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Strategies for Reading Development among Sesotho-English Bilinguals: Efficacy of Translanguaging

'Malephole Philomena Sefotho

2019

Strategies for Reading Development among Sesotho-English Bilinguals: Efficacy of Translanguaging

by

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PHILOSOPHIAE DOCTOR
Applied Language and Literacy Studies

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University of the Witwatersrand,
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2019

DECLARATION

I, ’MALEPHOLE M. PHILOMENA SEFOTHO, declare that this thesis is my own unaided work. It is being submitted for the degree of Doctor of Philosophy at the University of the Witwatersrand, Johannesburg. It has not been submitted for any degree or examination at any other University.

_____

’Malephole M.P. Sefotho

20 MAY 2019

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DEDICATION

This study is dedicated to my Beloved Husband, Prof Maximus Monaheng Sefotho. He has always been with me throughout this journey and supported me in all the ways even at the moments when I could not take it anymore and felt it was too much for me. He became an inspiration in my journey with all the efforts and working spirit he had! He has been all I needed in my journey!

I also dedicate this work to my beloved parents. Firstly, my late mother, 'Me Nteta, who did all her best to get me 'proper' and best education she could afford; the education that she believed would change my life to a better and meaningful one! She had wished to see me reach 'the climax' of my education journey! She became an inspiration in my whole life and education journey! I am here because of all her efforts and encouragement. Secondly, my father; ntate Clement, who felt so proud of me, even though he did not have a chance to walk this journey. Similarly, I dedicate this study to my parents-in-law; my late mother-in-law, 'Me Anna, who wanted to see the end of this journey though she saw it as madness of both a wife and husband. When I started my PhD she said "hona ke bohlanya; joale ha ho ea eletsang e mong, lea ts'oana le monna eo oa hao; aa!" but she wished me well! I cannot forget my late father-in-law, ntate Emmanuel, whom I totally believe he is very proud of me! These two families have been of great inspiration and support to me!

I also dedicate this study to my two 'lovely birds', Lephole (Dr Phil) and Manuela (Aus'a ka). The love and support that they showed me during this time of my study journey was amazing. They have always looked forward to the time of completion of my study! All their joys, demands and destructions meant a lot to me and pushed me to reach the end!

I cannot forget the two most important families in my life; 'lelapa la Chele le la Lephole/Sefotho. They have been very supportive to me throughout this journey and have wanted to rejoice with me at the end of this tunnel! Kea leboha hle Bakuena! I appreciate all the encouraging words and deeds to me to have reached this point!

ACKNOWLEDGEMENTS

On my own, I would not have achieved this degree and therefore, I feel a need to acknowledge all the people who contributed in my work in different ways.

First of all, I would like to acknowledge my wonderful supervisor, Prof Leketi Makalela who guided me and showed me all ways of becoming an independent academic person. I would not have achieved writing up this work if it was not for his support. His passion and love on promoting bi/multilingualism kept me going. I appreciate the time and support that I received from him in different ways.

It would not be complete if I do not acknowledge the support, love and care from my wonderful colleagues with whom we were together in this journey. They were not only colleagues, but also friends and family. In particular, I acknowledge my two brothers, Hlaviso and Vukile and my beloved sister and/or daughter, Nkhensani. Their contribution to this work and the bond that the four of us had were amazing. I cannot forget Mme Joyce Kholokoane with all the assistance during my data collection. I also appreciate the support that I got from other colleagues and friends who contributed in different ways to this piece of work. I thank you all.

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One but last, my husband, Prof Sefotho, who supported me in different ways to make my work easy and complete. I would sometimes call on him when my computer jams and he would immediately do his best to solve my problem. He has been my pillar of strength through the completion of this thesis.

Lastly and most importantly, I thank God the Almighty! I would not have done this work if He has not been there in my life! He carried me along and NEVER misled me! At times when I thought I was weak; He raised me up and carried me along! I was honoured in the eyes of God; He was my strength!

Success requires somebody who is brave enough to take a risk!

Success is not a destination, but a journey; it is not earned, but requires hard work!

---oOo---

GLOSSARY

L1.....First Language

L2.....Second Language

AL.....Additional Language

FAL .....First Additional Language

HL.....Home language

LIH .....Linguistic Interdependence Hypothesis

CMB .....The Continua Model of Biliteracy

ORF .....Oral Reading Fluency

WPM .....Word per Minute

---oOo---

ABSTRACT

This study aimed at testing the effectiveness of translanguaging strategies in developing reading in bilingual classroom settings. In order to do this, the study tested reading proficiency in its categories of vocabulary, fluency and reading comprehension of Grade 5 bilingual learners from two experimental and two control schools. This study was centred within translanguaging practices in bilingual classrooms in Gauteng province and was based on three frameworks: Linguistic interdependence hypothesis, the continua model of biliteracy and translanguaging framework, as the main framework. The study used quantitative and qualitative designs in analysing data. It was found that learners from experimental groups outperformed those from control groups in all the variables that were used. This meant that the translanguaging intervention that was offered to experimental groups had a positive effect on developing bilingual learners' reading skills through the use of their home language, Sesotho and English as an additional language. Translanguaging did not only help learners to improve in different areas of reading proficiency, but also served as a tool that helped them make sense and meaning through the use of two languages. From these findings, I agree with the concept of 'Ubuntu translanguaging' which advocates for the idea of one language not being complete without the other, 'I am because you are'. The study also showed that teachers in bilingual classrooms still consider languages as separate entities that 'contaminate' each other. As a result, they do not allow their learners to concurrently use both languages even though they themselves use both languages to enhance comprehension. This study therefore considers translanguaging as a pedagogy for meaning making. I therefore argue that when learners are allowed to use their linguistic resources in classrooms, they develop in reading and perform better academically as reading is the backbone of learning. The concurrent use of languages in bi/multilingual classrooms can be an approach that is used to help learners make meaning of their world and lives as true bi/multilinguals. I therefore recommend translanguaging as an effective pedagogical practice in developing Sesotho - English bilinguals' reading.

---oOo---

KEY WORDS

Translanguaging; Reading proficiency; Bilingualism; Monolingual bias; Home language; Additional language; Linguistic resources; Comprehension; Experimental & Control groups.

---oOo---

MY BACKGROUND STORY

WHO AM I?

I AM THE PRODUCT OF MY ENEMY (Winnie Madikizela Mandela)

I quoted these words from Winnie Madikizela-Mandela because they represent what I am in relation to this study on the concurrent use of languages in bi/multilingual classroom settings. The study on languages in my life was never my dream, but circumstances forced me to become a 'product of my enemy' and eventually led me to take this route in my PhD research. I would like to reveal my life history starting from high school level of education. Briefly, let me point out that I come from the rural areas of Lesotho where English was only a subject one would come across only at school and not use it at all at home. It had been an additional language to us and we then considered it as a language of prestige, though we could only use it at school during actual English lessons. After my primary school education, which I did in the rural areas of Lesotho, I went to a high school in the lowlands. It was one of the model C schools where learners were considered to be fluent in English and were also expected to master it and use it all the time within the school premises. This was taken seriously to the extent that those who were heard speaking Sesotho were punished. This means we were modelled as and were expected to be English 'monolinguals', which we were not. This situation denied us adavantages of becoming strong bilinguals, but rather required false identity (Spooner, 2017). Sesotho, our home language, was suppressed and only allowed during Sesotho lessons. It was believed that for us to be fluent in English, we had to have exposure to it, and use it all the time. Sah (2018) shows that it can be true to be immersed in a language to master it, but sometimes exposure in a language does not work and needs to be supported with first language (L1) to make sure the message conveyed is well understood. The use of L1 therefore is recommended as an effective way of making learners understand (Makalela 2015, Garcia & Li; 2014). L1 can be used for better understanding of text and explanation of difficult words, concepts or text (Baker, 2011). It cannot be denied that sometimes learners do not participate in class, not because they lack knowledge, but because they are unable to express themselves fully in a target language.

Having been groomed in this 'monolingual bias' environment, I felt more confident in English than in Sesotho until the time I received my matric results and found I passed all the courses, including a credit in Sesotho, but failed English! Failing English meant I could not be admitted

at the university to pursue my studies! This failure almost forced me to develop an attitude towards this second language! I gave up on life and stayed home for five years before I could retake the English Examination. The consolation I got from my teachers was that it was normal not to make it in English since students who are good in Mathematics and Science do not normally pass languages. The question that I remained with was, if being a science student makes one not to be an expert in languages, why did I get a distinction in Sesotho language course! It was difficult to identify the problem!

I was encouraged by my teachers to attend classes in order to prepare for the English examination, but I could not because I did not have time for attending classes. I simply went to write the exam at the end of that year without preparing for it. I told myself that I know the structure and I will just go as I am, without being groomed or having revised for the exam. I wrote the exam; the structure was the same, essay writing, comprehension test and summary writing. It was surprising to me, therefore when the results came out that I had passed with credit! I always asked myself what went wrong in the first sitting when I was made to be an English monolingual and failed the English exam, but when I was out of that environment I passed the exam! Anyway, this became an opening and awareness for me to pursue my studies.

Because I was a science student, I applied at university to do BSc, but somehow my application was misplaced and I happened to be admitted in the Faculty of Humanities where I ended up taking English Language and Literature in English as my majors. What I hated most became a course I passed more than others. I worked hard, obtained my BA degree and went straight to do postgraduate studies, and eventually became a lecturer in English language. I eventually became 'a product of my enemy'! During my postgraduate studies my research interest had been on problems encountered by English second language (L2) learners. With both Honours and Masters Theses, my research focused on L2 learners in a lens of L1 speakers of English! All these years, I have been longing to help L2 learners not to go through the difficult route I experienced. My intention had always been to assist these learners to build their confidence and attempt English L2, not as monolinguals, but as true bilinguals. My research studies were also focused on finding strategies or approaches that could develop L2 learners' reading and writing skills. As I was reading, I came across an approach that was encouraged by researchers to be effective for meaning making and in developing reading in bilinguals (Garcia, 2009; Canagarajah, 2011; Baker, 2001). This approach was referred to as translanguaging. I felt this was an approach which talked to me directly and it was a response to my interests. It was clarified that this approach empowers both learners and teachers, transforms the power

relations; and it focuses on the process of teaching and learning on making meaning, enhancing experience, and developing identity of learners (Creese & Blackledge 2015 in Li, 2018:15). This approach intends to allow learners become who they are and to make use of all the linguistic resources they have in order to develop academically. My aim with this research is therefore to find if this approach could be effective in developing Sesotho-English bilingual learners' reading skills and enhance their academic performance. This is what I intend to do in my academic life; improving literacy, especially in reading, which is the backbone of academic achievement (Matjila & Pretorious, 2004), and by making sure bilingual learners can perform well academically. It is against this background that, in this study, I looked into the effectiveness of translanguaging approach in developing reading skills of Sesotho- English bilinguals.

'I am who I am, a product of my enemy'! I am proud of being bilingual!

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CHAPTER 1
INTRODUCTION AND BACKGROUND

1.1 Introduction

With the increasing growth of globalization today, the majority of people seem to be bilingual rather than monolingual (Sah, 2018). There are several factors that lead to this bilingualism, such as international travelling, communications, colonialism, among others (Baker, 2006). This means that people use two or more languages; their home language which in most cases is regarded as the first language (L1), and they also use another or other language(s) as a second or additional language(s) (L2/FAL). This situation is found almost everywhere in the world especially "in the global South where complex multilingualism has always been a dominant sociolinguistic feature (Sefotho & Makalela, 2017). It is further noticed that Sub-Saharan Africa is the most linguistically complex region of the world, and whose contribution to language and literacy theory is gaining momentum in recent years (e.g. Makalela, 2015a; Motlhaka & Makalela, 2016; Mgijima & Makalela, 2016). In most African countries, as it is in other countries in the world, multilingualism does not only apply outside the classroom, but even within the classroom context. The rise of multilingualism in various countries in the world has led to sociolinguists establishing ways that may be appropriate in teaching languages (Sah, 2018). This is because language is no longer considered as an isolated identity, but a means by which individuals are identified as members of the society (Palfreyman & Al-Bataineh, 2018) and "fluid discursive resources that are used flexibly by multilingual speakers (Sefotho & Makalela, 2017: 42). South Africa like many countries in the world has become part of a globalised world, where people are no longer only monolingual, but bi/multilingual.

1.2 Bilingualism

The use of more than one language gave rise to bilingualism and multilingualism. This prevailing situation in the world has attracted language researchers to look at various studies on bilingualism from different aspects in order to build an understanding of what bilingualism is or is not. Bilingualism is not a recent term or issue globally, but "it is a phenomenon that has existed since the beginning of language in human history" (Algarin-Ruiz, 2014:34), where people used various languages for communication. In some parts of the world, L2/AL (s) do not only become official languages, but also extend to be used in the education sector as languages of instruction (Garcia, 2009a). For example, in most African countries, such as South Africa, English is considered one of the official languages among several official languages, and is also used as a medium of instruction

in the classroom situation (Hurst & Mona, 2017). Similarly, in other sub-Saharan African countries such as Lesotho, Botswana and Zimbabwe, English remains a second and official language as well as a medium of instruction in schools.

It is obvious then, that the bilingual situation is not only observed as a social concept that takes place in the communities, but it even appears in the classroom context. In most cases, L2 remains a dominant language over the home language. In that way, there is hierarchy between the languages; one language having more power than the other; and this creates separation between the languages. This form of bilingualism, where one language over-powers the other is what is referred to as Subtractive form of Bilingualism (Gort, 2015). Gort further points out that in most cases, the L2/FAL is the one that over-powers the home language; it becomes prestigious and makes L1 a language of low status and value. This situation of Subtractive Bilingualism promotes the idea of monolingualism in the bilingual setting, whereas in reality there are no divisions between the languages, but instead there is overlap of the languages (Garcia, 2009a). The separation of languages in bilinguals is not what bilingualism is in the real sense of bilingualism (Baker, 2007). Baker continues to show that in bilingual contexts, bilinguals should take advantage of the knowledge of the two languages in order to improve their understanding and knowledge of those languages. This brings forth the different ways in which researchers view bilingualism.

Some researchers observe bilingualism as a separate or subtractive bilingualism with diglossia - a situation where two co-existing languages in bilinguals are considered to be of different status; one language seen to be of a higher status and prestige than the other, languages are looked upon as two separate and distinct languages (Fishman, 1980; Baker, 2003). Other researchers consider bilingualism as a flexible or additive bilingualism with hetereglossia - a concurrent usage of two languages by bilinguals; moving from one language to another (Garcia, 2007; Hornberger, 2006). In subtractive bilingualism, as has been explained earlier, one language is considered to be more powerful than the other and becomes a threat to the other language. On the other hand, an additive bilingual situation is defined as the situation where speakers of a particular language acquire a second language and its culture, but not replacing their first language (Gort, 2015; Gracia, 2007). The addition of the second language can benefit the L2 speakers linguistically, culturally, socially and economically. This implies that, in additive bilingualism, L2 is added as an additional language to L1 and not as a threat (Garcia, 2007); it brings positive outcomes and benefits to the bilingual. The use of L1 helps bilinguals understand and improve their L2 (Swain & Lapkin, 2007), which shows that there is a relationship between the languages used by bilinguals, if both languages are considered of the same value and status.

The concept of bilingualism was not only studied at the community level, but extended to the classroom situation (Canagarajah, 2011). In the traditional understanding of bilingualism in education, languages were separated and taught in different lessons and at different times (Lewis, Jones & Baker, 2012a). Historically, when learners were dealing with one language in the classroom, they had to suppress the other language as if it does not exist. This shows that the two languages that were used in bilingual education were treated separately. It was always believed that the separation of languages was done in order to avoid 'cross-contamination' and confusion; and that the concurrent use of languages was considered to be inappropriate (Jacobson & Faltis, 1990). Therefore, in a bilingual situation the knowledge of two or more languages was approached as the knowledge of completely different and separate languages (Gort, 2015). During that time, it was argued that "bilingualism itself was a cause of "mental confusion" and "language handicaps" (Darcy, 1953; Peal & Lambert, 1962). As a result, bilingual children performed poorly in their academic tasks (Cummins, 1979). All these were the negative perceptions that were occurring about bilingualism. This understanding of the confusion that was caused by the knowledge of the two or more languages by bilinguals promoted separation of the languages in bilingual learners, which is the idea of one language at a time (Cummins, 1979). On the other hand, other studies suggest that bilingualism can positively influence both cognitive and linguistic development in a child contributing to his/her learning process rather than being a cause of cognitive confusion (Cummins, 1976, 1978c; Makalela, 2014), and that bilingualism also provides economic advantages to bilinguals. Other researchers emphasise that bilingual learners should not be denied the language resources that they have in a situation where the populations are becoming diverse linguistically (Blackledge & Creese, 2010; Li, 2011). They argue that bilingual learners should be allowed to use their dual knowledge at the same time. Apparently, in a bilingual learner, both languages are autonomously active all the time even when one language is being used, and both can be used by the bilingual any time (Makalela, 2015a).

In the 21st century researchers (e.g. Baker, 2007; Garcia, 2009) look at the concept of bilingualism in a new perspective. They consider the knowledge of two or more languages in a positive manner, and as an advantage to bilinguals and not confusion as was traditionally believed. Garcia (2009) argues that bilingualism should not be looked upon as an idea that deals with two separate languages; she says that it is "not monolingualism times two", but it should be bilingualism in the real sense of bilingualism (Garcia, 2009:71). According to recent scholars, bilingualism goes beyond the two models of bilingualism, diglossic and hetereglossic (explained earlier in this chapter), but the language practices that are multiple and adjusting to the situation of the communities (Garcia, 2009; Heller, 2006), therefore as an advantage to bilinguals. With this

understanding, bilingualism seems to be a dynamic concept which is interrelated, not only looking at language as an activity, but also as something that is part of the language users, revealing what those speakers are, their nature, culture and society. Garcia (2012) refers to this new form of bilingualism as transglossic, which refers to a dynamic, flexible concurrent use of two or more languages by bilinguals to support their understandings of the world, and furthermore, building their conceptual and linguistic knowledge (Garcia, 2009a: 291) which she says is the flexible concurrent use of language.

1.3 Literacy

Literacy is considered the most important aspect in the learning process to help learners develop their academic performance and researchers have shown literacy to be an important aspect for long-lasting lexical development, fluency, and overall maintenance of a language (Baker, 2006; Cohen & Alison, 2001). This literacy, particularly in reading, therefore, constitutes a great part in academic achievement of a learner (Matjila & Pretorius, 2004), and it can be evaluated by looking at the person's ability in reading (Snow, Burns, & Griffin, 1998). This then shows that improving literacy programs is very important in making sure that all students perform well academically. Researchers have indicated that in most cases, literacy instruction programs at schools mainly focus on the subjects that are being taught and do not pay attention on learners' diverse linguistic resources (Bauer et al., 2017). This makes learners who are not fully developed. Given that literacy, specifically reading literacy, forms the backbone of academic achievement, it follows that if the education system is tasked to promote bilingualism, then it is equally tasked to promote bi/multiliteracy (Matjila & Pretorius, 2004) in settings where learners use two or more languages.

1.4 Biliteracy

For many years, biliteracy was an area that was not sufficiently researched (Bernhardt, 2005; Koda, 2005, 2007; Jiang, 2011) especially in the African context (Makalela, 2012). It remains a paradigm that is less researched regardless of its availability everywhere in the world; the reason might be that research on bilingualism has been treated as "distinct and independent from literacy research, thus biliteracy has not been a prominent topic of study" (Barton, 1994: 73). Researchers only noticed and emphasized the importance of considering the impact of L1 literacy knowledge on L2 reading development in the 1990s (Bernhardt, 2005; Koda, 2007). Early scholars define biliteracy as a mastery of reading in two languages in order to convey a clear meaningful message in a variety of contexts (Goodman & Flores, 1979; Fishman, 1980), which means that the ability to convey the message is reflected from the ability to read because it is through reading that one is able to process

the message in the mind in order to understand the message and come up with what it means (Matjila & Pretorius, 2004). It entails the utilization of linguistic and metalinguistic knowledge in order to comprehend the meaning of written symbols. Biliteracy helps learners to have "socially constructed meanings in textual content, and multiple potential trajectories of multilingual language and literacy development" (Hornberger, 2006).

Bilingual learners deal with more than one language, and therefore in their situation, biliteracy needs to be developed. In addition, Hornberger (2006) says that developing biliteracy enables bilingual children to negotiate along and across various continua and enhances their learning through what they are because language is a representation of a voice within the person. She points out that "Language represents a central force in the struggle for voice [and] … is able to shape the way various individuals and groups encode and thereby engage the world" (p. 59). She continues to indicate that children find voice through the use of their own HL because of using their HL as a medium of instruction alongside the FAL, and this usage enables them to make meaning of the context; access the wider understanding of the discourse and develop their ways of describing the world. With the new understanding of biliteracy, therefore, there is a need to move towards the ways that can benefit bilinguals and enhance their academic performance.

In order to improve the academic performance of bilinguals, the concept of biliteracy is what should mostly be considered; especially with reading, because reading is regarded as the most important aspect of the academic process and a base for becoming an informed member of the world (Koda & Zehler, 2008). Koda and Zehler further show that a student who lacks reading skills is unable to have adequate skills to further learning process. Reading is also expressed as an interaction between the text and the reader which is shaped by the reader's prior knowledge, experiences, attitude, and language community (Makalela, 2015d). It is culturally and socially rooted in a particular way of how viewing the world involves the reader, the text, and the interaction between the reader and text regardless of whether it is in a first or second language (Makalela, 2014; Gee, 1999).

1.5 Languaging

The new idea of looking at the relationship between the language and its users brought about the concept of 'languaging', which implies the language practices of the language users (Makoni & Pennycook, 2007). Languaging is considered as a process which involves, not only the knowledge of the language, but the understanding and shaping of that knowledge and making sense of the experiences through the use of the language (Swain et. al, 2009). The understanding of two or more languages functioning at the same time in bilinguals gave rise to the new phenomena about bilingual

education. Researchers re-examined the assumptions underlying bilingual education, and emphasized the move from looking at the separation of languages to that of a dynamic and flexible use of languages in bilingual situations (Garcia, 2009a; Baker, 2011). This move nowadays is to use languages in the same lesson, at the same time, in order to enhance and improve all the languages (Baker, 2010; Blackledge & Creese, 2010; Garcia, 2009a). It is also believed that when the two languages are used concurrently, L1 enriches L2 learning and increases academic performance of the learners (Lewis, Jones & Baker, 2012a; Makalela, 2015d).

The new focus on the dynamic bilingualism brought in the idea of translanguaging, which is a concept that helps bilinguals to make meaning of the world in their cultural and social contexts (Garcia, 2011; Garcia & Wei, 2014). The issue of translanguaging then became a concept of interest to researchers in the 21th century. This growing ideology allowed language researchers to shift from the concepts of additive and subtractive bilingualism and understand the bilingual situation in a different perspective, focusing on language practices of bilinguals (Gort, 2015; Garcia, 2013; Hornberger & Link, 2012). The idea of translanguaging, which researchers are now looking into, has been adopted in the bilingual classrooms (Garcia 2009a, 2009b) in trying to see how learners can make use of the knowledge of their two languages to develop their learning process (Baker, 2011). They are moving to the idea of using two or more languages together in one lesson and not at separate times (Baker, 2010; Blackledge & Creese, 2010; Garcia, 2009a) as it was in the past. The new thinking takes away the negative perceptions about bilingualism and bilinguals and considers the positive and advantageous side of using two languages (Lewis, Jones & Baker, 2012b).

There has been a great move in research on the concept of translanguaging especially in Europe and in the United States of America (e.g. Blackledge & Creese, 2010, Canagarajah, 2011, Crees, & Blackledge 2010, García, 2009, 2011; García & Sylvan, 2011, Hornberger & Link, 2012) leading to the focus on the classroom context. It is therefore worth looking at how effective these strategies can be in developing reading skills in bilingual education settings, especially in the African context where there is little research on this matter. It is argued that these strategies are important because they show how bilingual learners interact with text and how effective their comprehension of the text is (Carrell, 1985) using their multiple language resources. These strategies have been observed in various parts of the world, especially in the context of Wales (Lewis, Jones & Baker, 2012b) and recommended as effective in developing reading in bilingual classroom settings (Garcia, 2011).

1.6 Translanguaging in a classroom

Translanguaging is a term that was invented by Cen Williams to refer to the systematic use of two languages in teaching and learning inside the same lesson (Baker, 2003. 2011; Williams, 1994), and it originates from the Welsh word 'trawsieithu'. Originally, it referred to the situation where learners would alternate from one language to another in order to be productive in their reading or writing. Baker (2001) gives an example of what was happening originally in Wales, where students were asked to read a text in English and write it in Welsh and vice-versa. This means it is the deliberate switching of the language of input and output in classrooms, which is receiving information in one language and processing and giving out the information in another language (Lewis, Jones & Baker, 2012b). Translanguaging has been applied in the classroom situation of bilinguals to help them freely use their dual language knowledge and make sense of their worlds of dual languages (García, 2009, García & Kleifgen 2010). The idea "entails using one language to reinforce the other in order to increase understanding and in order to augment the pupil's ability in both languages" (Williams, 2002:40). Williams further points out that in translanguaging the development of the two languages is balanced because the language which is weaker in the bilingual child is normally strengthened by the one that is strongly known. This means one language is used by the learner in order to develop the other language, and there is balance between the two languages. This concept, "attempts to develop academic language skills in both languages leading to a fuller bilingualism and biliteracy" (Baker, 2011: 390). In addition, Garcia (2009b) points out that "translanguaging is indeed a powerful mechanism to construct understandings … across language groups". She further shows that it helps bilinguals make meaning and sense of their everyday world through the use of language. This shows that translanguaging allows bilingual learners to be what they are, live their reality, in the classroom situation and even outside.

Translanguaging is a new and developing concept that is now being practised in order to break the idea of separation between languages, which is a historic separation of languages; and of the old belief that the knowledge of two or more languages in bilinguals cause mental confusion (Baker, 2011), but as an advantage of using the two languages concurrently. This concept of translanguaging has been researched and taken over in practice by many language researchers (e.g. Canagarajah, 2011, Creese & Blackledge, 2010, García, 2009; García & Sylvan, 2011, Hornberger & Link, 2012, Makalela, 2015c, Hurst & Mona, 2017) since its origin. They argue that in translanguaging, languages are no longer considered as separate entities, but they overlap and can be used concurrently. It also helps to break the idea of one language being considered to be more important than the other; both languages are of the same importance and are used as an advantage of

integration to maximise learners' comprehension and performance in their academic work; and "both languages are used in a dynamic and functionally integrated manner" (Lewis, Jones & Baker, 2012b). With the new transglossic approach of using more than one language in bilingual education, this study intends to look at the strategies that can be used to improve reading, specifically considering the translanguaging concept. Having this in mind, this study, therefore looks at how effective translanguaging strategies are in the bi/multilingual South African classroom context among Sesotho and English bilinguals. In particular, it is my intuition to look at the language situation in South Africa and its education sectors in order to understand how translanguaging can be a practice in such situations.

1.7 Linguistic situation in South Africa

South Africa is one of the most diverse countries linguistically. There are eleven official languages that are used extensively throughout the country and this does not imply those are the only languages in the country, but these are official languages. These languages are English and Afrikaans, which are mostly spoken by white people; and nine African/Bantu languages, which are mostly spoken by the 'black' people. These Bantu languages have been geographically separated "according to pre-colonial distribution of speakers" (Hurst & Mona, 2017). They were deliberately separated by the apartheid government and codified by different missionaries, despite the fact that most of them are highly mutual intelligible (Sefotho & Makalela, 2017: 41). There are two main groups/clusters of these Bantu languages. These are Sotho and Nguni language clusters. Sotho language cluster consists of Sepedi, Setswana and Sesotho, whereas Nguni cluster comprises of IsiZulu and IsiXhosa, IsiNdebele and SiSwati. Together with the seven, there are other African languages, TshiVenda and XiTsonga, which are also part of the official languages. The boundaries between these languages have remained since the apartheid time up to now, although nowadays people have mingled to the extent that it becomes difficult, especially with African languages, to establish a language that can be defined as a mother tongue to individuals (Makalela, 2014). This can be seen in places such as Soweto, townships in south west of Johannesburg where people are able to speak fluently, more than two languages. In general, most people in South Africa are bi/multilingual. This leads to children going to schools with knowledge of more than one language, which as a result, makes South African classrooms bi/multilingual.

1.8 Language use in Education

South African classrooms have become linguistically super-diverse (Makalela, 2015c) due to the language situation in the country. Children bring along the vast knowledge of languages that they have acquired even before they come to school. English is used as medium of instruction in most schools throughout the country, except in some which use Afrikaans as their medium of instruction. This implies that English is widely spread and is considered as the language of status or class as it is a global language and is predominately used by white people (Hurst & Mona, 2017). At the foundation phase, home languages are used as medium of instruction, but due to knowedge of several languages, some schools use English as a home language because they consider it as a common language. From intermediate to higher education, English is strictly used as a medium of instruction. Hurst and Mona (2017) show that in higher education, English is a legacy of the rejection of Afrikaans as a medium of instruction during the apartheid struggle, as well as the role of English speaking Europeans in the colonial history of the country. English is sustained today in South African education and especially higher education, partly due to its global status.

It should be noted that most white people's home language is either Afrikaans or English and for the black people it is usually one of the Bantu languages, so the teaching in English becomes a problem to some learners who had not been exposed to English at an early age. However, the South African Constitution states that learners have the right to receive education in any language of their choice among the official languages (Section 29-2), though this does not seem to be practical in schools. Teaching and learning are still centred on the Western point of view. English is still looked upon as a prestigious language, having power over other languages despite the allowance of using other languages for teaching and learning. The approach that is being applied in schools has been inherited from the colonial era (Mbembe, 2015) where the strategy of one language at a time still dominates and in the post-apartheid South African education system (McKinney, 2017). Bi/multilingual learners are still considered as monolingual with the application of 'monolingual bias' strategy. It is against this background that this study focuses on finding how effective translanguaging could be applied in developing reading among these bi/multilingual learners in South African education system.

1.9 Problem Statement

In the 21st century, researchers have begun to look into the issue of boundaries that were constructed around languages (e.g. Creese & Blackledge 2010); and others argue that languages in bilinguals should not be treated as separate units, but as integrated units (Garcia, 2009; Hornberger & Link 2012), as it is not visible how these languages can be separated. Research shows that the knowledge one has on his/her home language (L1) has an impact on other language resources that one has and it happens automatically in the mind to use all the language resources (Makalela, 2012). It is further pointed out that development of languages and transfer of linguistic and reading skills from L1 to L2, in bi/multilinguals, happens concurrently and is somehow related (Barnett, 1986; Carrell, 1991). Therefore, these languages cannot be separated. On the other hand, Makalela (2012) argues that in the African context, reading literacy in both African languages and English is an area that requires a lot of thinking and reflection as bilinguals, in most African countries, are treated as monolinguals. One of the major issues that have been a concern is on the growing multilingual population in African countries, where learners use two or more languages in their social and education context; the concern here is how these bi/multilingual learners can make use of the knowledge of multiple languages to enhance their academic performance.

In order to find means of enhancing academic performance, research has been conducted on reading development in the African bi/multilingual situations. Even though there is research done, it has been argued that bilingual "reading development remains under-researched and under-theorised to date despite a cornucopia of studies showing that successful acquisition is vital for cognitive processes… which predict academic success in higher grades" (Makalela & Faduke, 2014). As a result, Pretorious and Currin (2010:67) point out that there is a need "to build a better theoretical understanding of the development of reading ability in two different languages [and] … find out how differential reading results can inform reading intervention programmes and classroom instruction". Bearing this in mind, one could see a need for research that looks into different strategies which could be used to develop biliteracy in the classroom context, in the real sense of making use of the two languages (Canagarajah, 2011). Literacy in another language, in addition to one's native language, cannot only have benefits with respect to future employment, but it can also open up a child's view to another culture and the world at large (Cummins, 1976, 1978c; Hornberger & Link, 2012). Therefore, the development of biliteracy in bilinguals is an area that needs further research as to enhance proficiency in both the home language (HL) and the additional language (AL). Nowadays, it is not easy to find people who are monolinguals but many people are

bi/multilinguals and therefore it is worth developing biliteracy to allow people be who they are (Makalela, 2015a).

On the basis of the need to further research on reading development in African languages and in English, a number of research projects regarding this biliterate development in both languages (Makalela, 2012 Pretorius & Mampuru, 2007) were conducted. Makalela and Fakude (2014) argue that most of these studies focused on comprehension skills which are almost in comparison to English reading trajectories (e.g. Makalela, 2012; Pretorius & Mampuru, 2007) while there is little that has been done on the concurrent use of language resources that bilinguals can make use of, especially in South African context.

Studies that have been conducted in South Africa show that in bilingual classroom settings, even though two or more languages are introduced and taught to the learners, there is imbalance in the use of the languages; this leads to low or poor level of literacy in bilingual learners and them not performing well academically (e.g. Matjila & Pretorius, 2004). It is on the basis of this that researchers looked into the reading performance of the learners, but the area of finding appropriate and relevant strategies that can be used to develop reading literacy in bilinguals, at an early stage of schooling, was neglected (Makalela, 2014). This is something that needs consideration on how to assist bilingual learners in the proficiency of not only the additional language, but also in their HL using all the linguistic resources. Therefore, it is against this background that this study sought to find out how Sesotho and English bilingual learners at intermediate phase can be assisted in order to develop their reading ability as Sesotho-English bilinguals. Researchers have also considered that translanguaging could be appropriate in a multi/bilingualism population especially in the classroom situation (e.g. Makalela & Fakude, 2014; Makalela, 2012), even though these studies were done at higher education level**.** It is also on the basis of this that this study further focuses on evaluating how effective translanguaging could be in developing reading skills in Sesotho-English bilingual children at intermediate level as this is an area that has little research that dealt with it.

1.10 Research Aim

The aim of this study was to examine how translanguaging strategies can be used in order to improve reading proficiency in Sesotho and English learners; and to find out how effective these strategies could be in a Sesotho-English bilingual classroom setting.

1.11 Objectives of the Study

The objectives of this study were:

- To determine the effectiveness of translanguaging strategies in Sesotho English bilingual learners.
- To assess reading proficiency components of Sesotho-English Grade 5 bilingual learners in both Sesotho and English languages focusing on:
  - Vocabulary-phonemic, graphemic and semantic
  - Reading fluency level
  - literal, inferential and retelling comprehension skills
- To observe how bilingual learners use translanguaging strategies in their classroom to enhance their comprehension
- To find teachers' opinions and perceptions about the use of translanguaging strategies for reading development in Sesotho-English bilingual learners.

1.12 Research Questions

Main Research Question:

To what extend is the use of translanguaging strategies effective in developing reading skills among Grade 5 English-Sesotho bilinguals?

Sub-research Questions:

- What is the level of reading proficiency of the Sesotho-English bilinguals in using both Sesotho and English concurrently?
- How is the recall, inferential and retell comprehension skills of Sesotho-English bilinguals in their home language and English language?
- How do Grade 5 bilingual learners use translanguaging strategies in a multilingual classroom?
- What are the opinions and perceptions of the teachers in relation to the use of translanguaging strategies for reading development?

1.13 Rationale

Several studies have been carried out to investigate reading proficiency in bilinguals, but few have been done on the development of the two languages, that is, how to develop biliteracy. Lately, it has come to the realisation of language researchers that it is important to consider the development of biliteracy in bilinguals in order to develop both L1 and L2. This can be done by code-meshing the two languages (Garcia, 2009). This process, Garcia (2009b) refers to it as translanguaging. In most African countries, where learners use two or more languages, the idea of bilingualism still remains in the old belief of separation of languages, one language being more powerful than the other, and in most cases English being dominant and considered to be a more prestigious and powerful language than African languages. For example, in schools more emphasis is put on English and as such, African languages are being suppressed. There is imbalance of the two languages. Makalela (2012) argues that "studies that look at the relationship between African languages and English show high dominance of English in literacy development". Learners are denied to make use of the knowledge of the two languages and to look at it as an advantage; instead they look upon their Home Language as of a lower status language. Surprisingly, the performance of learners in English language remains a continuous problem. Learners still do not perform well academically even with the focus on English language. This being the case, there is a need to find ways of improving biliteracy in order to enhance their academic performance. There is also little research that has been done on using translanguaging strategies for developing reading on bilingual learners, yet reading is the backbone of academic performance and therefore there is a need to find or develop strategies that can enhance it. I was thus attracted by the idea of finding strategies that could be used in reading development, which is lacking in most African countries such as Lesotho, which I believe is the most useful component in academic development.

Another thing which attracted me to do this study was the implementation of the new idea of translanguaging that is being practised in bilingual situations, mostly in European countries. This, however, has not been tested and practiced in most African bilingual classroom contexts. Current research studies on biliterate development in the African context (e.g. Matjila & Pretorius, 2004; Pretorius and Mampuru 2007; Pretorius & Currin, 2010; Makalela, 2012; Makalela & Fakude, 2014) have been carried out, but there is no study that has looked into the effectiveness of translanguaging strategies on reading development of the Sesotho-English bilinguals. I was then motivated by the idea of evaluating the effectiveness of translanguaging strategies in reading development of Sesotho-English bilinguals to find out if these strategies cannot be a solution on the problem of academic performance of bilingual learners.

Another thing which motivated me to conduct this study was the issue of translanguaging as a concept that breaks the boundaries between the two languages in bilinguals, the boundaries that are reigning in most African countries. This idea of equality of languages made me feel a need to bring in this new concept to the bi/multilingual classroom context. In most bilingual classroom situations, the knowledge of two languages is still approached as the knowledge "of two separate and distinct languages" and this does not benefit the learners. The adoption of the idea of translanguaging might help learners in trying to see how they can make use of the knowledge of their two languages to develop their learning process (Baker, 2011). They should be able to consider the positive and advantageous side of using two languages; not one language being powerful than the other. In a bilingual learner, both languages are autonomously active all the time even when one language is being used (Makalela, 2015a). Translanguaging allows bilingual learners to be what they are, live their reality outside and in the classroom situation. This understanding of using both languages concurrently, in and outside the classroom situation, is hypothesized that it might develop the bilingual practices of the Sesotho-English learners to make sense of their lives as a whole (Garcia, 2010). These are the issues that attracted me to this idea of translanguaging which I believe might help Sesotho-English learners to develop their reading proficiency in both L1 and L2. This study therefore looks at the efficacy of translanguaging strategies in the development of reading in Sesotho-English bilingual learners, and how this can be used to enhance reading proficiency in both L1 and L2.

1.14 Significance

This study moves to develop proficiency in both L1 and L2 in bilinguals and/or multilinguals, in the African context. This study is intended to make bilingual learners aware of the importance of nurturing the knowledge of the two or more languages that they know, and in this case Sesotho and English bilinguals. These bilinguals should use the knowledge of the languages as an advantage to enhance their reading skills in both languages. Looking at biliteracy in the positive manner and making use of the Sesotho and English concurrently in a classroom situation can be considered as an advantage to improve the academic performance of the bilingual learners. This study further evaluates how effective translanguaging strategies are in the development of both Sesotho and English, and if these strategies are found to be effective, they can then be used to develop reading skills of learners to enhance their performance academically. The understanding of translanguaging if found to be effective will then become an opportunity to bilingual learners to value both languages, their L1 and L2, and use them both to enrich and develop each other.

The study will further help in breaking the language boundaries that reign in most bilingual classroom situations, and assist both teachers and learners to use the language resources that they have in the classroom context and improve learners' reading abilities. In most bilingual classroom situations, the knowledge of two languages is still approached as the knowledge "of two separate and distinct languages" and does not benefit the learners. The adoption of the idea of translanguaging might help learners in trying to see how they can make use of the knowledge of their multiple languages to develop their learning process (Baker, 2011) and see how they can apply their social practices to make meaning in their own world (Garcia, 2010).

1.15 Definition of terms

1.15.1 Bilingual and Bilingualism

As it has already been mentioned in the introduction (cf. pp 27), bilingualism is a paradigm that refers to the state of knowing, of using or being able to use two languages, normally with equal or nearly equal fluency (Cummins, 2015). In the bilingual situation, a bilingual person is able to transfer the skills and knowledge of one language to the other. Some researchers observe bilingualism as subtractive bilingualism (Fishman, 1967); in the case where one language dominates the other; while others explain it as additive bilingualism (Garcia, 2007; Bailey, 2007) where one language is added to the other, both languages being of the same status. For this particular study, bilingualism refers to knowledge of two or more languages, specifically Sesotho, as HL and English as FAL. It is the backbone for this study because the research deals with bilingual learners who are able to use the two languages.

1.15.2 Literacy

This term literally refers to the ability to read and write in a particular language, but for the purpose of this study, literacy goes beyond the literal definition of being able to read and write. It is looked upon as the ability to read and write for the purpose of comprehending and making meaning out of text, and being able to communicate that meaning and knowledge that has been acquired (Stock, 2012). This is what this study is looking for with learners that are literate in a language. It is also defined as a collection of cultural and communicative practices that are used by people and it is therefore linked to social trajectories of people (NCTE, 2012). This shows that literacy does not only involve the ability to read and write, but being able to read with understanding and making

meaning out of that text within the cultural context of an individual (Baker, 2006). For detailed description of literacy refer to the introductory section (see pg 27)

1.15.3 Biliteracy

This term refers to the ability of reading and writing in two or more languages; the manner in which communication occurs in two languages; "including events such as biliterate actors, interactions, practices, activities, programs, situations, societies, sites, worlds" (Hornberger 2003: xiii; Hornberger & Skilton-Sylvester 2000: 98; Hornberger 2000: 362). Biliteracy is also clarified as not only the ability to communicate in two languages, but also "literate competencies in two languages, to whatever degree, developed either simultaneously or successively (Dworin, 2003: 171)." This term is further understood, for this particular study, as "mastery of the fundamentals of speaking, reading, and writing in two linguistic systems … to make meaning [which] … includes constructing meaning by making relevant cultural and linguistic connections with print and the learners' own lived experiences" (Reyes, 2001: 98). The study looks at participants being biliterate, that is their ability in knowing, understanding and using both Sesotho and English concurrently in a classroom setting. They are tested in making relevant connections between the two languages to make meaning in their lived experiences.

1.15.4 Diglossia

This term was developed by Ferguson (1959) to refer to a special type of bilingualism in which two co-existing languages in bilinguals are considered to be of different status; one language seen to be of a high status and prestige than the other. In this situation the languages are looked upon as two separate and distinct languages, with different social functions, that are used in a bilingual environment (Ferguson, 1972). There are boundaries that are created between the languages; one language considered having more power than the other. This is creating a predominantly monolingual usage of language for bilingualism; which is how it is being used in this research, and Swain (1983: 4) refers to this situation as "bilingualism through monolingualism" or "two monolinguals in one body". This leads to a special type of bilingualism that is referred to as subtractive or separate bilingualism (Creese & Blackledge, 2010).

