2012). *Translanguaging: Developing its conceptualisation. Educational Research and Evaluation: An international Journal on Theory and Practice*, 18 (7): 655-670
- Lewis, G., Jones, B., & Baker, C. (2012) *Translanguaging: Origins and development from school to street and beyond, Educational Research and Evaluation: An International Journal on Theory and Practice*, 18(7), 641-654.[doi:10.1080/13803611.2012.718488](https://doi.org/10.1080/13803611.2012.718488).
- Li, W. (2017). Epilogue: Multicompetence and the translanguaging instinct. In V. Cook & Li W. (Eds.), *The Cambridge handbook of linguistic multi-competence*. Cambridge: Cambridge University Press.
- Liu, F. (2010). Reading abilities and strategies. A short introduction. Available from: <http://www.files.eric.gov>. Accessed 8 September 2015.
- Livingston, J.A. (2003). Metacognition: An overview.

- Lovrich, D. (2006). Classroom applications of top-down and bottom-up processing.
<https://languageinstinct.blogspot.co.za/2006/11/up-from-bottom-or-down-from-top.html>.
- Makalela, L. (2012). Development of L1 and L2 reading literacy among fifth graders: Implications for research-based teacher education. In R. Osman & H. Venkat (Eds.), *Research led teacher education*, pp. 127–144. Cape Town: Pearson.
- Makalela, L. (2014). *Teaching indigenous African languages: The effects of translanguaging for multilingual development*. In: Hibbert, L. & Van der Walt, C. (eds) 2014. *Multilingual universities in South Africa: Reflecting society in higher education*, pp. 88-104. Bristol Multilingual Matters.
- Makalela, L. (2015b). Moving out of linguistic boxes: The effects of translanguaging for multilingual classrooms. *Language and Education*, 29 (3), 200–127.
- Makalela, L. (2015c). Translanguaging as a vehicle for epistemic access: Cases for reading comprehension and multilingual interactions. *Per Linguam: A Journal of Language Learning*, 31 (1), 15–19.
- Makalela, L., (2016). *Translanguaging practices in a South African institution of higher learning: A case of Ubuntu multilingual return*, in C.M.Mazak & K.S. Carrol (eds.) *Translanguaging in higher education*, pp.65-78, Multilingual Matters, Bristol.
- Makoni, S & Pennycook, A., (2007) *Disinvesting and reconstituting languages*, Multilingual Matters, Clevedon, England.
- Manerikar, V., & Manerikar, S. (2015). Cronbach's alpha. *A Peer Reviewed Research Journal – aWeshkar*, XIX (1), 117–119.
- Manset-Williamson, G., & Nelson, J. (2005). Balanced, strategic reading instruction for upper-elementary and middle school students with reading disabilities: A comparative study of two approaches. *The Future of LD*, 28, 59–74.
- Marshall, C., & Rossman, G.B. (2011). *Designing qualitative research*. Los Angeles, CA: SAGE.
- May, S. (2014). *The multilingual turn: Implication for SLA, TESOL, and bilingual education*, Routledge, New York.

- Mbirimi-Hungwe, V. (2016). Translanguaging as a strategy for group work: Summary writing as a measure for reading comprehension among university students. *Southern African Linguistics and Applied Language Studies*, 34 (3), 241–249.
- McCabe, R.M. (2015). Interculturality as a ‘third space’ to promote academic literacy in a multilingual classroom. In L. Makalela (Ed.), *New directions in language and literacy education for multilingual classrooms in Africa*, pp. 66–90. Cape Town: CASAS.
- McKenna, M.C. (2001). Development of reading attitudes. In: L. Verhoeven & C.E. Snow, *Literacy and motivation*, pp. 135–176. Mahwah, NJ: Lawrence Erlbaum Associates.
- McKenzie, J. (1999). Scaffolding for success. *From Now On: The Educational Technology Journal*, 9 (4). Retrieved July 15, 2013, from www.fno.org/dec99/scaffold.html
- McKenzie-Brown, P. (2006). Language matters: Up from the bottom or down from the top? <https://languageinsitnct.blogspot.co.za/2006/11up-from-bottom-or-down-from-top.html>
- McLaughlin, M. (2008). Reading comprehension: An evolution of theory, research, and Practice. In Fresch, M.J. *An essential history of current reading practices*. Newark: International Reading Association, Inc., 82-105.
- McMillan, J., & Schumacher, S. (2001). *Research in education: A conceptual introduction*, 5th edition. Longman: Virginia Commonwealth University.
- McNeil, J.D. (1987). *Reading comprehension: New direction for classroom practice* (2nd ed.). Glenview, IL: Scott Foresome.
- Mgijima, V.D. & Makalela, L. (2016). *The effects of translanguaging on the biliterate inferencing strategies of fourth-grade learners’ Perspective in Education* 34(3), 86-93. <https://doi.org/10.18820/2519593X/pie.v34i3.7>
- Mkhize, D. (2016). *Mediating epistemic access through everyday language resources in an English language classroom*. *Southern African Linguistics and Applied Language Studies*, 34 (3), 227-240
- Mokolo, M. (2014). *An investigation into patterns of translanguaging in classrooms in the foundation phase*. Unpublished master’s thesis. University of Limpopo.