1.15.5 Hetereglossia

It is a concurrent usage of two languages by bilinguals; moving from one language to another (Cummins, 2005). This is relevant to this study as the participants are Sesotho-English bilinguals who are able to move from one to another. Hetereglossia is a system that shows the relationship

between the languages that are used by a bilingual. Rather than creating boundaries between languages, heteroglossia refers to the connection of the two languages in order to form meaning in a bilingual. The ability to use both Sesotho and English languages in bilingual participants in this study allows them to make connections between the languages. Heteroglossia "explicitly bridges the linguistic and the sociohistorical, enriching analysis of human interaction" (Bailey, 2007: 269).

1.15.6 Transglossia

It is a dynamic, communicative network with many languages in functional interrelationship in bilinguals. It is a flexible concurrent use of two languages by bilinguals to support their understandings and building conceptual and linguistic knowledge (Garcia, 2009a: 291). Relevance of this term to this study is that the study is testing the concurrent use of Sesotho and English from bilingual learners to enhance their understanding and knowledge of the two languages.

1.15.7 Languaging

Languaging (cf. 28-29) is a process which involves the knowledge of the language and the understanding and shaping of that knowledge, and making sense of the language practises through the experiences (Swain et al., 2009). The aim of this study is to investigate the extend in which the participants are able to make sense of the languages that they know for reading development.

1.16 Translanguaging

It is a term that was invented by Cen Williams to refer to the systematic use of two languages in teaching and learning inside the same lesson (Williams, 1994, 1996; Baker, 2003, 2011). It originates from the Welsh word 'trawsieithu' which was originally coined to refer to a pedagogical practice where learners deliberately alternate from one language to another, a deliberate switching of the language of input and output in classrooms. In translanguaging learners receive information in one language and processing and giving out the information in another language (Lewis, Jones & Baker, 2012b). This study evolved around the intentionally concurrent use of two languages, where the language of output differs from the language of input. The study further tested learners' ability to "communicate and make meaning by drawing on and intermingling linguistic features" (Hornberger & Link 2012:240) from Sesotho and English and make sense of their bilingual situation in relation to how they use their languages in their everyday life (Garcia, 2009a). She further points out that translanguaging is a process of dynamic bilingualism with two or more languages in functional interrelationship (refer pp. 28) and this was found befitting the status of the bilingual participants in this study.

1.17 Chapters Outline

1.17.1 Chapter 1 - Introduction & Background

The first chapter of this work gives the background and introduction to the study. It also shows the problem statement, objectives, hypothesis, significance and limitation of the study. It further provides the reader with the rationale of the study and definition of some key terms that are used throughout the writing of this thesis.

1.17.2 Chapter 2 - Literature Review

This chapter discusses the theoretical framework of the study, which is the theories that the researcher focused on in conducting this research. In this chapter, the literature on the relationship of L1 and L2, and that on translanguaging concept has been outlined. This is the information that backs up this study and shows various research works that have been conducted on L1 and L2 biliteracy.

1.17.3 Chapter 3 - Methodology

Chapter three discusses the methodology followed in conducting this research. The study is a three phased quasi-experimental design that was used to test reading skills of the Sesotho-English learners. These skills were tested using both the equivalent bilingual pre-tests and post-tests; and then there was intervention and interviews conducted at the schools in order to get the qualitative data, to find reasoning and opinions of the subjects (McMillan & Schumacher, 2006). The study also has an element of concurrent mixed methods research design. The mixed methods design was used in order to give both enough and reliable information on the effectiveness of translanguaging. It was not enough to use only the quantitative data, but the research also needed the views of the participants to be collected and used the qualitative data. The mixed methods design was to provide a better understanding of the research. The chapter also gives a detailed account of population and sampling used in the study, methods of data collection, procedures followed in analysing the data and ethical considerations that were followed when doing the research.

1.17.4 Chapter 4 & 5 - Data analysis, findings & interpretation

These chapter presents detailed findings and analysis of the data collected, following the quantitative and qualitative analyses simultaneously. Chapter 4 shows and discusses the findings from the pre-tests and post-tests that were conducted during the collection of data whereas chapter five presents detailed findings and analysis of the data collected, following the qualitative analysis

that was done. It gives detailed interpretations on the findings from the observations and interviews that were conducted.

1.17.5 Chapter 6 - Summary, Conclusions and Recommendations

Conclusions that the researcher came up with in conjunction with the findings and objectives are found in chapter six. This chapter gives an overall view of the whole research in order to show how effective translanguaging strategies are in developing reading in bilinguals and it also gives the future implications of the study and recommendations for further research.

1.17.6 Bibliography

This part gives a list of sources that have been used as references in the writing of this research.

1.18 Conclusion

It has become clear in this chapter that the world has become bi/multilingual due to globalisation and other factors. This has therefore made researchers view language in a different perspective, not in a monolingual lens, but in a bi/multilingual lens. Research further shows that in bilingual classroom settings, literacy should not only focus on subjects that are being taught, but also consider the whole being of a learner including the linguistic and cultural background. In order to do so, several approaches need to be thoughtfully applied in the teaching of bilingual learners. Research has been done on the use of translanguaging as an approach in bilingual settings, but there is a need to further look at how this approach can be effective in developing reading in bilingual classroom settings.

This chapter has given a background of the study to give a reader how and on what grounds the study originated. It clarifies the problem behind the study, which highlights a need for using appropriate strategies that develop reading in bilingual classroom settings in order to enhance their academic performance. The chapter further discusses the aim and objectives of the study focussing on how effective translanguaging can develop reading in Sesotho-English bilinguals. In order to find how this approach is effective, there is a need to look at how it originated and how it has worked as a framework in other research studies. This, therefore, leads to viewing theoretical frameworks that underpin this study and the studies that were done based on those frameworks. The following chapter will therefore discuss these frameworks.

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CHAPTER 2
LITERATURE REVIEW

2.1 Introduction

This study examines and observes how effective translanguaging strategies could be for reading development in a bilingual Sesotho-English classroom context. It also investigates the perspectives and opinions of intermediate teachers in relation to effectiveness of translanguaging strategies as an approach that could be used for bilinguals reading development. The study is guided by the following research question, 'can the use of translanguaging strategies and practices be an effective way of developing bilinguals' reading skills?" This means the main objective of the study therefore, was to investigate the effectiveness of translanguaging strategies in developing reading biliteracy of Grade 5 Sesotho-English bilingual learners. This was done through assessing reading proficiency of Grade 5 Sesotho-English bilingual learners by evaluating their vocabulary, reading fluency level and reading comprehension skills using both Sesotho and English languages. Observation of how these bilingual learners engage translanguaging strategies in their classroom was also integrated. Effectiveness of translanguaging was further evaluated through finding teachers' perspectives and attitudes on the use of these strategies for reading development in a bi/multilingual classroom context.

2.2 Theoritical Frameworks

This chapter discusses three related frameworks that guide this study: The Linguistic Interdependence Hypothesis (LIH) (Cummins, 1979), the Continua model of Biliteracy (CMB) (Hornberger, 1989) and Translanguaging (Williams, 1994), as the main frameworks. The discussion of these frameworks includes other concepts which form part of those frameworks. These frameworks inform this study because they demonstrate the complex interrelationship that prevails between socio-cultural dimensions surrounding bilinguals and their learning environment; and they indicate that all bilinguals' linguistic resources need to be considered in a classroom setting in order to develop reading skills. The LIH is the frame of thinking of how both L1 and L2 in bilingual situations depend on each other and therefore should both be developed. The CMB is an ecological model for understanding not only the relationship between L1 and L2, but also between those languages and literacy. Translanguging takes a philosophical shift from the other two and shows that it is not enough to look at the relationship of L1 and L2 and literacy, but also considers a simultaneous co-existence of languages; it breaks boundaries between languages, showing

concurrent use of all linguistic repertoires in bilingual settings. This relation among the frameworks, one building on what the other started, is what makes them appropriate frameworks for this study.

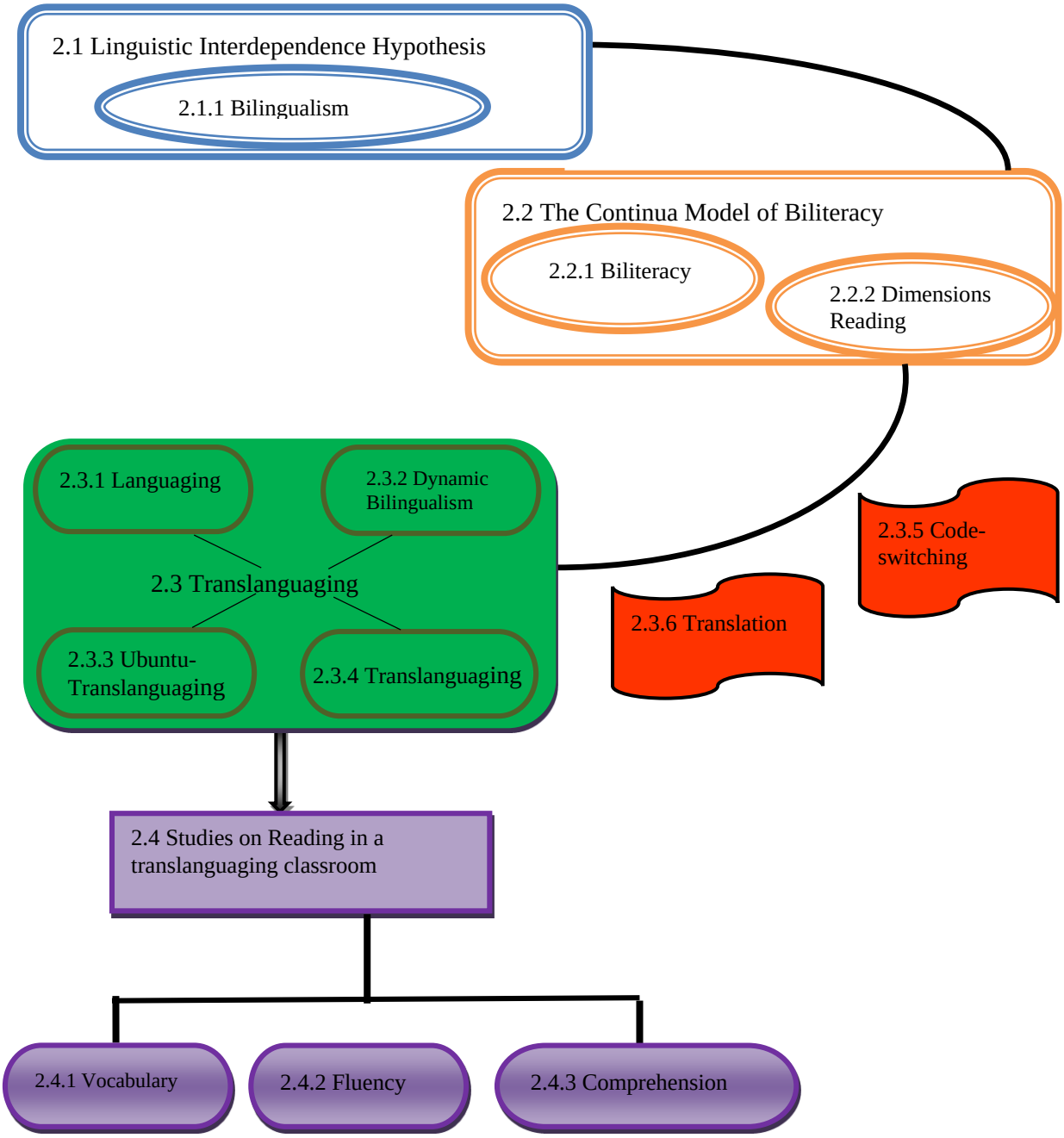


Figure 1.1: Theoritical Frameworks

2.2.1 The Linguistic Interdependence Hypothesis

The linguistic interdependence hypothesis (LIH) forms the basis of the other two frameworks. It considers development of both languages in a bilingual context and suggests the necessity of considering issues of identity and experiences of bilinguals in classrooms which are culturally diverse (Cummins, 1979). Cummins in developing this framework argues that there is a close

relationship between the L2 competence attained by a bilingual child and the type of competence that child has developed in L1 (Cummins, 1979), which means the level of development a child has in L1 makes it possible for that child to develop similar competence in L2. LIH further shows that competence in a second language is dependent upon the developmental level of the child's native language at the time when intensive exposure to the second language begins. When the first language is poorly developed, particularly with respect to the decontextualized language used in books, intensive exposure to the second language can impede further development of the first language, and this in turn limits the development of the second language. Cummins shows that consideration of both languages can assist bilingual learners to develop fully as bilinguals because the languages are interrelated within a bilingual person (Cummins, 1979).

In general, the LIH framework reveals a high and strong correlation across languages for academic language ability, and that these skills in a bilingual's first language should be similarly predictive of first and second language reading ability (Cummins, 1979). LIH emphasises that literacy proficiency in L1 facilitates literacy development in L2 and vice versa. It further explains that reading performance in L2 is largely shared with reading ability in L1 (Durgunoglu, 1997). It is therefore assumed that L1 reading literacy provides a good foundation for second language reading development and that fundamental similarities exist between first and second language skills, and the two languages are interdependent on each other (Jiang, 2011). In this way, this framework distinguishes the manner in which learning in bilingual classrooms should take place versus that of monolinguals learning environment.

In supporting LIH, other researchers express that once learners are literate in their primary language, they possess funds of knowledge about various aspects of reading, and this knowledge provides an experiential base for literacy development in the second language. It is further indicated that "language operations such as reading and writing should be transferable across languages (Jiang, 2011). Once a set of language operations has been acquired, they will also be available within second language contexts". In addition, Verhoeven (1991:72) states that "literacy skills being developed in one language strongly predict corresponding skills in another language acquired later in time". It is further noted that literacy-related abilities are interdependent across languages such that knowledge and skills acquired in one language are potentially available in the other (Cummins, 1996; Verhoeven, 1991). It can be seen from clarifications of LIH framework that it highlights development of L1 and L2 separately and by so doing, promoting monolingualism in a bilingual setting.

Some researchers in the 21st century continue to support LIH by showing that L1 literacy knowledge has an impact on L2 reading development. Several studies have found using L1 as an effective way for improving L2 (Sah, 2018). Sah further shows that many people believe that learning a target language needs exposure to that language. This he says can be true, but sometimes exposure in a language does not work and needs to be supported with L1 to make sure that the message conveyed is well understood. The use of L1 therefore is recommended as an effective way of making learners understand. L1 can be used for better understanding of text and explaining some difficult words, concepts or text. It cannot be denied that sometimes learners do not participate in class not because they lack knowledge, but unable to express themselves fully in a target language.

In supporting the idea of L1 relationship with L2, Jiang (2011) did a study to examine the relationship between L1 literacy and L2 proficiency, and reading comprehension among Chinese students who were learning English as L2. She concluded that there are interdependence relations between L1 and L2. The participants in the study were university students who were non-English speakers, but who studied English as L2. The findings of the study confirmed that L2 language proficiency contributes to L2 reading ability more than it does to L1 reading ability. The results of her study supported the LIH and she concludes that L1 literacy knowledge has an impact on L2 reading development. It can be seen that in Jiang's study the two languages are considered as separate entities in bilingual students, therefore embracing the idea of monolingualism not bilingualism which is what Cummins was intending to express with developing the LIH framework. It is therefore important to discuss the history of bilingualism in order to understand what it is and how it operated.

2.2.1.1 Bilingualism

Bilingualism, which is linked to Cummins' LIH theory, is "a phenomenon that has existed since the beginning of language in human history" (Algarin-Ruiz, 2014:34), where people used various languages for communication. Algarin-Ruiz argues that there were no communication problems among people in using their various languages. Traditionally, bilingualism was viewed in a monolingual lens where languages were considered as separated entities and knowledge of two or more languages was a cause of confusion (Jacobson & Faltis, 1990). In most cases, the L2 even took a dominant position over L1. This being the situation, separation and hierarchy between the languages was created; one language having more power than the other.

In education sectors, languages were separated and taught in different lessons and at different times. When learners were dealing with one language in the classroom, they had to suppress the other

language as if it did not exist. During that time, it was argued that “bilingualism itself was a cause of "mental confusion" and “language handicaps” (Darcy, 1953; Peal and Lambert, 1962). It was always believed that the separation of languages was done in order to avoid ‘cross-contamination’ and confusion (Jacobson & Faltis, 1990); and that the concurrent use of languages was considered to be inappropriate. Therefore, in a bilingual situation the knowledge of two or more languages was approached as the knowledge of completely different and separate languages. It was believed that bilingual children performed poorly in their academic tasks because of the knowledge of more than one language (Cummins, 1979), yet there was no research that was done to challenge that belief (Jacobson & Faltis, 1990). This understanding of the confusion that was apparently caused by the knowledge of the two or more languages by bilinguals promoted separation of languages in bilingual learners and maintained the issue of monolingualism in bilingual settings, using one language at a time.

Over the past two decades, researchers continued to show that separation of languages in a bilingual setting advocates for “monolingualism times two” (Garcia, 2009: 71), and not bilingualism in the real sense of bilingualism (Baker, 2011). Monolingualism highlights hierarchy and separation of languages and makes one language superior than the other. In a monolingual bias state, it is believed that bilingualism cannot influence both cognitive and linguistic development in a bilingual learner and contribute to his/her learning process, but rather that it becomes a cause of cognitive confusion, (Cummins, 1976, 1978). On the contrary, research in the 21st century declares that bilingualism has cognitive and economic benefits (Makalela, 2014; Goldenberg & Wagner, 2015). These researchers argue that bilingualism improves working memory and provides awareness of language/s structures and forms. They further point out that bilingualism is an approach that can prevent high drop-outs from schools.

There are two major forms of bilingualism that came as a result of how it can be approached, especially in a classroom setting. These forms of bilingualism, which evolved from considering the use of two or more languages are subtractive and additive bilingualism (Cummins, 1996).

2.2.1.2 Subtractive Bilingualism

Subtractive bilingualism is the situation where a bilingual learner comes to class with knowledge of a first language, and in some context even use that L1 as a medium of instruction for the early stages of education, then later learns a second language. In this situation, most of the time, a learner is told to suppress L1 (***L1 + L2 - L1=L2 - L1***) and therefore, results would be having L2 only (Cummins, 1996). This form of bilingualism makes one language to over-power the other (Gort,

2015). Subtractive bilingualism is sometimes observed with 'diglossia' - a situation where two co-existing languages in bilinguals are considered to be of different status; one language seen to be of a higher status and prestige than the other. This type of bilingualism looks upon languages as two separate and distinct languages (Baker, 2003), where one language is considered to be more powerful than the other and becomes a threat to the other language; and normally it is a second language that overpowers a first language. It can be concluded therefore that this historical form of subtractive bilingualism treats languages separately and in a linear relationship; there is L1 first, followed by L2 and subtract L2. This separation of languages in bilinguals is not what bilingualism is in the real sense of bilingualism (Baker, 2007).

2.2.1.3 Additive Bilingualism

Additive bilingualism is a situation where bilinguals add a second language to what they have already acquired as a first language; L1 + L2=L1 + L2 (Garcia, 2007; Cummins, 1996). The outcome of adding L2 to L1 still gives two independent and separate languages. It is a situation where speakers of a particular language acquire a second language and its culture, but not of replacing their first language (Lambert, 1974). This implies that, in additive bilingualism, L2 is added as an additional language to L1 and not as a threat; it brings positive outcomes and benefits to bilinguals. The use of L1 helps bilinguals understand and improve their L2 (Swain and Lapkin, 2007), which shows that there is a relationship between the languages used by bilinguals if both languages are considered of the same value and status. Nevertheless, this form of bilingualism does not eventually result in attaining bilingualism in the real sense, but brings forth two monolinguals in one individual (Garcia & Sylvan, 2011).

It conclusion, it is clear that LIH proposes the importance of simultaneous development of bilingualism, it holds that each language develops separately, there is L1 in isolation from L2, though there is interdependency between the two languages. LIH shows the interrelationship and impact that the two languages have on each other, but it still leaves the issue of monolingual language independency and portrays that the development on one language depends on the other. It further highlights the importance and equality of both languages and argue that developing the two languages cannot only enhance bilinguals' academic performance, but also their cognitive and social ability (Cummins, 2005); but it seems to be treating the two languages as separate identities and in a linear model of one language at a time. With this framework the issue of monolingual bias is still visible, that is the idea of one language at a time; that linguistic interdependence of separate L1 and L2. This therefore, becomes a limitation that makes it not a complete framework that guides this current study, but a framework that informs the origin of the other two frameworks.

In the last two decades, researchers have shown interest in finding ways of moving from monolingualism or monolingual bias in bilingual settings to actual bilingualism. They extended the idea of bilingualism from not only being monolingualism times two, but a real bilingual social concept that depicts what real situation of bilingual learners is. This led to the development of the Continua model of biliteracy framework (Hornberger, 1989) which is one of the first models that criticizes the 'monolingual bias' concept. This framework encourages interrelationship between bilingualism in all its dimensions and biliteracy and considering all linguistic resources that learners bring to a bilingual classroom.

2.2.2 The Continua Model of biliteracy

The continua model of biliteracy (CMB) does not only build on LIH, but further shows the complex interrelationship that is there between bilingualism, that is the culture and languages of bilinguals and their literacy. The continua model of biliteracy is a framework that fits into a culturally and linguistically diverse classroom context. It proposes that bilingual learners can completely develop their biliteracy if they are allowed to draw from all points of their continuum (Hornberger, 1989). Continua of biliteracy highlights meaning making with a focus on taking into account many dimensions in life of a bilingual learner (Vogel et al 2018). Hornberger and Link (2012) allude that in developing biliteracy, one has to value many practices beyond reading and writing in a text. These practices will lead into a full developed knowledge and understanding not only among learners themselves, but also with the ability to interact with text effectively! They came up with a structure to represent this scenario as follows:

Contexts of biliteracy

micro <----------> macro

oral <----------> literate

bi(multi)lingual <----------> monolingual

Development of biliteracy

reception <----------> production

oral <----------> written

L1 <----------> L2

Content of biliteracy

minority <----------> majority

vernacular <----------> literary

contextualised <----------> decontextualized

Media of biliteracy

simultaneous exposure <----------> successive exposure

dissimilar structures <----------> similar structures

divergent scripts <----------> convergent

This framework stipulates that biliteracy can be developed in relation to four biliteracy domains, which are context, content, media and development (Hornberger & Link, 2012). These dimensions "should be taken into account in creating a learning environment that recognizes and builds on the language repertoires which students bring to school" (Hornberger & Link, 2012: 243). The continua model of biliteracy is shown having two sides of each of the four dimensions of the continuum, one side of each representing less powerful side - the L1 and the other side for the powerful side, normally L2.

When one looks at the structure of the continua model, the language practices are placed at two separate ends of the continuum, but Hornberger explains that all these points are interrelated, though they appear to be separate (Hornberger, 2003). Even though Hornberger clarifies the interrelationship between the two sides of the continuum, it becomes clear that there is L1 and L2, one being more powerful than the other. This separation of the two ends relates that the two languages are treated as two separate interrelated entities. This framework shows biliteracy development around two separated languages, that is a first and a second language. Hornberger and Link (2012) describe this structure as follows:

> *Receptive-productive, and oral-written language skills continua; through the medium of two (or more) languages and literacies whose linguistic structures vary from similar to dissimilar, whose scripts range from convergent to divergent, and to which the developing biliterate individual's exposure varies from simultaneous to successive; in contexts that encompass micro to macro levels and are characterized by varying mixes along the monolingual-bilingual and oral-literate continua; and with content that ranges from majority to minority perspectives and experiences, literary to vernacular styles and genres, and decontextualized to contextualized language texts* (Hornberger, 1989; Hornberger & Skilton-Sylvester, 2000).

In clarifying the four dimensions, there are various aspects of the dimensions that appear in the CMB. Hornberger, with this model, emphasises how reading, writing, speaking and listening overlap with all the four dimensions around bilinguails, but for this particular study my focus is on reading development. This framework highlights that if bilingual learners are allowed to utilize all available communicative and linguistic resources they have, their reading biliteracy can fully develop (Hornberger, 2004). This shows that if bilingual learners are given the chance to utilize the linguistic resources they have, their biliteracy can fully develop. It calls for "the need for schools to become sites for bi (multi)literate instances where student voices are heard and where students are able to 'make a difference' with the language(s) they speak" (Hornberger & Skilton-Sylvester, 2000). As a result, this model suggests that attention should be given to language mixing practices in the classroom context to allow bilingual learners to use all the available communicative resources in developing their biliteracy (Hornberger, 2004). It further indicates that all the languages are of the same importance, therefore it contests the traditional understanding of some languages being privileged over others, or having more power than others in bilingual context. This model highlights that if the learning environment allows "learners to draw on all points of the continua, the greater their chances for their full biliterate development" (Hornberger, 1989, p289). This then means that learning context in a bilingual setting should treasure all the linguistic repertoires that a bilingual learner has and allow learners to use those languages simultaneously.

In general, the continua model of biliteracy advocates for the learning environment that considers all communicative repertoires and practices that learners bring to the classroom environment and suggest that these resources should be utilised for learners' language and literacy development. In other words, the continua model allows "flexible approaches to language learning in bi and multilingual contexts" (Carstens, 2015: 10). The framework indicates that all the languages are of the same importance, therefore it contests the traditional practice of 'monolingual bias' and reject

the belief that some languages be privileged over others, or having more power than others in bilingual contexts. It implicates that biliteracy can only be understood where all the practices in that context are being considered in all dimensions. In general, the continua model of biliteracy advocates for the learning environment that considers all communicative repertoires and practices that learners bring to the classroom environment and suggest that these resources should be utilised for learners' language and biliteracy development. It is clear that Hornberger in this model talks about biliteracy not literacy. It is important then to clarify this concept of biliteracy

2.2.2.1 Biliteracy

The main issue in Hornberger's CMB theory is the focus on biliteracy. This is a concept that builds up the theory of CMB. It is important to understand what biliteracy is so as to be able to grasp the idea of CMB. Biliteracy should be understood within the social, cultural and linguistic framework of a person and it must be connected to all the domains that make a bilingual person what he/she is in and around a learning environment (Hornberger, 2009). Biliteracy therefore, is an intersection or conjunction between bilingualism, which is the identity of a bilingual person, and literacy (Hornberger, 1990; 2004). Developing both a language and literacy considers that all languages contribute to a comprehensive linguistic and cognitive system of an individual (Hornberger, 2004). Biliteracy therefore, is not something that happens in a vacuum, but it is intertwined with individuals' practices in different domains of his/her every day's life (Hornberger, 2003; Hornberger & Link, 2012). This means that it is the complexity of the interrelationship between bilingualism and literacy, which is bilinguals' languages and the context, media, content and development (Hornberger, 2004; Hornberger & Link, 2012) in the classroom situation.

Biliteracy is further clarified as the ability to be proficient in two or more languages to convey a clear meaningful message in a variety of contexts (Goodman and Flores, 1979; Fishman, 1980). In the 21st century researchers consider biliteracy, especially in reading, to be an important aspect in improving academic performance because reading is an academic process that forms a base for becoming an informed member of the world (Koda & Zehler, 2008). Koda and Zehler further show that a student who lacks reading skills is unable to have adequate skills to further learning process. Bilingual learners, therefore have an advantage of being able to know and read in more than one language, thereby developing their biliteracy. The knowledge of more than one language enables them to make meaning of their context; access the wider understanding of the discourse and develop their ways of describing the world. Biliteracy, therefore, helps bilingual learners to have "socially constructed meanings in textual content, and multiple potential trajectories of multilingual language and literacy development" (Hornberger, 2006). This ability enhances their learning through what

they are because language is a representation of voice within the person (Hornberger, 2006). "Language represents a central force in the struggle for voice [and] … is able to shape the way various individuals and groups encode and thereby engage the world" (Hornberger, 2006: 59).

This is further supported empirically by (Proctor, August, Snow, & Barr, 2010) who did a study in order to investigate reading development of Spanish-English learners using both languages in the classroom. They based their study on the continuum model of biliteracy because they show that this model demonstrates "the interrelationship between bilingualism and literacy" (Hornberger, 2004: 156). Variables that were used to assess reading development of learners in both languages were vocabulary knowledge, listening and reading comprehension. The participants in their study were grade 4 Spanish-English bilingual learners who had acquired both languages and used them both at home and school. The results showed that learners performed better in Spanish than in English in oral comprehension, but on reading comprehension the difference in performance was not significant. They concluded that there is strong interrelationship between the two languages used by those bilinguals and therefore recommend that biliterate development can be achieved by utilizing both languages simultaneously in the classroom context. They further conclude that, because of the interrelationship between languages in bilinguals, the second language proficiency can be attained by developing literacy in the native language. The results show that the two languages are being viewed separately because these researches point out that attainment of L2 relies on developing literacy in the native language.

In conclusion, the CMB framework fits into my study in that it challenges monolingual bias in bilingual context and calls for consideration of utilising all the linguistic resources that a bilingual person has in order to develop that learner fully as a bilingual. In general, the continua of biliteracy urges teachers/educators to not only consider the content and context situations in bilingual learning environment, but also value linguistic repertoires that bilingual learners bring to school and make use of these resources in developing their language and literacy learning. This framework talks to educators to consider the less powerful ends of the continua and allow learners to draw from all their communicative resources that they have in order to develop academically. It also emphasizes the interrelationship that is there between biliteracy development and all the domains that make up a bilingual learner, being cultural, socially or linguistically. In other words, it connects the context situation of people to their literacy skills. It calls for education sectors that consider contexts from which learners come from and allow learners to learn in a way that takes care of all the dimensions around their lives. It argues that these different dimensions have certain impacts on bilinguals' literacy. It is further argued that the knowledge and use of several languages creates a social space

for multilingual speakers “by bringing together different dimension of their personal history, experience, and environment, their attitude, beliefs, and performance" (Wei, 2011: 1223).

Though the continua of biliteracy advocates for consideration of all the dimensions in bilingual settings and values multiple linguistic repertoires of learners in the classroom, it is clear that it treats two languages as separate languages, functioning at different times. It is from this view that the continua model of biliteracy leaves space for other approaches that can be used to develop literacy using languages concurrently and allows spaces for multilingual practices which reflect the interrelationship that reigns between bilingualism and literacy; and this is where translanguaging fits into the picture to fill in that gap (Carsten, 2015). The continua model of biliteracy also anticipates translanguaging by challenging the belief that “developing children’s L1 hinders the learning of [a second] language” (Hornberger, 2003: 18), but it does explicitly bring in the idea of using both languages concurrently. Therefore, translanguaging framework fills in that gap. Translanguaging does not only show the relationship between bilingualism and biliteracy, but goes on to show that learners should be allowed to use all their linguistic repertoires concurrently in the classroom in order to make sense of their world as bilinguals. It challenges the monolingual belief on the use of one language at a time and further shows there are no boundaries between languages and therefore, languages can be used concurrently to develop bilinguals’ literacy.

2.2.3 Translanguaging

Translanguaging is conceptualized as a framework that “creates a social space for the multilingual language user by bringing together different dimensions of their personal history, experience and environment, their attitude, beliefs and ideology, their cognitive and physical capacity into one coordinated meaningful performance and make it into a lived experience” (Li, 2011: 1223). A translanguaging framework becomes the main framework for this study as it provides a lens on how bilingual learners can make use of the knowledge of their languages to enhance reading or learning. Research has shown that it does not only support bi/multilingual classrooms where learners are allowed to draw from all the dimensions in their lives to develop their reading biliteracy as full bilinguals (Hornberger, 2015), but also challenges the monolingual bias and emphasises the concurrent use of languages in bi/multilingual spaces (Garcia & Lin, 2016; Makalela, 2016) in order for bilinguals to make meaning of their world. It has been proven that in a bilingual learner, both languages are autonomously active all the time even when one language is not being used, and there is no confusion that can be caused by using two or more languages at any time (Makalela, 2015b). In fact, nowadays sociolinguists reject the idea of separation of languages and relate to it as an abstract ideology that has been politically constructed, and which is highly questionable (Jorgensen,

2012; Jorgensen et at., 2011). It is argued that people do not consider languages as separate entities, but consider them as linguistic features.

The understanding of two or more languages functioning at the same time in bilingual settings gave rise to the new phenomena about bilingual education. Researchers re-examined the assumptions underlying bilingual education, and emphasized the move from looking at the separation of languages to that of a dynamic and flexible use of languages in bilingual situations (Garcia, 2009a; Baker, 2011). The move nowadays is to use languages in the same lesson, at the same time, in order to enhance and improve understanding (Baker, 2010; Blackledge & Creese, 2010; Garcia, 2009). It is also believed that when the two languages are used concurrently, L1 enriches L2 learning and increases academic performance of the learners (Lewis, Jones & Baker, 2012a; Makalela, 2015d).

2.2.3.1 Origin and Development of Translanguaging

The concept of 'trawysieithu' (translanguaging) is a term that was invented by Cen Williams (1994) in Welsh to refer to a pedagogical practice, where students were asked to alternate languages for the purposes of reading and writing in order to understand the concepts that they were dealing with, and produce meaning (Baker, 2001; 2006). It was considered as a "purposeful pedagogical alternation of languages in spoken and written, receptive and productive modes" (Hornberger & Link, 2012 pp262) and a systematic use of two languages in teaching and learning within the same lesson (Baker, 2003. 2011; Williams, 1994, 1996). It is a process that happens naturally in everyday life of a bilingual person (Williams, 2002). This notion of translanguaging "promotes a deeper and fuller understanding of the subject matter … in a bilingual situation. To read and discuss a topic in one language, and then to write about it in another, means that the subject matter has to be properly 'digested' and reconstructed" (Baker, 2001: 104-105). Translanguaging is based on various ways of using all linguistic resources in a bi/multilingual classroom context (Garcia & Li, 2014).

It should be noted that this concept originated in the context of Wales as a reaction towards the oppression and endangerment of Welsh in the 1980s (Lewis, Jones & Baker, 2012b), when Welsh was being suppressed and English regarded as a prestigious language over it. It was during that time that some "Welsh scholars raised a voice of concern and questioned the long-held belief in language separation for language development, … and with a strong bilingual identity, understood that bilingualism was precisely an important instrument in the learning and development of their integrated bilingualism, as well as in the cognitive involvement that was required to be educated bilingually" (Garcia & Lin, 2016). Translanguaging therefore became a tool in maintaining the use of Welsh in a classroom setting.

Research shows that translanguaging was found to be an effective approach in and outside education sectors in Wales (Lewis et al., 2013, in Garcia & Lin, 2015). Williams (2002) gives an example of a child receiving a telephone message for his/her mother in English L2 and conveys the message to her in Welsh L1. He points out that the ability to translanguage needs to be developed systematically in bilinguals' classrooms throughout their education system. It is evident from this clarification that there is a need for strategies that allow bilingual learners to switch efficiently from one language to the other, thus fully utilising their bilingual capability.

The Welsh word, 'trawysieithu' was first translated into English by Baker (2003) as 'translanguaging' and he defines it as "the process of making meaning, shaping experiences, gaining understanding and knowledge through the use of two languages" (Baker, 2011 pp39 in Hassan, 2015). Baker (2001) in explaining translanguaging, shows what was originally happening in Wales, where students were asked to read a text in English and to write it in Welsh and vice-versa. This means, it is the deliberate switching of the language of input and output in classrooms, which is, receiving information in one language and processing and giving out the information in another language (Garcia & Lin, 2016; Lewis, Jones & Baker, 2012b). The idea "entails using one language to reinforce the other in order to increase understanding and in order to augment the pupil's ability in both languages" (Williams, 2002: 40). In this way, the development of the two languages is balanced because the language that is weaker in the bilingual child is normally strengthened by the one that is strongly known (Lewis, Jones & Baker, 2012a). This means that there is no hierarchy in languages, but one language is used to develop the other language, and there is balance between the two languages.

The use of translanguaging therefore, "attempts to develop academic language skills in both languages leading to a fuller bilingualism and biliteracy" (Baker, 2011:390). Garcia further developed translanguaging and clarifies it as "multiple discursive practises used as a "norm" in which bi/multilinguals engage in order to communicate effectively and make sense of their bilingual worlds" (2009: 41). It is clear from this definition that translanguaging is a tool that helps bilinguals to make sense and meaning of their everyday world through the use of the languages that they have. This means that it allows them to be what they are, live their reality, in and outside classroom (Hassan, 2015) and freely use their dual language knowledge and make sense of their worlds of dual languages (García, 2009, García & Kleifgen, 2010). In general, Translanguaging is an essential tool for bi/multilinguals in order to understand and communicate effectively (Grosjean 2010, in Hassan, 2015).

Translanguaging is also considered as an act performed by bilinguals in accessing different features of various modes of languages that they know and use in order to maximize communicative potential (Garcia, 2009). Garcia further shows translanguaging as an approach based not only on the languages used by bilinguals, but also on their daily social practices in order to make meaning of their multingual or bilingual settings. She argues that bilinguals translanguage for different reasons. They translanguage to make their communication clear and understandable with the use of the two languages; and by using the two languages, their communication becomes rich and meaningful. Garcia and Kleifgen (2010) also show that, allowing bilinguals to use all their linguistic resources help them to develop fully as these languages are part of their linguistic system and can be accessed at any time, depending on the context.

Translanguaging is further defined as receiving information through reading or listening in one language and then making use of the information through talking and writing in another language (Makalela, 2014, 2015; Baker, 2011; Garcia, 2009). In other words, one could read or listen to a text in L2 and retell the text in writing or speaking in L1. For example, in Welsh children would be reading a text in English and discussing it in Welsh. Translanguaging is further understood as an approach that promotes a deeper understanding of the subject matter, when one is using both languages, by internalising the information in one language and producing that information in the other language (Madiba, 2014; Makalela, 2014). In "translanguaging, the pupil internalises the words he hears, assigns his own labels to the message or concept, and then switches the message or concept to the other language; augments the message or concept and supplements it" (Williams, 2002: 4).

Research also shows translanguaging as an approach that gives bilingual learners an opportunity to become confident and engage actively in classrooms. Martinez-Roldan (2015) did a study to examine the use of translanguaging practices by bilingual Latino students in an after-school program in the South western United States. The participants in this study were Spanish-English bilingual children. She collected data through observations, recordings and interacting with participants over two semesters and found out that the use of all linguistic resources of the participants allowed them to make meaning and improved their social relationship and identity. She observed that some learners chose to read books that were written in their primary language as they felt confident in their languages while others chose the books written in Spanish, but discussed them in English or vice versa. She therefore, concluded that translanguaging practices helped learners to participate actively in all activities and were able to understand and make meaning of the texts in both Spanish and English. The flexible use of the two languages made learners prefer reading in

Spanish, but gradually they used English and both languages in their interactions. In this way, translanguaging interrupted the monoglossic pedagogy that was sometimes encouraged by the teacher candidates, who were putting more emphasis on English than the learners' vernaculars.

It can be concluded therefore, that translanguaging is a concept that helps learners to improve their proficiency in L2 while making use of both L1 and L2. Translanguaging is further understood as a method of developing and using both languages simultaneously, not just focusing on one language at a time. It breaks the hierarchy of languages that has been there in bilingual environments. Bilinguals are considered to be bilinguals because of the two or more linguistic resources that they have, and this brings the challenge on how these bilinguals can be helped to utilize those linguistic resources. In general, both languages are strengthened and developed naturally within a bilingual learner when allowed to be used concurrently in order to gain a deeper understanding of the subject matter. Translanguaging, therefore, is regarded as the main practice that can be used to help bilingual learners to develop and strengthen all the linguistic resources that they have and be able to utilize those resources effectively. Translanguaging is described as a way in which a bilingual learner makes use of his/her linguistic repertoire in order to make meaning (Vogel et at., 2018). When one considers translanguaging as a meaning making strategy, one has to consider linguistic features in a language such as the phonological, lexical and morphological features in a language (Otheguy, Garcia & Reid, 2015).

Translanguaging is now being practised in many parts of the world. Its popularity globally, is triggered by the general situation of the world becoming bi/multilingual due to different factors. The negative perception about bilingualism, that knowledge of two or more languages causes mental confusion, made education sectors discourage the use of more than one language in a classroom. This made researchers view bilingualism in a different perspective and slowly move towards using languages concurrently. This growing ideology of concurrent use of languages, translanguaging, then became a concept of interest to researchers in the 21th century. It caused language researchers to shift from the various models of bilingualism and understand the bi/multilingual contexts in a different perspective, (Gort, 2015; Garcia, 2009, 2013; Hornberger & Link, 2012). Research in the 21st century shows that translanguaging framework has been applied in various countries in the world as a practice in teaching and learning in bi/multilingual classrooms and has given positive results to bilingual learners.

Since its origin, translanguaging has been extended and practiced by many language researchers who consider it as a useful pedagogical practice in bilingual settings (e.g. Baker, 2003, 2011; Garcia 2009; Creese & Blackledge, 2010, Canagarajah 2011, García & Sylvan 2011, Hornberger & Link,

2012; Makalela, 2014). In an effort to put this concept into practice, several concepts emerged to give a clear understanding of what translanguaging is and to consider the importance of using two or more languages. These terms include languaging (Swain et at., 2009) and polylanguaging (Jorgensen, 2012), codemeshing (Canagarajah, 2011), code-mixing and bilingual pedagogy (Garcia & Li, 2014) translingual practice (Creese & Blackledge, 2011), dynamic bilingualism (Garcia, 2009) and Ubuntu translanguaging (Makalela, 2016) to name, but a few. There are other terms that derived from translanguaging. It should be noted here that translanguaging is sometimes confused with concepts such as code switching and translation, though it goes beyond those. These differences will later be expanded in this chapter. At this point the different terms that emerged from the development of translanguaging are discussed.

2.2.3.2 Languaging

When one looks at the term translanguaging, it is a combination of two words, 'trans' which means movement and 'languaging' which refers to practices of language. The idea of movement between languages has to be looked through the lense of what languaging is not just 'language'. The new idea of looking at the relationship between the language and its users brought about the concept of 'languaging', which implies the relationship between social practices of the language users and their languages (Makoni & Pennycook, 2007). Languaging is a process which involves not only the knowledge of the language, but the understanding and shaping of that knowledge, and making sense of the experiences through the use of the language (Swain, et al, 2009). Languaging is a move from which researchers now consider as an ongoing mental process and not as an isolated entity. The new focus of looking at language as not isolated from experiences of bilinguals developed into the idea of translanguaging, which is a concept that helps bilinguals to make meaning of the world in their cultural and social contexts (Garcia, 2011; Garcia & Li, 2014).

2.2.3.3 Dynamic/Transglossic Bilingualism

It is in the 21st century that researchers looked into further clarifying the idea of bilingualism in a different perspective and came up with bilingualism as not only a flexible, but a dynamic situation (Garcia, 2009). Researchers consider bilingualism as a model that goes beyond diglossic and hetereglossic models of bilingualism, but as languages practice that is multiple and adjusting to the situation of the communities (Garcia, 2009; Pennycook, 2010; Heller, 2006). It is sometimes referred to as a flexible bilingualism with heteroglossia (a term derived from Bakhtin, 1981). Heteroglossia is a concurrent usage of two languages by bilinguals; moving from one language to another (Garcia, 2007; Bailey, 2007; Hornberger, 2006). It is at the beginning of the 21st century

that bilingualism was considered as a dynamic concept which is interrelated, not only looking at language as an activity, but also as something that is part of the language users, revealing what those speakers are, their nature, culture and society (Garcia, 2009). It is sometimes referred to as transglossic bilingualism (Garcia, 2012), and this implies that it is a "dynamic, flexible concurrent use of two or more languages by bilinguals to support their understandings of the world, and furthermore, building their conceptual and linguistic knowledge" (Garcia, 2009a: 291). This shows that researchers in the 21st century considered bilingualism in a positive manner and an advantage to bilinguals (e.g. Baker, 2007; Garcia, 2009, Pennycook, 2010), a practice which helps them understand their world as bilinguals. Bilingualism in a classroom context, further leads to the idea of biliteracy as a process of acquiring literacy, which could be reading or writing, in both languages in a bi/multilingual context.

2.2.3.4 Ubuntu Translanguaging

Africa, like the rest of the world, is experiencing bi/multilingual classrooms where learners are bi/multilinguals in their African languages and in an ex-colonial language/s. This shows that learners come to the classroom with knowledge of two or more of their African languages and it becomes difficult to refer to a particular language as their mother tongue or L1. Makalela (2015) affirms this by giving an example of SOWETO, where learners acquire various languages even before the age of 6 and are able to communicate effectively using those languages. With this situation, Makalela (2016) asserts that translanguaging, in African context, is a cultural living practice. Brock-Utne (2016) also relates a similar situation in Tanzania where one would effectively communicate using three or more African languages outside classroom context. This means that in the African context, translanguaging is not seen as a new pedagogy in a classroom context or adding L2 to L1, then using both for learning; it is a lived experience from their African culture. It is intertwined within the African ubuntu culture which stipulates 'motho ke motho ka batho', 'I am because you are', which means that one person is incomplete without the other. This appears in African languages where one language seems to be incomplete without the other; and there is that free movement between languages spoken (Makalela, 2016). Makalela sees languages as a representation of people's cultures and through this connection; he came up with the concept of Ubuntu translanguaging framework.

Ubuntu translanguaging is a developed framework that is based on the Ubuntu cultural concept of African people. It makes people to look at separation of languages in a different perspective as complex repertoires which are used for meaning making to suit required context (Makalela, 2016). It is through this model that Makalela continues to question the linguistic boundaries that were

created. He says the use of languages is fluid and cannot be separated. In bi/multilinguals context, one language does not exist in isolation from other languages (Makalela, 2015b) and one language is not adequate for meaning making, all the languages are needed to give a complete meaning that makes sense (Creese & Blackledge, 2010). This shows that in a classroom situation, learners from African cultural background do not get confused by using multiple languages, but instead benefit as that reflects their cultural background. Ubuntu Translanguaging, therefore, views translanguaging as an approach of breaking boundaries between languages and posits that all languages are needed for meaning making of bi/multilinguals. This study therefore uses this concept of Ubuntu translanguaging not only based on the African languages, but breaking boundaries between an African language and English. Translanguaging is sometimes confused with other language uses terms such as code-switching and translation yet it is not. The distinction between these concepts is briefly discussed below to highlight what should be considerd as the differences.

2.2.3.5 Code-Switching

Code-switching is a term that has been used to refer to alternating from one language to another within one utterance or conversation (Li, 2000). Due to this definition, it is clear that there is an overlap between code-switching and translanguaging (Vaish & Subhan, 2015). It is true that translanguaging can be viewed as a pedagogy used to alternate between languages, but it goes beyond just a mere alternation between languages. From looking at the term 'code-switching', it literally implies one switches-on a particular language and switches-off another. This implies that one language is being used while the other is 'sleeping'. Garcia (2009) argues that looking at languages as separate entities still embraces the monoglossic ideology which has been reigning between languages. Code switching is therefore based on the monoglossic view that bilinguals have two separate linguistic systems whereas translanguaging posits the movement between languages as being dynamic.

Code-switching also focuses mainly on spoken discourse whereas translanguaging encompasses various modes of communication (Hornberger &Link, 2012); reading, writing, discussing, thinking, listening, etc. It is not just changing languages because one feels like or has run out of words like it happens with code-switching, where one shuttles between languages (Garcia & Li, 2014, in Strauss 2016), but translanguaging is a process where people use various linguistic repertoires and practices in order to make meaning (Vaish & Subhan, 2015) and gaining deeper understanding of the concepts (Baker, 2011; Madiba, 2014). Other researchers further define translanguaging as a systematic and strategic meaning making process where bilinguals do not just switch codes, but they select appropriate features of codes and make use of them to make meaning (Garcia, 2009; Otheguy,

Garcia & Reid, 2015) and as a result, translanguaging goes beyond what has been termed as code-switching.

2.2.3.6 Translation

One might also confuse translanguaging with translating, but translanguaging differs from translation in that it requires a full understanding of the language in which the message is received, and sufficient vocabulary and a firm enough grasp of the other language in order to express the message, i.e. a passive understanding of both languages, and an active knowledge and mastery of at least one of the languages (Williams, 2002). On the other hand, in translation, one just translates what is there with or without a full understanding. "Translanguaging entails a deeper understanding than … translating, as it moves from finding 'parallel words to processing and relaying meaning and understanding' (García & Li, 2014: 27).

As a result, bilingual learners should be allowed to use their dual or multi linguistic knowledge at the same time in a situation where populations are becoming diverse linguistically (Makalela, 2015b, Creese and Blackledge, 2010; Li, 2011). It has been proven that in a bilingual learner, both languages are autonomously active all the time even when one language is not being used, and there is no confusion that can be caused by using two or more languages at any time (Makalela, 2015b).

2.3 Methodical Review of other Studies

In addition to the frameworks, the chapter further discusses research studies which are aligned to the objectives of this study to explore how scholars in the world have developed and used the notion of translanguaging and its forms as pedagogical tools for bi/multilinguals' reading development.

2.3.1 Translanguaging in classroom context

Translanguaging has been considered as an approach that can be used in a learning environment in order to enhance classroom and learning achievement (Reyes, 2012) and develop reading proficiency (Makalela, 2015d). This framework shifts from the old belief of separation of languages to that of focusing on how bilinguals intermingle their various linguistic resources to make sense of their world (Gort & Sembiante, 2015; Pachero & Miller, 2016). In fact, nowadays sociolinguists reject the idea of separation of languages and relate to it as an abstract ideology that has been politically constructed, and which is highly questionable (Jorgensen, 2012; Jorgensen, et at., 2011). It is argued that people do not use languages as separate entities, but that they use linguistic features. Translanguaging is further regarded as a pedagogy that has a potential of creating a conducive, rich

classroom environment. This environment values the culture, identity and behaviour of the bilingual person (Pacheco and Miller, 2015; Madiba, 2014). These studies recommend the use of translanguaging in bi/multilingual classrooms to enhance teaching and learning. They point out several advantages of translanguaging in bilingual classroom and few are discussed below as examples of such benefits.

Translanguaging is seen as an approach that allows bilinguals to have a broad choice from multiple languages that they have in order to be able to communicate effectively and appropriately in various contexts. This approach allows both learners and teachers to engage better in a classroom using multiple language resources (Gort & Sembiante, 2015). In support of this argument, Makalela (2014) presents the results of the study that he did on translanguaging practices at an institution of higher learning in South Africa. The participants in his study were 35 third year students who were enrolled in a linguistics course for teachers. The students were from the Black townships of the city of Johannesburg where they spoke a variety of languages. The results show that the linguistic repertoires of the participants expanded so much that they are able to choose the appropriate and relevant language to suit the context in which they were. He therefore recommends translanguaging as an appropriate way to be considered in the education sector for multilingual learners so that these learners are able to value their identity.

Translanguaging does not only help students to develop their identity, but also creates environments of socialisation, for it allows interaction using the linguistic resources learners have. They are able to develop new modes of communication and use those modes depending on appropriate needs (Li & Hua, 2013). This was proved by Li and Hua (2013) in their study where they examined the transnational practices and identities' performance of bilingual students. The participants in their study were Chinese students with diverse linguistic migration backgrounds in London Universities. The findings in their study show that students were able to develop new modes of communication through participating in translanguaging practices. From their observations, they concluded that translanguaging creates a conducive environment for the bilingual students. They point out that "creating and inhabiting the new transnational space is simultaneously a process of language socialisation" for the bilingual students, as they are able to interact easily with the languages that they know. This supports the issue that translanguaging serves as a process which allows people to interact and socialise effectively (Makalela, 2016).

Translanguaging is also seen as an effective approach that allows learners to value their social identity and enhances their learning. Creese and Blackledge (2010) did a case study in complementary schools in the UK. The participants were learners who had home languages

different from English, such as Turkish, Cantonese and Mandarin and used English in a classroom situation. The participants in their study participated in using translanguaging approach for identity performance, and as a language of learning and teaching. They found that translanguaging pedagogy makes the complementary schools become spaces for reproducing the social, community and pedagogic values and goals. It allows bilingual learners to value their identity, but at the same time developing their teaching and learning environments. The environment in the schools made the bilingual students become what they are as real bilingual students.

Translanguaging practices allow bilinguals to move back and forth between the two languages and this helps make meaning, communicate effectively and engage confidently using the language resources they have (Hornberger & Link, 2012). Hornberger and Link (2012) also show that translanguaging allows bilinguals to make meaning of their world. They specify that bilinguals are able to communicate fluently, interact easily and engage highly in discussions in the classroom when using a language which they are more comfortable with in order to develop understanding of the additional language. In their research, in Pennyslvania on how translanguaging can be used in the classroom, they found that a student moved automatically back and forth between English and Spanish and this allowed her to make meaning across many interactions and engage in discussions at home and at school without any problem.

Translanguaging helps students to make meaning of the concepts and understand them better than before when the languages were separated. Hornberger and Link (2012) give examples of students at the University of Limpopo in South Africa, who used both their home language Sepedi and English during their lessons in their classroom. Translanguaging between English and Sepedi made them communicate easily and participate fully in their class. The students were able to express themselves effectively and engage in the discussions. It can therefore be concluded that the translanguaging approach enhanced their understanding of both languages in and outside classroom situations. Bilingual learners come to classroom with rich language practices and backgrounds (Vogel et al., 2018) and are able to interact among themselves without a problem. They adapt and use language to suit their context (Garcia & Wei, 2014).

The flexible use of the two languages does not only help a bilingual learner to have a clear understanding of concepts, but also leads to a good academic performance. Pacheco and Miller (2015) show that encouraging students to use their home languages in discussing the English concepts can give them an opportunity to relate to their every day's experiences, show their understanding and be able to give a correct interpretation of text. If bilingual learners are given the chance to clarify the concepts in their home languages, then it becomes easy to understand the

concepts in the target language and perform better in their academic work. They further show that when students are developing their proficiency in English, they face challenges in expressing their understanding in English. The alternate use of their home languages and English can assist in helping them understand the concepts fully.

It is further supported that translanguaging develops students' academic work in both languages and opens a broad space of learning for bilinguals. This is supported by the findings of the study done by Mazak and Herbas-Donoso (2014) at the University of Puerto Rico with bilingual Spanish-English science students. They examined the use of Spanish and English in this bilingual science classroom in Puerto Rico, where the textbooks were written in English. According to the curriculum in Puerto Rico, English was normally used as the language of science and medium of instruction, and Spanish as a home language. They were examining the translanguaging practices occurring during the science classroom environment. They observed the science class with a focus on how the two languages were being used. In their observations they discovered that translanguaging occurred regularly during the lessons. They found that the students used English terms when discussing the content in Spanish. The students were also reading texts in English and discussing them in Spanish in order to understand the texts clearly. In general, the students used the two languages simultaneously in dealing with the scientific work, though they discovered that translanguaging occurred around the English texts and this helped students to make meaning of the resources and enhanced their understanding of the concepts. The researchers concluded that translanguaging was not confusing the students, but instead increased their participation in class and their understanding of the science concepts. They express their conclusion by saying "multilingual learning, far from being 'confusing' as a monolingual perspective would see it, actually opens up higher education to more discourses and has the potential to expand students' academic mastery of those discourses". Translanguaging not only promotes a deeper understanding of the subject content, it can increase proficiency in the weaker language in relation to the one that is dominant (Hassan & Ahmed, 2015).

Some researchers looked at the use of translanguaging in reading and writing (e.g. Canagarajah, 2011; Li, 2011; Makalela, 2013, 2015c). They found that L2 learners normally meet challenges in reading and writing L2 effectively, following the prescribed L2 rules that are normally taught to them. In particular, Makalela (2015c) even indicates that in the African context some of the L2 rules do not apply as they are not part of the African culture, but normally the reflection of the L2 culture. He further indicates that these challenges are brought by the fact that language is socio-cultural and it represents one's voice and identity, as it is tied to the identity of the person and cannot be separated

from what or who the person is. Because of challenges in bilingual settings, researchers advocate for translanguaging as a better approach that could be used in multilingual settings and also encourage that in those settings learners be allowed to use all their linguistic resources in order to make sense of their world as bilinguals and develop their confidence in all ways (Cummins, 2015, Madiba, 2014). For the focus of this study, studies that were done on reading in translanguaging classrooms are discussed based on the objectives of the study.

2.3.2 Reading proficiency in translanguaging contexts

Reading entails the utilization of linguistic and metalinguistic knowledge in order to comprehend the meaning of written symbols. It is an interaction between the text and the reader which is shaped by the reader's prior knowledge, experiences, attitude, and language community (Makalela, 2015d). It is culturally and socially rooted in a particular way of viewing the world which involves the reader, the text, and the interaction between the reader and text regardless of whether it is in a first or second language (Makalela, 2014). This means that the ability to convey the message is reflected from the ability to read because it is through reading that one is able to process the message in the mind in order to understand the message and come up with what it means (Matjila & Pretorius, 2004). If this is how reading is portrayed, it is therefore necessary to find out how it can be developed using translanguaging practises in bi/multilingual contexts.

As has been mentioned earlier, classroom translanguaging has been studied in various parts of the world as a new framework that shifts the lens from cross-linguistic influence to how multilinguals intermingle linguistic features that are assigned to a particular language (Gort & Sembiante 2015; Pacheco & Miller 2016 in Sefotho & Makalela, 2017). A number of studies that were testing effectiveness of translanguagng in bilingual or multilingual contexts were done in the UK, USA and South Africa (e.g. Creese & Blackledge 2010, Garcia 2009, 2011; Garcia & Sylvan 2011, Madiba, 2014, Makalela, 2014, 2015c). All these studies ascertain that translanguaging in bi/multilingual classroom setting "creates positive experiences at school and maximises pedagogic and cognitive benefits" (Sefotho & Makalela, 2017) and helps learners to interact effectively with text and so enhances their reading proficiency (Makalela, 2015d).

Research also presents translanguaging as a strategy that develops a variety of cognitive processing skills in reading (Lewis, Jones & Baker, 2012a). Bi/multilinguals assimilate and accommodate the information they receive by strategically choosing and selecting among the languages that they have (Hassan, 2015). Therefore, it becomes easy for them to understand the subject matter more than by using one language. Clarifications on translanguaging have shown that implementing

translanguaging in bilingual educational settings has significant advantages to developing reading proficiency of learners. Translanguaging promotes a deeper understanding of the subject matter (Hassan, 2015) and helps learners to recall what they have read.

Research shows that translanguaging increases reading proficiency in both languages (Hassan, 2015). The main purpose of this study is to investigate implications and impacts of translanguaging on developing reading proficiency in bilingual educational settings. Various research studies have portrayed translanguaging as an approach that assist bilinguals not only to develop fully as bilinguals, but also in developing their reading proficiency. Reading proficiency, in this study, is considered in three components, vocabulary, reading fluency and reading comprehension. As a result, this section discusses studies that were done in relation to the mentioned components.

2.3.2.1 Translanguaging versus Vocabulary

Researchers allude that the use of the two languages develops bilinguals' vocabulary in both languages and also allows them to express themselves fully and with confidence (Madiba, 2014). In order to test learners' vocabulary skills of the bilingual learners in the two languages, different components were considered; these were studies that included the phonemic, grapheme and semantic awareness of learners in both languages. Studies show that translanguaging does not only promote learners' bilingualism and facilitates access to background knowledge, but also assist learners to acquire new vocabulary in both languages (Kim, 2015) and also understanding of the features of both languages, especially the target language. There are several studies that were conducted in the world which show different ways in which translanguaging develops vocabulary of learners in bilingual classroom settings.

Research in South African context proves translanguaging strategies are effective in increasing the vocabulary of multilingual learners. Makalela (2015d) in his study on finding how having multiple language resources can enhance learning of another language; and develop word recognition, vocabulary and reading proficiency in a target language recommends translanguaging as an effective approach. The participants for his study were 60 pre-service teachers who were doing their second year of Bachelor of Education degree programme at the University of Witwatersrand. These students were first language speakers of Nguni languages and were doing Sepedi as an additional language. The researcher randomly divided the students into two groups; one group of 30 students was assigned as a control group while the other was an experimental group. The control group was taught using Sepedi as a medium of instruction while the translanguaging strategies were used with the experimental group. Translanguaging strategies were used during their Sepedi lessons, where

flexible use of their home languages and English was allowed in order to help them in the learning of Sepedi. The learners were even encouraged to discuss and write notes in the languages they knew most and later report to the class what they had in their own languages, in Sepedi. In this case the language of input was different from the language of output. Translanguaging practises were used to allow students to learn through the use of different repertoires that they had. The results reveal that the experimental group outperformed the monolingual control group in both vocabulary development and oral reading proficiency tests.

In the previous study, it can be concluded that purposeful alteration of languages in the classroom has social advantages on the students; it develops their social identity and thereby creates a very conducive and safe classroom environment for them (Garcia, 2009; Li, 2011). The results further prove that the more vocabulary and reading skills are improved, the more students become confident and interactive in class. Makalela (2015d) continues to recommend the use of multiple languages in the learning process of multilingual learners, which he says, helps them to perform well academically.

Research further proves that translanguaging deepens understanding of concepts to learners, allows them to raise their voice and develops their vocabulary in both languages. This is shown by Madiba (2014) in his study on how a translanguaging approach can be used to develop and deepen multilingual students' understanding of the economic concepts in South African universities. He shows that translanguaging helps students understand the concepts fully in their own home or primary languages and thus deepen their knowledge of the concepts. He further argues that the use of translanguaging allows students to express themselves fluently and confidently. It breaks the shyness that is normally experienced when learners have to express themselves in English. After having grasped and understood the concepts in their language, students are able to discuss the concepts in English with confidence in the classroom. He did a study at the University of Cape Town in South Africa where he was testing the effectiveness of translanguaging approach in promoting concept literacy. The population for his study were first year students in the Faculty of Commerce. The students were in two groups; one group spoke IsiXhosa as a home language and English as an additional language and the other group Tshivenda as a home language and English as an additional language. The students were allowed to use both English and their home languages during the tutorials when discussing the concepts. They were to define the terms that were given to them in both languages until they reached a clear understanding of the concepts. It is from this study that Madiba concluded that translanguaging has helped multilingual students, Tshivenda, IsiXhosa

and English in this particular case, to deepen their understanding of the economic concepts and enhanced their voice and literacy in their discussion of the economic concepts.

Translanguaging can also be looked upon as a way that allows bilinguals to have a broad choice from multiple languages that they have in order to be able to communicate effectively and appropriately in various contexts. “In bilingual schools and classrooms, translanguaging is better understood as the dynamic discursive exchanges in which teachers and students engage as they draw on and choose from multiple languages and language varieties” (Gort & Sembiante, 2015). In support of this argument, Makalela (2015) presents the results of the study that he did on translanguaging practices in South Africa. The participants in his study were 35 third year students who were enrolled in a linguistics course for teachers at the University of Witwatersrand. The students were from the Black townships of the city of Johannesburg where they spoke a variety of languages. He shows that the linguistic repertoires of the participants expanded so much that they are able to choose the appropriate and relevant language to suit the context in which they were. He therefore recommends translanguaging as an appropriate way that can be considered in the education sector for multilingual learners so that these learners can be able to value their identity.

Research further proves that the knowledge of several languages is an advantage for learning in a multilingual setting. It helps learners value the use of several languages and creates a positive attitude of learners towards other languages. Makalela (2015d) in his study on testing effectiveness of translanguaging studies in teaching one African language to speakers of another African language, ascertains that knowledge of several languages is a benefit to bilinguals and not confusion. In this particular study, Makalela used university students who were learning Sepedi as an additional language. The participants in the study were Nguni languages mother tongue speakers, IsiZulu, SiSwati, IsiXhosa and IsiNdebele, who had not been exposed to reading and writing in any Sotho language, Sesotho, Setswana and Sepedi. The researcher focused on the development of listening, reading, speaking and writing skills. He used oral and text based approaches, from which alteration of languages was used - the language of input was different from the language of output. Learners were encouraged to use their home languages during discussions in class though the main language of communication was Sepedi. The results show that the use of translanguaging changed the attitudes of the learners towards learning another African language and that learners benefitted from alteration of languages in learning the new African language.

Research further proves translanguaging strategies as effective in increasing the vocabulary of multilingual learners. Makalela (2015d) affirms this in his study with final year pre-service teachers at the University of Witwatersrand. These students were doing Sepedi as additional language and

translanguaging strategies were used during their Sepedi lessons, where flexible use of their home languages and English was allowed in order to help them in the learning of Sepedi. The learners were encouraged to discuss and write notes in the languages that they know most and later report to the class what they had in their own languages, in Sepedi. In this case the language of input was different from the language of output. These translanguaging practices that were used allowed students to learn through the use of different repertoires that they had. The results showed that the purposeful alteration of languages in the classroom have social advantages on the learners; it develops their social identity and so creates a very conducive and safe classroom environment for them. The results further prove that translanguaging improves the vocabulary and reading skills of the learners and this in turn, makes the learners become confident and interactive in class.

Research further shows that bilinguals develop their languages' skills and vocabulary as they use both languages in every day interactions. Kim (2015) in his study on investigating how bilinguals can utilize the linguistic resources that they have in their socio cultural context, affirms that bilinguals develop vocabulary in their everyday use of languages. He states that movement from one language to another happens automatically, and not in a sequential form. He sees the knowledge of the two languages in a bilingual as a practice rather than a skill that is learnt sequentially. It was concluded from this study that bilingual children gain competence in both languages by using both languages to develop each other, not one language at a time. The study further concludes that it is important for bilinguals to be allowed to use the languages that they know in the classroom context because this allows them an opportunity to share their experiences and understanding of the concepts in a relaxed situation where they are able to use all their language resources effectively and appropriately (Garcia & Beardmore, 2009; Creese & Blackledge, 2010). This shows that bilingual learners can be supported in the learning process if their complex socio-cultural and linguistic resources are acknowledged and valued. This conclusion therefore supports the idea that the academic performance of bilingual children can be enhanced if they are valued and considered the way they are, within the complexity of their social lives as fully bilinguals (Garcia, 2000). It is important to remember that language learning of a person cannot be looked and developed outside his/her culture (Shin, 2005). This means that development of reading in a bilingual learner can be done with utilizing the language resources from both languages.

Further research supports translanguaging as enhancing and developing vocabulary and understanding of concepts in a bilingual setting is the study that was done by Song (2015) to explore how bilingual children make use of translanguaging strategies in literary events at home. The researcher observed the Korean children as they translanguage between Korean and English. He

video-recorded the literary practices of the Korean bilinguals and their families; and took notes while observing them. The findings show that the children used both languages in a flexible manner to create meaning in their conversations. He found that the flexible use of both languages allows those bilinguals to clarify and refine meaning in different concepts in their communication, and also helps them to improve their vocabulary in English as an additional language. He concluded that translanguaging was an approach that was there in the literary practices of the participants to convey clear meaningful expressions. This approach allowed the children to have better understanding of the expressions in both languages as they use the two languages as resources of meaning in their conversations with their families. In general, he supports the issue that translanguaging is an approach that allows bilinguals to make meaning across the two languages and help them acquire more vocabulary of the other language by the use of the language they are more familiar with. Furthermore, he shows translanguaging as a way that provides bilinguals with the ability to become vocal and to be able to express themselves fluently. The participants in this study developed negotiation skills and confidence in expressing themselves.

Even lately, translanguaging continues to be seen as an appropriate framework that helps bilingual learners maintain their bicultural identity and allow them participate fully and with confidence in the classroom. Gort and Sembiante (2015) investigated the nature in which teachers were using translanguaging practises in a literacy learning space of show and tell in a bilingual preschool classroom. They argue that it is through translanguaging where learners are able to figure out, understand and make meaning of words and also develop confidence in both languages. Their study took place at Sunnyvale Early Childhood Education Centre in North America. The goal of the school was to engage learners with two languages, Spanish and English. These researchers argue that their results show a dynamic and responsive languaging practices that present a picture of bilingual learners. These learners made use of the linguistic resources that they have in order to communicate easily and highly interact in their class (Garcia & Kleifgen, 2010). Translanguaging, in this study, has been revealed as a way of making meaning (Gort, 2012). These findings support the idea that the use of dual language knowledge by bilinguals allows them to make sense of their world through the use of their multilingual practices or resources (Baker, 2011; Garcia, 2009; 2011). In using languages of learners, teachers created a highly responsive and integrated classroom environment where learners participated actively and expressed themselves fluently. These researchers argue that translanguaging is an approach that develops bilinguals' vocabulary and engagement in the classroom. Furthermore, studies uphold that the more vocabulary in bilingual learners is developed, the more they become fluent in reading in both languages. Therefore, translanguaging also improves reading fluency in bilingual learners.

2.3.2.2 Translanguaging versus Reading fluency

One of the objectives of this study was to evaluate reading fluency of the learners in order to test efficacy of translanguaging strategies. In the case of bilingual learners, there is a need to develop reading fluency in both languages as this will help bilingual learners to be what they are and view the world as bilinguals. Piper, Schroeder & Trudell (2015) argue that a single minded focus on one language in a bilingual learner does not increase performance in that language. They further show that though learners are able to pronounce words better in English, they do not understand what they are reading; they can decode and recognise words, but may be unable to make meaning out of those words. They recommend that oral reading fluency (ORF) in both languages need to be developed in order to enhance reading skills in bilingual learners.

Reading speed is one of the reliable predicators that shows fluency in a language (Makalela & Fakude, 2014). Therefore, it is a tool that is normally used to assess fluency in a language. Makalela and Fakude point out that being fluent in a language shows how well children are able to read and comprehend texts. In a study to investigate reading fluency, Makalela and Fakude (2014) did a cross-sectional study among Sepedi grades 4-7 readers in four rural Limpopo primary schools. They used international benchmarks for success in reading development because of unavailability of locally-normed instruments for African languages literacies. The results of their study showed that there are no accuracy and rate gains in the readers' ORF as they progress from one grade to the next. It was concluded that learners' overall reading competence is weak in their home language. This study calls for finding appropriate strategies that can be used in developing reading fluency of bilingual learners. Therefore, this current study comes in to test if the use of translanguaging can be used to develop bilinguals' reading fluency.

Research shows translanguaging as an approach that helps bilingual learners to improve their reading fluency in more languages and builds their confidence in the languages. Makalela's (2015d) further studies affirm that learners' reading fluency increases with translanguaging. He did a study to investigate whether translanguaging interventions enhance reading fluency of learners in both Sepedi and English or not. The results revealed that learners had a higher reading speed in Sepedi than in the reading of English text. The intervention programme was able to change literacy practices and achievements in the two languages. It improved the learners' ability to read with improved fluency and speed in both languages. It can therefore, be concluded from this study that

there is a need for studies on testing efficacy of translanguaging on reading fluency development in other African languages and English.

It has also been found that bilingual learners' reading fluency is higher in their mother tongue than in an additional language. Piper, Schroeder and Trudell (2015) found these results in their study on reading fluency and comprehension in Kenya. They did a study to compare reading fluency and comprehension of bilingual learners in their L1, Kiswahili, and English as an additional language. In this study they concluded that children were able to identify and connect meaning to the words mostly in their African language than in English. They found that levels of comprehension were higher in African languages than in English. These learners were able to decode words easily in African languages even though there was less time allocated to these languages than the time that was allocated to English. They concluded that even though English was given much priority in learning, learners were able to pronounce words in English, but were not able to understand what they were reading. These researchers therefore recommend that attention should be given to the use of mother tongue in the classroom context in order to develop reading fluency in both languages. This study therefore negates the idea of a monolingual bias and calls for an approach that considers the use of both languages concurrently in a bilingual context.

Research further portrays translanguaging as a best approach to be used in a bilingual classroom setting in developing reading fluency because it allows the use of both languages to construct meaning for learners to reach better understanding of what they read and not just decode words. It is concluded that the more learners are fluent in reading, the more they become confident and participate actively in class discussions. Vaish and Subhan (2015) did a study to test the use of translanguaging in a reading class. Their objective was to use translanguaging approach in trying to develop reading comprehension because there was a problem of bilingual learners being able to decode information, but not being able to understand what they were reading. They argue that in bilingual classrooms, learners should be allowed to use their home language as a step to learning English as a second language. In their study they used initiation, response, evaluation and feedback method. The teacher would initiate the text or questions in English and learners responded in their Malay language. The evaluation and feedback were done in both English and Malay languages. In this study they found that when learners were allowed to respond in their home language, the interaction in the classroom increased, and the lesson became more learner-centred. This participation resulted in learners' confidence in responding to questions and participating in class and most of the time, becoming initiators of the discussions taking place. From this study, Vaisha and Subhanb argue that translanguaging approach helps learners to develop confidence in their

learning process. It is further shown with this study that in a translanguaging class the interaction is mostly on the learners than the teacher and this increases their understanding of the concepts in discussion, which will lead to a good academic performance. Vaisha and Subhanb study becomes one of the studies which the current study intends to find out if Sesotho-English bilinguals reading can also be developed by the use of translanguaging strategies. It can be concluded from the above research studies that translanguaging does not only increase participation of the learners in discussion during classes, but also develops their fluency in communicating with understanding using both languages.

2.3.2.3 Translanguaging versus Reading Comprehension skills

The primary step in determining reading proficiency in bilingual learners is looking at the comprehension skills that they have, which is, being able to identify facts which appear within and beyond a text. It is by testing the lower level of thinking of learners in their languages to see whether they would be able to have literal comprehension skills and recall what appeared in the text, and testing the higher level of their thinking - inferential skills. In general, reading comprehension encompasses the ability to derive meaning from what is being read (Piper et al., 2015) and being able to think beyond what is in a text. It should be noted that "it was not until the twentieth century that comprehension arrived as a modal index of reading competence" (Pearson, 2009), and as a result the attainment of reading comprehension has now been considered as an ultimate desire in testing language proficiency. In the process of attaining language proficiency, researchers saw the importance of enhancing decoding and reading comprehension skills (Zadeh, Farnia & Geva, 2012) in a learner. It has been identified that reading comprehension is an essential component of literacy in learners and there is a need for more research on it as it is an area that is less extensive and not thoroughly researched, research on it is less extensive, rigorous and current (Makalela & Fakude, 2014).

Research studies have been conducted in the African context, particularly South Africa, on reading proficiency and comprehension of bilingual and multilingual learners (Strauss, 2016; Pretorius & Mampuru, 2007, Makalela, 2012, 2015c, 2016; Cekiso, 2012), and reveal that learners have poor reading comprehension skills. Pretorius (2002) even argues that this might be the factor for the academic underperformance of learners. These studies looked into various aspects of reading comprehension; however, they have not dealt with a strategy of using two languages concurrently in order to develop this reading comprehension deficiency among Sesotho-English bilinguals. Therefore, there is a need for researchers to find reading strategies that can be used against bilinguals' poor reading comprehension at lower and higher education sectors (Cekiso, 2012)

among Sesotho-English bilinguals. It is necessary to enhance learners' ability to comprehend text in both languages and be able to recall the information they have read.

Literature shows few studies that examined reading comprehension skills of bilingual learners using tranlanguaging strategies. Reading comprehension has been identified as being very important and basic to learners' reading development because it enhances academic performance in a learner. Reading comprehension is also considered as the most important contributor in understanding a text and a sign of being proficient in a language (Coyne et al, 2007). However, it has been discovered that research on this area is less extensive, rigorous and current (Coyne et al, 2007; Makalela, 2012). Because of this, researchers have acknowledged a need for more research on reading comprehension mainly on bi/multilingual learners in order to improve reading literacy. Translanguaging as a traslingual practice of bilingual learners allows bilingual learners to bring their experiences into the classroom space in order to develop their literacy. Research shows that reading "comprehension is increased when the content is relevant to the lived experiences of the reader" (Ramirez, 2000 pp30). Therefore, translanguaging approach becomes a relevant approach in its development. It is based on this that this study assesses reading comprehension in a bilingual classroom setting informed by translanguaging framework.

Some research studies show that learners' reading comprehension in South Africa is far below their expected level (Makalela & Fakude, 2014). It is from these findings that one sees a need for finding an approach or approaches that could be used to enhance reading comprehension levels of bilingual learners. Makalela & Fakude (2014) conducted a study on reading development in L1 and L2, in order to investigate the levels of information recall of the Grade 7 learners. The participants in their study were 150 Grade 7 learners from three different primary schools in the Limpopo region in South Africa. She investigated information recall and reading comprehension skills of the bilingual learners, in both their home language and English. In all the tests that were given to learners in the three schools, their performance in both information recall and reading comprehension tests was lower than the expected level in both languages. The results reflected that the reading comprehension of those bilingual learners was still at the developing stage. From this study, Makalela & Fakude concluded that learners were reading three years below their expected reading proficiency and comprehension level. This calls for an ideal approach that may be used to develop reading in bilinguals. My present study therefore intends to test how effective translanguaging is in developing reading comprehension in Sesotho-English bilinguals.

Studies have recommended translanguaging approach as an effective way of teaching languages in a multilingual classroom. They point out that it gives learners an opportunity to make use of their

knowledge of multiple languages; and changes their attitude towards the learning of languages (Makalela, 2015c; Garcia, 2015). Makalela conducted a case study to find the effectiveness of translanguaging approach on improving reading comprehension of the primary school learners in both Sepedi, as a home language and English as an additional language (2015d). The participants here were 60 Grade 6 learners from a primary school in a rural area in Limpopo. The study was a three-phased experimental study where participants were given a pre-test, translanguaging intervention and a post-test. During the intervention, learners were introduced to several exercises of organised alternation of Sepedi and English languages. It was found that, through the concurrent use of both languages, reading comprehension level of the learners improved. Learners were able to use both languages to deepen their understanding and this developed their critical thinking ability (Creese & Blackledge, 2015).

It is further proved that translanguaging helps bilingual learners to gain more knowledge and understanding of concepts. Velasco and Garcia (2014) show that in most bilingual classrooms, programmes that separate languages and use the rule of one language at a time; do not help bilingual learners to be what they are and to value their identity. They did a study with Grade 4 elementary teachers' classrooms of Spanish-English and Korean-English bilinguals in New York. In these classrooms, translanguaging strategies were introduced during the lessons. The results showed that learners from the time they plan their writing until the production of the text, use all the language resources they have and this happens consciously and unconsciously. The results further showed that translanguaging helped the writers achieve better understanding of the concepts. These results therefore call for a need to implement translanguaging strategies to augment comprehension of text.

2.3.2.4 Teachers' perceptions on translanguaging

Another objective of this study was to assess teachers' perceptions on the use of translanguaging strategies for reading development. It is worth at this point to discuss studies that were done to investigate teachers' perceptions on translanguaging. Various research studies reveal translanguaging as a desirable approach in the multilingual context where learners are allowed to bring along their communicative repertoires and practices into the classroom to enhance learning (Hornberger & Link, 2012). They give examples where they looked at translanguaging as a biliteracy lens. They argue that the continua model of biliteracy is a tool to value and build on translanguaging practices to facilitate learning. Translanguaging, according to these researchers, is moving between languages to make meaning and to be able to communicate across numerous interactions. They also argue that educators need to master each and every language spoken by their students in order to be able to use translanguaging as a pedagogical practice. In contrast, it is argued

that in translanguaging learners use their languages to enhance their learning and comprehension (Makalela, 2014), it is not the matter of a teacher knowing the languages, but how to use learners' language knowledge to develop learning. This means that translanguaging is more of a learner-centered approach than being a teacher approach.

Translanguaging does not only improve academic performance of the learners and help learners make meaning in their world (Garcia & Kleifgen, 2010), but it also benefits teachers to learn from the knowledge of multiple linguistic repertoires of the learners even when they do not speak languages of the learners (Pacheco & Miller, 2015). Pacheco and Miller (2015) observed elementary school teachers in classrooms with students whose mother tongues were not English. The teachers incorporated students' home languages in their literacy instruction. In their observations, the researchers concluded that the use of translanguaging is a very effective way of learning which does not only benefit the learners in their performance, but also teachers' ways of productive and innovative teaching. They learnt from the teachers that translanguaging has improved their teaching and developed learners' participation in their classes. Creese and Blackledge (2015) also found that translanguaging does not only promote a deeper understanding of the subject and enhance learning process, but also the teaching process becomes easier. They evaluated translanguaging practices used in the Panjabi complementary classroom in the UK. In this situation, teachers and students were translanguaging in all the ways to deepen their understandings and develop their critical thinking in the teaching and learning process. It can be concluded therefore, from this study, that translanguaging does not only assist learners, but also teachers in their teaching.

Several studies have shown translanguaging as an appropriate way of enhancing learning in the bilingual classroom (e.g. Creese & Blackledge, 2010; Garcia & Li, 2014; Hassan & Ahmed, 2015). Hassan and Ahmed (2015) conclude that teachers and students use translanguaging effectively to facilitate learning. They did a study in Tower Hamlets in London in order to explore how teachers and students combine and alternate through different languages. They use translanguaging to teach the curriculum content. They observed teachers and learners in a secondary school where translanguaging was applied. Interviews were also used to gather opinions of the teachers on teaching and learning using four languages. They found that translanguaging is a strategy that reinforces "meaning and understanding and thereby promotes a deeper and fuller understanding of the subject (Baker, 2011).

Some teachers indicate that the use of translanguaging improved the academic performance of their learners. This was concluded from the study that was recently done to explore teachers' attitudes on the concurrent use of languages to develop reading in a bilingual classroom by Ascenzi-Moreno

(2016). She wanted to find out if teachers benefit from students' bilingual reading development. The results of the study show that teachers were able to notice their students' bilingual reading development and benefitted from the use of both languages by learners. It is concluded that translanguaging practices allow teachers to build real bilingual behaviours in their classrooms and create spaces where all linguistic resources of learners are valued as resources for learning, therefore developing true bilingualism (Gort & Sembiante, 2015). In some bilingual classrooms some teachers react negatively to the use of translanguaging because their training and curriculum have instilled the idea of one language at a time and so, to part with that is not easy. This study therefore, introduces translanguaging strategies, and eventually investigates teachers' opinions and attitudes before and after having experienced the impact of translanguaging in a bilingual education context.

It has been affirmed that bilingual children are able to create a very good interactional space in their classroom by using their cultural and multiple linguistic resources that they have and this enables teachers' interaction with learners to become effective. The results in Welsh (2015) study prove that dual language learning in a bilingual classroom is a very useful strategy that develops the learning process of bilinguals. She argues that, with the use of translanguaging, educators create a positive interactional space with bilingual learners to strengthen and develop language proficiency of the learners. The results of her study further show that teachers benefit from the bilingual resources of the learners in a multilingual classroom. She further argues that making use of multiple linguistic resources of learners; teachers encourage learning of other languages. Welsh (2015) further indicate that a classroom that accept and support bilingual culture benefits from bilinguals who are able to value their culture and thereby become confident and this makes teachers' ways of teaching become effective.

Studies further show that the use of translanguaging techniques in preparing pre-service teachers for multilingual classrooms has both cognitive and social advantages that are not typically associated with one-language medium classroom interactions (Makalela, 2015d). In his study with the pre-service teachers, Makalela affirms that translanguaging provides the future teachers with techniques that they can use in their future teaching process as multilingual teachers. His study highlights the powerful shifts in identity that teachers experience when they are enabled to use the full range of their multilingual abilities rather than being limited to a single linguistic channel (Cummins, 2015). It can be concluded, from the discussed studies, that there is a great need for a new turn in the approaches that have been used in multilingual classrooms to an effective approach that can be used to enhance teaching.

2.4 Conclusion

This chapter has discussed my theoretical framework as a three hierarchically legged framework. These theories serve as a frame for this study by forming an understanding that there is interrelationship between L1 and L2 reading development. Making use of these languages concurrently can enhance bilingual reading development. The first theoretical framework discussed in this chapter is Linguistic interdependence hypothesis (LIH) where the relationship between L1 and L2 was regarded to be interdependent, meaning the level of competence in L1 determines level of competence in L2. The LIH theory calls for classroom context where both languages are considered on the same importance. This framework highlights that the use of both languages in bilingual settings can benefit learners to develop in their literacy. It shows that literacy in a second language is supported by literacy in the native language and it is indicated that language and literacy knowledge in one language can serve as the foundation for a new language (Cummins, 2015). With this theory, Cummins was giving consideration of both languages in a bilingual learner, which is: what is the focus of this study, to consider existence of both languages in bilingual classrooms. This is how this hypothesis becomes a basis framework to my study, but still not a complete one because this frame is outdated and it is still considering languages as separate entities. It also looks at those languages acquired in a linear sequence; there is L1 and then L2 at a later stage! From this theory I discussed subtractive bilingualism L1 + L2=L2 - L1=L2 and additive bilingualism L1 + L2=L1 + L2 (Garcia, 2007). This shows how this framework just forms a basis to my study, but not a complete framework. Then the second leg of my framework is the continua model of biliteracy.

The continua model of biliteracy also reveals the complex interrelationship that is there between the languages. It alludes that languages should be looked in relation to all dimensions surrounding a bilingual person, that is, context, content, media and development. It further advocates for the use of all the linguistic resources that bilinguals have together with considering the social practices of those bilinguals to develop biliteracy. Although this theory focuses on reading, writing, speaking and listening, I only focused on reading. This framework advocates for consideration of all dimensions of the continua in developing reading biliteracy, but it portrays two sides of the continuum which separate the two languages. When looking at the structure of this model, it places languages separately and in a hierarchy form, one language having power than the other. There is L1 as powerful versus L2 less powerful. One side of the continuum is regarded as being a minor and the other superior. This therefore implies that, though the two sides are interrelated, there is still a ‘monoglossic’ idea within the framework. One therefore concludes that languages are still

considered separately in this model. As a result, this model does not become a complete framework, but forms a foundation to the third framework, which is translanguaging.