- Moloi, M & Strauss J. (2005). *The SACMEQ II project in South Africa: a study of the conditions of schooling and the quality of education*. Harare, Zimbabwe: SACMEQ.
- Morse, J. (1991). Approaches to qualitative methodology triangulation. *Nursing Research*, 40, 120–123.
- Moyles, J.R., Georgeson, J., & Payler, J. (2011). *Beginning teaching, beginning learning: In early years and primary education* (4th ed.). Maidenhead: Open University Press.
Available from:
<http://ezproxy.lib.le.ac.uk/login?url=http://www.myilibrary.com?id=352493>
- Mullis, I.V.S., Kennedy, A.M., Martin, M.O., & Sainsbury, M. (2006). *PIRLS 2006 Assessment framework and specifications*, 2nd Ed. Chestnut Hill, MA: TIMSS & PIRLS International Study Center, Lynch School of Education, Boston College.
- Mullis, I.V.S., Martin, M.O., Kennedy, A.M., Trong, K.L., & Sainsbury, M. (2009). *PIRLS 2011 Assessment framework*. Chestnut Hill, MA: TIMSS & PIRLS International Study Center, Lynch School of Education, Boston College.
- Murimba, S. (2005). The impact of the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ). *Prospects*, xxxv (1), 91–108.
- Murphy, B. (2011) Moving beyond the simple view of reading literacy in classrooms: The balanced approach and comprehension strategy instruction. JCSPCOTA Second Annual Conference, Ashling Hotel, Dublin, 26 March 2011–26 March 2011.
- Mwinda, N., & Van der Walt, C. (2015). From “English-only” to translanguaging strategies: Exploring possibilities. *Per Linguam*, 31(3), 100–118. <https://doi.org/10.5785/31-3-620>
- Nandi, L.V., & Snyman, M. (2017). *Aspects that influence children’s reading motivation, academic research*.
- Ndlovu, F., (2017). ‘*Language migration, diaspora: Challenging the big battalions of groupism*’, in O. Garcia, N. Flores & M. Spotti (eds.), *The Oxford handbook of language and society*, pp.141-160, Oxford University Press, New York.
- Norbert, M.S. (2012). *Encyclopaedia of the sciences of learning*. New York, NY: Springer.

- Ntsoane, M. (2005). *Evaluation of multilingualism in schools*. A dissertation submitted to the University of Limpopo for PhD. Sovenga: Unpublished manuscript.
- Olson, J.L., & Platt, J.M. (2000). *Teaching children and adolescents with special needs* (3rd ed.). Upper Saddle River, NJ: Merrill.
- Pajares, F. (2006). Self-efficacy during childhood and adolescence: Implications for teachers and partners. In F. Pajares & T. Urden (Eds.), *Self-efficacious beliefs of adolescents*, pp. 339–367. Greenwich, CT: Information Age Publishing.
- Palmer, D., & Martínez, R. (2016). *Developing biliteracy: What do teachers really need to know about?* Language Arts
- Pardo, L.S. (2011). What every teacher needs to know about comprehension. *The Reading Teacher*, 58 (3), 272–280. <https://doi.org/10.1598/RT.58.3.5>.
- Patton, M. (1990). *Qualitative evaluation methods*. Beverly Hills, CA: SAGE.
- Pearson, P.D., & Duke, N.K (2002). Comprehension instruction in the primary grades. In C.C. Block & M. Pressley (Eds.), *Comprehension instruction: Research-based best practices*, pp. 247–258. New York, NY: Guilford Press.
- Perfetti, C., & Adlof, S. (2012). Reading comprehension: A conceptual framework for word meaning to text meaning. In J. Sabatini, E. Albro, & T. O'Reilly (Eds.), *Measuring up: Advances in how to assess reading abilities*, pp. 3–20. Lanham, MD: Rowman & Littlefield Education.
- Pressley, M (2006). *Reading instruction that works*, 3rd ed. New York: Guilford Press.
- Pressley, M. (1988). *Reading instruction that works: The case for balanced teaching*. New York: Guilford.
- Pressley, M. (2002). Metacognition and self-regulated comprehension. In A.E. Earstrup & S.J. Samuel (Eds.), *What research has to say about reading instruction*, 3rd ed., pp. 291–309. Newark, NJ: International Reading Association.
<https://doi.org/10.1598/0872071774.13>