Translanguaging framework pursues an idea of considering languages in bilingual contexts and portrays languages as not just rules and structures, but practices a process of making meaning, shaping experiences, gaining understanding and knowledge through the use of two languages in order to develop academic language skills in both languages leading to a fuller bilingualism and biliteracy (Baker, 2011). It considers the complex interrelationship between the languages and the identity of bilinguals. It is said to be an approach that allows multiple discursive practises used by bi/multilinguals to communicate effectively and make sense of their bilingual worlds (Garcia, 2009). Garcia, further clarifies translanguaging as a process that allows bilinguals to use all their linguistic resources to make meaning of their multingual or bilingual settings. It is an essential tool for bi/multilinguals in order to understand and communicate effectively (Hassan, 2015). It promotes the use of both languages at the same time in order to enhance a deeper understanding of the subject matter. In general, the use of translanguaging strategies has been shown by different researchers (e.g. Garcia, 2010; Li, 2012; Makalea, 2014, Creese & Blackledge, 2015) as an effective way of learning languages in a multilingual setting. It provides bilingual learners with an opportunity to express themselves and make meaning of the context, thus developing reading. Translanguaging is further a way of breaking the language boundaries - one language at a time- that has been there in multilingual or bilingual classroom setting. The main objective of my study was to evaluate the effectiveness of using both languages in a bilingual classroom in order to enhance reading. The main framework that informs this study therefore is the translanguaging approach.

The chapter further looked at different terms that emerged from translanguaging as it was being applied in different parts of the world. These are languaging, dynamic bilingualism and Ubuntu translanguaging. The chapter further discusses reading in translanguaging classrooms, which is an interaction between the text and the reader that is shaped by the reader's prior knowledge, experiences, attitude, and language community (Makalela, 2015c). Because this is the main focus of my study, the chapter discussed categories that build up reading proficiency. These categories are vocabulary, which assist learners to acquire new vocabulary in both languages (Kim, 2015) and also understanding of the features of both languages, especially the target language. The second category discussed is reading fluency in two languages, which builds their confidence in the languages. Lastly, the chapter discussed reading comprehension as a way of determining understanding of text

The studies discussed in this chapter reveal that translanguaging enhances students' competence and literacy in various ways. Gort and Sembiante (2015) indicate that translanguaging is a pedagogy that supports various aspects in bilingual settings. They highlight that it enhances students learning by connecting the learning environment with learners' daily experiences. It does not only help learners to make use of the language resources that they have, but also allow them to highly participate in class, develop their confidence and make meaning of their world (Garcia, 2010, Garcia & Kleifgen, 2010, Creese & Blackledge, 2011; 2015; Madiba, 2014; Makalela, 2015b). This then calls for more research to verify that these strategies could be effective for bilinguals' reading development in different parts of the world. This calls for further research on the efficacy of translanguaging on different aspects of the bilingual world, thus the current study does that. In the African context, especially South Africa there has been porous studies on different aspects of translanguaging.

These studies have covered areas of translanguaging on biliteracy development, but very few have been done on Sesotho-English bilinguals, thus there is a need for further research to test effectiveness of translanguaging on reading development of these bilinguals. There is also still lack of understanding on how the use of two or more languages in a bi/multilingual context can enhance reading development, so there is a need for further research on strategies that can be used to develop reading in bilingual classroom settings. It is against this background that this study investigated the efficacy of translanguaging strategies in developing reading in Sesotho -English bilinguals' classroom.

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Chapter 3
Methodology

3.1 Introduction

This chapter gives a detailed account of the methodology for this study. The literature reviewed in the previous chapter revealed a need to further research on strategies that can be used to develop bilinguals' reading proficiency. This particular research sought to examine effectiveness of translanguaging as an approach that could be used in improving Sesotho-English bilinguals' reading skills. This chapter therefore, discusses methodology used in order to achieve the aim of the study. It discusses the appropriate research designs used for gathering and analysing data for the entire study. It further elucidates population and sampling for the study, and presents the data collection procedures followed, including a detailed description of the instruments and methods used in collection of data. The chapter elaborates on the ways and how data was analysed and shows limitations of the study. It also discusses ethical principles that were followed before and during the collection of data. Another part of the content of this chapter is where the validity and reliability of the research has been shown. In general, the overall contents of this chapter as shown in Figure 3.1 below are later discussed in detail.

3.2 Research Paradigm

Every research follows a particular paradigm that will lead it to using appropriate methodology. A paradigm is a way of describing a world view that is informed by a particular reality of knowing what we know (Chilisa & Kawilish, 2012). It is "a comprehensive belief system, world view, or framework that guides research and practice in a field" (Willis, 2007: 8). It relates to the type of knowledge and framework that guides research and provides justification to findings (Willis, 2007; Sefotho & Du Plessis, 2018)). There are different paradigms that can be followed in research, which align with the methodology of the study (Sefotho & Du Plessis, 2018). One example of paradigms is post-positivism, which emanates from positivism. The positivism paradigm uses quantitative methodology and makes use of experimental methods (Antwil & Hamza, 2015). It is a paradigm from which researchers obtain results from 'meticulous observation and the testing of assumptions … [and] find evidence to either support or reject … hypotheses (Du Plooy-cilliers, 2014:25). The researcher in this paradigm acts as external to the research but a controller of the process (Taylor & Medina, 2011). On the other hand, post-positivism, a less strict form of positivism (Chilisa & Kawulish, 2012), follows the same principles as those of positivism (Wills,

2007) but in addition, allows qualitative methods of data collection such as interviewing and observations (Creswell, 2008) in order to gather more information for the study. This study is therefore, informed by a post-positivism paradigm where tests were used to measure scores of the participants on the concurrent use of English and Sesotho in reading comprehension. In addition to the tests, interviews and observations were used for qualitative data collection. The post-positivism paradigm emphasizes the deductive approach (Sefotho & Du Plessis, 2018) which tests the validity of a particular theory in a particular environment. It is within this approach that post-positivism becomes a suitable paradigm for this study because the study was directed towards testing the effectiveness of translanguaging theory in bilingual classroom settings. The deductive approach involves hypotheses that are being tested to see if they are accepted or rejected (Taylor & Medina, 2011). In this study hypotheses were formulated and tested during the research process.

In determining effectiveness of translanguaging in reading development, reading proficiency of bilingual learners was assessed as one of the objectives of this study. Due to this objective, quantitative approach was used to analyse data. Quantitative research is an approach that is used to test the hypothesis and a particular theory (Antwil & Hamza, 2015). It relies on the numerical data for the descriptive analysis to take place. In this approach, a researcher operates on "assumption of objectivity" (Antwil & Hamza, 2015), believing on a particular reality which needs to be tested. For this research there was a need to compare performance of learners on reading proficiency components, vocabulary, fluency and comprehension and therefore quantitative research approach was used because the researcher analysed quantifiable data from participants using statistics (Creswell, 2008) and conducted the tests in an unbiased, objective manner in order to evaluate and compare scores performance of the learners with and without translanguagng practices. The participants were asked specific closed questions which were easy to answer and needed no details. These questions were of the level of the learners and also tested their comprehension skills. The results from these questions were later quantified using statistical analysis to test the hypotheses.

The study further used qualitative research paradigm to understand perceptions of participants in relation to the use of translanguaging before, during and after the treatment. Qualitative research approach is an approach that describes what is observed or heard and therefore follows an exploratory method in analysing data (Antwil & Hamza, 2015). In qualitative research, a researcher becomes the one who directly collects data by asking questions, making interpretations and recording what is observed. In general, this approach focuses on understanding what is observed and the perceptions of the participants (Neuman, 2003). One of the objectives of the study was to examine views and perceptions of the participants in relation to the use of translanguaging.

Therefore, it would have not been enough just to use quantitative analysis, but the study also required the use of qualitative research method to address this research objective. This was done through classroom observations and teachers' interviews. The participants were given open-ended questions where they were requested to give their views and perceptions on the effectiveness of translanguaging. This involved listening to the participants' voices and subjecting the data to analytic induction. The qualitative paradigm was therefore used to find reasoning and perspectives of the participants (McMillan & Schumacher, 2006) in relation to how effective translanguaging strategies were in developing learners' reading skills. In addition to the interviews, classroom observations were done before the intervention and after the intervention to give the researcher enough information on what was happening in classrooms before and after the introduction of translanguaging approach.

In general, the study sets out to answer the main research question of how effective can translanguaging strategies be in developing reading in bilingual settings. In general, a concurrent mixed research method (Creswell,2009) was used which involved quantitative data and qualitative approaches as discussed in the previous paragraphs. The two approaches, quantitative and qualitative were done concurrently, but they were independent of each other. This type of mixed methods is referred to as the convergent design (Creswell,2008) where the researcher collects quantitative and qualitative data concurrently, analyses the two data sets separately and merges the results during interpretation. For this study, mixed methods were chosen to give enough required information and to provide a better understanding of the main research objective.

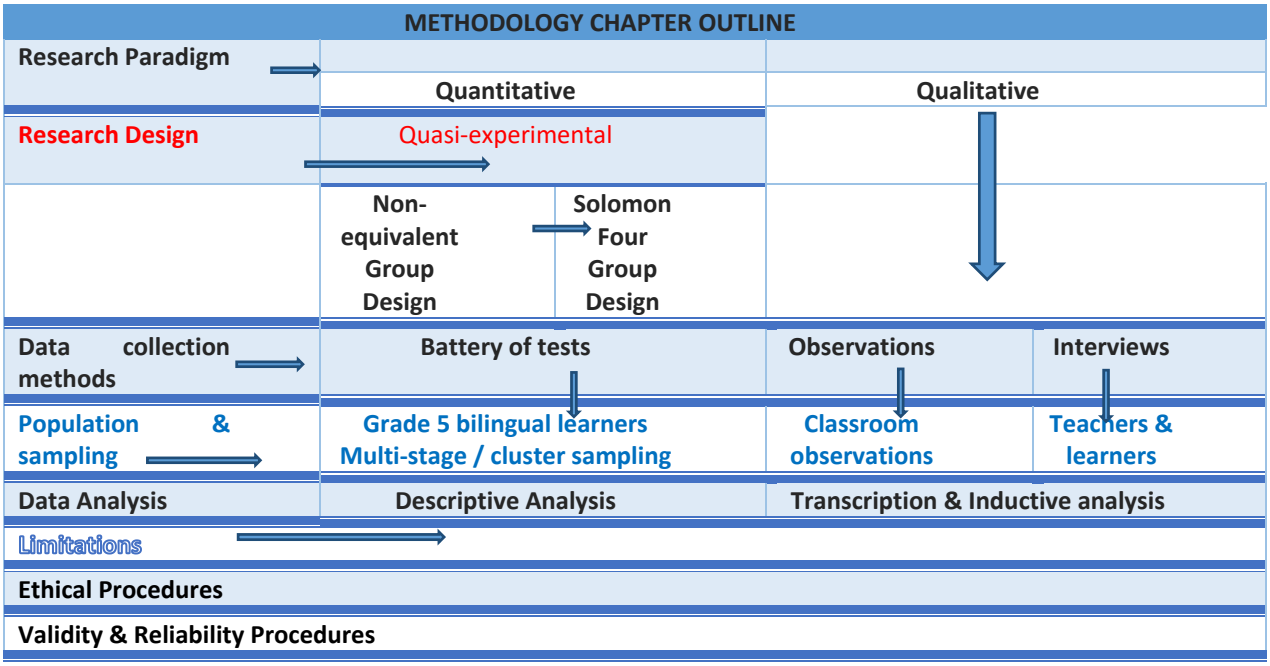


Figure 3.1: Methodology contents

3.3 Research Design

Research designs are various procedures that were used in a research for collecting and analysing data emanating from the purpose of a research (Creswell & Clark, 2011). These designs are the ways in which a researcher is responding to the research question/s. Any design that is chosen in a particular study therefore, should be informed and aligned to the research paradigm (Sefotho & Du Plessis, 2018) that is followed by the study. On this note, the nature of a post-positivism paradigm, which is the paradigm that underpins this study, is of using quasi-experimental research designs that utilize treatment and measures the outcome (Taylor & Medina, 2011). This study therefore followed a quasi-experimental design where there were experimental and control groups involved. Quasi-experimental research design is an experimental research design that is conducted in a setting where random assignment of the participants is not possible (Cook & Campbell, 1979) and the similarity of the groups is based on predetermined variables (Du Plooy-cilliers & Cronje, 2014). Researchers show that this design was coined from a prefix '*quasi'* which means resembling (Taylor & Medina, 2011) and this is why quasi-experimental research is regarded as not being a true experimental research but the one that resembles an experimental research (Cook & Campbell, 1979). They show that quasi-experimental is not a true experimental research and it is sometimes referred to as a correlational research design. This design is normally used to test effectiveness of a treatment/an intervention. For this study, quasi-experimental design was used as an experiment that tested effectiveness of translanguaging in a bilingual setting. This design was therefore suitable for this research as it uses naturally occurring independent variables that already exist and a researcher uses intact groups (Mcmillan & Schumacher, 2006). For this study, this design was chosen because the researcher was using Grade 5 learners and teachers to conduct the experiment; and these participants were already organised as intact groups by their schools and it was not possible to reorganise the learners. Therefore, the researcher did not interrupt the groupings that already existed, but used the available intact classes and assigned them into different required research groups.

Quasi-experimental designs can also be of different forms and one of the commonly used is a non-equivalent group design (Cohen et al., 2007). As it was mentioned earlier, this study followed a post-positivism paradigm which depends on non-equivalent groups that differ from each other in many ways other than the presence of the treatment whose effects are being tested (Depoy & Gitlin, 1998). For this research, quasi-experimental non-equivalent group design was regarded relevant as there was no mechanisms of random assignment applied to the selection of the participants (Leedy & Ormrod, 2005) but they were just selected as comparable intact groups. The quasi-experimental

non-equivalent group design is sometimes referred to as a pre-test/post-test non-equivalent control group design (Trochim, 2006) due to the manner in which it is conducted, that is giving a pre-test and a post-test to groups that were selected without random assignment as a way of making comparison on the results of the pre-test to that of the post-test. The two groups that were used for this study were assigned into two categories, one group as an experimental group while the other as a control group. Both groups took a pre-test and a post-test, but only the experimental group was given treatment/intervention on how translanguaging strategies work, between the pre- and post-tests. The two comparable groups for this study were then compared using a pre-test and a post-test. The structure of the design looked as in figure 3.2 below.

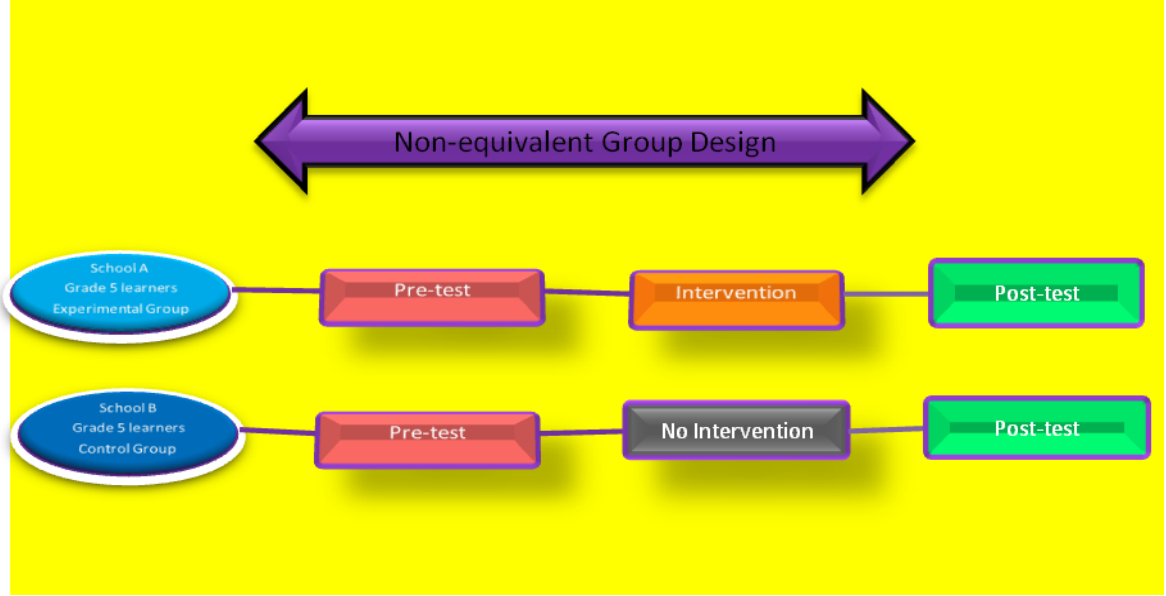


Figure 3.2: Non-equivalent group design

There were several factors that could have affected the results or internal validity of the study in this non-equivalent group design. It is true that the groups that were used for this study were comparable, but the researcher could not guarantee that they were comparable in all possible ways that were relevant to the study outcome. Therefore, it was important that the researcher took note of certain threats such as contamination among the participants, social background and Hawthorne effects (Creswell, 2009) - improvement based on being aware that they are being tested among others(Trochim, 2006), which could have affected the results. It could have happened that the two groups were more or less similar in their pre-test performance, but differ in their post-test or it could also have been possible that the post-test results could not be that much different. Therefore, one could not claim that the treatment had or had not worked or had a certain impact on the performance of the participants because the pre-test could have also had an impact on the post-test performance.

As a result, the post-test scores would not be accurate or be able to be accurately measured on the basis of the treatment which was or was not given to the groups as the pre-test could also have had a certain impact on the learners' performance.

In order to eradicate this sensitization of the pre-test or to address the effect of the pre-test, the researcher, in this study, involved the Solomon Four Group Design (Du Plooy-cilliers & Cronje, 2014) and added two more groups to the non-equivalent group design. Solomon four-group design is an experimental design that takes care of the effects of a pre-test on the post-test, and addresses influences of the pre-test on scores of any test that follows (Clark & Shadish, 2008). The added two groups were not administered a pre-test with the intention of eradication of the pre-test sensitization; and these groups thus served as an advantage to the possible conclusions that were made. The inclusion of the Solomon Four Group Design can minimise "threats to internal and external validity and controls for the reaction effects of the pre-test" (Brink et al., 2012). In incorporating the Solomon Four Group design in this study, four comparable schools were used as part of the study (see Figure 3.3 below).

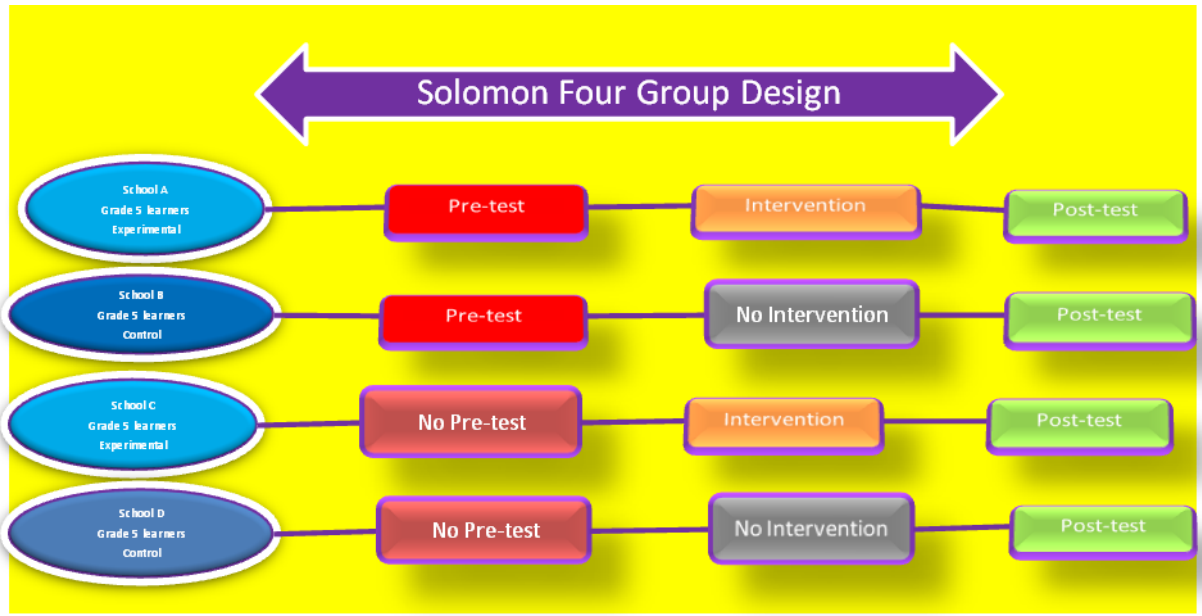


Figure 3.3: Solomon four group design

Solomon four group design is the design that is used to measure the effect of the pre-test on the outcome of the results and it involves the random assignment of the four groups (Du Plooy-cilliers & Cronje, 2014). The treatment in the Solomon Design used in this study was referred to as the intervention with the use of translanguaging strategies. The intervention took place between the pre-test and post-test. The analysis of the Solomon four experiment tests helped the researcher to determine whether there were any effects of the treatment based on the performance of the groups

which received the pre-test as compared to those that did not; and also whether taking a pre-test interacts with the effects of the treatment. This design was therefore appropriate for this research as it allowed the researcher to identify the effectiveness of the experiment based on the comparison of the learners who received the treatment/intervention to those who did not receive treatment/intervention.

3.4 Research site



South Africa is one of the countries that has a rich background of ethnicity (Henry Lever, 1982), which became obvious during the apartheid era (Mayham, 2017). The government established language divisions and categorised people in what they perceived as ethnic identity and assigned these people to separate residential areas(Wikipedia) which were referred to as townships (Findley & Ogbu, 2011). It is true that nowadays most South Africans consider ethnicity as an outdated concept, which created divisions among people (Makalela, 2015b). For this study the research area was one of the biggest townships in South Africa named SOWETO. It is one of the townships that were created for black people during the Apartheid era (SA history online). Its name originates from its designation of South Western Townships, Soweto (Gorodnov, 1998). This name was said to have been initiated by William Carr, chair of non-European affairs (2008, Joburg archive). It is shown that this was a name that was adopted by the city council among all the other names that were suggested (Gorodnov, 1998). The research site for this study was in SOWETO, which is an acronym for the first two letters of the words South West Townships, in Johannesburg, South Africa. It was named based on its geographical location from the main city, Johannesburg, as it lies at about 15km south west of the city. Historically, it was “designed and created precisely to keep the black urban population out of the "white" city” (Makalela, 2014). According to the Statistics South Africa, Soweto is one of the largest townships in South Africa, with a population of more than 1.3 million (SA Stats, 2011). It should be noted here that there are eleven official languages, of which nine are Bantu languages excluding Afrikaans and English; and almost all the languages are spoken in Soweto with the domination of Bantu languages (Cole, 2017). Therefore, the black South African citizens who speak most African languages predominantly occupy this township. Due to various languages that are spoken in these townships, most people in Soweto are multilingual and can speak almost all the eleven South African official languages (Makalela, 2015b). Furthermore, the settlements in Soweto were classified or divided in relation to the home languages that were spoken. Some of the settlements are dominated by the Sotho and some by the Nguni languages speakers (Bogatsu, 2014). There were also other areas that were

dominated by other languages, such as Shona language, which do not fall under the aforementioned categories but are spoken by immigrants from other countries in Africa. This separation existed mostly in the past; nowadays people seem to be mixed within the settlements (Makalela, 2016), though in some parts, there is still that domination of particular languages. For example, Sotho languages were mostly spoken as HL in central areas of Soweto, such as Moletsane, Pimville, Mofolo, Tladi, Klipspruit, Naledi and Rockville (Wikipedia).

This background gives a picture of the kind of population that participated in this study. They were bi/multilinguals from areas whose home languages were dominantly Sotho languages, who could fluently speak in both their home languages and English. English was a language that the participants learnt at school and used it as a language of learning and also for communication purposes among the different races. The primary schools that were selected were also from the Sotho speaking settlements and were therefore offering Sotho languages and English as languages used and taught at school as HL and FAL respectively. It should also be noted that among the four schools that participated in this study, two of the schools do not only offer Sesotho as a home language, but also IsiZulu. This means that in the same class, one group of learners take Sesotho as HL and another group take IsiZulu as their HL. The other two schools were offering only Sesotho as HL. This shows how multilingual learners are in Soweto. It is due to this background that, though a particular language dominates some areas, there are other languages that are also dominantly used in that same area and have to be taken into consideration in education sectors. In Soweto learners are fluent in at least two or three languages.

3.5 Sampling

The study followed a multi-stage or cluster sampling in order to come up with the appropriate data (see Figure 3.4). This cluster sampling was found appropriate for this study because sampling of the participants for this study started with the widespread, largest inclusive sampling unit and progressed to the next unit until reaching the final stage (Brink et al., 2012:106). In this study the population started with primary schools in the Gauteng Province and out of this pool, and using purposive sampling (Burns & Grove, 2011), only the ones that use Sesotho as HL and English as FAL were identified. Purposive sampling was found to be the appropriate method for the selection of the schools in this study because it enabled the researcher to choose the population that was suitable for the nature of the study. This means that those schools that were used met the criteria of Sesotho as a HL and English as FAL. This selection was influenced by the main objective of my study, which was to determine the effectiveness of translanguaging among Sesotho-English bilinguals in reading development. Purposive sampling, sometimes referred to as judgemental

sampling (Brink & Wood, 1998), is where "the researchers purposely choose subjects who … are relevant to the project" (Sarantakos, 2008:164) and it is based on the judgement of the researcher regarding participants who are typical knowledgeable and appropriate for the study in place (Brink et al., 2012: 140). In purposive sampling the respondents are considered to be suitable for the study because of their knowledge on the matter that is being studied (Brink et al., 2012; Sarantakos, 2008). In this study the schools that were chosen were therefore those schools with learners with Sesotho as a home language and English as an additional language and therefore suitable for this particular research. These learners were considered suitable for this study because of their knowledge of the two languages.

The researcher further used purposive sampling to select four schools from the pool of primary schools that use Sesotho as HL and English as FAL, which still meet the criteria of using Sesotho as HL and English as FAL in order to align with the Solomon four group design that was used in this study. The schools that were selected were from the same circuit and the same cluster in order to have a homogeneous and comparable group of schools. The researcher also considered the socio-economic background of the learners in the schools looking at the level of the community status. Therefore, all the schools were from the townships in Soweto. These schools were from the settlements where Sesotho is a dominant used African language and therefore taught at schools as a home language. The selection then continued to meet the two categories in the Solomon four group design used for this study; and on the four selected schools, simple random sampling was used to select two schools that were used as experimental and two that were used as control. This sampling was also used to determine which school from each category wrote or did not write a pre-test. This was how the multi-stage sampling was used in selecting the participants for this study.

Among the four schools selected, two were assigned to be experimental groups and the other two schools as control groups. Random sampling method was used in order to select the schools into two categories. The researcher wrote names of the schools on separate papers, folded the papers and randomly picked out the schools for each category, one category of two experimental schools and another of control schools. It should be noted that both experimental groups received translanguaging treatment/intervention while the control group did not receive the treatment. The next step was the selection of two groups, one experimental and one control, which were given a pre-test while the other, one experimental group and one control group, were not given a pre-test. Similar random sampling method was used to select from each category, a school that received the pre-test from the one that did not receive the pre-test. This means that in the two schools, one

control and one experimental group a pre-test was given while the other two from those categories were not given a pre-test.

The pre-test was followed by the translanguaging intervention which was done in the two experimental groups for a period of three weeks. This experimental period of three weeks was regarded as adequate for learners to get used to the application of these strategies. After the intervention, all the four groups were given a post-test. The researcher assessed whether receiving the pre-test and the intervention made any difference on the performance in the post-test of the participants who did not receive the pre-test, but only the intervention. This allowed the researcher to determine the impact of the treatment/intervention to the learners with and without the pre-test. The researcher also compared the performance of the control groups to assess whether or not the pre-test had any impact on the performance of the participants without the intervention.

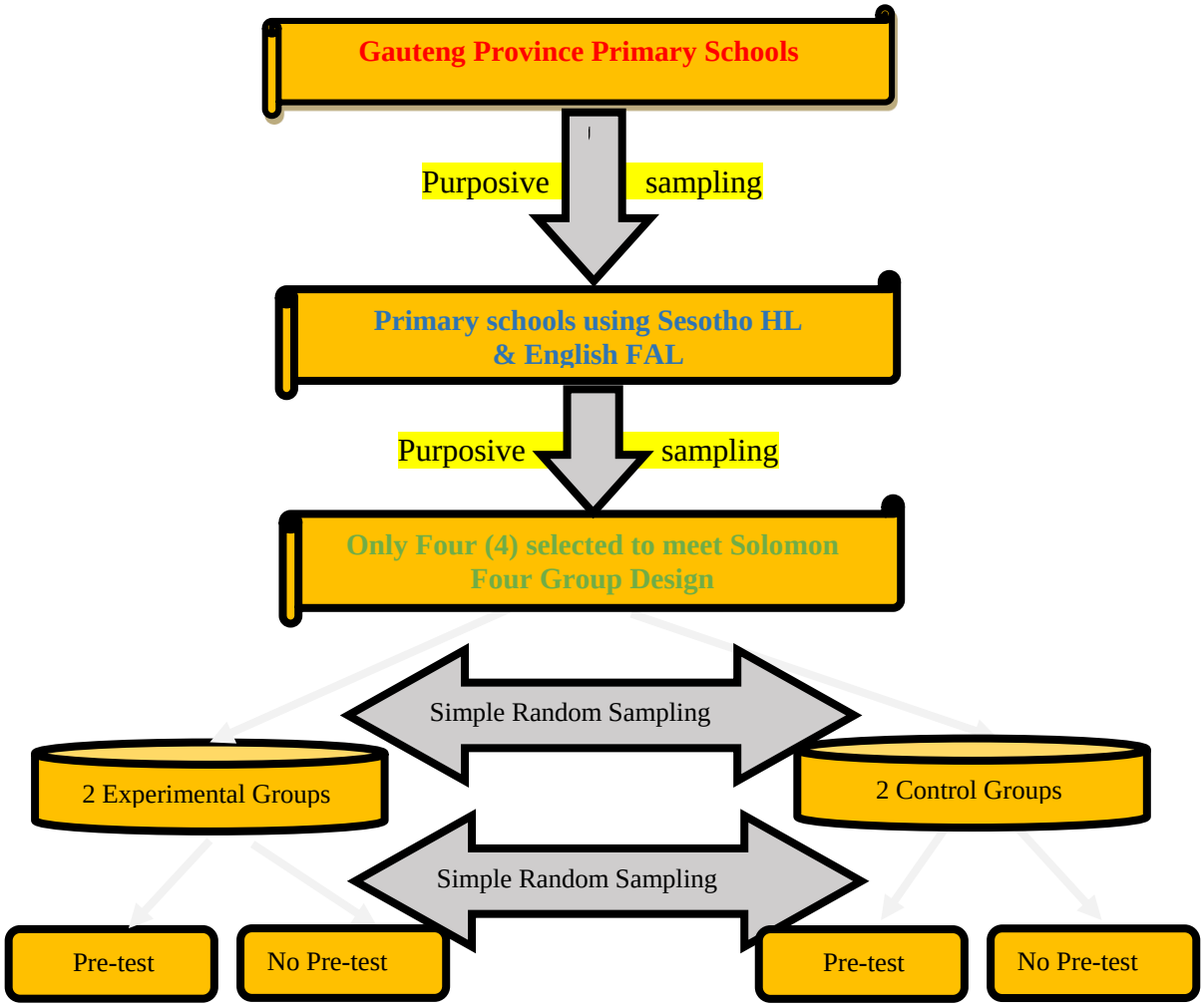


Figure 3.4: Multi-stage sampling

3.6 Population

The participants in this study, from the four schools which were selected, were intermediate phase Grade 5 learners. The total number of learners participating in this study was based on the number of learners in Grade 5 in each school. The researcher used all the learners in Grade 5 in the selected schools. These learners were aged between 10 and 12, as the age for entering primary education is six. Grade 5 learners were selected because these learners are in the mid class of the intermediate phase where learners have transitioned from the state of learning to read at the foundation phase to that of reading to learn in the intermediate phase. During the foundation phase, these learners used Sesotho, their HL, as a medium of instruction and English as a subject, and as a result this gave them an opportunity to acquire vocabulary in both languages, their HL and English. In the intermediate phase level, they have already spent a year in Grade 4, using English as the medium of instruction and their home language was offered as a subject; and Grade 5 was thus a second year to them in the state of reading to learn in both languages. This implied that they had reached certain

levels of understanding and of acquiring adequate vocabulary in both languages; and as a result, they should have the ability to understand what they read in both languages. It is at this level, therefore expected that they are in the position where they can show results of being able to read to learn in both languages. The participating learners, therefore, were regarded as bilinguals who use Sesotho as their HL and English as FAL and as a medium of instruction. Because of these reasons, Grade 5 learners were found appropriate participants for this study.

The study also used the language teachers in the selected experimental schools as part of the population. There were two experimental schools that were selected and from each school Grade 5 language teachers who were involved were interviewed. The total number of the teachers was four, two from each category of the schools. The two teachers from an experimental school were interviewed before the intervention in order to give their perceptions on the concurrent use of the two languages focusing on what they had been doing. The same teachers were also trained on how to apply translanguaging strategies in their teaching and this training was followed by the intervention which they did with their learners during their normal teaching hours. After the intervention, the same teachers were interviewed to give their perceptions after the intervention and the tests to find out if the perceptions that they had before the intervention were similar to what they had after the intervention. This means that the interviews for the teachers from experimental schools were done in two phases, one phase before the intervention and the second phase after the intervention. This enabled the researcher to determine whether application of translanguaging was seen as effective by the teachers. It is from these teachers' interviews that the researcher was able to gather qualitative data.

3.7 Data Collection

Collection of data for this study was done using three methods: written tests, classroom observations and interviews. The tests were pre-test written by one experimental group and one control group; and all the four groups participating in the study wrote the post-tests. The written tests method in testing reading comprehension skills of the learners in their Sesotho HL and English FAL followed a three-phased quasi-experimental design, adapted from Wits Literacy Project headed by Prof Makalela, 2012. Therefore, gathering of data for this study was done in three phases: the equivalent bilingual pre-tests, intervention and the equivalent bilingual post-tests. The first phase was the pre-test given to the Grade 5 learners in one experimental school and one control school. The second phase was the intervention done at the experimental schools. The third phase was the post-test which was offered to all the four selected schools. These different phases appeared as demonstrated in figure 4 and are later discussed in detail.

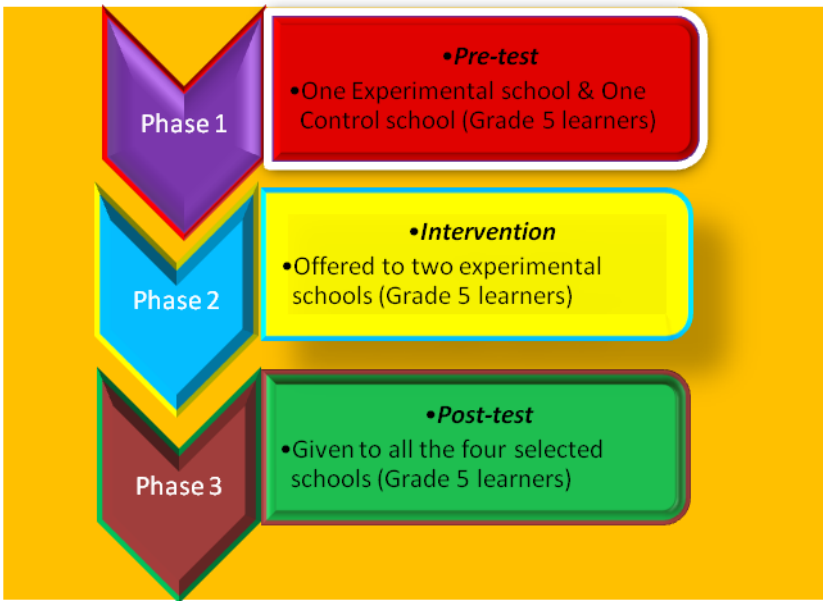


Figure 3.5: Data collection phases

In addition to the three phases of data collection, the study was also aimed at finding opinions and perspectives of participants on the use of translanguaging strategies for reading development in Sesotho-English bilingual learners. For this particular purpose interview schedules were conducted with teachers from the participating schools. During the first and last phases of data collection, interviews were held with teachers to gather their opinions before and after the intervention on the use of translanguaging in bilingual classroom settings.

3.7.1 First Phase - Pre-test

3.7.1.1 Reading Proficiency

The questions that were included in the pre-test were meant to respond to the main objective of the study which was to evaluate the effectiveness of translanguaging strategies in developing reading skills of Sesotho-English bilinguals in both languages - Sesotho and English. In order to find how effective these strategies were, the study involved assessing reading proficiency of the participants in both languages. Therefore, the battery of tests used was meant to test reading proficiency of the learners on three components. Reading proficiency has several sub- components, but for this study a battery of tests used included vocabulary, fluency and comprehension (see Figure 3.6) tests. The battery of tests therefore had three sections, covering the three components of reading. The first section was on vocabulary testing, second section on fluency and the third section on reading comprehension. Each of these sections had two parts, one in Sesotho and another similar one in English. Also, on each section, different sub-sections were included to test different skills within

that component. For example, on the reading comprehension section, questions that focused on literal, inferential and retelling skills in both languages were tested. These reading proficiency components are discussed in detail below:

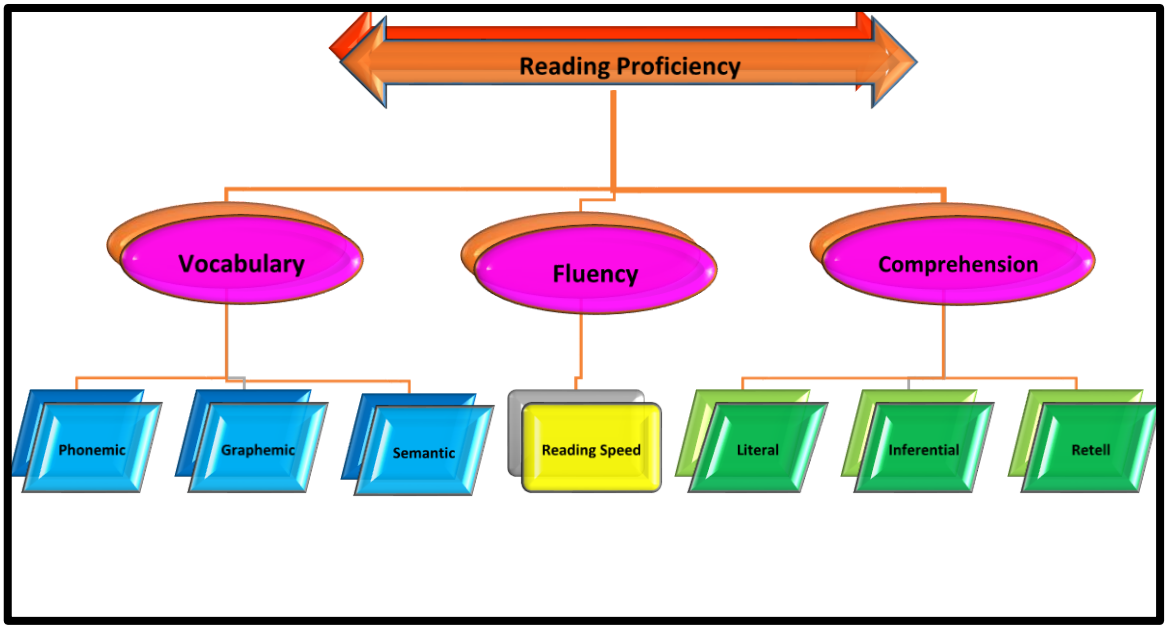


Figure 3.6: Reading proficiency components

Figure 3.6 shows reading proficiency components that were used in testing effectiveness of translanguaging in bilingual learners. Learners were assessed on vocabulary in its three categories, phonemic awareness, graphemic awareness and semantic awareness; reading fluency/speed; and reading comprehension in three categories, literal, inferential and summary writing. These variables were assessed in order to determine the carry-over effect of the pre-test and then the effectiveness of translanguaging strategies. The number of questions on each variable and the scale at which the marking was done determined the structure and analysis of each variable. Following is the discussion on how the variables were tested, and how the marking was done on each one of them!

3.7.1.2 Vocabulary Testing

On this section, learners were tested on their phonemic, grapheme and semantic awareness at word level in the two languages. In order to test learners' vocabulary skills in the two languages, different components were included. The first component was listening and spelling test at the word level testing the phonemic awareness of the learners. The second which tested the grapheme and semantic awareness was picture mapping test and word matching test. Details of these tests are given below.

(a) Phonemic awareness - Listening & spelling test

The first category of vocabulary that was assessed was phonemic awareness. Phonemes are the speech sounds that are articulated in order to form a meaningful unit. This means phonemes are what makes a word to be considered as a word. The ability to identify these phonemes is referred to as phonemic awareness. On this section, participants were tested on their knowledge and ability to listen to sounds of words and be able to make sense of the sounds and transcribe them into actual letters that form a word. The test on phonemic awareness was consecutively done in both languages. The researcher dictated words to learners, first on one language, English, to determine understanding and knowledge of vocabulary sounds in that language. Learners were to listen to dictation of a word, grasp the sounds and be able to transcribe the sounds into letters in both languages. Overall, there were twenty items: the first ten words were in English and the other ten in Sesotho. The tasks in both languages were the same and the context was similar. The researcher read out each word at a time to the learners. Learners were to listen to the sound of each word as it was being read out and were to write the word on the space that was provided. This was meant to test their ability to listen to sounds of words and be able to transcribe those sounds in actual writing. This section started with an English version from item 1-10, and when that was completed, then moved to a similar Sesotho version, item 11-20 with the guidance of the researcher, one word at a time. The assessment was marked on a scale of 0-4 on both languages, where 0 was irrelevant, 1 was having an idea of a word, 2 reflected correct word, but with more than one error on spelling, 3 showed that a word had only one letter error and 4 was correct spelling of a word.

(b) Graphemic awareness

The second part of the tests was graphemic awareness. Graphemes are groups of letters that represent a sound and are put together to form a meaningful word. This is an extension of phonemic awareness. In testing reading ability, learners are not only expected to encode, but also to decode words. This leads to learners being able to understand and refer to what each word represents. On this section, learners were expected to relate to the dictated words and match that word to a related and relevant picture provided. This test was matched with the phonemic awareness test. After completing the listening comprehension test, learners were asked to merge the words that they had written to the pictures that were provided next to the words. There were four pictures provided next to each space where they wrote words. The pictures that were provided on each item were somehow related to each word, but only one of them was accurate and could correctly be merged to the word that was dictated. Learners were asked to identify the most appropriate picture that matched each word and marked it with an X. This test was meant to test the ability of the learners to connect the

sounds of the words that they heard and wrote, to the meaning of that word in reality - that is to the pictures that they represent; it tested their grapheme awareness in the two languages. There were 10 questions on each language for this section. The assessment for this test was done on the scale of 1 -1; it was either an answer was correct or wrong.

(c) Semantic Awareness

The other part of vocabulary testing was semantic awareness. Semantic refers to the meaning that is associated with a word. The ability to relate a word to its actual representation is referred to as semantic awareness. On this section, learners were assessed on their ability to match the word that was already written to its actual picture among the four pictures that were provided for each word. These word-picture mapping questions were still in both languages, first version was in English and the second similar version was in Sesotho. This test was meant to test learners' ability to assign the words to their actual meaning by identifying pictures that represented the written words. This was due to the understanding that reading does not only involve uttering of words, but also the semantic awareness in a language (Makalela, 2015d). Learners were expected to mark a picture related to a written word to show their understanding on meaning of words and that they can relate words to their actual meaning (Kim, 2015) in both languages. There were 10 items on this section: the first five were words written in English followed by five words written in Sesotho. On each item, four pictures were provided and learners were to identify the most appropriate or relevant picture to each word by putting a cross below that picture. This part was different to the previous one in that the participants were no longer hearing the sounds as the words were not read to them, but they were to read the words which were already written, and identify what each word meant in actual representation, that is, they connect the meaning of the words to the pictures that represent them in the world. The assessment for this section was on the scale of 1-1, that is either the answer was right or wrong.

3.7.1.3 Reading Fluency

One of the sub-objectives of the study was to evaluate reading fluency of the learners in order to test efficacy of translanguaging strategies. This was done by assessing learners' reading speed in both languages. Reading speed test was considered to be used because it is one of the tools used for investigating reading proficiency of learners. Reading speed is one of the reliable predicators that shows fluency in a language (Makalela & Fakude, 2014). It is true that in this study this evaluation turned to be a limitation because there is no specific measurement tool that is used for measuring reading speed in African languages. The tool that was used was based on the international reading

speed tool which might not have given accurate results when applied to African cultures, but in the absence of a reading speed measuring tool for African languages, the international one was used even though it might not have been an accurate assessment tool.

(a) Reading Speed Test

This test was meant to test the reading fluency and reading speed of the learners. Reading fluency in a language is a reliable predictor of how well children can read and comprehend texts (Makalela & Fakude, 2014). In this part, learners were given passages which were extracted from their Grade 5 English and Sesotho textbooks. The researcher used passages that the learners had not read in class nor used for homework. Here, the researcher consulted the teachers in order to get assurance that learners had not read those passages nor used them for homework. Learners were told to read silently and with understanding a passage that was written in either in English or Sesotho until the time they would be told to stop. They were given first an English text of 492 words, and to read it silently and then stop when they were told to do so after reading for one minute. This was similarly done with a Sesotho text of 499 words. A stop watch was used in order to time learners' reading speed per minute. Number of words that learners were able to read per minute on each text was recorded. The reading was done with the guidance of the researcher who controlled when learners should start and stop reading. The researcher wanted to find the number of words that the learners would have read in a minute, so they were told to stop reading when the researcher told them to stop; this was after a minute. This time was not revealed to the participants. The procedure was clearly explained to the learners before they could start reading the text. The number of words read within a minute was marked with a circle by the researcher after she/he has made the test takers to stop. A similar procedure was followed in the Sesotho version passage to ensure consistency. The purpose of these tests was to test and compare learners' reading speed ability in reading comparable texts in the two languages.

3.7.1.4 Reading Comprehension Test

Reading comprehension is one of the important aspects of testing reading proficiency in a language. This was another variable that was used for this study to test the ability of bilingual learners in using both languages concurrently. The tests in this section comprised of a comprehension passage followed by questions that tested learners' comprehension skills at the text level in literal, inferential, and retelling skills. These questions were meant to test learners' cognitive ability at different levels. Their ability to recall what they read was tested with five literal questions: their ability to think beyond what they have read was tested with two inferential questions and lastly,

their ability to retell what they have read with one summary question where the language of input is different from the language of output or vice-versa. Learners were given a passage, first in English and another comparable one in Sesotho, to read with understanding and then answered questions that followed. These questions covered the three aforementioned aspects of comprehension in both passages. In all, there were seven questions following each passage in each language. The passages that were used for testing reading speed were reused. The first part was an English version. Learners were asked to re-read the passage with more understanding. They were to answer the questions that followed. The passages that were used in both languages were extracted from the prescribed textbooks of the learners. This was done through the assistance of the learners' teachers. These passages were of the same level of difficulty and had the same number of words.

(a) Literal Comprehension Test

On this section, learners were given a text on each language, one in English and the other in Sesotho. Learners were to deal with one text at a time, first with the English one and then when done with answering questions based on it, move to the similar text in Sesotho and answer its questions. The movement from one text to the other was fully guided by the researcher. On each text, learners were asked to read it quietly and with understanding in order to be able to answer the questions that followed. Five questions were asked on this section. These questions tested learners' ability to recall what they had read and to show their understanding of the text. On each question, there were four answers provided and they had to choose one that was correct. The assessment for this section was done on a scale of 0-1. It was either a learner has chosen the correct answer or not. Learners were to mark the correct answer with a tick or an X.

(b) Inferential Skills Testing

Based on each comprehension passage, one in English and one in Sesotho, there was a question following the five multiple choice questions, which was meant to test learners' ability to infer from what they have read and understood, which was included. This question inquired learners to think beyond what they have read and be able to apply their understanding of the theme or idea from each text. For example, learners were asked to relate what they would do if they were one of the characters in the text. The expectation was that they should come up with their own well supported and thoughtful ideas and not reiterate what they read from the text. The marking of this question was done on the scale of 0-2 where 0 was irrelevant information, 1 was moderate answer and 2 relevant and substantiated responses. This question was to test the cognitive thinking ability of the

learners beyond what was appearing on the text. The same procedure was followed with the Sesotho version passage when the English version was completed.

(c) Comprehension Text Retelling

Translanguaging encourages the concurrent use of all linguistic resources that bi/multilingual learners have. It is believed that there is no separation of languages in the mind and therefore a bi/multilingual person has the ability to use languages simultaneously (Makalela, 2015b). In order to test the ability of learners to retell what they read in a different language, learners were asked to write a summary in Sesotho, of a comprehension passage that they read in English. They were also asked to do the same with a Sesotho text, by summarising that in English. In order to test the use of the two languages concurrently, on this question, the language of input was different from the language of output. In a comprehension passage that was in English, learners were asked to write a brief summary of the passage in Sesotho. A similar question also appeared in a Sesotho version passage; learners were asked to write a summary of the story in English. This question was meant to test learners' ability of using both languages concurrently in understanding texts. This helped the researcher to evaluate learners' ability to relate what they read in one language in a different language. This question was also marked on a scale of 0 - 2; where 0 was irrelevant or copied from text; 1 was not fully summarised and 2 was appropriate summary.

3.8 Second Phase - Translanguaging Intervention

The second phase was the intervention or treatment phase. This intervention was done on the two experimental schools; one that was given the pre-test and one that was not given the pre-test. This intervention took place within the period of three weeks between the pre-test and the post-test. Before the intervention, four teachers, two from each school, were trained on how to use translanguaging strategies in a bilingual classroom. These teachers were already teaching Grade 5 learners in those schools to avoid bringing in new facilitators to the learners' classrooms. During the training, these teachers were assisted with lesson plans using translanguaging for a period of three weeks. These lessons were aligned with what learners should have been doing during the intervention period; which means application of these strategies did not interfere with the normal curriculum of the school, but used a new approach in teaching those lessons.

In general, the trained Grade 5 teachers therefore conducted the intervention. The participants for the intervention were Sesotho-English Grade 5 bilingual learners from the assigned two selected experimental schools. This intervention took place in each school during the allocated periods for

language lessons. This was done in order to not disrupt the learners' daily school schedules. During this intervention period translanguaging activities in both English and Sesotho languages were introduced and practised. These activities were repeated several times during the intervention period to help participants familiarise themselves and understand how the translanguaging approach works. Examples of lesson plans are attached (see Appendix 12) to show how lessons were carried out.

3.8.1 Intervention Material

The intervention material was based on the objectives of the study. The variables that the intervention focused on were: vocabulary at word level; reading ability; and comprehension texts in both languages. All translanguaging exercises used during the intervention were applied using the two languages. The teachers' choice of texts was guided by the principles and curriculum of their subjects (Melcho, 2015). They used material that was of the level of the learners, and texts that were used were taken from the prescribed books for Grade 5 so that it was easy for the learners to follow and understand. These texts were used in order to encourage understanding of reading information from one language to another, where the language of input differs from that of the output.

3.8.2 Intervention Steps

Lessons including several exercises on listening comprehension skills, in both languages, at the word and text levels were done. Some words that appeared several times in their textbooks were selected and used in order to train the learners in their listening and writing skills in both languages. The words were dictated to the learners and they were asked to write them down so as to train them in their phonemic awareness. Learners were also trained on how to match the words they hear to what those words represent in reality; that is on the pictures that were provided. This was done in order to develop their ability to understand and relate what they hear and visualize it. This exercise was also done at the word level where the learners were to listen to the word and write that word to test their phonemic, grapheme, and semantic awareness. These words were also selected from their books due to their regular occurrence in the books

Another session that was conducted during the intervention was meant to enhance the literal and inferential comprehension skills of the learners. Passages that were extracted from their textbooks were used for this exercise. This exercise was done in both languages, English and Sesotho.

Learners read the passages and answered the multiple choice questions that followed the passage for the literal comprehension skills; and then answered inferential and summary questions.

During the intervention, learners were again given passages that were extracted from their Sesotho and English textbooks which they had not dealt with in class. The learners were to read one passage at a time and retell that passage in the different language and later in another language. In this way, the language of input was different from the language of output and also the language of input was the same as the language of output. For instance, they were given a Sesotho text to read and retell that text in English and later were to retell that same text in Sesotho. The same thing was done with the English version; they were asked to read the text and retell that in Sesotho and later retell the same passage in English. This exercise was done to help learners to be aware that they could use the knowledge of one language to understand the other when the language of input is different from that of the output. At the end of each exercise, the teacher discussed the procedure and answers with the learners; and where there was a need an exercise was repeated.

3.9 Phase 3 -Post-test

The last phase was the post-test equivalent bilingual battery of tests. The post-test was comparable to the pre-test, and maintained a similar level of difficulty between the pre- and post-tests. The researcher did not use the same pre-test battery of tests in the post-test to avoid duplication or memorization of the answers which other learners could have done. This was also done for validity of the results. The formatting and the number of questions in the tests were similar. This test was given to all the four schools regardless of whether they had the pre-test and the treatment or did not take the two. This means the post-test was given to the two experimental and the two control schools. This allowed the researcher to make a comparison between the schools that were experimental with those that were control groups and also between the groups that were given the pre-test and received the treatment and those that were not given the pre-test, but received the treatment. One experimental school did not take the pre-test, but received the treatment, and the other experimental wrote the pre-test and also received the treatment. On the other hand, one control school did not take the pre-test and did not receive the treatment while the other control school did not receive both the pre-test and the treatment.

The post-test was conducted after the intervention, which means a period of four weeks from the pre-test so as to enable comparison between the two tests. The battery of tests that was used for the post-test was comparable to the pre-test. All the concepts that were included in the pre-test were

also included in the post-test. The test also followed similar procedures that were established in the pre-test.

3.10 Interviews

The purpose of an interview, for this particular research was to explore beliefs, views, perceptions and experiences of participants on a specific objective of this study (Gill et al., 2008). Interviews also allowed the participants to voice out their experiences and perspectives about a particular issue (Creswell, 2008). One of the objectives of this study was to explore perceptions of teachers in relation to the use of translanguaging strategies in developing bilinguals reading skills. It was against this objective that interviews were used for this study. There are three basic types of interviews, namely structured, unstructured and semi-structured interviews. For the purpose of this research semi-structured interviews were found appropriate and were used in order to allow teachers to flexibly give detailed information on their experiences in teaching and elaborate on different activities and issues relating to effectiveness of translanguaging strategies in developing reading without only focusing on what the researcher asked. Even though semi-structured interviews are time consuming, they allow participants to freely and flexibly narrate their views and experiences. These interviews were done with teachers from the experimental schools. They were conducted before and after the intervention in the two experimental schools in order to assess the experiences, perceptions and opinions of the teachers in relation to the use of translanguaging strategies for developing reading skills.

The interviews that were done before the intervention were to explore the normal ways that teachers use in teaching bilingual learners and to find their perspectives and experiences on their usual teaching approaches. These same teachers were later trained on how to teach using all linguistic repertoires of learners concurrently to enhance their reading proficiency and this training was followed by the implementation of the new approach in their teaching for a period of three weeks. After the intervention period, the same teachers were interviewed to give their experiences and perceptions on using languages concurrently in their teaching. This means the first interviews were done during the time when learners were given the pre-test and the second interviews were done after the intervention and post-test. The researcher was able to compare teachers' responses before and after the intervention to determine effectiveness of translanguaging.

Interviews were semi-structured (see Appendix 14) and took about 30-60 minutes, but as indicated earlier, the time was dependent on the information given by a teacher because those interviews were semi-structured. Questions for the first interviews were mostly focusing on the status-quo, which

were the normal approaches of teaching that teachers used in enhancing learners' reading proficiency. These included finding out if they used two or more languages in their teaching and explanations on why they did or did not use all the languages. Interviews after the intervention were done for comparison purpose with the earlier responses of the teachers. These were done to find out whether their opinions and perceptions have changed or were still the same from what they believed in before the intervention. The questions involved their elaboration on their experiences during the implementation of translanguaging strategies in order to explore their views on the use of translanguaging strategies. Teachers were also expected to give their views in relation to participation and performance of learners before and after the intervention. These interviews allowed the researcher to hear the voice of the teachers in relation to translanguaging and to find out if the intervention had any impact or not on the performance of their learners. These interviews were audio recorded.

In addition to the interviews with teachers, six learners from each experimental school were interviewed to also give their own perceptions on the use of translanguaging strategies in developing their reading proficiency. Though the qualitative results do not necessarily have to be generalised, learners that were interviewed were regarded as representation of the other participants in each experimental school. The selection of the learners was done using systematic random sampling among the participants in each grade in the experimental schools. Systematic sampling was used as a technique for creating a probability of choosing any learner for inclusion for interviews without being biased. Intervals that were used for sampling learners were determined by the number of learners in a class to be able to come up with six learners in each school. These learners were asked to give their opinions in relation to how they perceived the use of more than one language in enhancing their comprehension, vocabulary and proficiency. Interviews for learners were also performed before the intervention and after the intervention. After the intervention, learners who were interviewed were selected randomly from learners who did not perform well in the pre-test, but did well in the post-test. This selection was done basically to find out what has contributed in their improvement in performance so as to determine the effectiveness of translanguaging.

The interviews for learners were scheduled to take twenty to thirty minutes. The researcher used audiovisual recording and field notes for capturing data from these interviews and learners were made aware of the use of recording. In both interviews, the researcher guided learners with open-ended questions which allowed them to give as much information as possible when giving their views on the concurrent use of languages. The information that they gave was recorded and later transcribed in order to be analysed. In general, these interviews were done to provide the researcher

with the participants' views and perceptions on how translanguaging has or has not worked for them; or has improved their reading, comparing their reading before the intervention, during the intervention and after the intervention.

3.11 Observations

Besides conducting interviews, observation method was also used as a way of strengthening information on the reactions, perspectives and involvement of learners, from the experimental groups, when using both languages concurrently for reading. Observations are used as a way of providing direct and natural occurring information from the actual context (Wragg, 1999; Nicholls, Mills & Kotecha, 2013). These observations were done to find out how the use of translanguaging strategies assist learners in building their confidence and improve their participation in class and make them understand concepts better (Madiba, 2014, Makalela, 2014, Garcia, 2009) and developing their reading skills. These semi-structured observations (see Appendix 13) did not only allow the researcher to focus on planned issues, but also allowed flexibility of observing any information that occurred in the classroom which could have been useful.

Observations were done before the intervention in order to provide information on what has been happening in those classrooms, the status-quo. They were conducted during the normal lessons of the classes and did not disrupt the classroom timetables. In each of the two experimental schools, observations were done twice to get adequate and accurate information and lessons were scheduled depending on the class timetable and in collaboration with the teacher involved. The time taken for each classroom observation was also dependent on the length of the periods at the school. After each observation, the teacher was interviewed in order to provide clarification on the happenings during the lesson. This means the observations were conducted together with the interviews. The other observations were done on the last week of the intervention to observe whether translanguaging approaches have developed learners' reading or not. These were also followed by the interviews of not only teachers, but of selected learners too.

3.12 Role of the researcher

In this study, I participated as a researcher who just went to the schools to offer tests on the dates that were agreed upon with the schools. This made some of the teachers nervous and anxious on how their learners were going to perform. Some teachers would often come to the class where the test was offered to ask if I had a problem or if things were still fine. With experimental groups, I had meetings with the teachers in explaining and training them on how translanguaging approach

works. This became very easy because some teachers alluded that they were already applying the method in their teaching for meaning making though not allowing their learners to do the same. They encouraged learners to use one language at a time. I also participated in this study as an interviewer of the teachers. This allowed me to find teachers' perceptions on the use of languages. Finally, I took part as an observer during classroom observations. This allowed me "to hear, to see, and to begin to experience reality as the participants do (Marshall & Rossman, 2006: 100, in Pachero, 2018), though it had a certain influence on the teachers and learners (Pachero, 2018). I noticed that lessons were prepared in such a way that learners would be able to participate fully in class and learners that were asked questions were mostly the brilliant ones who would be able to give answers. For example, even though a teacher would reveal some weak learners in the class, none of those were asked questions during the observations.

3.13 Limitations of the Study

The environment and knowledge of these other languages made most participants multilinguals more than being bilinguals and so this could affect the results. The region used for the research was selected because of the availability of the Sesotho-English bilingual learners, but these learners were also speakers of other African languages as that region, SOWETO, is a multilingual region. As mentioned earlier in this chapter, that research site is a complex multilingual context and the issue of mother tongue or home language is not practically applicable to learners. It might be that they have chosen Sesotho as their home language, but in actual fact it might not be; this multilingualism could be a limitation to my study. Translanguaging encourages the use of all linguistic repertoires that learners bring to the classroom, however the focus of this study was on Sesotho and English and in the case where learners had knowledge of other languages that they could utilize, but were not given a chance to do so, this then became a limitation to this study.

The learners' ability and knowledge to reading to learn in both languages could also be a limitation to this study. The expectation would be that learners sampled for this study were at the mid-intermediate phase, have had adequate foundation and knowledge of the two languages, and can easily read to comprehend and communicate well in the two languages, but that could have not been the case.

It is true that the schools that were used for this study were believed to be comparable, but there was no guarantee that they were comparable in all possible ways that were relevant to the study outcome and this could be a limitation. Though the schools selected were comparable and from the same circuit, there is no guarantee that the results from experimental schools might have been

influenced by their background knowledge and ability over performing better than the control groups even before the application of translanguaging strategies. It should be noted that the schools were randomly categorized as experimental and control.

Another limitation could have been vicinity of participants as there was flexibility of choice of schools. The schools selected were in the same area or townships which means there was likelihood of learners mixing and discussing what they do at school. This might have made some learners from control schools aware of the new approach used in experimental schools. Though they would have not applied the strategies in their schools, they might have had an idea and this could have influenced the results.

The relationship between the researcher and the participants could also have been a limitation to the results of this study. The researcher had a limited time of building relationship with the participants and thus could have influenced the responses that they the participants gave during the observations and interviews. The participants might have given responses they thought the researcher wanted to hear during the interviews. During the observations too, the running of the lessons might have not been in the normal way, but in the way that participants thought the researcher wanted them to run. That was the reason why the researcher decided to use semi-structured interviews and observations to allow participants to be free to provide any information.

3.14 Data Analysis

The recorded data were later transcribed and then analysed using a range of analytic tools and approaches such as thematic analysis for qualitative analysis and descriptive statistical analysis for the quantitative analysis. The descriptive statistical analysis included measures of central tendencies (Means) and measures of dispersion - Standard Deviation (Khan, 2014). Furthermore, the inferential statistical procedures, as ANOVA, were also used with regression (cause and effect) and these were pitched at an Alpha value of 0.05 to measure statistical significance of mean gains and effects (Khan, 2014). The analysis was done with the aim of looking at the effects of translanguaging strategies on improving reading in bilinguals. The results from the performance of the learners in the pre-test were used in comparison to their performance in the post-test.

Different comparisons of the four groups were done to establish any effects of pre-test, internal and external factors, and the intervention. These comparisons of the experimental and control groups "allows the researcher to ensure that confounding variables and extraneous factors have not influenced the results" (Shuttleworth, 2009). Comparison was done between two experimental

groups, A, which was given a pre-test and the intervention and C, which did not write the pre-test, but had the intervention. This comparison allowed the researcher to determine whether or not the pre-test had any effect on the performance of the learners in experimental schools. Similar comparison that determined the carry over effect of the pre-test was done between the two control groups where one took the pre-test and another did not take the pre-test. Another comparison was done between Group A and B (control group that wrote a pre-test). Both groups took the pre-test but A also had an intervention, as it was an experimental group whereas B as a control group did not undergo the intervention. Therefore, comparison was done in order to enable the researcher determine the effects of the intervention and so the effects of translanguaging strategies. Similar comparison was also made on the post-test performance of learners in groups C and D where both groups did not take the pre-test, but C was given treatment while D did not as it was a control group. In general, the comparisons were done on the learners' performance in the post-test and the results were analysed in order to determine the effectiveness of the intervention bearing in mind the carry over effects of the pre-test.

Qualitative data that was gathered from the interviews was transcribed and analysed. McMillan and Schumacher (2006, 364) state that qualitative data analysis is "relatively a systematic process of coding, categorising and interpreting data to provide explanations of a single phenomenon of interest." This study had to employ qualitative data analysis because there was information that was collected from the interviews and translanguaging strategies where participants were to retell stories in a different language of input. The analysis therefore, helped the researcher to code and interpret data, and as Brink et al. (2012) say that qualitative data analysis involves an examination of text not numbers. They also point out that in analysis this kind of data one needs to transcribe the data to find patterns and produce explanations using inductive reasoning to categorise data into segments. They refer to this process as coding, which they point out that it is normally used to analyse data collected in interviews. This is why the analysis was found suitable for this study as some of the data was recorded information from interviews and storytelling.

An inductive process of organising data into categories and identifying patterns among the categories was used (McMillan & Schumacher, 2006). The researcher adopted the inductive analysis in analysing the data. In inductive analysis, the researcher uses categories that emerge from the data and not the ones that were already there prior to the collection of data (McMillan & Schumacher, 2006). Inductive analysis also helps researchers to identify multiple realities potentially present in the data (Maree, 2007). The researcher then used the coded data to interpret and describe the events and happenings that took place during the experiments or collection of data.

3.15 Ethical Consideration

A credible research design involves not only selecting informants and effective strategies, but also adhering to research ethics (McMillan & Schumacher, 2006). In order to conduct this study, the researcher considered research ethical principles. This was in line with the research principles not only with the university rules for conducting research, but with research ethics in general. First, the researcher had to seek ethical clearance from the university, which is a principle that is set by the university before any researcher goes out to do research. After thorough consideration of the application, ethical clearance certificate was granted (see Appendix 1) by the university ethics committee.

3.15.1 Permission from Stake Holders

Prior to conducting research, the researcher also had to seek permission to conduct research at schools from the Department of Education in the Gauteng Province. This was to follow research ethics protocols because the research involved teachers and learners as participants in the study. The Department had to be fully informed about the procedures and benefits of the research in order to grant permission to the researcher (see Appendix 2). It was only after that permission had been granted that the researcher continued with research at the four primary schools in the Gauteng Province.

Following permission granted from the Department of Education, permission was also sought from the principals, teachers and parents of the learners in the selected schools. Letters to these different stake holders were written and delivered to them prior to conducting research through the principals of the four selected schools. These people, the principals of the schools (see Appendix 3), the Grade 5 teachers (see Appendix 5) of the four selected schools and the parents of the learners (see Appendix 6) were also given consent forms to fill and sign when they agreed that the study be conducted with their learners. The letters and consent forms were written in both English and Sesotho where necessary (see Appendices 6 -8).

3.15.4 Participants informed assent

It was not enough for the researcher to seek permission from teachers and parents only, but also learners had to be included as a way of following research ethics protocols with the participants themselves. In order to adhere to the principle of voluntary participation which requires people not to be coerced into participating in research (Trochim, 2006), the assent to the study, of the participants, was sought. The participants were not forced to participate in the study, but a clear

explanation of the purpose of the study was given to them prior to the research. This was done by explaining to the participants what the research was about and how it would be conducted. They were told that they were free to withdraw from participating in the study at any time without any fear of being penalized. The researcher therefore sought permission of the participants and their assent to participate in the study. Trochim (2006) further shows that participants must be fully informed about the procedures and risks involved in research and must give their consent to participate. The assent forms (see Appendix 4, 7 & 8) were prepared prior to the collection of data and the participants were requested to fill in and sign once they agreed to participate in the research.

3.15.3 Anonymity and Confidentiality

The researcher also guaranteed the participants confidentiality of the information gathered in the research in order to protect the privacy of research participants. Researchers have to protect the individuals' confidence from other persons and from the general reading public (McMillan & Schumacher, 2006). They were assured that the information will not be made available to anyone who is not directly involved in the study. The principle of anonymity was also observed in this study. The participants were assured that they will remain anonymous throughout the study. The names of the schools and those of the participants remained anonymous and were not disclosed in the study, but referred to as School A, B, C and D. The participants were also assigned numbers where necessary instead of using their names. As McMillan and Schumacher (2006) state that researchers code names of people and places in order to abide to the principle of confidentiality and anonymity.

3.16 Validity and Reliability

Validity, which is whether the instruments accurately measure what they are expected to measure, and reliability - degree in which can be dependent upon to yield consistent results if used repeatedly over time (Brink et al., 2012: 140) were other important aspects that were considered in this study. In order to test validity and reliability in this study, a pilot study was conducted. A pilot study serves to test the effectiveness of the study's organisation, the suitability of the research methods and instruments and to familiarise researchers with the research environment. In general, it helps the researchers discover possible weaknesses, inadequacies, ambiguities and problems in all aspects of the research; so that they can be corrected before the actual data collection takes place (Oppenheim, 1992; Sproull, 1988).

For this study, one primary school from the townships in the Gauteng Province was used for a pilot study. This school was randomly selected from the townships that are dominated by Sesotho HL speakers. The sampling was purposive because the researcher used a school where Sesotho was taught as HL and English as FAL. One class was used as an experimental group and the other as a control group. Participants were 36 Grade 5 learners who use Sesotho as HLand English as FAL. They were aged 10-11 years. The population in the pilot study was determined by the total number of learners in Grade 5 in that school. Similar instruments to the ones that were to be used in the actual study were used in the pilot study to test validity and reliability of the instruments. The pilot study was used as a measure of the quality, relevance, consistency and accuracy of measurements and research instruments (Sarantakos, 2005).

The pilot study was also done in three phases, the pre-test, intervention and post-test. Both groups, the experimental and the control class, were given the pre-test. Then the experimental group was subjected to the intervention while the control group was not. After the intervention, both groups were given a post-test which was equivalent to the pre-test. The period between the pre- and post-tests was four weeks. The researcher then analysed the results from the two groups' pre-tests and post-tests to assess whether the intervention had any impact on the performance of the learners in the tests. It was revealed that the intervention had a great impact on the learners' performance as they performed better in the post-test than in the pre-test. The pilot study confirmed the validity and reliability of the instruments. After the analysis and consideration of the results of the pilot study, the main study was conducted.

3.17 Conclusion

In this chapter, the methodology that had been followed in this study has been discussed in detail. This includes the design and procedures that were followed in collecting and analysing data. This study used mixed methods approach in order to respond to the objectives of the study. Data was collected following qualitative design. This was done through observations and interviews to reflect what had been and were happening in bilinguals' classrooms. During the interviews and observations field notes were taken and video recording were done, which were later transcribed and discussed. Though this study seemed to be a qualitative study, it also included independent quantitative design because it involved comparison of the performance of learners in order to determine effectiveness of translanguaging strategies. For this particular design, the Solomon Four experimental group design helped to give a clear comparison that was made on the performance of learners. This comparison was based on the performance of learners who had been introduced to the use of translanguaging strategies to that of learners who did not use the approach. This

comparison helped the researcher to consider the main research question on the effectiveness of translanguaging for reading development. The different methods that had been used provided broader data for the researcher to have adequate information. The discussion on the methods and procedures that appeared in this chapter served as a guide to the collection and analysis of the data. At this point the results that emerged from the methodology follow this chapter to show what transpired from the methods that had been followed herein as stipulated in this study.

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CHAPTER 4
ANALYSIS AND INTERPRETATION
PRE- AND POST- TESTS RESULTS

4.1 Introduction

The aim of this study is to determine the effectiveness of translanguaging for bilingual learners' reading development. In an effort to do this, learners' vocabulary, reading speed and reading comprehension in both languages were assessed in a battery of pre- and post-tests as discussed in the previous chapter. Therefore, this chapter presents findings and interpretation of results obtained from those tests in three categories of reading proficiency. The first part discusses performance of learners at word level comprehension/vocabulary, then followed by findings from reading fluency/speed and reading comprehension tests consecutively.

4.2 Reading the Word/ Vocabulary

On this category, participants were assessed on their ability to comprehend and identify words sounds, spell words correctly and assign actual meaning of those words. This means learners were tested on phonemic, graphemic and semantic awareness. The results on the three sub-categories are presented below on each of the four schools that participated in this study.

4.2.1 Phonemic Awareness

The first category of vocabulary that was assessed was phonemic awareness. On this section, participants were tested on their ability to recognise sounds of words that were dictated to them from each language. They were to listen to words being dictated and show their understanding by writing the word. The results discussed below show learners' performance on both pre-test and post-test within and between the subjects. Comparison on some schools was also made in response to the main objective of showing whether or not translanguaging approach is effective.

4.2.1.1 Analysis within subjects on Phonemic Awareness

Analysis was done within subjects in order to find out how each of the groups performed on phonemic awareness in trying to evaluate the effectiveness of translanguaging. This was done by comparing the pre- and post-test performance of learners in School A and B. For School C and D only the post-tests were analysed as they did not take the pre-test. The findings from the four groups are discussed below.

(a) Phonemic awareness trials in School A

Participants in School A, an experimental group, took both the pre- and post-tests. The results of the analysis are presented in Table 4.1 below:

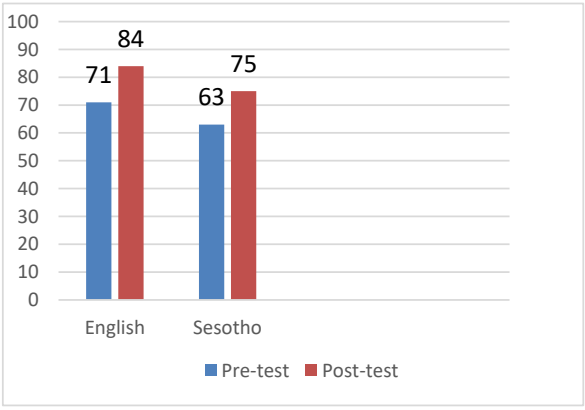
Table 4.1: English and Sesotho phonemic awareness in experimental School A

Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English words	Pre-test	32	28.3438 [71%]	8.79739	.598	.013
	Post-test	36	33.6111 [84%]	8.25064		
Sesotho words	Pre-test	32	25.5000 [63%]	6.96072	.532	.016
	Post-test	36	29.9444 [75%]	7.72360		

English ($t=-2.547$; $df=66$; $p<0.05$) Sesotho ($t=-2.480$; $df=66$; $p<0.05$)

This table shows that the pre-test mean for English was 28.3 (or 71%) and a relatively low standard deviation (SD=8.8). The mean however increased in the post-test (M=33.6 or 84%) with a reduced standard deviation (SD=8.3). This renders the group more homogenous in the post-test, which suggests that the group became more intact as a result of the experimental trials. This shift signals a mean gain of about five points higher in the post-test and a standard deviation reduction of about two points. The results of the t-test, comparing the strength of this mean gain, show that the differences between the pre-test and post-test in phonemic awareness trials are statistically significant at an alpha value of 0.05 ($t=-2.547$; $df=66$; $P<0.05$). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores in the post-test. It is noteworthy that the post-test mean exceeded the international minimum value of 75%.

The second part of the table shows that the mean for phonemic awareness in Sesotho pre-test trial was below (M=25.5 or 63%) the English mean in the same time interval and a lower standard deviation (SD=7.0). The post-test mean for Sesotho increased to 29.9 (or 75%) and a slightly increased standard deviation (SD=7.7). The t-test results reveal that the differences between the post and pre-test in Sesotho are statistically significant at an alpha value of 0.05 ($t=-2.480$; $df=66$; $P<0.05$). The null hypothesis, which predicted no increase in the mean gains after intervention, is rejected.



When comparing English and Sesotho, English had slightly more gains in the post-test (M=33.6 / 84%) compared to its Sesotho counterpart (M=29.9 / 75%), and with high numerical values for both the pre-test and post-test. One interpretation from these results is that translanguaging treatment is useful in increasing levels of phonemic awareness among learners who learn to read in more than one language, especially in developing a second language. Such a gain is more prevalent in English than it is in Sesotho. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

(b) Phonemic awareness tests trials in School B

School B was a control group that took both the pre-test and post-test. The analysis for this school was made to determine the difference in the performance of both the pre-test and post-test. The results for these two tests in both languages are portrayed in Table 4.2 below.

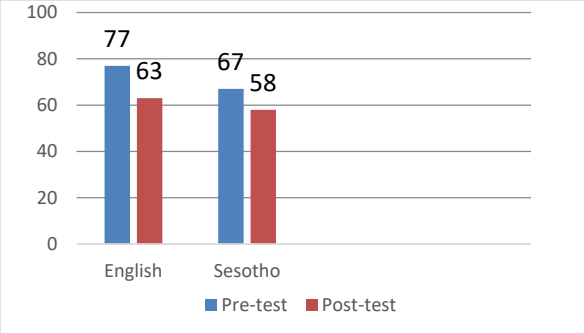
Table 4.2: Performance of School B pre- and post-tests on phonemic awareness

Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English words	Pre-test	54	30.6111 [77%]	11.10739	.895	.012
	Post-test	59	25.3729 [63%]	10.77817		
Sesotho words	Pre-test	54	26.8519 [67%]	10.04970	.761	.056
	Post-test	59	23.3051 [58%]	9.447275		

English ($t=-2.543$; $df=111$; $p<0.05$) Sesotho ($t=1.931$; $df=111$; $p>0.05$)

The results from this table show the English mean in the pre-test to be 30.61 (77%) with a standard deviation of 11.1. The mean however decreased in the post-test to 25.4 (63%) with a slightly lower standard deviation (SD=10.7). Even though there is a slight reduction in the standard deviation, there is a regression with a mean of more than 5 points (14%). The regression signals that learners relapsed in their phonemic awareness instead of improving and gained a percentage, which is far below the international benchmark of 75%. The t-test results show this regression of learners' performance between the pre-test and post-test in English phonemic awareness to be statistically significant at the significance value that is lower than the alpha value of 0.05 ($t=-2.543$; $df=111$; $p<0.05$). We are therefore able to reject the null hypothesis, which predicted no increment in the

post-test on learners who had the pre-test. The similar results of regression were seen from the words that were dictated in Sesotho. Learners had a low mean score (M=26.9 / 67%) in the pre-test, which went down in the post-test (M=23.3 /58%). However, in this case, the t-test reveals the difference in regression from the pre-test to post-test performance from words that were in Sesotho statistically not significant at an alpha value of 0.05 (t=1.931; df=111; p>0.05). Even though the difference is not statistically significant, we can still reject the null hypothesis even in this situation. It should be noted that learners in both the pre-test and post-test performed below the benchmark. This could therefore reflect the issue of the Matthew effect that learners who perform poorly perform poorer as they progress.



When comparing the performance of learners in the post-test for this group on the two languages, the results show more regression of about 5 points in English (M=25.4 / 63%) from its counterpart Sesotho (M=23.3 / 58%) with 3 points loss whereas English had high numerical values for both the pre-test and post-test. This could be interpreted that learners had a higher exposure to English, as a language of learning and teaching (LOLT) than in Sesotho, their home language; and in both languages, the level keeps on going down as they progress in their grade. This regression becomes more prevalent in English than in Sesotho. Translanguaging could therefore be a measure that could prevent this regression in learners' performance.

(c) Phonemic awareness post-test trials in School C

School C was the second experimental school, which participated in this study. This school went through the intervention, but did not take the pre-test like the other experimental school. The results shown below on Table 4.3 are a reflection of the performance of learners in their post- test on phonemic awareness in the two languages that were used.

Table 4.3: Performance of School C Post-test on phonemic awareness

Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English words	Post-test	59	32.1864 [80.4%]	6.56919	.015	.000
Sesotho words	Post-test	59	25.3729 [63.4%]	4.64943		

(t=6.503; df=104; p<0.05)

The results show a higher mean (M=32.2 /80%) performance of learners on words that were dictated in English with a relatively low standard deviation (SD=6.6), whereas from the Sesotho words sounds the mean is 25.4 (63%) with quite a lower than in the English words (SD=4.6). This illustrates that learners' performance in English has improved far above the international benchmark of 75% whereas in Sesotho the average is still below the benchmark even after the intervention. There is a huge difference of about 17% in their ability to identify the sounds of words from English to those from Sesotho. The t-test results portray the difference in the two languages on phonemic awareness to be statistically significant at the alpha value of 0.05 (t=6.503; df=104; p<0.05). This is therefore rejecting the null hypothesis, which predicted no increased variation in scores, in the post-test, between the languages after the intervention. This contradicts that learners are more proficient in their home language than in an additional language. It could also mean that learners at this level are more exposed in English than their home language and are more familiar with the English word sounds than the words sounds in their home language. The results could also mean that the translanguaging intervention has assisted learners to be able to identify sounds of words in an additional language and perform better. The ability of learners, using both languages, has helped them develop in their additional language; and it did not bring any confusion to them and therefore concurrent move between languages becomes an advantage to bilingual learners. The performance in English cannot be argued in relation to how learners were performing before the intervention, as they did not write the pre-test, but had the intervention.

(d) Phonemic awareness post-test trials in School D

School D was another control school, which therefore, was not exposed to the translanguaging intervention. Learners in this school did not write the pre-test, but only took the post-test. The results from the post-test on phonemic awareness of learners in this school appear in Table 4.4.

Table 4.4: Performance of School D post-test on phonemic awareness

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English words	Post-test	40	24.7500 [62%]	10.11916	.778	.273
Sesotho words	Post-test	40	22.3250 [56%]	9.50138		

(t=1.105; df=78; p>0.05)

This table shows that the mean from the words that were dictated in English is 24.75 (62%) with a relative high standard deviation (SD=10.12) whereas the mean score from the Sesotho words is 22.32 (56%) with a lower standard deviation (SD=9.5). However, the t-test results indicate this difference in the performance of learners between the two languages as statistically not significant at the alpha level of 0.05 (t=1.105; df=78; p>0.05). This therefore accepts the null hypothesis, which predicted that there would be no difference in the performance of learners in both languages. However, the mean percentage reflects that learners perform far below the benchmark in both languages. When comparing the two languages, the Sesotho mean is lower than the English mean. This therefore contradicts the expectation that learners would do better in Sesotho than in English. This could be interpreted that learners were more exposed to English as a language of teaching and learning than in their home language.

(e) Analysis between subjects

Analysis was further done between subjects in order to find effectiveness of translanguaging by comparing performance of learners on phonetic awareness. This was done by analysing the post-test performance between one experimental group, which had both the pre-test and the intervention and one control school which took the pre-test, but not the intervention. Another comparison was done between the two schools that did not take the pre-test, but one had an intervention, whereas another one did not. Furthermore, comparison was done between the two experimental groups to determine the effectiveness of the intervention without the influence of the pre-test. Lastly, the two control groups were also compared to determine the carry over effect of the pre-test as to confirm the efficacy of the intervention. The results of these comparisons are discussed below.

4.2.1.2 Analysis between experimental School A and control School B

This analysis of the post-test performance between School A and School B was done to enable the researcher to determine the effectiveness of the translanguaging intervention that was done on School A and not on School B. Table 4.5 below shows the results of this comparison.

Table 4.5: Performance of School A and B on phonemic awareness

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English words	School A	36	33.6111 [84%]	8.25064	.049	.000
	School B	59	25.3729 [63%]	10.77817		
Sesotho words	School A	36	29.9444 [75%]	7.72360	.215	.001
	School B	59	23.3051 [58%]	9.447275		

English ($t=4.193$; $df=88$; $p<0.05$) Sesotho ($t=3.545$; $df=93$; $p<0.05$)

This table shows that the post-test mean for English in School A was 33.6 (or 84%) and a relatively low standard deviation (SD=8.2), whereas the mean for School B was 25.4 (or 63%) with a higher standard deviation (SD=10.8) than that of School A. This renders that School A learners were more homogenous in the post-test, which suggests that the group became more in-tact as a result of the experimental trials. This signals a mean difference of about eight points higher than the group B performance in English post-test and a standard deviation reduction difference of more than two points. The results of the t-test, comparing the difference between the two groups in English, show that the differences between the two groups in English phonemic awareness trails are statistically significant at an alpha value of 0.05 ($t=4.193$; $df=88$; $p<0.05$). We are therefore able to reject the null hypothesis which predicted no increased variation in scores between the two groups in English in the post-test. It should be noted that the post-test mean in English of School A had far exceeded the international minimum value of 75%, but that of School B was far below the international benchmark.

The second part of the table shows that the mean for phonemic awareness in Sesotho for School A was M=29.9 (75%) with a lower standard deviation (SD=7.7), whereas the mean for School A was lower (M=23.2 / 58%) and a slightly increased standard deviation (SD=9.4). The t-test results reveal that the differences between the performance of the two groups in Sesotho are statistically significant at an alpha value of 0.05 ($t=3.545$; $df=93$; $p<0.05$). The null hypothesis, which predicted no difference in the mean gains after the intervention, is rejected.

When comparing the performance of the two schools in English and Sesotho, both schools performed better in English than in Sesotho phonemic awareness. School A had slightly more gains of about 4 points in English than in Sesotho, whereas School B had about 2 gains between English and Sesotho. School A had higher numerical values for both English (M=33.6 / 84%) and Sesotho (M=29.9 / 75%) than its counterpart, School B ((M=25.4/ 75%; 23.3 /58%). One interpretation from these results is that translanguaging treatment is useful in increasing levels of phonemic awareness among learners who learn to read in more than one language. Such a gain is more prevalent in English than it is in Sesotho. Translanguaging therefore breaks the monolingual bias belief that knowledge of more than one language causes confusion, but instead it helps learners improve in all languages even in a second language.

4.2.1.3 Phonemic awareness post-test trials between experimental School C and control School D

This analysis of the post-test performance between School C and School D was done to enable the researcher to determine the effectiveness of the translanguaging intervention that was done with School C and not with School D. Both schools did not take the pre-test, therefore no carry over effect that was tested on them. Table 4.6 below shows the results of this comparison.