- Pretorius, EJ & Mmapuru DM (2007). *Playing football without a ball: language, reading and academic performance in a high-poverty school*. *Journal of research in Reading*, 30(1):38-39
- Pretorius, EJ. & Machet M.P. (2004). *The socio-educational context of literacy accomplishment in disadvantaged schools: Lessons for reading in the early primary school years*. *Journal for language Teaching* 38(1): 45-62.
- Pretorius, E.J. (2002). *Reading ability and academic performance in South Africa: are we fiddling while Rome is burning?* *Language Matters*, 33:91-103
- Pretorius, E.J., & Currin, S. (2010). Do the rich get richer and the poor poorer? The effects of an intervention programme on reading in the home and school language in a high poverty multilingual context. *International Journal of Educational Development*, 30 (1), 67–76.
- Ramani, E., Kekana, T., Modiba, M., & Joseph, M (2007). *Terminology development versus concept development through discourse: Insight from a dual medium B.A. degree*. *Southern African Linguistics and Applied Language Studies*, 25(2), 2007-223
- Ramani, E., Kekana, T., Modiba, M., & Joseph, M (2007). *Terminology development versus concept development through discourse: Insight from a dual medium B.A. degree*. *Southern African Linguistics and Applied Language Studies*, 25(2), 2007-223
- Rayner, K., Pollatsek, A., Ashby, J., & Lofton, C. (2012). *The psychology of reading*, 2nd ed. New York, NY: Psychology Press.
- Richard, M., & Kilgo, J.L. (2010). *An introduction to young children with special needs: Birth through age eight*. United States of America: Gengage Learning.
- Roe, B.D., & Smith, S.H. (2012). *Teaching reading in today's elementary school*. Boston, MA: Houghton Mifflin Company.
- Rumelthart, D.E. (1985). *Towards an interactive model of reading*. Center for Human Information Processing, University of California, San Diego.
- Sadeghi, K. (2007). The key for successful reader-writer interaction: Factors affecting reading comprehension in L2 revisited. *Asian EFL Journal*, 9 (3), 198–220.
- Sander, A. (2009). *Bilingualism in childhood: What are the reasons for parents to raise their child bilingual?* Germany: GRIN Verlag.

- Schiefele, U. (1992). Topic interest and levels of text comprehension. In A. Renninger, S. Hidi & A. Krapp (Eds.), *The role of interest in learning and development*, pp. 151–182. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Sefotho, M.P., & Makalela, L. (2017). *Translanguaging and orthographic harmonisation: A cross-lingual reading literacy in a Johannesburg school*. *South African Linguistics and Applied Language Studies*, 35 (1), 41-51
- Serfontein, M. (2013). Education in the language of learner’s choice in South African public schools: An educator’s perspective. *International Journal of Business, Humanities and Technology*, 3 (5).
- Siobhan, M., & Richards, F. (2006). *Language, literacy and learning in educational practice: A reader*. Clevedon: Multilingual Matters.
- Skudiene, V. (2002). A comparison of reading models, their application to the classroom and their impact on comprehension. *Studies about Languages*, 2, 94–98.
- Skutnabb-Kangas, T (2009). ‘MLE for global justice: Issues, approaches, opportunities. In A.K. Mohanty, M. Panda, R. Phillipson & T. Skutnabb-Kangas (Eds.), *Multilingual education for social justice: Globalising the local*. New Delhi: Orient Longman.
- Snow, C.E. (2002). Defining comprehension. In *Reading for understanding: Towards an R&D program in reading comprehension*, pp. 11-18. Santa Monica, CA: RAND
- South Africa. (1996). Constitution of the Republic of South Africa Act 108 of 1996. Government Gazette, Volume 378, No, 176788. December 18
- Stanovich, K.E. (1986). Mathew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly*, 21, 360–407.
- Street, B (2001). *Literacy and development*. London: Routledge.
- Taylor, S., & Yu, D. (2009). Socio-economic and educational achievement: Does education provide a stepping stone out of poverty in South Africa? *Transformation Audit*, 2009, 66–75.
- Teddlie, C., & Tashakkorie, A. (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioural sciences*. Thousand Oaks, CA: SAGE.

- Tompkins, G.E. (2011). *Literacy in the early grades: A successful start for pre-K–4 readers* (3rd ed). Boston, MA: Pearson.
- Urquhart, S., & Weir, C. (1998). *Reading in a second language: Process, product and practice*. London: Longman.
- Van den Broek, P., & Espin, C.A. (2012). Connecting cognitive theory and assessment: Measuring individual difference in reading comprehension. *School Psychology Review*, 41 (3), 315–325.
- Van den Broek, P., Rapp, D.N., & Kendeou, P. (2005). Integrating memory-based and constructionist processes in accounts of reading comprehension. *Discourse Processes*, 39, 299–316
- Van Staden & Howie (2008) *Reading between the lines: contributing factors that affect Grade 5 student reading performance as measured across South African's 11 languages*. Journal. Educational Research and Evaluation. 85-98
- Vandergrift, L., Goh, C., Mareschal, C., & Tafaghodtari, M.H. (2006). The metacognitive awareness listening questionnaire (MALQ): Development and validation. *Language Learning*, 56 (3), 431–462. [https://doi.org/10: 1111/j.1467-9922.2006.00373.x](https://doi.org/10.1111/j.1467-9922.2006.00373.x)
- Veeravagu, J., Muthusamy, C., Marimuthu, R., & Subrayan, A. (2010). Using Bloom's Taxonomy to gauge students' reading comprehension performance. *Canadian Social Science*, 6 (3), 205–212.
- Verhoeven, L., & Snow, C.E. (2001). *Literacy and motivation*. London: Lawrence Erlbaum Associates Publishers.
- Vygotsky, L.S. (1978). *Mind in society*. Harvard University Press.
- Wang, C.Y. (2015). Scaffolding middle students' construction of scientific explanations: Comparing a cognitive versus a metacognitive evaluation approach. *International Journal of Science Education*, 37 (2), 237–271.
- Wei, L., (2016) 'Epilogue: Multi-competence and the translanguaging instinct', in V. Cook & L. Wei (eds.), *Cambridge handbook of linguistic multi-competence* pp.533-544, Cambridge University Press, Cambridge.

- Wigfield, A. & Lutz, S. 2005. Reading instruction in sociocultural context: Impact on reading comprehension and engagement. In McInerney, D. & Van Etten, S. *Research on sociocultural influence on motivation and Learning. Volume 5: Curriculum and teaching from a sociocultural perspective*. Greenwich CT: Information Age Press
- Wigfield, A., & Asher, S.R. (1993). *Social and motivational influences on reading*. Centre for the Study of Reading. Technical Reports. University of Illinois at Urbana-Champaign
- Williams, C. (1994). *Arfarniad o Ddulliau Dysgu ac Addysgu yng Nghyd-destun Addysg Uwchradd Ddwyieithog*. (An evaluation of teaching and learning methods in the context of bilingual secondary education). Unpublished doctoral thesis, University of Wales, Bangor.
- Williams, C. (2002). Extending bilingualism in the education system. Education and Lifelong Learning Committee.
<http://www.assmbly.org/3c91c7af00023d820000590000000000.pdf>
- Williams, C. (1996). Secondary education: *Teaching in the bilingual situation*. In Williams, G. Lewis, & C. Baker (Eds.), *The language policy: Taking stock*. 39-78. Llangefni. UK: CAI
- Wills, J. (2008). *Qualitative research methods for education and instructional technology*. United States of America: IAP.
- Woolley, G. (2011). *Reading comprehension: Assisting children with learning difficulties*.
<https://doi.org/10.10007/978-94-007-1174-7-2>.
- Zapata, A., & Laman, T.T. (2016). “I write to show how beautiful my languages are”: Translingual writing instruction in English-dominant classrooms. *Language Arts*, 93 (5).
- Zinar, S. (2000). The relative contributions of word identification skill and comprehension-monitoring behaviour to reading comprehension ability. *Contemporary Educational Psychology*, 25, 363–377.

APPENDICES

Appendix A: Ethical clearance from the University of Pretoria



3 July 2019

Dear Mrs MR Ledwaba

Project Title: Translanguaging as a pedagogical strategy to improve the reading comprehension of Grade 4 learners in a Limpopo primary school.
Researcher: Mrs MR Ledwaba
Supervisor: Dr NY Boakye
Department: Unit for Academic Literacy
Reference number: 23485559 (HUM082/0519)
Degree: Masters

I have pleasure in informing you that the above application was **approved** by the Research Ethics Committee on 27 June 2019. Data collection may therefore commence.

Please note that this approval is based on the assumption that the research will be carried out along the lines laid out in the proposal. Should the actual research depart significantly from the proposed research, it will be necessary to apply for a new research approval and ethical clearance.