Table 4.6: Performance of Schools C and D on phonemic awareness

Variable	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English words	School C	59	32.1864 [80%]	6.56919	.025	.000
	School D	40	24.7500 [62%]	10.11916		
Sesotho words	School C	59	25.3729 [63%]	4.64943	.000	.065
	School D	40	22.3250 [56%]	9.50138		

English ($t=4.099$; $df=61.1$; $p<0.05$) Sesotho ($t=1.882$; $df=51.8$; $p>0.05$)

The table shows that School C post-test mean for English was 32.2 (80%) and a relatively low standard deviation (SD=6.6). On the other hand, the mean for School D, control group, was lower (24.8 / 62%) with a higher standard deviation (SD=10.1). This renders that the experimental group C was more homogenous in the post-test than School D, which suggests that School C became more intact as a result of the experimental trials. This difference signals a mean gain difference of about eight points between the groups and a standard deviation difference of about four points. The results of the t-test, comparing the mean difference between the two groups in English phonemic awareness trials, show that the difference is statistically significant at an alpha value of 0.05 ($t=4.099$; $df=61.1$;

$p<0.05$). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores in the post-test. It should also be noted that the experimental group, School C, had a post-test mean (80%) that exceeded the international minimum value of 75%, whereas the control school had a far lower mean than the international benchmark of 75%.

The second part of the table shows that the mean scores for phonemic awareness in Sesotho post-test trial for both schools were lower than the mean scores in English in the same time interval. School C had a mean of 25.4 (63%) with a lower standard deviation (SD=4.6). The post-test mean in Sesotho phonemic awareness was below (M=22.3 / 56%) that of School C and with a higher standard deviation (SD=9.5). The t-test results reveal that the differences between the mean performance of the two groups in Sesotho are not statistically significant at an alpha value of 0.05 ($t=1.882$; $df=51.8$; $p>0.05$). The null hypothesis, which predicted no difference in the mean gains after intervention, is accepted.

When comparing the performance of the schools in English and Sesotho, both schools performed better in English than in Sesotho, but School C had a difference of about seven points gains in English over School D. In Sesotho, School C had (M=25.4) about three points more than School D (M=22.3). One interpretation from these results is that translanguaging treatment is useful in increasing levels of phonemic awareness among learners who learn to read in more than one language. Such a gain is more prevalent in English than it is in Sesotho. Translanguaging therefore helps bilingual learners to become more fluent in a second language and breaks the idea of monolingual bias.

4.2.1.4 Phonemic awareness post-test trials between two experimental Schools A and C

The analysis between the two experimental schools was done in order to detect the carry over effect of the pre-test in order to determine the effectiveness of translanguaging intervention that was offered to the two schools. One experimental School A had a pre-test and experimental School C did not take the pre-test. Therefore, this helped in detecting any carry over effect on the performance of School A versus that of School C. Table 4.7 below shows the results of these two schools on phonemic awareness.

Table 4.7: Performance of Schools A and C on Phonemic awareness

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English words	School A	36	33.6111 [84%]	8.25064	.834	.355
	School C	59	32.1864 [80%]	6.56919		
Sesotho words	School A	36	29.9444 [75%]	7.72360	.013	.002
	School C	59	25.3729 [63%]	4.64943		

English ($t=0.929$; $df=93$; $p>0.05$) Sesotho ($t=3.214$; $df=51$; $p<0.05$)

This table shows that the post-test mean for English in School A was 33.6 (84%) and slightly higher than that of School C (M=32.2 / 80%). However, the standard deviation in School A is relatively higher (SD=8.3) than that of School C (SD=6.6). This renders School C more homogenous than School A in the post-test, which suggests that School C group became more intact as a result of the experimental trials than School A. The results show that there is a mean gain of about one point for School A over the mean of School C with a higher standard deviation of about two points. The results of the t-test, comparing the strength of this mean gain, show that the differences between the performance of the two groups in English phonemic awareness trails are not statistically significant at an alpha value of 0.05 ($t=0.929$; $df=93$; $p>0.05$). We are therefore able to accept the null hypothesis, which predicted increased variation in scores in the post-test. It should, however, be noted that both schools' performance post-test means exceeded the international minimum value of 75% which implies that the intervention had a great impact in developing reading on learners using more than one language.

The second part of the table further shows the mean scores for phonemic awareness in Sesotho post-test trials for both schools were below the English mean scores in the same time interval. The mean for School A was 29.9 (75%) with a standard deviation (SD=7.7) higher than that of School C. The mean for School C was lower (25.4 / 63%) than that of School A, but with a lower standard deviation (SD=4.6). However, the t-test results reveal that the differences between the post and pre-test in Sesotho are statistically significant at an alpha value of 0.05 ($t=3.214$; $df=51$; $p<0.05$). The null hypothesis, which predicted no difference in the mean of the two groups after intervention, is rejected. When comparing English and Sesotho, between the two groups, Sesotho had more mean gain difference than English, even though the English numerical values were high for both groups. This could be interpreted that translanguaging treatment is useful in increasing levels of phonemic awareness among learners who learn to read in more than one language. Such a gain is more

prevalent in Sesotho than it is in English. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.2.1.5 Phonemic awareness post-test trials between two control schools, B and D

The analysis between the two control schools was done in order to detect the carry over effect of the pre-test as a way of confirming the effectiveness of the translanguaging intervention that was offered to the experimental schools. One control School B had a pre-test and another control School D did not take the pre-test. Therefore, this helped in detecting any carry over effect on the performance of School B versus that of School D. Table 4.8 below shows the results of these two schools on phonemic awareness.

Table 4.8: Performance of Schools B and D on phonemic awareness

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English words	School B	59	25.3729 [63%]	10.77817	.661	.773
	School D	40	24.7500 [62%]	10.11916		
Sesotho words	School B	59	23.3051 [58%]	9.447275	.805	.615
	School D	40	22.3250 [56%]	9.50138		

English (t=0.289; df=97; p>0.05) Sesotho (t=0.505; df=97; p>0.05)

This table shows that the post-test mean for School B in English was 25.4 (or 63%) and a relatively low standard deviation (SD=10.7). The mean for School D in English was however slightly lower (M=24.8 or 62%) with a bit lower standard deviation (SD=10.1). This signals a relative same level performance of the two groups in phonetic awareness English test trial. The results of the t-test, comparing the strength of the difference between the two groups in phonemic awareness trial, show that the difference is not statistically significant at an alpha value of 0.05 (t=0.289; df=97; p>0.05). We are therefore able to accept the null hypothesis, which predicted increased variation in scores of the two groups in the post-test. However, both schools' mean scores were far below the international minimum value of 75%.

The second part of the table shows that the mean for phonemic awareness in Sesotho post-test trial for School B was below (M=23.3 or 58%) the English mean in the same time interval and a lower standard deviation (SD=9.4). The mean for its counterpart, School D, was also lower (M=22.3 / 56%) with a slightly increased standard deviation (SD=9.5). The t-test results further reveal that the differences between the two groups in Sesotho post-test trials are not statistically significant at an

alpha value of 0.05 (t=0.505; df=97; p>0.05). The null hypothesis, which predicted no difference in the mean gains in the post-test trials, is accepted. When comparing English and Sesotho, there is a difference of about one point between the two groups, English (M=25.4 63%; 24.6 /62%) and Sesotho (M=23.3/58%; M=22.3 / 56%) with English having slightly high numerical values in both groups. An interpretation from these results is that there is a need for a strategy such as translanguaging treatment that could help increase levels of phonemic awareness among learners who learn to read in more than one language.

4.2.2 Cross comparison of the four schools on Phonemic awareness post-test trials

Cross-comparison was also done among the four schools, two experimental and two control groups in order to determine their post-test means on phonemic awareness. This was done to further investigate the effectiveness of translanguaging intervention among the schools.

Table 4.9: Performance of the four groups on phonemic awareness

Text Language	School	N	Mean	Std. Deviation
English words	School A	36	33.6111 [84%]	8.25064
	School B	59	25.3729 [63%]	10.77817
	School C	59	32.1864 [80%]	6.56919
	School D	40	24.7500 [62%]	10.11916
Sesotho words	School A	36	29.9444 [75%]	7.72360
	School B	59	23.3051 [58%]	9.447275
	School C	59	25.3729 [63%]	4.64943
	School D	40	22.3250 [56%]	9.50138

This table shows that the post-test mean for English in School A was the highest (M=33.6 / 84%) with a relatively low standard deviation (SD=8.3). The second group was School C (M=32.2 / 80%), but with a slightly lower standard deviation (SD=6.6) than that of School A. The results, therefore, show both experimental groups, School A and School C were more homogenous in the post-test, which suggests that they became more intact as a result of the experimental trials. These two schools are followed by School B (M=25.4 / 63%) and a higher standard deviation (10.8) than all the other schools. The lowest post-test mean in English phonemic awareness is School D (M=24.8 / 62%) and with a lower standard deviation than that of School B. The two control groups performed more or less on the same level on their mean and standard deviation. When comparing the four groups on English words phonemic awareness, the experimental groups outperformed the control groups. This

therefore confirms the effectiveness of the translanguaging intervention offered to experimental groups. It should also be noted that both experimental groups' performance post-test means for English exceeded the international minimum value of 75% which implies that the intervention had a great impact in developing reading on learners using more than one language, whereas both control groups' means were below the international benchmark.

The second part of the table shows the mean scores for phonemic awareness in Sesotho post-test trials for the four schools were below the English mean scores in the same time interval, but still following the same order. The mean for School A was 29.9 (75%) with a standard deviation (SD=7.7) higher than that of School C. The mean for School C was lower (25.4 / 63%) than that of School A, but with a lower standard deviation (SD=4.6). When looking at the standard deviation, it shows School C to be more homogeneous than School A as a result of the intervention, although School A had higher mean scores. However, the post-test mean in Sesotho for School B still follows the two experimental groups (M=23.3 /58%) with a higher standard deviation (SD=9.4). The mean for School D still becomes the lowest (M=22.3) with a closer standard deviation (SD=9.5) to that of School B. These results further confirm that the intervention had a positive impact on the performance of the two experimental schools. However, it should be noted that all the schools, except School A (M=75%), performed below the international minimum value of 75%. This renders that English had more mean gains in all the schools than Sesotho with high numerical values in the experimental groups. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.3 Graphemic Awareness

The other category in vocabulary, that was looked into was graphemic awareness. In order for learners to develop in reading, phonemic awareness must be accompanied by graphemic awareness. One of the objectives of this study was to test the ability of learners not only to hear the sounds of words, but also be able to put the letters of the words together to come up with a meaningful word. These test trials were done in both pre-tests and post-tests in some schools, whereas others were only in the post-tests. The results are presented below within and between the schools.

4.3.1 Analysis within subjects on Graphemic Awareness

Analysis was done within subjects in order to find out how each of the groups performed on graphemic awareness, in trying to evaluate the effectiveness of translanguaging. This was done by comparing the pre- and post-test performance of learners in School A and B. For School C and D only the post-tests were analysed as they did not take the pre-test. The findings from the four groups are discussed below.

4.3.1.1 Graphemic awareness pre- & post-tests trials in School A

The findings on how learners in School A, an experimental group, were able to make sense of the sounds and letters and spell them correctly are tabulated on Table 4.10 below.

Table 4.10: Performance of School A pre- and post-tests on Graphemic awareness

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English words	Pre-test	32	4.8125 [96%]	0.60684	.000	.004
	Post-test	36	4.4444 [89%]	0.39656		
Sesotho words	Pre-test	32	4.6250 [93%]	1.05522	.131	.475
	Post-test	36	4.4722 [89%]	0.60907		

English ($t=2.991$; $df=61$; $p<0.05$) Sesotho ($t=0.719$; $df=66$; $p>0.05$)

This table shows that the pre-test mean for English was 4.8 (or 96%) and a relatively low standard deviation (SD=0.6). The mean however declined in the post-test (M=4.4 or 89%) with a reduced standard deviation (SD=0.4). This renders the group more homogenous in the post-test, which suggests that the group became more intact as a result of the experimental trials even though there was regression in the mean. This shift signals a slight mean loss of less than 0.5 points in the post-test and a standard deviation reduction of about 0.2 points. The results of the t-test, comparing the mean, show that the differences between the pre-test and post-test in graphemic awareness trials are statistically significant at an alpha value of 0.05 ($t=2.991$; $df=61$; $p<0.05$). We are therefore able to reject the null hypothesis, which predicted increased variation in scores in the post-test. It is noteworthy that both the pre-test and the post-test mean exceeded the international minimum value of 75%.

The second part of the table shows that the mean for graphemic awareness in Sesotho pre-test trial was slightly below (M=4.6 or 93%) the English mean in the same time interval and had a higher

standard deviation (SD=1.1). The post-test mean for Sesotho also declined to 4.5 (or 89%) and a slightly lower standard deviation (SD=0.6). The t-test results reveal that the differences between the post and pre-test in Sesotho are not statistically significant at an alpha value of 0.05 (t=0.719; df=66; p>0.05). The null hypothesis, which predicted no increase in the mean gains after intervention, is therefore accepted. When comparing English and Sesotho, English had slightly more loss in the post-test (M=4.4 / 89%) compared to its Sesotho counterpart (M=4.5 / 89%), but when looking at the numerical values in the post-test, they are both on the same level of (M=4.4/5 / 89%), whereas English had slightly higher numerical values in the pre-test. One interpretation from these results is that translanguaging treatment is useful in increasing levels of graphemic awareness among learners who learn to read in more than one language. It breaks the boundaries between languages; no language is superior to the other.

4.3.1.2 Graphemic awareness pre- and post-tests trials in School B

School B was a control school that took both the pre-test and post-test trials in graphemic awareness. The mean scores of learners in this group in both the pre-test and post-test are presented in the following table.

Table 4.11: Performance of School B pre- and post-tests on Graphemic awareness

Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English words	Pre-test	54	4.3704 [87%]	1.36391	.100	.002
	Post-test	59	3.5085 [70%]	1.44285		
Sesotho words	Pre-test	54	4.2037 [84%]	1.24960	.021	.022
	Post-test	59	3.5593 [71%]	1.67405		

English (t=3.256; df=111; p<0.05) Sesotho (t=2.331; df=108; p<0.05)

This table shows that the pre-test mean for English was 4.4 (87%) and a relatively low standard deviation (SD=1.4). However, the mean decreased with a loss of about one point in the post-test (M=3.5 or 70%) with a slightly increased standard deviation (SD=1.4). This renders the group more heterogeneous in the post-test, which suggest that the group became more diverse as they progress in their grade. The results of the t-test, comparing this mean loss from the pre-test to the post-test, show that the differences in English graphemic awareness trials for this group are statistically significant at an alpha value of 0.05 (t=3.256; df=111; p<0.05). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores in the post-test. It can also be noted that the performance in the post-test went down below the international minimum value of 75%.

The second part of the table shows that the mean for graphemic awareness in Sesotho pre-test trial was slightly below (M=4.2 or 84%) the English mean in the same time interval and a similar standard deviation (SD=1.4). The post-test mean for Sesotho also declined to 3.6 (71%) and a slightly increased standard deviation (SD=1.7). The t-test results reveal that the differences between the post and pre-test in Sesotho are statistically significant at an alpha value of 0.05 (t=2.331; df=108; $p<0.05$). The null hypothesis, which predicted no increased variation in the mean for the post-test, is rejected. When comparing English and Sesotho, English had slightly more loss from the pre-test to the post-test (M=4.4 /87% - 3.5/70%) compared to its Sesotho counterpart (M=4.2 /84% - 3.6/71%), and with slightly higher numerical values in the pre-test and the similar values in the post-test. This shows that learners' levels of graphemic awareness among learners who learn to read in more than one language decreases in both languages as they progress in their learning. There is therefore a need to find an approach that can help to develop learners' graphemic awareness in all languages.

4.3.1.3 Graphemic awareness post-test trials in School C

School C was the second experimental school, which participated in this study. This school went through the intervention, but did not take the pre-test like the other experimental school. The results shown below on Table 4.12 are a reflection of the performance of learners in their post-test on graphemic awareness in the two languages that were used.

Table 4.12: Performance of School C post-test on Graphemic awareness

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English words	Post-test	59	3.7288 [75%]	1.12695	.056	.369
Sesotho words	Post-test	59	3.8983 [78%]	0.90392		

(t=-.901; df=116; p> 0.05)

The first part of the table shows that the post-test mean for English was 3.7 (75%) and a relatively low standard deviation (SD=1.1). The mean for this group in English graphemic awareness is on the level of the international benchmark of 75%. On the other hand, the second part of the table shows that the mean for graphemic awareness in Sesotho was slightly higher (M=3.9 or 78%) than the English mean in the same time interval and with a lower standard deviation (SD=0.9). (SD=7.7). This renders the group more homogenous in Sesotho than in English. It should be noted that the performance in Sesotho is a bit higher than the international benchmark of 75%. However, the results of the t-test, comparing the difference in the performance of this experimental group in the

two languages in graphemic awareness trials, show that it is not statistically significant at an alpha value of 0.05 (t=-.901; df=116; p> 0.05). We are therefore able to accept the null hypothesis, which predicted increased variation in scores between the two languages. One interpretation from these results is that translanguaging treatment is useful in increasing levels of graphemic awareness above the international benchmark among learners who learn to read in more than one language. Such an increase is seen to be more in Sesotho than it is in English. It can therefore, be concluded that translanguaging breaks the hegemony of English as the sole language of literacy in similar contexts.

4.3.1.4 Graphemic awareness post-test trials in School D

School D was another control school which was not exposed to the translanguaging intervention. Learners in this school did not write the pre-test, but only took the post-test. The results from the post-test on graphemic awareness of learners in this school appear in Table 4.13.

Table 4.13: Performance of School D post-test on Graphemic awareness

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English words	Post-test	40	2.9250 [59%]	1.42122	.164	.081
Sesotho words	Post-test	40	3.5750 [72%]	1.83816		

(t=1.105; df=78; p >0.05)

The first part of the table shows that the post-test mean for English was 2.9 (59%) and a relatively low standard deviation (SD=1.4). The mean for this group in English graphemic awareness is far below the level of the international benchmark of 75%. On the other hand, the second part of the table shows that the mean for graphemic awareness in Sesotho was slightly higher (M=3.6 or 72%) than the English mean in the same time interval and with a higher standard deviation (SD=1.8). This renders the group to be heterogeneous in both languages. It should be noted that even though the performance in Sesotho is a bit higher than that of English, it is still below the international benchmark of 75%. The results of the t-test, comparing the difference in the performance of this control group in the two languages in graphemic awareness trials, show that it is not statistically significant at an alpha value of 0.05 (t=1.105; df=78 ; p >0.05). We are therefore able to accept the null hypothesis, which predicted increased variation in scores between the two languages. it can be concluded from these results that the levels of graphemic awareness of these learners is far below the international benchmark and therefore a need to find means of developing graphemic awareness among learners who learn to read in more than one language.

4.3.2 Graphemic awareness between subjects

Analysis was further done between subjects in order to find effectiveness of translanguaging by comparing performance of learners on graphemic awareness. This was done by analysing the post-test performance between one experimental group, which had both the pre-test and the intervention and one control school which took the pre-test, but not the intervention. Another comparison was done between the two schools that did not take the pre-test, but one had an intervention whereas another one did not. Furthermore, comparison was between the two experimental groups to determine the effectiveness of the intervention without the influence of the pre-test. Lastly, the two control groups were also compared to determine the carry over effect of the pre-test as to confirm the efficacy of the intervention. The results of these comparisons are discussed below.

4.3.2.1 Graphemic awareness post-test trials between School A and School B

Further analysis was done between subjects in order to find effectiveness of translanguaging by comparing post-test performance of learners between one experimental group A, which had both the pre-test and the intervention and one control School B, which took the pre-test, but not the intervention. Table 4.14 below shows the results of this comparison.

Table 4.14: Performance of Schools A and B on Graphemic awareness

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English words	School A	36	4.4444 [89%]	0.39656	.000	.000
	School B	59	3.5085 [70%]	1.44285		
Sesotho words	School A	36	4.4722 [89%]	0.60907	.003	.002
	School B	59	3.5593 [71%]	1.67405		

English ($t=4.387$; $df=85$; $p< 0.05$) Sesotho ($t=-3.260$; $df=93$; $p< 0.05$)

This table shows that the post-test mean for English in School A was 4.4 (89%) and a relatively low standard deviation (SD=0.4), whereas the mean for School B was 3.5 (70%) with a higher standard deviation (SD=1.4) than that of School A. This renders that School A learners were more homogenous in the post-test, which suggests that the group became more intact as a result of the experimental trials. This signals a mean difference of about one point, equivalent to about 20%, higher than the group B performance in English post-test and a standard deviation reduction difference of one. The results of the t-test, comparing the difference between the two groups in English, show that the differences between the two groups in English graphemic awareness trials

are statistically significant at an alpha value of 0.05 (t=4.387; df=85; p< 0.05). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores between the two groups in English in the post-test. It should be noted that the post-test mean in English for School A had far exceeded the international minimum value of 75%, but that of School B was far below the international benchmark.

The second part of the table shows that the mean for phonemic awareness in Sesotho for School A was M=4.5 (89%) with a lower standard deviation (SD=0.7), whereas the mean for School A was lower (M=3.5 / 71%) and a higher standard deviation (SD=1.7). The t-test results reveal that the differences between the performance of the two groups in Sesotho are statistically significant at an alpha value of 0.05 (t=-3.260; df=93; p< 0.05). The null hypothesis, which predicted no difference in the mean gains after the intervention, is rejected. When comparing the performance of the two schools in English and Sesotho, School A had higher numerical values for both English (M=4.4 / 89%) and Sesotho (M=4.5 / 89%) than its counterpart, School B ((M=3.5 / 70%; 3.6 / 71%). It can be seen that both schools remained on the same level on both languages. One interpretation from these results is that translanguaging treatment is useful in increasing levels of graphemic awareness among learners who learn to read in more than one language and breaks the hierarchy between languages. This is prevalent in School A's performance in both languages. On the other hand, School B shows no improvement in both languages.

4.3.2.2 Graphemic awareness post-test trials between School C and School D

This analysis of the post-test performance between School C and School D was also done to enable the researcher to determine the effectiveness of the translanguaging intervention that was done with School C and not with School D. Both schools did not take the pre-test, therefore no carry over effect that was tested on them. Table 4.15 below shows the results of this comparison.

Table 4.15: Performance of Schools C and D on Graphemic awareness

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English words	School C	59	3.7288 [75%]	1.12695	.110	.002
	School D	40	2.9250 [59%]	1.42122		
Sesotho words	School C	59	3.8983 [78%]	0.90392	.000	.307
	School D	40	3.5750 [72%]	1.83816		

English (t=3.131; df=97; p< 0.05) Sesotho (t=1.031; df=52; p>0.05)

The table shows that School C post-test mean for English was 3.7 (75%) and a relatively low standard deviation (SD=1.1). On the other hand, the mean for School D, control group, was lower (2.9 / 59%) with a higher standard deviation (SD=1.4). This renders that the experimental group C was more homogenous in the post-test than School D, which suggests that School C became more intact as a result of the experimental trials. This difference signals a mean gain difference of about 0.8, equivalent to 16%, between the groups and a standard deviation difference of about 0.3 points. The results of the t-test, comparing the mean difference between the two groups in English graphemic awareness trials, show that the difference is statistically significant at an alpha value of 0.05 ($t=3.131$; $df=97$; $p< 0.05$). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores in the post-test between the two groups. It should also be noted that the experimental group, School C, had a post-test mean (75%) that is equal to the international minimum value of 75% whereas the control school had a far lower mean than the international benchmark.

The second part of the table shows that the mean scores for graphemic awareness in Sesotho post-test trial for School C was 3.9 (78%) a bit higher than that of English in the same time interval and with a lower standard deviation (SD=0.9). The post-test mean in Sesotho graphemic awareness for School D was below (M=3.6 / 72%) that of School C and with a higher standard deviation (SD=1.8). However, the mean in Sesotho for this school was also higher than that of English. The t-test results reveal that the differences between the mean performance of the two groups in Sesotho are not statistically significant at an alpha value of 0.05 ($t=1.031$; $df=52$; $p>0.05$). The null hypothesis, which predicted no increased variation in scores between the two groups in the post-test, is therefore accepted.

When comparing the performance of the schools in English and Sesotho, both schools performed better in Sesotho than in English. Although English had more gains of about 0.8 points between the two groups than Sesotho with 0.3 points, it should be noted that Sesotho had higher numerical values than English did on both groups. One interpretation from these results is that translanguaging treatment is useful in increasing levels of graphemic awareness among learners who learn to read in more than one language. This is seen on the performance of School C. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.3.2.3 Graphemic awareness post-test trials between schools A & C

The analysis between the two experimental schools was done in order to detect the carry over effect of the pre-test as a way of determining the effectiveness of the translanguaging intervention that was offered to the two schools. One experimental School A had a pre-test and experimental School C did not take the pre-test. Therefore, this helped in detecting any carry over effect on the performance of School A versus that of School C. Table 4.16 below shows the results of these two schools on graphemic awareness.

Table 4.16: Performance of Schools A and C on Graphemic awareness

Variable	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English words	School A	36	4.4444 [88%]	0.39656	.003	.000
	School C	59	3.7288 [76%]	1.12695		
Sesotho words	School A	36	4.4722 [89%]	0.60907	.739	.006
	School C	59	3.8983 [78%]	0.90392		

English ($t=-4.016$; $df=92$; $p<0.05$) Sesotho ($t=2.816$; $df=93$; $p<0.05$)

This table shows that the post-test mean for English in School A was 4.4 (88%) with a relative lower standard deviation (SD=0.4). The mean for School C (M=3.7 / 76%) is lower than that of School A with a higher standard deviation (SD=1.1) than that of School A. This renders School A more homogenous than School C in the post-test, which suggests that School A group became more intact as a result of the experimental trials than School C, even though they both had the intervention. The results show that there is a mean gain of about 0.7 for School A over the mean of School C with a reduction of about 0.8 in the standard deviation. The results of the t-test, comparing the strength of this mean gain, show that the differences between the performance of the two groups in English graphemic awareness trials are statistically significant at an alpha value of 0.05 ($t=-4.016$; $df=92$; $p<0.05$). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores of the two groups in the post-test. It should, however, be noted that both schools' performance post-test means exceeded the international minimum value of 75%, which implies that the intervention had a great impact in developing reading on learners using more than one language.

The second part of the table further shows the mean scores for graphemic awareness in Sesotho post-test trials for the two experimental schools. The English mean scores in Sesotho for School A was slightly higher (4.5 /89%) than that of English in the same time interval, but with a higher standard deviation (SD=0.6) than that of English. The mean for School C was 3.9 (78%) lower than

that of School A with a higher standard deviation (SD=0.9) than that of School A, though lower than the one in English. However, the t-test results reveal that the differences between the two experimental Sesotho post-test trials are statistically significant at an alpha value of 0.05 (t=2.816; df=93; p<0.05). The null hypothesis, which predicted no difference in the mean of the two groups after intervention, is rejected.

When comparing English and Sesotho, between the two groups, both languages had similar gains, even though the Sesotho numerical values seem to be slightly higher than the English ones with the mean gain of 0.1 points. This could be interpreted that translanguaging treatment has helped learners who learn to read in more than one language in increasing their levels of graphemic awareness equally in both languages. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.3.2.4 Graphemic awareness post-test trials between control schools, B and D

The analysis between the two control schools was done in order to detect the carry over effect of the pre-test as a way of confirming the effectiveness of the translanguaging intervention that was offered to the experimental schools. One control School B had a pre-test and another control School D did not take the pre-test. Table 4.17 below shows the results of these two schools on graphemic awareness.

Table 4.17: Performance of Schools B and D on Graphemic awareness

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English words	School B	59	3.5085 [70%]	1.44285	.868	.050
	School D	40	2.9250 [59%]	1.42122		
Sesotho words	School B	59	3.5593 [71%]	1.67405	.552	.965
	School D	40	3.5750 [72%]	1.83816		

English (t=1.986; df=97; p>0.05) Sesotho (t=-0.044; df=97; p >0.05)

This table shows that the post-test mean for School B in English was 3.5 (or 70%) and a relatively low standard deviation (SD=1.4). The mean for School D in English was, however, lower (M=2.9 or 59%) with the same standard deviation (SD=1.4) as that of School B. This signals a similar deviation level among learners in the two groups in graphemic awareness in English post-test trials. The results of the t-test, comparing the strength of the performance difference between the two groups in graphemic awareness trials, show that the difference is not statistically significant at an alpha value of 0.05 (t=1.986; df=97; p>0.05). We are therefore able to accept the null hypothesis,

which predicted no increased variation in scores of the two groups in the post-test. However, both schools' mean scores were far below the international minimum value of 75%, which confirms that learners in South Africa read below the international benchmark.

The second part of the table shows that the mean for graphemic awareness in Sesotho post-test trial for School B was 3.6 (71%) slightly higher than its English mean in the same time interval, but with a higher standard deviation (SD=1.7). The mean for its counterpart, School D, was higher (M=3.6 / 72%) than that of English with a slightly increased standard deviation (SD=1.8). The t-test results further reveal that the differences between the two groups in Sesotho post-test trials are not statistically significant at an alpha value of 0.05 ($t=-0.044$; $df=97$; $p>0.05$). The null hypothesis, which predicted no increased variation in the post-test trials between the two groups, is accepted. It should be noted, however, that both groups performed below the international benchmark in Sesotho as they did in English. When comparing English and Sesotho, there is a difference of about 0.6 between the two groups in English, whereas in Sesotho the two groups performed more or less on the same level. It can be further concluded that there is a need for a strategy such as translanguaging treatment that could help increase levels of graphemic awareness among learners who learn to read in more than one language.

4.3.3 Cross-comparison of the four groups on graphemic awareness

Cross-comparison was also done among the four schools, two experimental and two control groups in order to determine their post-test means on graphemic awareness. This was done to further investigate the effectiveness of translanguaging intervention among the schools.

Table 4.18: Cross comparison of the post-test on the four groups on graphemic awareness

Text Language	School	N	Mean	Std. Deviation
English words	School A	36	4.4444 [89%]	0.39656
	School B	59	3.5085 [70%]	1.44285
	School C	59	3.7288 [75%]	1.12695
	School D	40	2.9250 [59%]	1.42122
Sesotho words	School A	36	4.4722 [89%]	0.60907
	School B	59	3.5593 [71%]	1.67405
	School C	59	3.8983 [78%]	0.90392
	School D	40	3.5750 [72%]	1.83816

This table shows that the post-test mean for English in School A was the highest (M=4.4 / 89%) with a relatively low standard deviation (SD=0.3). The second group was School C (M=3.7 / 75%) and with a higher standard deviation (SD=1.1) than that of School A. The results therefore show School A to be more homogenous in the English graphemic post-test than School C, which suggests that they became more intact as a result of the experimental trials. These two schools are followed by School B (M=3.5 / 70%) and a higher standard deviation (SD=1.4) than that of the two experimental groups. The lowest post-mean in English graphemic awareness is School D (M=2.9 / 59%) and with the same standard deviation (SD=1.4) to that of School B. This renders the two control groups more or less on the same level of standard deviation, even though the mean scores for School A are higher. When comparing the four groups on English words graphemic awareness, the experimental groups outperformed the control groups. This therefore confirms the effectiveness of the translanguaging intervention offered to experimental groups. It should also be noted, however, that only School A post-test mean for English exceeded the international minimum value of 75% and that of School C was 75%, which implies that the intervention had a great impact in developing reading on learners using more than one language, whereas both control groups' English post-test means were below the international benchmark.

The second part of the table shows the mean scores for graphemic awareness in Sesotho post-test trials for the four schools. The highest mean score was that of School A (M=4.4 / 89%), which was similar to that of its English counterpart in the same time interval with a higher standard deviation (SD=0.6). The mean for School C was still the second (3.8 / 78%) after that of School A and with a higher standard deviation (SD=1.6). When comparing English and Sesotho in School C, Sesotho had more gains than English. The mean for this school in Sesotho exceeded the international

minimum value of 75%, whereas in English it was on 75%. The Sesotho post-test mean for School D followed the two experimental groups (M=3.6 /72%) with a higher standard deviation (SD=1.8) than that of its English counterpart. The mean for School B becomes the lowest (M=3.5 / 71%), but closer to that of School D and with a closer standard deviation (SD=1.6) to that of School D. These results further confirm that the intervention had a positive impact on the performance of the two experimental schools. It should be noted that the mean scores for the experimental groups exceeded the international minimum value of 75%, whereas mean scores for the control groups were below. When comparing English and Sesotho, all the schools performed better in Sesotho than English graphemic awareness except School A, which remained on the same high level on both languages. This renders that, on this variable, Sesotho had more mean gains than English with high numerical values in the experimental groups. However, the results show that the intervention has been effective in improving graphemic awareness of learners who use two or more languages.

4.4 Semantic Awareness

One of the objectives of this study was to test the ability of learners to relate meaning of words, in both Sesotho and English, to their actual pictures, which is, to know what words represent in the actual world. In order to do this, learners were given semantic awareness test trials. These test trials were done in both pre-tests and post-tests in some schools, whereas in others were only in the post-tests. This was done to find how effective translanguaging intervention was on improving bilingual learners' semantic awareness. The results are presented below, first within the subjects and then between the subjects.

4.4.1 Analysis within subjects on Semantic Awareness

Analysis was done within subjects in order to find out how each of the groups performed on semantic awareness in trying to evaluate the effectiveness of translanguaging. This was done by comparing the pre- and post-test performance of learners in School A and B. For School C and D, only the post-tests were analysed as they did not take the pre-test. The findings from the four groups are discussed below.

4.4.1.1 Semantic awareness pre- & post-tests trials in School A

The findings on how learners in School A, an experimental group, were able to relate meaning of words to their actual pictures are presented on Table 4.19 below.

Table 4.19: Performance of School A pre- and post-tests on semantic awareness

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	Pre-test	32	4.2188 [84%]	1.00753	.185	.100
	Post-test	36	4.6111 [92%]	0.93435		
Sesotho	Pre-test	32	3.9063 [78%]	1.02735	.130	.002
	Post-test	36	4.5556 [91%]	.65222		

English ($t=-1.666$; $df=66$; $p>0.05$) Sesotho ($t=-3.147$; $df=66$; $p<0.05$)

Table 4.19 above shows that the pre-test mean for English was 4.2 (or 84%) and a relatively low standard deviation (SD=1.0). The mean however increased in the post-test (M=4.6 or 92%) with a reduced standard deviation (SD=0.9). This renders the group more homogenous in the English post-test, which suggests that the group became more intact as a result of the experimental trials. This shift signals a mean gain of about 0.4 points, equivalent to 8%, higher in the post-test and a standard deviation reduction of about 0.1 points. The results of the t-test, comparing the strength of this mean gain, show that the differences between the pre-test and post-test in semantic awareness trials are not statistically significant at an alpha value of 0.05 ($t=-1.666$; $df=66$; $p>0.05$). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores in the post-test. It is noteworthy that both the pre-test and the post-test mean exceeded the international minimum value of 75%.

The second part of the table shows that the mean for semantic awareness in Sesotho pre-test trial was slightly below (M=3.9 or 78%) the English mean in the same time interval and had a similar standard deviation (SD=1.0). The post-test mean for Sesotho increased to 4.6 (or 91%) and a lower standard deviation (SD=0.6) than the English counterpart post-test. The t-test results reveal that the differences between the post-test and pre-test in Sesotho are statistically significant at an alpha value of 0.05 ($t=-3.147$; $df=66$; $p<0.05$). The null hypothesis, which predicted no increase in the mean gains after intervention, is therefore rejected. When comparing English and Sesotho, Sesotho had most of the gains in the post-test (M=4.6) compared to its English counterpart (M=4.6), whereas the English numerical value was a bit high for both in the pre-test and post-test. One interpretation from these results is that translanguaging treatment is useful in increasing levels of semantic

awareness among learners who learn to read in more than one language. Such a gain is more prevalent in Sesotho than it is in English. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.4.1.2 Semantic awareness pre- & post-tests trials in School B

School B was a control school that took both the pre-test and post-test trials in semantic awareness. The mean scores of learners in this group in both the pre-test and post-test are presented in Table 4.20 below.

Table 4.20: Performance of School B pre- and post-tests on semantic awareness

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	Pre-test	54	3.7222 [74%]	1.15606	.213	.351
	Post-test	59	3.9492 [79%]	1.39486		
Sesotho	Pre-test	54	3.8333 [77%]	1.05955	.009	.937
	Post-test	59	3.8136 [76%]	1.58086		

English (t=-.937; df=111; p >0.05) Sesotho (t=.077; df=102; p> 0.05)

This table shows that the pre-test mean for English was 3.7 (74%) and a relatively low standard deviation (SD=1.2). However, the mean increased a bit in the post-test (M=3.9 or 79%) with a slightly increased standard deviation (SD=1.4). This renders the group more heterogeneous in the post-test, which suggests that the group became more diverse as they progress in their grade. The results of the t-test, comparing this mean and standard deviation gains from the pre-test to the post-test, show that the differences in English semantic awareness trials for this group are not statistically significant at an alpha value of 0.05 (t=-.937; df=111; p >0.05). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores in the post-test. It can also be noted that though the performance in the post-test exceeded the international minimum value of 75% with about 4%, it therefore does not reflect that much improvement from the pre-test, which was below the international benchmark.

The second part of the table shows that the mean for semantic awareness in Sesotho pre-test trial was slightly above (M=3.8 or 77%) the English mean in the same time interval and a similar standard deviation (SD=1.1). The post-test mean for Sesotho also declined to 3.81 (76%) and a slightly increased standard deviation (SD=1.6). This further confirms how diverse the group became as they progress in their studies. The t-test results reveal that the differences between the post and

pre-test in Sesotho are not statistically significant at an alpha value of 0.05 (t=.077; df=102; p> 0.05). The null hypothesis, which predicted no increased variation in the mean for the post-test, is therefore accepted. When comparing English and Sesotho, English had slightly more gains from the pre-test to the post-test (M=3.7 /74% - 3.9 /79%) compared to its Sesotho counterpart (M=3.8/77% - 3.6/71%), which remained the same. This shows that learners' levels of semantic awareness among learners who learn to read in more than one language decrease in both languages as they progress in their learning. There is therefore a need to find an approach that can help to develop learners' semantic awareness in all languages.

4.4.1.3 Semantic awareness post-test trials in School C

School C was the second experimental school that participated in this study. This school went through the intervention, but did not take the pre-test like the other experimental school. The results shown below on Table 4.21 are a reflection of the performance of learners in their post- test on semantic awareness in the two languages that were used.

Table 4.21: Performance of School C post-test on semantic awareness

Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	Post-test	59	4.4068 [88%]	1.05240	.135	.325
Sesotho	Post-test	59	4.5763 [92%]	0.79228		

(t=-.988; df=116; p> 0.05)

The first part of the table shows that the post-test mean for English was 4.4 (88%) and a relatively low standard deviation (SD=1.1). The mean for this group in English semantic awareness exceeded the international benchmark of 75%. On the other hand, the second part of the table shows that the mean for semantic awareness in Sesotho was slightly higher (M=4.6 or 92%) than the English mean in the same time interval and with a lower standard deviation (SD=0.8). This renders the group more homogenous in Sesotho than it was in English after the intervention. It should also be noted that the performance in Sesotho is far higher than the international benchmark of 75%. However, the results of the t-test, comparing the difference in the performance of this experimental group in the two languages in semantic awareness trials, show that it is not statistically significant at an alpha value of 0.05 (t=-.988; df=116; p> 0.05). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores between the two languages. One interpretation from these results is that translanguaging treatment offered to this group was useful in increasing levels of semantic awareness above the international benchmark among learners who learn to read in more

than one language. Such an increase is seen to be more in Sesotho than it is in English. It can therefore, be concluded that translanguaging breaks the hegemony of English as the sole language of literacy in similar contexts.

4.4.1.4 Semantic awareness post-test trials in School D

School D was another control school, which therefore was not exposed to the translanguaging intervention. Learners in this school did not write the pre-test, but only took the post-test. The results from the post-test on semantic awareness of learners in this school appear in Table 4.22.

Table 4.22: Performance of School D pre- and post-tests on semantic awareness

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	Post-test	40	3.6000 [72%]	2.06062	-011	.365
Sesotho	Post-test	40	3.9750 [80%]	1.59305		

(t=-.911; df=73; p> 0.05)

The first part of the table shows that the post-test mean for English was 3.6 (72%) and a relatively low standard deviation (SD=2.1). The mean for this group in English semantic awareness was below the level of the international benchmark of 75%. On the other hand, the second part of the table shows that the mean for semantic awareness in Sesotho was higher (M=4.0 or 80%) than the English mean in the same time interval and with a lower standard deviation (SD=1.6). This renders the group to be more homogeneous in Sesotho than in English. It should be noted that the mean for this group in Sesotho exceeded the international benchmark value of 75%. The results of the t-test, comparing the difference in the performance of this control group in the two languages in semantic awareness trials, show that it is not statistically significant at an alpha value of 0.05 (t=-.911; df=73; p> 0.05). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores between the two languages. It can be concluded from these results that the level of semantic awareness of these learners who learn to read in more than one language needs to be developed.

4.4.2 Analysis between subjects on semantic awareness

Analysis was further done between subjects in order to find effectiveness of translanguaging by comparing performance of learners on semantic awareness. This was done by analysing the post-test performance between one experimental group which had both the pre-test and the intervention and one control school which took the pre-test, but not the intervention. Another comparison was done between the two schools that did not take the pre-test, but one had an intervention, whereas another one did not. Furthermore, comparison was between the two experimental groups to determine the effectiveness of the intervention without the influence of the pre-test. Lastly, the two control groups were also compared to determine the carry over effect of the pre-test as to confirm the efficacy of the intervention. The results of these comparisons are discussed below.

4.4.2.1 Analysis between experimental School A and control School B

This analysis of the post-test performance between School A and School B was done to enable the researcher to determine the effectiveness of the translanguaging intervention that was done on School A and not with School B. Table 4.23 below shows the results of this comparison.

Table 4.23: Performance of Schools A and B on Semantic awareness

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	School A	36	4.6111 [92%]	.93435	.013	.009
	School B	59	3.9661 [79%]	1.40155		
Sesotho	School A	36	4.5556 [91%]	.65222	.000	.002
	School B	59	3.8136 [76%]	1.58086		

English (t=2.689; df=92; p<0.05) Sesotho (t=3.188; df=84; p<0.05)

This table shows that the post-test mean for English in School A was 4.6 (92%) and a relatively low standard deviation (SD=0.9), whereas the mean for School B was 3.9 (79%) with a higher standard deviation (SD=1.4) than that of School A. This renders that School A learners were more homogenous in the post-test, which suggests that the group became more intact as a result of the experimental trials. This signals a mean difference of about one point, equivalent to about 13%, higher than the group B performance in English post-test and a standard deviation reduction difference of about one point. The results of the t-test, comparing the strength of this mean gain, show that the differences between the two groups in semantic awareness trials are statistically significant at an alpha value of 0.05 (t=2.689; df=92; p<0.05). We are therefore able to reject the

null hypothesis, which predicted no increased variation in scores between the two groups in English in the post-test. It should be noted that the post-test mean in English for School A had far exceeded the international minimum value of 75%, but that of School B was not that far above the benchmark.