We wish you success with the project.

Sincerely

Prof Maxi Schoeman
Deputy Dean: Postgraduate and Research Ethics
Faculty of Humanities
UNIVERSITY OF PRETORIA
e-mail: PGHumanities@up.ac.za

Fakulteit Geesteswetenskappe
Lefapha la Bomotho

Research Ethics Committee Members: Prof MMC Schoeman (Deputy Dean); Prof ML Morris; Mr A Qaqas; Dr L Dikoko; Dr C Dlamini; Dr A-M de Beer; Ms A das Santos; Dr R Eason; Ms R Gonder; Andrew; Dr E Johnson; Dr W Kellner; Mr N Mahomed; Dr C Putsoane; Dr D Rensburg; Dr M Smit; Prof F Tlou; Prof V Tlou; Ms F Tlou; Ms D Mkhomo

Appendix B: Informed consent for teachers



24 May 2019

Dear Teachers

INFORMED CONSENT: RESEARCH ON THE USE OF TRANSLANGUAGING AS A PEDAGOGICAL STRATEGY TO IMPROVE LEARNERS' READING COMPREHENSION

My name is Makgabo Rebecca Ledwaba. I am a master's student at the University of Pretoria. The title of my master's dissertation is "Translanguaging as a pedagogical strategy to improve the reading comprehension of Grade 4 learners in a Limpopo primary school". The research requires me to conduct open-ended and closed-ended questionnaires. I would appreciate your participation in the research.

Participation is voluntary and confidential. Study information will be kept in a secure place at the University of Pretoria. The results of the study may be published or presented at professional meetings, but, your identification would not be revealed. Pseudonyms would be used.

If you choose to participate in the study, you would be required to complete a closed and open-ended questionnaire and assist with the intervention programme with the Grade 4 learners.


Thank you for your consideration. If you would like to participate please tick (✓) the appropriate box and sign below.

Consent

I would like to participate in the study.

OR

I do not wish to participate in the study.



Signature of teacher

15/07/19
Date

Room 17-22, Humanities Building
University of Pretoria, Private Bag X20,
Hatfield 0028, South Africa
Tel: +27 (0)12 421 5905
Fax: +27 (0)12 421 5921
Email: humanities@up.ac.za
www.up.ac.za

Faculty of Humanities
Fakulteit Geesteswetenskappe
Letapha la Bomothe

Appendix C: Informed consent for parents/guardians



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA



24 May 2019

Dear parents/guardians

INFORMED CONSENT: RESEARCH ON THE USE OF TRANSLANGUAGING AS A PEDAGOGICAL STRATEGY TO IMPROVE LEARNERS' READING COMPREHENSION

I am a master's student at the University of Pretoria. I am conducting research in relation to my master's dissertation. The title of my dissertation is "Translanguaging as a pedagogical strategy to improve the reading comprehension of Grade 4 learners in a Limpopo primary school". I request your permission to allow your children to participate in the research. Your children will write ANA test, to determine their reading proficiency level (pre-test) and post test to determine the improvement in their reading comprehension and complete questionnaire on their views on the strategy. Your child will not be disadvantaged by participating in the research. Your decision to allow or not allow your children to participate will not affect the service normally provided to your child by the school.

Participating in the study is voluntary and confidential. The information will be kept in a secure location at the University of Pretoria. Although, the information of the study may be published or presented at professional meetings the identity of your child/children would not be revealed. Participation is thus anonymous, which means no one will know what their answers were. Any information that is obtained in relation to the study will remain confidential and will only be disclosed with your permission, but without your child's actual name. Should you have any questions or need further information or clarification, do not hesitate to contact me.

Thank you for your consideration. If you would like your child to participate, may you please tick (✓) the appropriate box and sign below.

Consent

I have read the information in the letter regarding the research study.

I would like my child to participate in the study.

OR

I do not want my child to participate in the study.

Room 1742, Humanities B, 1910
University of Pretoria, Private Bag 200
Hatfield 0028, South Africa
Tel: +27 (0)12 420 5005
Email: Naomihooi@up.ac.za
www.up.ac.za

Faculty of Humanities
Fakulteit Geesteswetenskappe
Lefapha la Bomotho

Kgomo M.M.
Signature of parent/guardian

11 July 2019
Date

Researcher:

Ms. Makgabo Ledwaba
Email: makgabo27@gmail.com
Cell No. 082 343 8254
Cell No: 082 712 7357

Supervisor:

Dr Naomi Boakye
University of Pretoria
Email: Naomi.boakycup.ac.za

Appendix D: Assent form for learners



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Humanities 100.
1919 - 2019
Unit for Academic Literacy

May, 2019

Dear Learner

ASSENT TO PARTICIPATE IN RESEARCH

TOPIC: TRANSLANGUAGING AS A PEDAGOGICAL STRATEGY TO IMPROVE READING COMPREHENSION IN GRADE FOUR

1. My name is Makgabo Rebecca Ledwaba. I am a Master's student at the University of Pretoria.
2. I would like you to take part in a research study. I am trying to learn more about learners who read without clear understanding, and who cannot answer high-order and low-order questions in comprehension tests.
3. I am trying to find out other ways to improve the reading comprehension of Grade four learners.
4. If you agree to be in the study, you would be requested to write a pre-test and a post-test, and answer questions in a questionnaire.
5. There are no risks associated with this study.
6. You will either be in the intervention group or in the control group. You will not be disadvantaged by being in either group.
7. Those in the intervention group will have an additional opportunity of using both English and Sepedi to make meaning in the reading of comprehension passages.
8. Please talk this over with your parents before you decide whether or not to participate.
9. If you don't want to be in this study, you don't have to participate. Remember, being in this study is up to you and no one will be upset if you don't want to participate or if you change your mind later and want to stop.
10. Results of the pre- and post-test will not affect your performance in Grade 4, as it will not be added to your grades. So whether you participate or not will not affect your grades in any negative way, but may improve your comprehension should you be in the intervention group.
11. If you agree to participate in the study, you would be required to write two comprehension tests. Those who would be in the intervention group would also answer questions in a questionnaire and be allowed and guided on how to use Sepedi and English in making meaning of the passages they read in English and Sepedi.
12. You can ask any questions that you have about the study. If you have more questions later, you can call me (my contact number is 082 343 8254) or ask me next time you see me.

Room 17-22, Humanities Building
University of Pretoria, Private Bag 2020
Hatfield 0028, South Africa
Tel: +27 (0)11 430 5005
Email: Naemisoakye@up.ac.za
www.up.ac.za

Faculty of Humanities
Fakulteit Geesteswetenskappe
Lefapha la Bomotheo

13. You may call me at any time to inform me that you will be absent during the study due to unforeseen circumstances.
14. The information from the study will only be used for research purposes and your actual names will not be used in any information.
15. The answers you provide will be securely stored at the University of Pretoria

If you would like to take part in the research you may tick the appropriate box and sign below.

Assent

I would like to take part in the research.

OR

I do not want to take part in the research.

T. N. Kgomo
Signature of participant

TERATSO N. KGOMO Date: 11 JULY 2019
Printed name of participant

Faculty of Humanities
Fakulteit Geesteswetenskappe
Lefapha la Balofofho

Appendix E: Ethical clearance from the School Principal of Paxana Primary School

PAXANA PRIMARY SCHOOL

Capricorn South District
Maraba Circuit
Emis No: 904221258



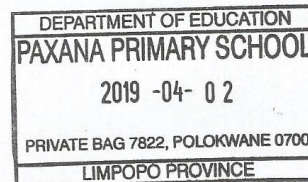
PRIVATE BAG 7822
POLOKWANE
0700

Email: principalpaxana@gmail.com
School number: 073 822 47 03

Enq.: Semenya M.S
Cell.: 063 820 5584

02 April 2019

Ledwaba M.R
P.O. Box 3766
Polokwane
0700



Madam

LETTER OF AUTHORIZATION TO CONDUCT RESEARCH AT OUR SCHOOL.

This letter will serve as authorization of Mrs Ledwaba Makgabo to conduct the research project entitled "Translanguaging as a pedagogical strategy to improve reading comprehension in grade 4" at the abovementioned school.

Upon a review of the letter sent to us by you and the DBE, we are glad to offer you an opportunity to conduct the research. All interviews, filed surveys, observations around the school and the distribution of questionnaires are approved and will be duly supervised by the SMT.

If you have any concerns or require additional information, feel free to contact the school. Thank you.

Yours faithfully,

Semenya M.S
The Principal

Teffo M.C
SGB secretary

Appendix F: Ethical clearance from the Head of Department



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF EDUCATION

Ref: 2/2/2 Enq: Mabogo MG Tel No: 015 290 9365 E-mail: MabogoMG@edu.limpopo.gov.za

Ledwaba MR
P O Box 3766
Polokwane
0700

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

1. The above bears reference.
2. The Department wishes to inform you that your request to conduct research has been approved. Topic of the research proposal: **“TRANSLANGUAGING AS A PEDAGOGICAL STRATEGY TO IMPROVE READING COMPREHENSION IN GRADE FOUR”**.
3. The following conditions should be considered:
 - 3.1 The research should not have any financial implications for Limpopo Department of Education.
 - 3.2 Arrangements should be made with the Circuit Office and the schools concerned.
 - 3.3 The conduct of research should not in anyhow disrupt the academic programs at the schools.
 - 3.4 The research should not be conducted during the time of Examinations especially the fourth term.
 - 3.5 During the study, applicable research ethics should be adhered to; in particular the principle of voluntary participation (the people involved should be respected).