The second part of the table shows that the mean for semantic awareness in Sesotho for School A was M=4.5 (91%) with a lower standard deviation (SD=0.7), whereas the mean for School B was lower (M=3.8 / 76%) and a higher standard deviation (SD=1.6). This further proves that School A learners were more homogenous in the post-test and became more intact as a result of the experimental trials. The t-test results reveal that the differences between the performance of the two groups in Sesotho are statistically significant at an alpha value of 0.05 ($t=3.188$; $df=84$; $p<0.05$). The null hypothesis, which predicted no difference in the mean gains after the intervention, is rejected.

When comparing the performance of the two schools in English and Sesotho, School A had higher numerical values for both English (M=4.6 / 92%) and Sesotho (M=4.5 / 91%) than its counterpart, School B ((M=3.9/ 79%; 3.8/ 76%). It can be seen that both schools remained more or less on the same level on both languages. One interpretation from these results is that translanguaging treatment is useful in increasing levels of semantic awareness among learners who learn to read in more than one language and breaks the hierarchy between languages. This is prevalent in School A's performance in both languages, whereas School B does not show improvement in any of the two languages.

4.4.2.2 Semantic awareness post-test trials between School C and control School D

This analysis of the post-test performance between School C and School D was also done to enable the researcher to determine the effectiveness of the translanguaging intervention that was done with School C and not with School D. Both schools did not take the pre-test. Therefore, carry over effect was not considered on them. Table 4.24 below shows the results of this comparison.

Table 4.24: Performance of School C and D on Semantic Awareness

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	School C	59	4.4068 [88%]	1.05240	.000	.027
	School D	40	3.6000 [72%]	2.06062		
Sesotho	School C	59	4.5763 [92%]	0.79228	.002	.032
	School D	40	3.9750 [80%]	1.59305		

English (t=2.283; df=52.9; p<0.05) Sesotho (t=2.209; df=52.2; p<0.05)

This table shows that School C post-test mean for English was 4.4 (88%) and a relatively low standard deviation (SD=1.1). On the other hand, the mean for School D, control group, was lower (3.6 / 72%) with a higher standard deviation (SD=2.1). This renders that the experimental group C was more homogenous in the post-test than School D, which suggests that the School C learners became more intact as a result of the experimental trials. This difference signals a mean gain difference of about 0.8, equivalent to 16%, between the groups and a standard deviation difference of about 1 point. The results of the t-test, comparing the mean difference between the two groups in English semantic awareness trials, show that the difference is statistically significant at an alpha value of 0.05 (t=2.283; df=52.9; p<0.05). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores in the post-test between the two groups. It should also be noted that the experimental group, School C, had a post-test mean, which exceeded the international minimum value of 75%, whereas the control School D had a far lower mean than the international benchmark.

The second part of the table shows that the mean scores for semantic awareness in Sesotho post-test trial for School C was 4.6 (92%), a bit higher than that of English in the same time interval and with a lower standard deviation (SD=0.8). The post-test mean in Sesotho semantic awareness for School D was below (M=3.9 / 80%) that of School C and with a higher standard deviation (SD=1.6). However, the mean in Sesotho for School D was also higher than the one they had in English. The t-test results comparing the mean difference between the two groups in Sesotho semantic awareness trials, show that the difference is statistically significant at an alpha value of 0.05 (t=2.209; df=52.2; p<0.05). The null hypothesis, which predicted no increased variation in scores between the two groups in the post-test, is therefore rejected.

When comparing the performance of the schools in English and Sesotho, both schools performed better in Sesotho than in English. Although English had more gains of about 0.8 points between the two groups than Sesotho with 0.6 points, it should be noted that Sesotho had higher numerical values than English on both groups. One interpretation from these results is that translanguaging treatment is useful in increasing levels of semantic awareness among learners who learn to read in more than one language. This is seen on the performance of School C after the intervention. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.4.2.3 Semantic awareness post-test trials between Schools A and C

The analysis between the two experimental schools was done in order to detect the carry over effect of the pre-test as a way of determining the effectiveness of the translanguaging intervention that was offered to the two schools. One experimental School A had a pre-test and experimental School C did not take the pre-test. Therefore, this analysis helped in detecting any carry over effect on the performance of School A versus that of School C. Table 4.25 below shows the results of these two schools on semantic awareness.

Table 4.25: Performance of Schools A and C on Semantic Awareness

Variable	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	School A	36	4.6111 [92%]	.93435	.283	.341
	School C	59	4.4068 [88%]	1.05240		
Sesotho	School A	36	4.5833 [91%]	.64918	.501	.964
	School C	59	4.5763 [92%]	.79228		

English (t=0.957; df=93; p>0.05) Sesotho (t=0.045; df=93; p>0.05)

This table shows that the post-test mean for English in School A was 4.6 (92%) with a relative lower standard deviation (SD=0.9). The mean for School C (M=4.4 / 88%) was slightly lower than that of School A with also a slight higher standard deviation (SD=1.1) than that of School A. This renders School A to be a bit more homogenous and intact than School C in the post-test, even though they both went through the experimental trials or treatment. The results show that there is a mean gain of about 0.2 for School A over the mean of School C with a reduction of about 0.2 in the standard deviation. However, the results of the t-test, comparing the strength of this mean gain, show that the differences between the performance of the two groups in English semantic awareness trials is not statistically significant at an alpha value of 0.05 (t=0.957; df=93; p>0.05). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores of the two groups in the post-test. It should, however, be noted that both schools' performance post-test means exceeded the international minimum value of 75%, which implies that the intervention had a great impact in developing semantic awareness on learners using more than one language.

The second part of the table further shows the mean scores for semantic awareness in Sesotho post-test trials for the two experimental schools. The English mean scores in Sesotho for School A were more or less similar (4.5 /91%) to that of English in the same time interval, but with a lower standard deviation (SD=0.6) than that of English. The mean for School C was 4.6 (92%) higher than they

had in English and a bit higher than that of School A with a slightly higher standard deviation (SD=0.8) than that of School A. However, the t-test results reveal that the mean gain differences between the two experimental schools' Sesotho post-test trials are not statistically significant at an alpha value of 0.05 (t=0.045; df=93; p>0.05). The null hypothesis, which predicted no difference in the mean of the two groups after intervention, is therefore accepted.

When comparing English and Sesotho, between the two groups, both languages were more or less on the same range between M=4.6 for School A in English and M=4.4 for School C in Sesotho. It is not possible to consider one language having more gains than the other. This could be interpreted that translanguaging treatment has helped learners who learn to read in more than one language in increasing their levels of semantic awareness equally in both languages. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.4.2.4 Semantic awareness post-test trials between School B & School D

The analysis between the two control schools was done in order to detect the carry over effect of the pre-test, as a way of confirming the effectiveness of the translanguaging intervention that was offered to the experimental schools. One control School B had a pre-test and another control School D did not take the pre-test. Table 4.26 below shows the results of these two schools on semantic awareness.

Table 4.26: Performance of Schools B and D on Semantic Awareness

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	School B	59	3.9492 [79%]	1.39486	.001	.353
	School D	40	3.6000 [72%]	2.06062		
Sesotho	School B	59	3.8136 [76%]	1.58086	.622	.620
	School D	40	3.9750 [80%]	1.59305		

English (t=.936; df=63; p>0.05) Sesotho (t=-.497; df=97; p>0.05)

This table shows that the post-test mean for School B in English was 3.9 (or 79%) and a relatively low standard deviation (SD=1.4). The mean for School D in English was, however, lower (M=3.6 or 72%) with a higher standard deviation (SD=2.1) than that of School B. This signals a higher deviation level among learners in School D than in School B, which renders School D more heterogeneous than School B. However, the results of the t-test, comparing the strength of the mean difference between the two control groups in English semantic awareness trial, show that the

difference is not statistically significant at an alpha value of 0.05 (t=.936; df=63; p>0.05). We are therefore able to accept the null hypothesis which predicted no increased variation in scores of the two groups in the post-test.

The second part of the table shows that the mean for semantic awareness in Sesotho post-test trial for School B was 3.8 (76%) lower than its English mean in the same time interval, but with a higher standard deviation (SD=1.6). The mean for its counterpart, School D, was higher (M=3.9 / 80%) than that of English and with a lower standard deviation (SD=1.6). It could be seen that School D had a higher mean score than School B in Sesotho post-test trials. The t-test results, comparing the strength of the mean difference between the two control groups in Sesotho post-test semantic awareness trials, further show that the difference is not statistically significant at an alpha value of 0.05 (t=-.497; df=97; p>0.05). The null hypothesis, which predicted no increased variation in the post-test trials between the two groups, is accepted. It should be noted, however, that both groups' mean performance exceeded the international benchmark of 75% in Sesotho, even though School D had higher numerical value than School B.

When comparing English and Sesotho, English had more gains than Sesotho of about 0.3 points and Sesotho had 0.2. However, School B had a higher mean in English than School D and in Sesotho School D had a higher mean than School B. This could be interpreted that the two schools seem to be on the same level on their semantic awareness in both languages. One could further conclude that there is a need for a strategy such as translanguaging treatment that could help increase levels of semantic awareness among learners who learn to read in more than one language.

4.5 Cross-comparison of the four groups on semantic awareness

Cross-comparison was also done among the four schools, two experimental and two control groups in order to determine their post-test means on semantic awareness. This was done to further investigate the effectiveness of translanguaging intervention among the schools.

Table 4.27: Cross comparison of the post-test on the four groups on semantic awareness

Text Language	School	N	Mean	Std. Deviation
English words	School A	36	4.6111 [92%]	.93435
	School B	59	3.9661 [79%]	1.40155
	School C	59	4.4068 [88%]	1.05240
	School D	40	3.6000 [72%]	2.06062
Sesotho words	School A	36	4.5556 [91%]	.65222

Text Language	School	N	Mean	Std. Deviation
	School B	59	3.8136 [76%]	1.58086
	School C	59	4.5763 [92%]	0.79228
	School D	40	3.9750 [80%]	1.59305

This table shows that the post-test mean for English in School A was the highest (M=4.6 / 92%) with a relatively low standard deviation (SD=0.9). The second group was School C (M=4.4 / 88%) and with a higher standard deviation (SD=1.1) than that of School A. The results therefore show School A to be more homogenous in the English semantic post-test than School C. The mean scores of both groups were relatively very high; which suggests that they became more intact as a result of the experimental trials. These two schools are followed by School B (M=3.9 / 79%) and a higher standard deviation (SD=1.4) than that of the two experimental groups. The lowest post-mean in English graphemic awareness is School D (M=3.6 / 72%) and with a higher standard deviation (SD=2.1) than that of School B. This renders School D more heterogeneous than School A. When comparing the four groups on English words semantic awareness, the experimental groups outperformed the control groups. This therefore confirms the effectiveness of the translanguaging intervention offered to experimental groups. It should also be noted, however, that all the schools', except School D, English post-test mean on semantic awareness exceeded the international minimum value of 75% and that of School C was 75%.

The second part of the table shows the mean scores for semantic awareness in Sesotho post-test trials for the four schools. The highest mean score was that of School C (M=4.6 / 92%), which was similarly higher than that of its English counterpart in the same time interval with a lower standard deviation (SD=0.8). The mean for School A was second (4.5 / 91%) after that of School C and with a slightly lower standard deviation (SD=0.7). When comparing English and Sesotho in School C, English had slightly more gains (M=4.6 / 92%) than its Sesotho counterpart. The Sesotho post-test mean for School D followed the two experimental groups (M=4.0 /80%) with a lower standard deviation (SD=1.6) than that of its English counterpart. The mean for School B becomes the lowest (M=3.8 / 76%) and with a similar standard deviation (SD=1.6) to that of School D. These results further confirm that the intervention had a positive impact on the performance of the two experimental schools. It should be noted that the mean scores for all the schools exceeded the international minimum value of 75% with high numerical values on the experimental groups. When comparing English and Sesotho, English had high mean scores than Sesotho in School A and B. On the other hand, School C and D performed better in Sesotho than in English semantic awareness. However, the experimental schools had high numerical values in both languages. This shows that

the intervention has been effective in improving semantic awareness of learners who learn to read in two or more languages.

4.6 Cross Vocabulary Variables analysis

Cross-comparison was further done to compare how each group performed in the three variables of vocabulary. This was meant to compare and gauge how and when combined, the three variables give us a glue on which the variables are high/low on the effects of translanguaging. These variables were phonemic, graphemic and semantic. The following Table 4.28 shows the percentage mean scores of each school in each variable.

Table 4.28: Cross comparison on the three variables of Vocabulary

			Variables Mean (%)		
Text Language	**School**	**N**	**Phonemic**	**Graphemic**	**Semantic**
English	School A	36	84%	89%	92%
	School B	59	63%	70%	79%
	School C	59	80%	75%	88%
	School D	40	62%	59%	72%
Sesotho	School A	36	75%	89%	91%
	School B	59	58%	71%	76%
	School C	59	63%	78%	92%
	School D	40	56%	72%	80%

This table shows that the post-test mean for English in School A was higher in semantic (M=92%), followed by graphemic (M=89%) and the lowest is phonemic (84%). For School B, the highest mean percentage was in semantic (79%), then graphemic (70%) and phonemic (63%). However, School C had the highest percentage mean in semantic (88%) followed by phonemic (80%) and then graphemic (75%). School D had a similar order as School C; the highest was semantic (72%), followed by phonemic (62%) and then graphemic (59%). The results therefore show that semantic was the highest variable where learners performed better than in the other two variables in English vocabulary post-test. It should be noted that the schools with high numerical values on semantic were experimental groups. This therefore suggests that translanguaging has been more effective on semantic awareness on learners who learn to read in more than one language. It has not only helped learners to listen to sounds of words and write them correctly, but mostly to relate the meaning of

English words to their actual images. In this way, it has helped learners to read with meaning and not just utter words.

The second part of the table shows the post-test percentage mean scores for each school on Sesotho vocabulary in the three variables. The results show that School A had the highest Sesotho mean score in semantic (M=91%), followed by graphemic (M=89%) and the lowest is phonemic (75%). For School B, the highest mean percentage was in semantic (76%), then graphemic (71%) and phonemic (58%). School C had the highest percentage mean in semantic (92%) followed by graphemic (78%) and then phonemic (63%). School D had the highest in semantic (80%), followed by graphemic (72%) and then phonemic (56%). The results therefore show even in Sesotho vocabulary, making meaning out of words had the highest mean scores. It should still be noted that experimental schools had high numerical values than control groups.

4.7 Reading Fluency

One of the objectives of this study was to test reading speed of learners in order to determine their reading fluency level. This was done by identifying the number of words learners were able to read per minute. The main objective was to find out how effective translanguaging intervention was on improving bilingual learners' reading fluency. The results for the four schools are presented below, first within the subjects and then between the subjects.

4.7.1 Analysis within subjects on Reading Fluency

Analysis was done within subjects in order to find out how each of the groups performed on reading fluency in trying to evaluate the effectiveness of translanguaging. This was done by comparing the pre- and post-test performance of learners in School A and B. For School C and D only the post-tests were analysed as they did not take the pre-test. The findings from the four groups are discussed below.

4.7.1.1 Reading fluency pre- & post-tests trials in School A

The findings on the number of words that learners in School A, an experimental group, were able to read per minute are presented on Table 4.29 below.

Table 4.29: Performance of School A in pre-and post-tests on Reading Fluency

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	Pre-test	32	126	44.51273	.306	.363
	Post-test	36	137	49.88465		
Sesotho text	Pre-test	32	133	58.60171	.708	.844
	Post-test	36	130	65.10560		

English (t=-0.916; df=66; p>0.05) Sesotho (t=-0.197; df=66; p>0.05)

This table shows that the pre-test mean for the number of words per minute (wpm) read in English was 126 and a relatively low standard deviation (SD=45). The mean increased in the post-test (M=137) with an increased standard deviation (SD=50). This renders the group more fluent in reading English as a result of the experimental trials, even though there was that increase in deviation. This shift signals a mean gain of about 11 words per minute in the post-test and a standard deviation increase of about 6 points. The results of the t-test, comparing the mean, show that the differences between the pre-test and post-test in English reading fluency trials are statistically not significant at an alpha value of 0.05 (t=-0.916; df=66; p>0.05). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores in the post-test.

The second part of the table shows that the mean for reading fluency wpm read in Sesotho pre-test trial was slightly higher (M=133wpm) than the wpm in English mean in the same time interval, but with an increased standard deviation (SD=59). The post-test mean for Sesotho declined (M=130wpm) and with an increased standard deviation (SD=65). The t-test results reveal that the differences between the post and pre-test in Sesotho are not statistically significant at an alpha value of 0.05 (t=-0.197; df=66; p>0.05). The null hypothesis, which predicted no increase in the mean gains after intervention, is therefore accepted. When comparing English and Sesotho, English had mean gain of about 10 words from the pre-test to the post-test, whereas Sesotho had loss of about 3 points in the post-test. Even when looking at the numerical values of the wpm in the post-test, English had higher numerical values than Sesotho. From these results, it could be interpreted that that translanguaging treatment was useful in increasing levels of reading fluency in English than in Sesotho. The knowledge of more than one language develops fluency in other language among learners who learn to read in more than one language.

4.7.1.2 Reading Fluency pre- & post-tests trials in School B

School B was a control school that took both the pre-test and post-test trials in reading fluency wpm test. The mean scores of learners in this group in both the pre-test and post-test are presented in the following table.

Table 4.30: Performance of School B in pre- and post-tests on Reading Fluency

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	Pre-test	54	141	53.20295	.000	.000
	Post-test	59	102	31.82899		
Sesotho text	Pre-test	54	100	44.57880	.011	.322
	Post-test	59	107	30.61320		

English (t=4.672; df=85; p< 0.05) Sesotho (t=-.996; df=93; p> 0.05)

This table shows that the pre-test mean for the number of words per minute (wpm) read in English was 141wpm and a relatively low standard deviation (SD=53). However, the mean decreased (102 wpm) in the post-test with a loss of about 39 wpm with a decreased standard deviation (SD=32). This renders the decline in reading fluency of learners as they progress in their grade. The results of the t-test, comparing this mean loss from the pre-test to the post-test, show that the differences in English reading fluency trials for this group are statistically significant at an alpha value of 0.05 (t=4.672; df=85; p< 0.05)). We are therefore able to reject the null hypothesis, which predicted increased variation in scores in the post-test.

The second part of the table shows that the mean for reading fluency wpm in Sesotho pre-test trial was slightly below (M=100wpm) that of the English mean in the same time interval, but with a decreased standard deviation (SD=45). The post-test mean for Sesotho was, on the other hand, a bit higher (M=107wpm) than the English post-test, but with a decreased standard deviation (SD=31). The t-test results reveal that the differences between the pre-test and post-test number of words read per minute in Sesotho are statistically not significant at an alpha value of 0.05 (t=-.996; df=93; p> 0.05). The null hypothesis, which predicted no increased variation in the mean for the post-test, is accepted. When comparing English and Sesotho, English had more loss points of about 39 from the pre-test to the post-test compared to its Sesotho counterpart which had about 6 gains from the pre-test to the post-test. This shows those learners levels of reading fluency among learners who learn to read in more than one language decrease in both languages as they progress in their learning.

4.7.1.3 Reading Fluency post-test trials in School C

School C was the second experimental school, which participated in this study. This school went through the intervention, but did not take the pre-test like the other experimental school. The results shown below on Table 4.31 are a reflection of the performance of learners in their post-test on reading fluency in both English and Sesotho.

Table 4.31: Performance of School C in post-test on Reading Fluency

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	Post-test	59	156	37.98719	.701	.000
Sesotho text	Post-test	59	116	38.68305		

($t=5.669$; $df=116$; $p<0.05$)

The first part of the table shows that the post-test mean for English was 156 wpm and a relatively low standard deviation (SD=38). The mean for this group in Sesotho wpm reading fluency, on the other hand, was far below (M=116wpm) than the English mean in the same time interval and with a slightly increased standard deviation (SD=39). This renders the group more homogenous in Sesotho than in English. The results of the t-test, comparing the difference in the performance of this experimental group in the two languages in reading fluency level trials, show that it is statistically significant at an alpha value of 0.05 ($t=5.669$; $df=116$; $p<0.05$). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores between the two languages. One interpretation from these results is that translanguaging treatment was useful in increasing levels of reading fluency among learners who learn to read in more than one language in a second language than in the home language.

4.7.1.4 Reading fluency post-test trials in School D

School D was the second control school, which therefore was not exposed to the translanguaging intervention and did not write the pre-test; but only took the post-test. The results from the post-test on reading fluency wpm of learners in this school appear in Table 4.32.

Table 4.32: Performance of School D in post-test on Reading Fluency

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	Post-test	40	111	24.65400	.159	.542
Sesotho text	Post-test	40	115	31.20970		

(t=-.612; df=78; p> 0.05)

This table shows that School D post-test mean for English reading fluency wpm was 111wpm and a relatively low standard deviation (SD=25). On the other hand, the mean for this School D, in Sesotho reading fluency wpm was a bit higher (115wpm), but with a higher standard deviation (SD=31). When comparing the two languages, the Sesotho mean is higher than the English mean. This renders that this school was a bit more fluent in Sesotho than in English, but the standard deviation in Sesotho was higher with 6 gains compared to that of English. The mean gain difference wpm reading fluency level between English and Sesotho was about 4wpm. However, the t-test results indicate this difference in the performance of learners between the two languages as statistically not significant at the alpha level of 0.05 (t=-.612; df=78; p> 0.05). This therefore accepts the null hypothesis, which predicted no increased variation in scores between the two languages.

4.7.2 Analysis between subjects on Reading Fluency

Analysis was further done between subjects in order to find effectiveness of translanguaging by comparing performance of learners on reading fluency. This was done by analysing the post-test performance between one experimental group, which had both the pre-test and the intervention and one control school, which took the pre-test, but not the intervention. Another comparison was done between the two schools that did not take the pre-test, but one had an intervention, whereas another one did not. Furthermore, comparison was between the two experimental groups to determine the effectiveness of the intervention without the influence of the pre-test. Lastly, the two control groups were also compared to determine the carry over effect of the pre-test as to confirm the efficacy of the intervention. The results of these comparisons are discussed below.

4.7.2.1 Analysis between experimental School A and control School B

This analysis of the post-test performance between School A and School B was done to enable the researcher to determine the effectiveness of the translanguaging intervention that was done on School A and not with School B. Table 4.33 below shows the results of this comparison.

Table 4.33: Performance of School A and B on Reading Fluency

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	School A	36	137	49.88465	.000	.000
	School B	59	102	31.82899		
Sesotho text	School A	36	130	65.10560	.000	.052
	School B	59	107	30.61320		

English text ($t=3.726$; $df=53$; $p<0.05$) Sesotho text ($t=2.000$; $df=45$; $p>0.05$)

This table shows that the post-test mean for the number of words per minute (wpm) read in English for School A was 137 wpm and a relatively low standard deviation (SD=50). The mean for School B, control group, was lower (102wpm) with a decreased standard deviation (SD=32). This renders that the experimental group A was more homogenous in the post-test than School B, even though it had an increased standard deviation. This suggests that School A's level of reading fluency increased as a result of the experimental trials. This difference signals a mean gain of about 35 words per minute between the two groups in English post-test reading fluency trials and a standard deviation decreased with about 18 points. The results of the t-test, comparing the mean, show that the differences between the two groups post-test in English reading fluency trials are statistically significant at an alpha value of 0.05 ($t=3.726$; $df=53$; $p<0.05$). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores in the post-test between the two groups.

The second part of the table shows that the mean for reading fluency wpm read in Sesotho post-test trial for School A was slightly lower (M=130wpm) than the wpm in English mean in the same time interval, but with an increased standard deviation (SD=65). The post-test mean for Sesotho of School B was higher (M=106wpm) than its English post-test mean, but with the same standard deviation (SD=31). However, the mean for School B was still lower than that of School A, but with a lower standard deviation. The t-test results reveal the differences between the post-test in reading fluency wpm trials of the two schools as not statistically significant at an alpha value of 0.05 ($t=2.000$; $df=45$; $p>0.05$). The null hypothesis, which predicted no increased variation in the mean

gains between the two groups, is therefore accepted. When comparing English and Sesotho, English had mean gain of about 34 words between the two groups whereas Sesotho had 23 points. When looking at the numerical values of the wpm of the two schools in the post-test, School A had higher numerical values in both English and Sesotho, though with higher deviation values. From these results, it could be interpreted that translanguaging treatment was useful in increasing levels of reading fluency in both languages among learners who learn to read in more than one language. This becomes obvious on the wpm number in School A in both languages.

4.7.2.2 Reading fluency post-test trials between experimental School C and control School D

This analysis of the post-test performance between School C and School D was also done to enable the researcher to determine the effectiveness of the translanguaging intervention that was done with School C and not with School D. Both schools did not take the pre-test. Therefore, there was no carry over effect that was tested on them. Table 4.34 below shows the results of this comparison.

Table 4.34: Performance of Schools C and D on Reading Fluency

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	School C	59	156	37.98749	.033	.000
	School D	40	111	24.65400		
Sesotho text	School C	59	116	38.68305	.200	.870
	School D	40	114	31.20970		

English text - ($t=7.158$; $df=97$; $p<0.05$) Sesotho text - ($t=.165$; $df=97$; $p>0.05$)

This table shows that the post-test mean for the number of words per minute (wpm) read in English for School C was 156wpm and a relatively low standard deviation (SD=38). The mean for School D, control group, was lower (111wpm) than that of School C, but with a lower standard deviation (SD=25). Even though the standard deviation in School C is higher than that of School D, there is a huge difference between the means of the two groups; School C had 45 mean gains than School D. This renders that the experimental group C was more homogenous in the post-test than School D, which suggests that the School C learners became more intact as a result of the experimental trials. This difference signals a mean gain of about 45 words per minute between the two groups in English post-test reading fluency trials and a standard deviation decreased with about 12 points. The results of the t-test, comparing the mean, show that the differences between the two groups post-test in English reading fluency trials are statistically significant at an alpha value of 0.05

(t=7.158; df=97; p<0.05). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores in the post-test between the two groups.

The second part of the table shows that the mean for reading fluency wpm read in Sesotho post-test trial for School C was higher (M=116wpm) than its wpm in English mean in the same time interval, but with an increased standard deviation (SD=39). The post-test mean for Sesotho of School D was higher (M=114wpm) than its English counterpart in the same time interval, but with an increased standard deviation (SD=31). It should be noted that the mean for School C had a higher mean in Sesotho than that of School C, though with a bit higher standard deviation. The t-test results reveal that the differences between the post-test in reading fluency wpm trials of the two schools are not statistically significant at an alpha value of 0.05 (t=.165; df=97; p>0.05). The null hypothesis, which predicted no increased variation in the mean gains between the two groups, is therefore accepted. When comparing English and Sesotho, English had more mean gains of about 45wpm between the two groups, but with a higher standard deviation of about 13 points, whereas Sesotho had a mean gain of about 1wpm and with a lower standard deviation difference of about 8 points. When looking at the numerical values of the wpm of the two schools in the post-test, School C had higher numerical values in both languages than School D. This is more evident with the mean for School C. From these results, it could be interpreted that translanguaging treatment was useful in increasing levels of reading fluency in both languages among School C learners who learn to read in more than one language.

4.7.2.3 Reading fluency post-test trials between experimental schools, A and C

The analysis between the two experimental schools was done in order to detect the carry over effect of the pre-test as a way of determining the effectiveness of the translanguaging intervention, which was offered to the two schools. One experimental School A had a pre-test and experimental School C did not take the pre-test. Therefore, this helped in detecting any carry over effect on the performance of School A versus that of School C. Table 4.36 below shows the results of these two schools on reading fluency in both English and Sesotho.

Table 4.35: Performance of Schools A and C on Reading Speed

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	School A	36	137	49.88465	.026	.051
	School C	59	156	37.98749		
Sesotho text	School A	36	130	65.10560	.008	.247
	School C	59	116	38.68305		

English text (t=-1.995; df=59.6; p>0.05) Sesotho text (t=-0.106; df=93; p>0.05)

This table shows that the post-test mean for English wpm reading fluency in School A was 137wpm with a standard deviation (SD=50). The mean for School C (M=156wpm) is higher than that of School A with a lower standard deviation (SD=38) than that of School A. This renders School C more homogenous than School A in the post-test, which suggests that School C group became more intact as a result of the experimental trials than School A, yet School A took the pre-test. This indicates that the performance of School A on reading fluency was not affected by the pre-test, no carry-over effect from the pre-test. The results show that there is a mean gain of about 19wpm of School C compared to School A with a reduction of about 12 points in the standard deviation. The results of the t-test, comparing the strength of this mean gain, show that the differences between the performance of the two groups in English reading fluency trials are not statistically significant at an alpha value of 0.05 (t=-1.995; df=60; p>0.05). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores of the two groups in the post-test.

The second part of the table further shows the mean scores for reading fluency wpm in Sesotho post-test trials for the two experimental schools. The Sesotho mean scores for School A was lower (M=130wpm) than that of English in the same time interval, but with an increased standard deviation (SD=65) than that of English. The mean for School C was lower (M=116wpm) than that of School A, but with a lower standard deviation (SD=38) than that of School A. This further shows that School C is more homogeneous than School A and shows no carry-over effect from the pre-test on School A. This further renders School C as more homogeneous than School A, even though it means it is less than that of School A. However, the t-test results show that the differences between the two experimental schools in Sesotho reading fluency post-test trials are not statistically significant at an alpha value of 0.05 (t=-0.106; df=93; p>0.05). The null hypothesis, which predicted no difference in the mean of the two groups after intervention, is therefore accepted. When comparing English and Sesotho, between the two groups, English had more gains than Sesotho and with high numerical values. This could be interpreted that translanguaging treatment has helped

learners who learn to read in more than one language in increasing their levels of reading fluency in the second language.

4.7.2.4 Reading fluency post-test trials between control schools, B &D

The analysis between the two control schools was done in order to detect the carry-over effect of the pre-test as a way of confirming the effectiveness of the translanguaging intervention that was offered to the experimental schools. One control School B had a pre-test and another control School D did not take the pre-test. Table 4.36 below shows the results of these two schools on reading fluency in both languages.

Table 4.36: Performance of Schools B and D on Reading Fluency

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	School B	59	102	31.82899	.557	.142
	School D	40	111	24.65400		
Sesotho text	School B	59	107	30.61320	.920	.215
	School D	40	115	31.20970		

English text (t=-1.480; df=97; p>0.05) Sesotho text - (t=-1.249; df=97; p>0.05)

This table shows that the post-test mean for English wpm reading fluency in School B was 102wpm with a standard deviation (SD=32). The mean for School D (M=111wpm) is a bit higher than that of School B with a lower standard deviation (SD=25) than that of School B. This renders School D more homogenous than School B in the post-test, yet School B had a pre-test. This suggests that the performance of School B on reading fluency was not affected by the pre-test, no carry-over effect from the pre-test. The results show that there is a mean gain of about 9wpm of School D over School B with a reduction of about 7 points in the standard deviation. The results of the t-test, comparing the strength of this mean gain, show that the differences between the performance of the two groups in English reading fluency trials are not statistically significant at an alpha value of 0.05 (t=-1.480; df=97; p>0.05). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores of the two groups in the post-test.

The second part of the table further shows the mean scores for reading fluency wpm in Sesotho post-test trials for the two experimental schools. The Sesotho mean scores for School B were higher (M=107wpm) than that of its English in the same time interval and with a decreased standard deviation (SD=31) than that of English. The mean for School D was also higher (M=115wpm) than

that of its English in the same time interval and with a decreased standard deviation (SD=31) than that of English. The mean for School D in Sesotho was still higher than that of School B, but with the same level of standard deviation (SD=31). This further shows that School B performance in post-test reading fluency had no carry-over effect from the pre-test. The t-test results show that the differences between the two experimental schools in Sesotho reading fluency wpm post-test trials is not statistically significant at an alpha value of 0.05 (t=-1.249; df=97; p>0.05). The null hypothesis, which predicted no difference in the mean of the two groups, is therefore accepted. When comparing English and Sesotho, between the two groups, English had slightly more gains of about 9wpm than Sesotho with 8wpm. However, Sesotho had high numerical values on both schools than English. Such a gain is more prevalent in School D than it is in School B, which further shows no carry-over effect from the pre-test and a need to find strategies for developing reading fluency in bilingual learners.

4.7.3 Cross-comparison of the four groups on reading fluency

Cross-comparison was also done among the four schools, two experimental and two control groups in order to determine their post-test means on reading fluency. This was done to further investigate the effectiveness of translanguaging intervention among the schools.

Table 4.37: Cross comparison of the post-test on the four groups on reading fluency

Text Language	School	N	Mean (WPM)	Std. Deviation
English text	School A	36	137	49.88465
	School B	59	102	31.82899
	School C	59	156	37.98749
	School D	40	111	24.65400
Sesotho text	School A	36	130	65.10560
	School B	59	107	30.61320
	School C	59	116	38.68305
	School D	40	114	31.20970

This table shows that School C had the highest mean (M=156wpm) for the number of words read per minute in English with a relatively low standard deviation (SD=38). The second group was School A (M=137wpm) and with a higher standard deviation (SD=50) than that of School C. The results therefore show School C to be more homogenous in the English reading fluency post-test than School A. This suggests that the group became more intact as a result of the experimental trials.

These two schools are followed by School D (M=111wpm) and a lower standard deviation (SD=25) than that of the two experimental groups. The lowest post-mean in English reading fluency trials was School B (M=102wpm) and with a higher standard deviation (SD=32) than that of School B. This renders School B more heterogeneous than School D. When comparing the four groups on the number of words read per minute, the experimental groups outperformed the control groups. This therefore confirms the effectiveness of the translanguaging intervention offered to experimental groups.

The second part of the table shows the mean scores for reading fluency in Sesotho post-test trials for the four schools. The highest mean score was that of School A (M=130wpm), which was slightly lower than that of its English counterpart in the same time interval and with a higher standard deviation (SD=65). The mean score for School C was second (116wpm) after that of School A and with a lower standard deviation (SD=39). When comparing English and Sesotho in School C, English had more gains (M=156wpm) than its Sesotho counterpart. The Sesotho post-test mean for School D followed the two experimental groups (M=114wpm) with a higher standard deviation (SD=31) than that of its English counterpart. The mean for School B becomes the lowest (M=107wpm) and with a similar standard deviation (SD=31) to that of School D. These results further confirm that the intervention had a positive impact on the performance of the two experimental schools. When comparing English and Sesotho, English had high mean scores than Sesotho in School A and C, experimental schools, whereas control schools had high scores in Sesotho than in English text. However, the experimental schools had high numerical values in both languages. One interpretation from these results is that translanguaging treatment is useful in increasing levels of reading fluency among learners who learn to read in more than one language. Such a gain is more prevalent in English than it is in Sesotho in experimental schools. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.8 Reading Comprehension

One of the objectives of this study was to test bilingual learners reading comprehension skills on three categories; literal comprehension, inferential comprehension and summary writing where language of input differs from language of output. This was further done to find how effective translanguaging was on improving bilingual learners' reading comprehension abilities in different ways. The results on the three categories are consecutively presented below on each of the four schools that participated in this study.

4.8.1 Literal reading comprehension

The first category of reading comprehension that was assessed was literal comprehension. On this section, learners were assessed on their ability to recall what they have read. Learners were to answer literal comprehension questions based on texts that they have read in both Sesotho and English consecutively. The results from these recall trials are presented below, first within the subjects and then between the subjects.

4.8.1 Literal comprehension pre- & post-tests trials in School A

The findings on how learners in School A, an experimental group, were able to respond to questions that tested their recall ability on what they had read in both English and Sesotho are presented on Table 4.38 below.

Table 4.38: Performance of School A pre- and post-tests on literal comprehension

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	Pre-test	32	3.0313 [61%]	1.12119	.196	.000
	Post-test	36	4.4167 [88%]	0.93732		
Sesotho	Pre-test	32	2.1250 [43%]	1.36192	.027	.001
	Post-test	36	3.3611 [67%]	1.69289		

English ($t=-5.548$; $df=66$; $p<0.05$) Sesotho ($t=-3.333$; $df=65.4$; $p<0.05$)

This Table shows that the pre-test recall mean for English was 3.0 (or 61%) and a relatively low standard deviation (SD=1.1). The mean however increased in the post-test (M=4.4 or 88%) with a reduced standard deviation (SD=0.9). This renders the group more homogenous in the post-test, which suggests that the group became more intact as a result of the experimental trials. This shift signals a mean gain of about 1.4 points higher in the post-test and a standard deviation reduction of about 0.2 points. The results of the t-test, comparing the strength of this mean gain, show that the differences between the pre-test and post-test in English literal comprehension trails are statistically significant at an alpha value of 0.05 ($t=-5.548$; $df=66$; $p<0.05$). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores in the post-test. It is noteworthy that the post-test mean exceeded the international minimum value of 75%, whereas the pre-test mean was below this benchmark.

The second part of the table shows that the mean for literal comprehension in Sesotho pre-test trials was below (M=2.1 or 43%) the English mean in the same time interval and a higher standard deviation (SD=1.4). The post-test mean for Sesotho increased to 3.4 (or 67%) and a slightly increased standard deviation (SD=1.7). The t-test results reveal that the differences between the pre- and post-test in Sesotho are statistically significant at an alpha value of 0.05 ($t=-3.333$; $df=65.4$; $p<0.05$). The null hypothesis, which predicted no increase in the mean gains after intervention, is therefore rejected.

When comparing English and Sesotho, English had slightly more gains in the post-test (M=4.4 / 88%) compared to its Sesotho counterpart (M=3.4 / 67%), and with high numerical values for both the pre-test and post-test. One interpretation from these results is that translanguaging treatment is useful in increasing levels of literal comprehension among learners who learn to read in more than one language, especially in developing a second language. Such a gain is more prevalent in English than it is in Sesotho. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.8.1.2 Literal comprehension pre- & post-tests trials in School B

The findings on how learners in School B, control group, were able to respond to questions that tested their recall ability on what they had read in both English and Sesotho are presented on Table 4.39 below.

Table 4.39: Performance of School B in pre- and post-tests on Literal comprehension

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	Pre-test	54	3.1667 [63%]	1.32821	.345	.838
	Post-test	59	3.2203 [64%]	1.43920		
Sesotho text	Pre-test	54	2.5185 [50%]	1.07705	.924	.034
	Post-test	59	2.9831 [60%]	1.21046		

English ($t=-0.205$; $df=111$; $p>0.05$) Sesotho ($t=-2.147$; $df=111$; $p<0.05$)

This table shows that the pre-test recall mean for English was 3.2 (or 63%) and a relatively low standard deviation (SD=1.3). The mean, however, remained more or less the same in the post-test (M=3.2 or 64%) with an increased standard deviation (SD=1.4). This renders the group to remain heterogeneous even in the post-test. This shift signals a standard deviation increment of about 0.1 points. The results of the t-test, comparing the strength of this difference between the pre-test and

post-test in English literal comprehension trials show that it is not statistically significant at an alpha value of 0.05 (t=-0.205; df=111; p>0.05). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores in the post-test. It is noteworthy that both the pre-test and post-test mean were below the international minimum value of 75%.

The second part of the table shows that the mean for literal comprehension in Sesotho pre-test trials was below (M=2.5 or 50%) the English mean in the same time interval and a lower standard deviation (SD=1.1). The post-test mean for Sesotho increased to 2.9 (or 60%) and a slightly increased standard deviation (SD=1.2). The t-test results reveal that the differences between the pre- and post-test in Sesotho are statistically significant at an alpha value of 0.05 (t=-2.147; df=111; p<0.05). The null hypothesis, which predicted no increase in the mean gains, is therefore rejected.

When comparing English and Sesotho, English had slightly more gains in the post-test (M=3.2 / 64%) compared to its Sesotho counterpart (M=2.9 / 60%), and with high numerical values for both the pre-test and post-test. However, it should be noted that even in both English and Sesotho trials, the mean was still below the international benchmark of 75% in both pre- and post-test. One interpretation from these results is that translanguaging approach can be useful in increasing levels of literal comprehension among learners who learn to read in more than one language.

4.8.1.3 Literal comprehension post-test trials in School C

School C was the second experimental school, which participated in this study. This school went through the intervention, but did not take the pre-test like the other experimental school. The results shown below on Table 4.40 are a reflection of the performance of learners in their post- test on literal comprehension in both English and Sesotho.

Table 4.40: Performance of School C in post-test on Literal comprehension

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	Post-test	59	4.7119 [94%]	0.52689	.000	.000
Sesotho text	Post-test	59	4.0508 [81%]	1.02428		

(t=4.408; df=116; p< 0.05)

This table shows that the post-test recall mean for English was 4.7 (or 94%) and a relatively low standard deviation (SD=0.5). The mean, however, was below in the Sesotho post-test (M=4.1 or 81%) with an increased standard deviation (SD=1.0). This shift signals a mean loss of about 0.6

points lower in the post-test and a standard deviation increase of about 0.5 points. However, this renders the group to remain homogenous in the post-test, which suggests that the group remained intact as a result of the experimental trials. The results of the t-test, comparing the strength of this mean difference, show that the differences between the post-test in English and Sesotho literal comprehension trials are statistically significant at an alpha value of 0.05 (t=4.408; df=116; p< 0.05). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores between English and Sesotho in the post-test.

It is clear from the results that, when comparing English and Sesotho, the higher mean is more prevalent in English than it is in Sesotho. English had a higher mean (M=4.7 / 94%) compared to its Sesotho counterpart (M=4.1 / 81%), but both the post-test mean scores in English and Sesotho exceeded the international minimum value of 75%. One interpretation from these results is that translanguaging treatment is useful in increasing levels of literal comprehension among learners who learn to read in more than one language, especially in developing a second language. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.8.1.4 Literal comprehension post-test trials in School D

School D was another control school, which was therefore not exposed to the translanguaging intervention. Learners in this school did not write the pre-test, but only took the post-test. The results from the post-test on literal comprehension of learners in this school appear in Table 4.41.

Table 4.41: Performance of School D in post-test on Literal comprehension

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	Post-test	40	3.6500 [73%]	1.61006	.402	.416
Sesotho	Post-test	40	3.3500 [67%]	1.67255		

(t=0.817; df=78; p> 0.05)

This table shows that the post-test recall mean for English was 3.7 (or 73%) and a relatively low standard deviation (SD=1.6). The mean, however, was lower in the Sesotho post-test (M=3.4 or 67%) with an increased standard deviation (SD=1.7). This shift signals a mean difference of about 0.3 points between English and Sesotho sections in the post-test and a standard deviation increase of about 0.1 points. However, this renders that the group maintained more or less the same level in both languages. The results of the t-test, comparing the differences between the post-test in English

and Sesotho literal comprehension trials for this group show that it is statistically not significant at an alpha value of 0.05 (t=0.817; df=78; p>0.05). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores between the two languages in the post-test. It is noteworthy that both the pre- and post-test mean were far below the international minimum value of 75%. It is clear that, when comparing English and Sesotho, the higher mean is more prevalent in English than it is in Sesotho. English had a higher mean (M=3.7 / 73%) compared to its Sesotho counterpart (M=3.4 / 67%), but both below the international benchmark. One interpretation from these results is that there is a need for an approach that can increase levels of literal comprehension among learners who learn to read in more than one language.