REQUEST FOR PERMISSION TO CONDUCT RESEARCH: LEDWABA MR

CONFIDENTIAL

Cnr. 113 Biccard & 24 Excelsior Street, POLOKWANE, 0700, Private Bag X9489, POLOKWANE, 0700
Tel: 015 290 7600, Fax: 015 297 6920/4220/4494

The heartland of southern Africa - development is about people!

3.6 Upon completion of research study, the researcher shall share the final product of the research with the Department.

4 Furthermore, you are expected to produce this letter at Schools/ Offices where you intend conducting your research as an evidence that you are permitted to conduct the research.

5 The department appreciates the contribution that you wish to make and wishes you success in your investigation.

Best wishes.



Ms NB Mutheiwana
Head of Department

26/03/2019

Date

RECEIVED

Appendix G: ANA 2014 comprehension test

SECTION A

Read the newspaper report and answer questions 1-14

DAILY NEWS

20 March 2014

Schoolgirls save boy's life

By Silvia Hlongwane

Two 9-year old schoolgirls from Greenway Primary School rescued a 6-year old boy who fell from a tree yesterday.

Brenda Smith and her friend Mandu Shabalala were on their way home from their first aid class at Greenway Primary School. They discovered 6- year old Benny Basson, who had fallen from a tree that he had climbed into to pick some fruit. The girls rushed to help him. Benny had knocked his head and was unconscious. He had also cut his arm and could have bled to death if the two girls had not stopped his bleeding. The girls called for an ambulance and then managed to stop Benny's bleeding. Benny was lucky that the two girls were returning home from their first aid class and had their first aid boxes with them. They also had gloves, to protect themselves against possible HIV infection from handling another person's blood. They bandaged Benny's wound before the ambulance arrived.

Mrs Twala, the school principal, will be presenting the two girls with an award at the school assembly on Friday.

Join the Red Cross. Use your local telephone directory for your province



Adapted from: DBE Workbook

Grade 4 English FAL Test

Circle the letter of the correct answer to questions 1-4.

1. What is the name of the newspaper?
 - A Daily News
 - B Sunday Times
 - C Sowetan
 - D Beeld (1)

2. The headline of the newspaper is
 - A Boy saves school girl's life
 - B School girls save boy's life
 - C A narrow escape from death
 - D A terrible day at school (1)

3. Who wrote the article?
 - A Mrs Twala
 - B Siphso Dladla
 - C Silvia Hlongwane
 - D Mandu Shabalala (1)

4. How did the girls save Benny?
The girls (1)
 - A called an ambulance and they stopped the bleeding.
 - B walked past him talking to one another.
 - C phoned the principal Mrs Twala.
 - D rushed to save Benny at School

5. Do you think Benny was lucky that the girls were around to help him?
Give a reason for your answer.

(2)

6. Answer the following question.

Why do you think it was important for the girls to wear gloves?

-
- _____ (2)
7. Write the correct spelling of the underlined word in the space provided.
- The school principle presented the two girls with an award. _____ (1)
8. Circle the letter of the correct answer.
What lesson did you learn from this article?
- A Children are able to save each other's lives.
- B First aid classes are held at the High School.
- C The school girls were on their way to dance class.
- D The school principal bandaged Benny's wound. (1)
9. Circle the letter of the correct answer.
- A Children to and from school.
B prisoners to and from prison
C Patients to and from the store. (1)
10. Circle the letter of the correct answer.
How do you think Benny felt when the girls helped him?
- A sad
B happy
C lonely
D angry (1)
11. Complete the sentence by filling in much or many.
- How _____ blood did he lose? (1)
12. Underline the correct form of the verb within brackets.
- Mrs Twala (present, presents) the girls with an award. (1)
13. Circle the letter of the correct answer.

Find a word from the passage that has same meaning as ‘discover’.

A save

B pick

C find

D protect

(1)

14. Rewrite the following sentence into the past tense.

Benny climbs the tree.

Yesterday _____ (1)

Question 2

Number the sentence below in the correct order, placing 1 next to the first sentence and sequentially to sentence 4.

Mrs Twala, the school principal will be awarding the two girls	
They bandaged Benny’s wound and managed to stop Benny’s bleeding before the ambulance arrived.	
The girls called an ambulance	
They discovered Benny bleeding and unconscious	
TOTAL MARK	4



basic education

 Department:
 Basic Education
 REPUBLIC OF SOUTH AFRICA

GRADE ANNUAL NATIONAL ASSESSMENT 4 ENGLISH ADDITIONAL MEMORANDUM LANGUAGE2014	FIRST
--	--------------

MARKS: 20

Memorandum

QUESTION	EXPECTED ANSWERS	MARKS
SECTION A		
1	A Daily News. ✓	1
2	B School girls save boy's life. ✓	1
3	C Silvia Hlongwane ✓	1
4	A Called an ambulance and they stopped the bleeding. ✓	1
5	Yes, the girls stopped the bleeding. ✓ OR Bennie could have died of bleeding. ✓ OR The girls had their first aid boxes with them and rendered first aid ✓ OR The girls called for an ambulance ✓ OR The girls rushed quickly to help him. Any suitable answer ✓	2
6	To protect themselves against HIV. OR to avoid infecting the wound OR for hygiene purposes Or to protect their hands Any suitable answer ✓ ✓	2
7	principal ✓	1
8	A Children are able to save each other's lives. ✓	1
9	C Patients to and from the hospital ✓	1
10	B happy ✓	1
11	much ✓	1

12	presents√	1
13	C find ✓	1
14	Yesterday Benny climbed the tree. ✓ (If the verb climbed is spelt incorrectly no mark is allocated)	1
	TOTAL MARK	16

Question 2

Mrs Twala, the school principal will be awarding the two girls	4 ✓
They bandaged Benny's wound and managed to stop Benny's bleeding before the ambulance Arrived.	3 ✓
The girls called an ambulance	2 ✓
They discovered Benny bleeding and unconscious	1 ✓
TOTAL MARK	4

Appendix H: Questionnaires for Grade 4B learners

Questionnaire (Learners)

Questions one to five: closed-ended questionnaire for learners

Question	1	2	3	4	5
	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Q1: I enjoyed reading the same text in Sepedi and in English.					
Q2: I feel free and confident to engage with other learners and my teacher using Sepedi and English (translanguaging) during reading.					
Q3: I understand reading comprehension questions better when important or difficult words in the English and Sepedi passages were well explained in Sepedi.					
Q4: If all assessments are conducted in both Sepedi and English I think I would do better and get higher marks.					
Q5: I enjoyed discussing the passages in Sepedi and English with my classmates during reading comprehension lessons.					
Q 6: I would like all Grade 4 teachers to allow the use of both Sepedi and English during reading comprehension lessons.					
Q 7: When I used Sepedi and English to understand the passages we read, I understood it better					
Q 8: I felt very much motivated when Sepedi and English were allowed during teaching and learning to discuss the passages we read.					
Q 9: Reading in English and Sepedi makes me want to read more					
Q 10: I can use Sepedi to summarise the story read in English because difficult words were explained in Sepedi during reading and we were allowed to discuss the comprehension passage in Sepedi.					

Thank you for answering the questions!

Appendix I: Questionnaires for Grade 4 teachers

Questionnaire (Teachers)

Section 1: Questions one to six: closed-ended questionnaire for teachers

Question	1	2	3	4	5
	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Q1: I have observed learners using both Sepedi and English during reading comprehension lessons in the classroom					
Q2: I allow learners to discuss in Sepedi as well as the language of learning and teaching (LoLT), English					
Q3: I usually use Sepedi as well as the LoLT (English) to explain concepts and ideas if it seems learners have not grasped them.					
Q4: I usually give learners the opportunity to explain to each other in Sepedi when I notice that some learners have not grasped the concept in English.					
Q5: I always encourage other teachers to allow learners in Grade 4 to discuss the comprehension in Sepedi and later answer related questions in English					

Section 2: Open-ended questionnaire for teachers

Question 6

If you have used translanguaging in your classes as a teacher, briefly explain how translanguaging has been beneficial or not in improving learners' reading comprehension. If not proceed to the next question

Question 7

As a teacher, do you think allowing learners to use their home language during discussions in class helps to promote understanding? If yes, why? If no, why not?

Question 8

What are your views as a teacher regarding the use of English as the only language of teaching and learning in Grade 4?

Question 9

Suggest ways in which Sepedi and English (translanguaging) can be used more effectively to improve the reading comprehension of learners.

Question 10

In your own words, describe in which situation using Sepedi and English for teaching is beneficial and in which situation it is disadvantageous.

Thank you for your contribution!