4.8.2 Analysis between subjects on literal comprehension

Further analysis was done between subjects in order to find effectiveness of translanguaging by comparing performance of learners between different groups on literal comprehension. This was done by analysing the post-test performance between one experimental group, which had both the pre-test and the intervention and one control school, which took the pre-test, but no intervention. Another comparison was done between the two schools that did not take the pre-test, but one had an intervention, whereas another one did not. Furthermore, comparison was between the two experimental groups to determine the effectiveness of the intervention without the influence of the pre-test. Lastly, the two control groups were also compared to determine the carry over effect of the pre-test to confirm the efficacy of the translanguaging intervention. The results of these comparisons are discussed below.

4.8.2.1 Analysis between experimental School A and control School B

This analysis of the post-test performance between School A and School B was done to enable the researcher to determine the effectiveness of the translanguaging intervention that was done on School A and not with School B. Table 4.42 below shows the results of this comparison.

Table 4.42: Performance of School A and B on literal comprehension

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	School A	36	4.4167 [88%]	.93732	.004	.000
	School B	59	3.2203 [64%]	1.43920		
Sesotho	School A	36	3.3611 [67%]	1.69289	.000	.247
	School B	59	2.9831 [60%]	1.21046		

English (t=4.904; df=93; p<0.05) Sesotho (t=1.170; df=57; p>0.05)

This table shows that the post-test mean for English in School A was 4.4 (or 88%) and a relatively low standard deviation (SD=0.9), whereas the mean for School B was 3.2 (or 64%) with a higher standard deviation (SD=1.4) than that of School A. This renders that School A learners were more homogenous in the post-test, which suggests that the group became more intact as a result of the experimental trials. This signals a mean difference of about 1.2 points higher than the group B performance in English post-test and a standard deviation increase difference of about 0.5 points. The results of the t-test, comparing the difference, show that the differences between the two groups in English literal comprehension trials are statistically significant at an alpha value of 0.05 (t=4.904; df=93; p<0.05). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores between the two groups in English in the post-test. It should be noted that the post-test mean in English of School A had exceeded the international minimum value of 75%, whereas that of School B was far below the international benchmark.

The second part of the table shows that the mean for literal comprehension in Sesotho for School A was M=3.3 (67%) with a lower standard deviation (SD=1.7), whereas the mean for School A was lower (M=2.9 / 60%) and a slightly lower standard deviation (SD=1.2). The t-test results reveal that the differences between the performance of the two groups in Sesotho literal comprehension are not statistically significant at an alpha value of 0.05 (t=1.170; df=57; p>0.05). The null hypothesis, which predicted no increased variation in scores between the two groups in English in the post-test, is accepted.

When comparing English and Sesotho in both schools, English had slightly more gains in both schools (M=4.4 & 3.2) compared to its Sesotho counterpart (M=3.4 & 2.9), and with high numerical values for School A in both English and Sesotho. One interpretation from these results is that translanguaging treatment was useful in increasing levels of literal comprehension among learners who learn to read in more than one language, especially in developing a second language. Such a gain is more prevalent in English than it is in Sesotho in both schools, but higher in School A.

Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.8.2.2 Literal comprehension post-test trials between experimental School C and control School D

This analysis of the post-test performance between School C and School D was done to enable the researcher to determine the effectiveness of the translanguaging intervention that was done with School C and not with School D. Both schools did not take the pre-test. Therefore, no carry over effect that was tested on them. Table 4.43 below shows the results of this comparison.

Table 4.43: Performance of School C and D on literal comprehension

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	School C	59	4.7119 [94%]	0.52689	.000	.000
	School D	40	3.6500 [73%]	1.61006		
Sesotho	School C	59	4.0508 [81%]	1.02425	.000	.021
	School D	40	3.3500 [67%]	1.67255		

English ($t=4.028$; $df=45$; $p<0.05$) Sesotho ($t=2.366$; $df=59$; $p<0.05$)

This table shows that the post-test mean for English in School C was 4.7 (or 94%) and a relatively low standard deviation (SD=0.5), whereas the mean for School D was 3.7 (or 73%) with a higher standard deviation (SD=1.6) than that of School C. This renders that School C learners were more homogenous in the post-test, which suggests that the group became more intact as a result of the experimental trials. This signals a mean difference of about 1.0 points higher than the group D performance in English post-test and a standard deviation increase difference of about 1.1 points. The results of the t-test, comparing the difference, show that the differences between the two groups in English literal comprehension trials are statistically significant at an alpha value of 0.05 ($t=4.028$; $df=45$; $p<0.05$). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores between the two groups in English in the post-test. It should be noted that the post-test mean in English of School C had far exceeded the international minimum value of 75%, but that of School D was below the international benchmark.

The second part of the table shows that the mean for literal comprehension in Sesotho for School C was M=4.1 (81%) with a lower standard deviation (SD=1.0), whereas the mean for School D was lower (M=3.4 / 67%) and a slightly higher standard deviation (SD=1.7). The t-test results reveal

that the differences between the performance of the two groups in Sesotho literal comprehension are statistically significant at an alpha value of 0.05 (t=2.366; df=59; p<0.05). The null hypothesis, which predicted no increased variation in scores between the two groups, in Sesotho literal comprehension trials, in the post-test, is rejected.

When comparing English and Sesotho in both schools, English had slightly more gains in both schools (M=4.7 & 3.7) compared to its Sesotho counterpart (M=4.1 & 3.4), and with high numerical values for School C in both English and Sesotho. One interpretation from these results is that translanguaging treatment was useful in increasing levels of literal comprehension among learners who learn to read in more than one language, especially in developing a second language. Such a gain is more prevalent in English than it is in Sesotho in both schools, but higher in School C. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.8.2.3 Literal comprehension post-test trials between two experimental schools, A and C

The analysis between the two experimental schools was done to detect the carry over effect of the pre-test in order to determine the effectiveness of the translanguaging intervention that was offered to the two schools. One experimental School A had a pre-test and experimental School C did not take the pre-test. Therefore, this helped in detecting any carry over effect on the performance of School A versus that of School C. Table 4.44 below shows the results of these two schools on phonemic awareness.

Table 4.44: Performance of School A and C on Literal Comprehension

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	School A	36	4.4167 [88%]	.93732	.003	.090
	School C	59	4.7119 [94%]	.52689		
Sesotho	School A	36	3.3611 [67%]	1.69289	.000	.032
	School C	59	4.0508 [81%]	1.02425		

English (t=-1.730; df=49; p>0.05) Sesotho (t=-2.210; df=51; p<0.05)

This table shows that the post-test mean for English in School A was 4.4 (or 88%) and a relatively low standard deviation (SD=0.9), whereas the mean for School C was higher (M=4.7 / 94%) with a lower standard deviation (SD=0.5) than that of School A. This renders that even though both schools were more homogenous in the post-test, it suggests that the groups became more intact as

a result of the experimental trials, though School C seem to be having more gains than School A. This signals a mean difference of about 0.3 points higher for School C than School A in English post-test trials; and a standard deviation decrease difference of about 0.4 points. The results of the t-test, comparing the difference, show that the differences between the two groups in English literal comprehension trials are not statistically significant at an alpha value of 0.05 ($t=-1.730$; $df=49$; $p>0.05$). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores between the two groups in English in the post-test. It should be noted that the post-test mean in English for both schools exceeded the international minimum value of 75%.

The second part of the table shows that the mean for literal comprehension in Sesotho for School A was M=3.4 (67%) with a lower standard deviation (SD=1.7), whereas the mean for School C was higher (M=4.1 / 81%) and a lower standard deviation (SD=1.0). The t-test results reveal that the differences between the performance of the two groups in Sesotho literal comprehension are statistically significant at an alpha value of 0.05 ($t=-2.210$; $df=51$; $p<0.05$). The null hypothesis, which predicted no increased variation in scores between the two groups in Sesotho in the post-test, is rejected.

When comparing English and Sesotho in both schools, English had slightly more gains in both schools (M=4.4 & 4.7) compared to its Sesotho counterpart (M=3.4 & 4.1), and with high numerical values for School C in both English and Sesotho. One interpretation from these results is that there has been no carry over effect that is seen on the results of School A because School C, which did not have a pre-test performed better than A in both English and Sesotho literal comprehension trials. Another interpretation from the results of the two groups is that translanguaging treatment was useful in increasing levels of literal comprehension among learners who learn to read in more than one language, especially in developing a second language. Such a gain is more prevalent in English than it is in Sesotho in both schools, though higher in School C. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.8.2.4 Literal comprehension post-test trials between two control schools, B & D

The analysis between the two control schools was done to further detect the carry over effect of the pre-test as a way of confirming the effectiveness of the translanguaging intervention that was offered to the experimental schools. One control School B had a pre-test and another control School D did not take the pre-test. Therefore, this helped in detecting any carry over effect on the performance of School B versus that of School D. Table 4.45 below shows the results of these two schools on literal comprehension trials.

Table 4.45: Performance of School B and D on Literal Comprehension

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	School B	59	3.2203 [64%]	1.43920	.469	.168
	School D	40	3.6500 [73%]	1.61006		
Sesotho	School B	59	2.9831 [60%]	1.21046	.001	.238
	School D	40	3.3500 [67%]	1.67255		

English (t=-1.389; df=97; p>0.05) Sesotho (t=-1.192; df=66; p>0.05)

Table 4.46 above shows that the post-test mean for English literal comprehension in School B was 3.2 (or 64%) and a relatively low standard deviation (SD=1.4), whereas the mean for School D was higher (M=3.7 / 73%) with a higher standard deviation (SD=1.6) than that of School B. This renders that both schools were heterogeneous in the post-test. It suggests that both groups were not intact and seem to be having low mean scores in the post-test. This signals a mean difference of about 0.5 points higher for School D than School B in English literal comprehension post-test trials, but with a standard deviation increase difference of about 0.2 points. The results of the t-test, comparing the difference, show that the differences between the two groups in English literal comprehension trials are statistically not significant at an alpha value of 0.05 (t=-1.389; df=97; p>0.05). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores between the two groups in English in the post-test. It should be noted that the post-test mean in English for both schools were below the international minimum value of 75%.

The second part of the table shows that the mean for literal comprehension in Sesotho for School B was M=2.9 (60%) with a lower standard deviation (SD=1.2), whereas the mean for School D was higher (M=3.6 / 67%) and a higher standard deviation (SD=1.8). The t-test results reveal that the differences between the performance of the two groups in Sesotho literal comprehension are statistically not significant at an alpha value of 0.05 (t=-1.192; df=66; p>0.05). The null hypothesis, which predicted no increased variation in scores between the two groups in Sesotho in the post-test, is therefore accepted.

When comparing English and Sesotho in both schools, English had slightly more gains in both schools (M=3.2 & 3.7) compared to its Sesotho counterpart (M=2.9 & 3.4), and with high numerical values for School D in both English and Sesotho. One interpretation from these results is that there has been no carry over effect that is seen on the results of School B because School D, which did not have a pre-test had higher mean scores than the group that took the pre-test, School B. It can be

seen, from the results, that both schools had mean scores that are below the international benchmark of 75%. This confirms that learners read without understanding what they have read. This therefore, calls for strategies that can increase levels of literal comprehension among learners who learn to read in more than one language.

4.9 Cross-comparison of the four groups on literal comprehension

Cross-comparison was also done among the four schools, two experimental and two control groups in order to determine their post-test means on literal comprehension. This was done to further investigate the effectiveness of translanguaging intervention among the schools.

Table 4.46: Cross comparison of the post-test on the four groups on semantic awareness

Text Language	School	N	Mean	Std. Deviation
English text	School A	36	4.4167 [88%]	0.93732
	School B	59	3.2203 [64%]	1.43920
	School C	59	4.7119 [94%]	0.52689
	School D	40	3.6500 [73%]	1.61006
Sesotho text	School A	36	3.3611 [67%]	1.69289
	School B	59	2.9831 [60%]	1.21046
	School C	59	4.0508 [81%]	1.02425
	School D	40	3.3500 [67%]	1.67255

This table shows that School C had the highest post-test mean (M=4.7 / 94%) in English literal comprehension trials, with a relatively low standard deviation (SD=0.5). The second group was School A (M=4.4 / 88%) and with a slightly higher standard deviation (SD=0.9) than that of School C. The results therefore show School C to be more homogenous in the English literal comprehension post-test than School A. The mean scores of both groups were relatively very high; which suggests that they became more intact as a result of the experimental trials. These two schools are followed by School D (M=3.7 / 73%) and a higher standard deviation (SD=1.6) than that of the two experimental groups. The lowest post-test mean in English literal comprehension was School B (M=3.2 / 64%) and with a slightly lower standard deviation (SD=1.4) than that of School D. This renders School D more heterogeneous than School B. When comparing the four groups on English literal comprehension, the experimental groups outperformed the control groups. This therefore confirms the effectiveness of the translanguaging intervention offered to experimental groups. It should also be noted that both experimental schools had an English post-test mean on literal

comprehension that exceeded the international minimum value of 75% whereas the means for control groups were below the benchmark.

The second part of the table shows the mean scores for literal comprehension in Sesotho post-test trials for the four schools. The highest mean score was that of School C (M=4.1 / 81%), which was similarly higher than that of its English counterpart in the same time interval with a lower standard deviation (SD=1.0). The mean for School A was second (3.4 / 67%) after that of School C and with a higher standard deviation (SD=1.7). When comparing English and Sesotho in School C, English had more gains (M=4.4 / 88%) than its Sesotho counterpart. The Sesotho post-test mean for School D was also similar to that of School C, (M=3.4 / 67%) and with a similar standard deviation (SD=1.7) to that of School C. The mean for School B becomes the lowest (M=3.0 / 60%) and with a lower standard deviation (SD=1.2) to that of School D. These results further confirm that the intervention had a positive impact on the performance of the two experimental schools. It should be noted that the mean scores for all the schools were below the international minimum value of 75% with School C as an exception. When comparing English and Sesotho, English had high mean scores than Sesotho in all the schools. However, this was more prevalent in experimental schools which had high numerical values in English. One interpretation from these results is that translanguaging treatment is useful in increasing levels of literal comprehension among learners who learn to read in more than one language. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.10 Inferential Comprehension

One of the objectives of this study was to test the ability of learners to think beyond the text; their inference ability from what they have read in both Sesotho and English. In order to do this, learners were given questions based on what they have read and requested to apply their inferential skills. These test trials were done in both pre-tests, for the groups that took the pre-test, and post-tests in all the four groups. This was done within and between the subjects/groups to find how effective translanguaging intervention was on improving bilingual learners' inferential skills. The results presented below are for each school and between the schools.

4.10.1 Inferential comprehension tests within subjects

4.10.1.1 Pre & post-tests trials in School A

The findings on inference skills of learners in School A are presented on Table 4.47 below.

Table 4.47: Performance of School A pre- and post-tests on inferential ability

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	Pre-test	32	1.2188 [61%]	.75067	.098	.006
	Post-test	36	1.6944 [85%]	.62425		
Sesotho	Pre-test	32	1.1250 [56%]	.79312	.596	.823
	Post-test	36	1.1667 [58%]	.73679		

English ($t=-2.852$; $df=66$; $p<0.05$) Sesotho ($t=-0.225$; $df=66$; $p>0.05$)

This table shows that the pre-test inferences ability mean score of learners for English was 1.2 (or 61%) and a relatively low standard deviation (SD=0.8). The mean, however, increased in the post-test (M=1.6 or 85%) with a reduced standard deviation (SD=0.6). This renders the group more homogenous in the post-test, which suggests that the group became more intact as a result of the experimental trials. This shift signals a mean gain of about 0.4 points higher in the post-test and a standard deviation reduction of about 0.2 points. The results of the t-test, comparing the strength of this mean gain, show that the differences between the pre-test and post-test in English inferential comprehension trials are statistically significant at an alpha value of 0.05 ($t=t=-2.852$; $df=66$; $p<0.05$). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores in the post-test. It is noteworthy that the post-test mean exceeded the international minimum value of 75%, whereas the pre-test mean was below this benchmark.

The second part of the table shows that the mean for drawing inferences from Sesotho text pre-test trials was slightly below (M=1.1 or 56%) the English mean in the same time interval, but with the same standard deviation (SD=0.8). The post-test mean for Sesotho slightly increased to 1.2 (or 58%) and a slightly decreased standard deviation (SD=0.7). The t-test results reveal that the differences between the pre- and post-test in Sesotho are statistically not significant at an alpha value of 0.05 ($t=-0.225$; $df=66$; $p>0.05$). The null hypothesis, which predicted no increase in the mean gains after intervention, is therefore accepted.

When comparing English and Sesotho, English had slightly more gains in the post-test (M=1.7/85%) compared to its Sesotho counterpart (M=1.2/58%), and with high numerical values for both the pre-test and post-test. One interpretation from these results is that translanguaging treatment is useful in increasing levels of drawing inferences among learners who learn to read in more than one language. Such a gain is more prevalent in English than it is in Sesotho.

Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.10.1.2 Inferential skills pre- & post-tests trials in School B

The findings on how learners in School B, control group, were able to respond to questions that tested their ability to draw inferences from what they had read in both English and Sesotho are presented on Table 4.48 below.

Table 4.48: Performance of School B in pre- & post-tests on inferential comprehension

Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	Pre-test	54	.8333 [42%]	.77093	.000	.767
	Post-test	59	.8814 [44%]	.94841		
Sesotho	Pre-test	54	.5741 [29%]	.81500	.021	.106
	Post-test	59	.3390 [17%]	.70979		

English (t=-0.296; df=110; p>0.05) Sesotho (t=1.629; df=106; p>0.05)

This table shows that the pre-test recall mean for English was 0.8 (or 42%) and a low standard deviation (SD=0.8). The mean, however, slightly increased in the post-test (M=0.9 or 44%) with an increased standard deviation (SD=0.9). This renders the group more heterogeneous in the post-test, which suggests that the group became more detached in the post-test. This shift signals a mean gain of about 0.1 points higher in the post-test and a standard deviation increase of about 0.1 points. The results of the t-test, comparing the strength of this mean gain, show that the differences between the pre-test and post-test in English inferential comprehension trials are statistically not significant at an alpha value of 0.05 (t=-0.296; df=110; p>0.05). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores in the post-test. It is noteworthy that both the pre-test and post-test mean in English was below the international minimum value of 75%.

The second part of the table shows that the mean for inferential comprehension in Sesotho pre-test trials was below (M=0.6 or 29%) the English mean in the same time interval and a higher standard deviation (SD=0.8). The post-test mean for Sesotho decreased to 0.3 (or 17%) and a slightly decreased standard deviation (SD=0.7). The t-test results reveal that the differences between the pre- and post-test in Sesotho inferential skills are statistically not significant at an alpha value of 0.05 (t=1.629; df=106; p>0.05). The null hypothesis, which predicted no increase in the mean gains is therefore accepted.

When comparing English and Sesotho, English had slightly more gains in the post-test (M=0.9 / 44%) compared to its Sesotho counterpart (M=0.3 / 17%), and it has high numerical values for both the pre-test and post-test. One interpretation from these results is that learners regress in their performance as they progress in their learning and as a result, there is a need to introduce some treatment that can be useful in increasing levels of drawing inferences among learners who learn to read in more than one language. Though the mean in both languages and in both the pre-test and post-test is far below the international benchmark, English has more gains than in Sesotho.

4.10.1.3 Inferential skills pre- & post-tests trials in School C

School C was the second experimental school which participated in this study. This school went through the intervention, but did not take the pre-test like the other experimental school. The results shown below on Table 4.49 are a reflection of the performance of learners in their post- test on inferential comprehension in both English and Sesotho respectively.

Table 4.49: Performance of School C in a post-test on inferential comprehension

Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	Post-test	59	1.5593 [78%]	.65050	.026	.205
Sesotho text	Post-test	59	1.3898 [69%]	.78821		

(t=1.274; df=112; p >0.05)

This table shows that the post-test mean for English was 1.6 (or 78%) and a relatively low standard deviation (SD=0.7). The mean, however, was lower in the Sesotho post-test (M=1.4 or 69%) with a slightly increased standard deviation (SD=0.8). This shift signals a mean difference of about 0.2 points and a standard deviation increase of about 0.1 points. This suggests that the group remained intact as a result of the experimental trials. The results of the t-test, comparing the strength of this mean difference, show that the differences between the post-test in English and in Sesotho inferential comprehension trials are statistically not significant at an alpha value of 0.05 (t=1.274; df=112; p>0.05). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores between English and Sesotho in the post-test.

It is clear from the results that when comparing English and Sesotho, English had a higher mean (M=1.6 / 78%) compared to its Sesotho counterpart (M=1.4 / 69%) and with a lower standard deviation (SD=0.7) than that of Sesotho. It should be noted that English had a mean score that exceeded the international minimum value of 75%, whereas Sesotho's mean score was below the

benchmark. One interpretation from these results is that translanguaging treatment was useful in increasing levels of drawing inferences from text among learners who learn to read in more than one language. Such a gain is more prevalent in English than it is in Sesotho. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.10.1.4 Inferential skills post-test trials in School D

School D was the second control school. Therefore, it was not exposed to the translanguaging intervention. Learners in this school did not write the pre-test, but only took the post-test. The results from the post-test on inferential comprehension of learners in this school appear in Table 4.50.

Table 4.50: Performance of School D in post-test on inferential comprehension

Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	Post-test	40	.9500 [48%]	.93233	.746	.718
Sesotho text	Post-test	40	1.0250 [51%]	.91952		

(t=-.362; df=78; p> 0.05)

This table shows that the post-test recall mean for English was 0.9 (or 48%) and a standard deviation (SD=0.9). The mean, however, was a bit higher in the Sesotho post-test (M=1.0 or 51%) with a similar standard deviation (SD=0.9). This shift signals a mean difference of about 0.1 points between English and Sesotho sections in the post-test and the same standard deviation (SD=0.9). This renders that the group maintained more or less the same level in both languages. The results of the t-test, comparing the differences between the post-test in English and in Sesotho inferential comprehension trials for this group show that it is statistically not significant at an alpha value of 0.05 (t=-.362; df=78; p>0.05). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores between the two languages in the post-test. It is noteworthy that both the pre- and post-test mean were far below the international minimum value of 75%. It is clear that when comparing English and Sesotho, the higher mean is more prevalent in Sesotho than it is in English. Sesotho had a higher mean (M=1.0 / 51%) compared to its English counterpart (M=0.9 / 48%), but both were below the international benchmark. One interpretation from these results is that there is a need for an approach that can increase levels of literal comprehension among learners who learn to read in more than one language.

4.10.2 Analysis between subjects on inferential skills

Further analysis was done between subjects in order to find effectiveness of translanguaging by comparing performance of learners between different groups on inferential comprehension. This was done by analysing the post-test performance between one experimental group, which had both the pre-test and the intervention and one control school, which took the pre-test, but no intervention. Another comparison was done between the two schools that did not take the pre-test, but one had an intervention, whereas another one did not. Furthermore, comparison was between the two experimental groups to determine the effectiveness of the intervention without the influence of the pre-test. Lastly, the two control groups were also compared to determine the carry over effect of the pre-test as to confirm the efficacy of the translanguaging intervention. The results of these comparisons are discussed below.

4.10.2.1 Analysis between Experimental School A and Control School B on Inferential skills

This analysis of the post-test performance between School A and School B was done to enable the researcher to determine the effectiveness of the translanguaging intervention that was done on School A and not with School B. Table 4.51 below shows the results of this comparison.

Table 4.51: Performance of Schools A and B on inferential comprehension

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	School A	36	1.6944 [85%]	.62425	.000	.000
	School B	59	0.8814 [44%]	.94841		
Sesotho	School A	36	1.1667 [58%]	.73679	.508	.000
	School B	59	0.3390 [17%]	.70979		

English ($t=5.036$; $df=92$; $p<0.05$) Sesotho ($t=5.435$; $df=93$; $p<0.05$)

This table shows that the post-test mean for English in School A was 1.7 (or 85%) and a relatively low standard deviation (SD=0.6), whereas the mean for School B was 0.9 (or 44%) with a higher standard deviation (SD=0.9) than that of School A. This renders that School A learners were more homogenous in the post-test, which suggests that the group became more intact as a result of the experimental trials. This signals a mean difference of about 0.8 points higher than the group B performance in English post-test and a standard deviation increase difference of about 0.3 points. The results of the t-test, comparing the difference, show that the differences between the two groups in English inferential comprehension trials are statistically significant at an alpha value of 0.05

(t=5.036; df=92; p<0.05). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores between the two groups in English in the post-test. It should be noted that the post-test mean in English of School A had exceeded the international minimum value of 75%, whereas that of School B was far below the international benchmark.

The second part of the table shows that the mean for inferential comprehension in Sesotho for School A was M=1.2 (58%) with a lower standard deviation (SD=0.7), whereas the mean for School A was lower (M=0.3 / 17%) and a similar standard deviation (SD=0.7) with that of School A. The t-test results reveal that the differences between the performance of the two groups in Sesotho inferential comprehension are statistically significant at an alpha value of 0.05 (t=5.435; df=93; p<0.05). The null hypothesis, which predicted no increased variation in scores between the two groups in English in the post-test, is therefore rejected. It should be noted that the mean for both schools was below the international benchmark on both schools, but worse with School B.

When comparing English and Sesotho in both schools, English had more gains in both schools (M=1.7 & 0.9) compared to its Sesotho counterpart (M=1.2 & 0.3), and with high numerical values for School A in both English and Sesotho. One interpretation from these results is that translanguaging treatment that was given to School A was useful in increasing levels of inferential comprehension among learners who learn to read in more than one language. Such a gain is more prevalent in English than it is in Sesotho in both schools, but higher in School A than in School B. This indicates that translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.10.2.2 Inferential post-test trials between experimental School C and control School D

This analysis of the post-test performance between School C and School D was done to enable the researcher to determine the effectiveness of the translanguaging intervention that was done with School C and not with School D. Both schools did not take the pre-test, therefore no carry over effect tested on them. Table 4.52 below shows the results of this comparison.

Table 4.52: Performance of Schools C and D on Inferential Comprehension

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	School C	59	1.5593 [78%]	.65050	.000	.001
	School D	40	0.9500 [48%]	.93233		
Sesotho	School C	59	1.3898 [69%]	.78821	.089	.037
	School D	40	1.0250 [51%]	.91952		

English ($t=3.584$; $df=64$; $p<0.05$) Sesotho ($t=2.112$; $df=97$; $p<0.05$)

This table shows that the post-test mean for English in School C was 1.6 (or 78%) and a relatively low standard deviation (SD=0.7), whereas the mean for School D was 0.9 (or 73%) with a higher standard deviation (SD=0.9) than that of School C. This renders that School C learners were more homogenous in the post-test, which suggests that the group became more intact as a result of the experimental trials. This signals a mean difference of about 0.7 points higher than the group D performance in English post-test and a standard deviation increase difference of about 0.2 points. The results of the t-test, comparing the difference, show that the difference between the two groups in English inferential comprehension trials is statistically significant at an alpha value of 0.05 ($t=3.584$; $df=64$; $p<0.05$). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores between the two groups in English in the post-test. It should be noted that the post-test mean in English of School C had exceeded the international minimum value of 75%, but that of School D was far below the international benchmark.

The second part of the table shows that the mean for inferential comprehension in Sesotho for School C was M=1.4 (69%) with a lower standard deviation (SD=0.8), whereas the mean for School D was lower (M=1.0 / 51%) and a slightly higher standard deviation (SD=0.9). The t-test results reveal that the differences between the performance of the two groups in Sesotho inferential comprehension are statistically significant at an alpha value of 0.05 ($t=2.112$; $df=97$; $p<0.05$). The null hypothesis, which predicted no increased variation in scores between the two groups, in Sesotho literal comprehension trials, in the post-test, is rejected.

When comparing English and Sesotho in both schools, English had more gains in School C (M=1.6) compared to its Sesotho counterpart (M=1.4), and in School D Sesotho had more gains (M=1.0) compared to its English counterpart (M=0.9). However, School C had high numerical values for both English and Sesotho than School D. One interpretation from these results is that translanguaging treatment given to School C was useful in increasing levels of drawing inferences

among learners who learn to read in more than one language, especially in developing a second language. Such a gain is more prevalent in English than it is in Sesotho in School C. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.10.2.3 Inferential post-test trials between two experimental Schools A and C

The analysis between the two experimental schools was done to detect the carry over effect of the pre-test in order to determine the effectiveness of the translanguaging intervention that was offered to the two schools. One experimental School A had a pre-test and experimental School C did not take the pre-test. Therefore, this helped in detecting any carry over effect on the performance of School A versus that of School C. Table 4.53 below shows the results of these two schools on inferential post-test trials.

Table 4.53: Performance of Schools A and C on Inferential Comprehension

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	School A	36	1.6944 [85%]	.62425	.208	.321
	School C	59	1.5593 [78%]	.65050		
Sesotho	School A	36	1.1667 [58%]	.73679	.200	.173
	School C	59	1.3898 [69%]	.78821		

English (t=.997; df=93; p>0.05) Sesotho (t=-1.372; df=93; p>0.05)

This table shows that the post-test mean for English in School A was 1.7 (85%) and a relatively low standard deviation (SD=0.6), whereas the mean for School C was slightly lower (M=1.6 /78%) with a higher standard deviation (SD=0.7) than that of School A. This renders that both groups are more homogenous in the post-test, which suggests that the groups became more intact as a result of the experimental trials. This signals a mean difference of about 0.1 and a standard deviation difference of about 0.1 points. The results of the t-test, comparing the difference, show that the differences between the two groups in English inferential comprehension trials are not statistically significant at an alpha value of 0.05 (t=.997; df=93; p>0.05). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores between the two groups in English in the post-test. It should be noted that the post-test mean in English for both schools exceeded the international minimum value of 75%.

The second part of the table shows that the mean for inferential comprehension in Sesotho for School A was M=1.2 (58%) with a lower standard deviation (SD=0.7), whereas the mean for School C was higher (M=1.4 / 69%) and a lower standard deviation (SD=0.8). The t-test results reveal that the differences between the performance of the two groups in Sesotho inferential comprehension are statistically not significant at an alpha value of 0.05 (t=-1.372; df=93; p>0.05). The null hypothesis, which predicted no increased variation in scores between the two groups in Sesotho in the post-test, is therefore accepted.

When comparing English and Sesotho in both schools, English had more gains in both schools (M=1.7 & 1.6) respectively, compared to its Sesotho counterpart (M=1.2 & 0.7), and with high numerical values in English than Sesotho. One interpretation from these results is that there has been no carry over effect that is perceived on the results of School A because the difference in the performance of both schools in both English and Sesotho is statistically not significant. The results of the two groups show that translanguaging treatment was useful in increasing levels of drawing inferences in both English and Sesotho among learners who learn to read in more than one language, especially in developing a second language. Such a gain is more prevalent in English than it is in Sesotho in both schools. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.10.2.4 Inferential post-test trials between two control Schools B and D

The analysis between the two control schools was done to further detect the carry over effect of the pre-test as a way of confirming the effectiveness of the translanguaging intervention that was offered to the experimental schools. One control School B had a pre-test and another control School D did not take the pre-test. Therefore, this helped in detecting any carry over effect on the performance of School B versus that of School D. Table 4.54 below shows the results of these two schools on literal comprehension trials.

Table 4.54: Performance of Schools B and D on Inferential Comprehension

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English	School B	59	0.8814 [44%]	.94841	.519	.723
	School D	40	0.9500 [48%]	.93233		
Sesotho	School B	59	0.3390 [17%]	.70979	.001	.000
	School D	40	1.0250 [51%]	.91952		

English (t=-0.356; df=97; p>0.05) Sesotho (t=-3.982; df=69.2; p<0.05)

Table 4.54 above shows that the post-test mean for English literal comprehension in School B was 0.8 (or 44%) and a high standard deviation (SD=0.9), whereas the mean for School D was slightly higher (M=0.9 / 48%) with a similar standard deviation (SD=0.9) to that of School B. This renders that both schools were heterogeneous in the post-test. It suggests that both groups were detached and seem to be having low mean scores in the post-test. This signals a mean difference of about 0.1 points between the groups in English inferential comprehension post-test trials, but with a similar standard deviation. The results of the t-test, comparing the difference, show that the mean scores difference between the two groups in English inferential comprehension trials is statistically not significant at an alpha value of 0.05 ($t=-0.356$; $df=97$; $p>0.05$). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores between the two groups in English in the post-test. It should be noted that the post-test mean in English for both schools was below the international minimum value of 75%.

The second part of the table shows that the mean for drawing inferences in Sesotho for School B was very low (M=0.3/17%) with a higher standard deviation (SD=0.7), whereas the mean for School D was higher (M=1.0 / 51%) and a higher standard deviation (SD=0.9). The t-test results reveal that the differences between the performance of the two groups in Sesotho inferential comprehension are statistically significant at an alpha value of 0.05 ($t=-3.982$; $df=69.2$; $p<0.05$). The null hypothesis, which predicted no increased variation in scores between the two groups in Sesotho inferential comprehension, in the post-test, is therefore rejected. However, it should be noted that the mean scores in Sesotho, in both schools, were below the international minimum value of 75%.

When comparing English and Sesotho in both schools, English had more gains in School B (M=0.8) compared to its Sesotho counterpart (M=0.3), and in School D Sesotho had more gains (M=1.0) compared to its English counterpart (M=0.9). However, School D had high numerical values for both English and Sesotho than School B. One interpretation from these results is that there has been no carry over effect that is seen on the results of School B because School D, which did not have a pre-test, had higher mean scores than the group, School B, which took the pre-test. It can be seen, from the results, that both schools had mean scores that are below the international benchmark of 75%. This confirms that learners read without understanding what they have read, and therefore, they cannot not draw inferences from what they had read. This therefore, calls for strategies that can increase levels of literal comprehension among learners who learn to read in more than one language.

4.11 Cross-comparison of the four groups on inferential comprehension

Cross-comparison was also done among the four schools, two experimental and two control groups in order to determine their post-test means on inferential comprehension. This was done to further investigate the effectiveness of translanguaging intervention among the schools.

Table 4.55: Cross comparison of the post-test on the four groups on inferential comprehension

Text Language	School	N	Mean	Std. Deviation
English text	School A	36	1.6944 [85%]	.62425
	School B	59	0.8814 [44%]	.94841
	School C	59	1.5593 [78%]	.65050
	School D	40	0.9500 [48%]	.93233
Text Language	**School**	**N**	**Mean**	**Std. Deviation**
Sesotho text	School A	36	1.1667 [58%]	.73679
	School B	59	0.3390 [17%]	.70979
	School C	59	1.3898 [69%]	.78821
	School D	40	1.0250 [51%]	.91952

This table shows that School A had the highest post-test mean (M=1.7 / 85%) in English inferential comprehension trials, with a relatively low standard deviation (SD=0.6). The second group was School C (M=1.6 / 78%) and with a slightly higher standard deviation (SD=0.7) than that of School A. The results therefore show School A to be more homogenous in the English inferential comprehension post-test than School C. The mean scores of both groups were relatively high; which suggests that they became more intact as a result of the experimental trials. These two schools are followed by School D (M=0.9 / 48%) and a higher standard deviation (SD=0.9) than that of the two experimental groups. The lowest post-test mean in English inferential comprehension was School B (M=0.8 / 44%) and with similar standard deviation (SD=0.9) to that of School D. This renders both School B and D to be heterogeneous. When comparing the four groups on English inferential comprehension, the experimental groups outperformed the control groups. This therefore confirms the effectiveness of the translanguaging intervention offered to experimental groups. It should also be noted that both experimental schools had an English post-test mean on inferential comprehension that exceeded the international minimum value of 75%, whereas the means for control groups were far below the benchmark.

The second part of the table shows the mean scores for inferential comprehension in Sesotho post-test trials for the four schools. The highest mean score was that of School C (M=1.4 / 69%), which

was lower than that of its English counterpart in the same time interval with a slightly higher standard deviation (SD=0.8). The mean for School A was second (1.2 / 58%) after that of School C and with a lower standard deviation (SD=0.7). When comparing English and Sesotho in School C, English had more gains (M=1.6 / 78%) than its Sesotho counterpart. The Sesotho post-test mean on inferential comprehension for School D was the third (M=1.1 / 51%) and with a higher standard deviation (SD=0.9) than that of School A and C. The mean for School B was the lowest (M=0.3 / 17%), but with a lower standard deviation (SD=0.7) to that of School D. These results further confirm that the intervention had a positive impact on the performance of the two experimental schools. It should be noted that the mean scores for all the schools in Sesotho inferential post-test trials were below the international minimum value of 75%. When comparing English and Sesotho, English had high mean scores than Sesotho in all the schools. One interpretation from these results is that translanguaging treatment is useful in increasing levels of inferential comprehension among learners who learn to read in more than one language. The gains were more prevalent in English than in Sesotho inferential trials. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.12 Summary writing - Language juxtaposition

One of the objectives of this study was to test the ability of learners to retell in a different language what they have read in another language; that is, the language of input different from the language of output. In order to do this, learners were given a text in one language and were asked to write a summary of that text in another language. These test trials were done in both pre-tests and post-tests in some schools, whereas in others were only in the post-tests. The purpose of these trials was to find how effective translanguaging intervention was on improving bilingual learners' language juxtaposition. The results are presented below, first within the subjects and then between the subjects.

4.12.1 Analysis within subjects on summary writing

4.12.1.1 Summary writing pre- & post-tests trials in School A

The findings on how learners in School A, an experimental group, were able to retell in a different language what they have read in another language are presented on Table 4.56 below.

Table 4.56: Performance of School A pre- and post-tests on summary writing in a different language from a text

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	Pre-test	32	0.8750 [44%]	0.90696	.357	.033
	Post-test	36	1.3333 [67%]	0.82808		
Sesotho text	Pre-test	32	0.6250 [31%]	0.75134	.841	.000
	Post-test	36	1.4167 [71%]	0.73193		

English (t=-2.178; df=66; p<0.05) Sesotho (t=-4. 397; df=66; p<0.05)

This table shows that the pre-test mean score of learners to retell an English text in Sesotho was 0.9 (or 44%) and a relatively low standard deviation (SD=0.9). The mean, however, increased in the post-test (M=1.3 or 67%) with a reduced standard deviation (SD=0.8). This renders the group more homogenous in the post-test, which suggests that the group became more intact as a result of the experimental trials. This shift signals a mean gain of about 0.4 points higher in the post-test and a standard deviation reduction of about 0.1 points. The results of the t-test, comparing the strength of this mean gain, show that the differences between the pre-test and post-test in retelling an English text in Sesotho are statistically significant at an alpha value of 0.05 (t=-2.178; df=66; p<0.05). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores in the post-test. It is noteworthy that both the pre-test and post-test mean were below the international minimum value of 75%, but with a closer value to the benchmark on the post-test.

The second part of the table shows that the mean for retelling a Sesotho text in English pre-test trials was slightly below (M=0.6 or 31%%) the English mean in the same time interval, but with a lower standard deviation (SD=0.8). The post-test mean for Sesotho text retelling in English increased (M=1.4 / 71%) and a slightly decreased standard deviation (SD=0.7). The t-test results reveal that the differences between the pre- and post-test in Sesotho text retelling in English are statistically significant at an alpha value of 0.05 (t=-4. 397; df=66; p<0.05). The null hypothesis, which predicted no increase in the mean gains after intervention, is therefore rejected.

When comparing English and Sesotho, retelling a Sesotho text in English had slightly more gains in the post-test (M=1.4/71%) compared to its Sesotho counterpart (M=1.3/67%), and with high numerical values for the post-test, but low for the pre-test. One interpretation from these results is that translanguaging treatment is useful in increasing levels of drawing inferences among learners who learn to read in more than one language. Such a gain is more prevalent in retelling a Sesotho

text in English than it is in retelling an English text in Sesotho. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.12.1.2 Inferential skills pre- & post-tests trials in School B

The findings on how learners in School B, control group, were able to summarise in a different language what they had read in another language are presented on Table 4.57 below.

Table 4.57: Performance of School B in pre- and post-tests on summary writing

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	Pre-test	54	.4815 [24%]	.63664	.000	.000
	Post-test	59	1.0339 [52%]	.90907		
Sesotho text	Pre-test	54	.5370 [27%]	.63582	.000	.003
	Post-test	59	.9831 [49%]	.91899		

English text - (t=-3.766; df=104; p<0.05) Sesotho text - (t=-3.021; df=104; p> 0.05)

This table shows that the pre-test mean score of learners to retell an English text in Sesotho was 0.4 (or 24%) and a low standard deviation (SD=0.6). The mean, however, increased in the post-test (M=1.0 or 52%) with an increased standard deviation (SD=0.9). This renders the group more heterogeneous in the post-test, which suggests that the group became more detached in the post-test. This shift signals a mean gain of about 0.6 points higher in the post-test and a standard deviation increase of about 0.3 points. The results of the t-test, comparing the strength of this mean gain, show that the differences between the pre-test and post-test in summarising an English text in Sesotho comprehension trials are statistically significant at an alpha value of 0.05 (t=-3.766; df=104; p<0.05). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores in the post-test. It is noteworthy that both the pre-test and post-test mean in English text retelling were below the international minimum value of 75%.

The second part of the table shows that the mean for retelling a Sesotho text in English pre-test trials was above (M=0.5 / 27%) the English mean in the same time interval and had a similar standard deviation (SD=0.6). The post-test mean for retelling a Sesotho text in English decreased to 0.9 (or 49%) and the same standard deviation (SD=0.9) compared to its English counterpart. The t-test results reveal that the differences between the pre- and post-test in retelling a Sesotho text in English are statistically significant at an alpha value of 0.05 (t=-3.021; df=104; p<0.05). The null hypothesis, which predicted no increase in the mean gains, is therefore rejected.

When comparing English and Sesotho, retelling an English text in Sesotho had slightly more gains in the post-test (M=1.0 / 52%) compared to its Sesotho counterpart (M=0.9 / 49%), with high numerical values, but in the pre-test, Sesotho had higher numerical values. One interpretation from these results is that learners regress in their performance as they progress in their learning and as such, there is a need to introduce some treatment that can be useful in increasing levels of drawing inferences among learners who learn to read in more than one language. It should be noted that the mean in both languages and in both the pre-test and post-test, is far below the international benchmark.

4.12.1.3 Summary writing post-tests trials in School C

School C was the second experimental school, which participated in this study. This school went through the intervention, but did not take the pre-test like the other experimental school. The results shown below on Table 4.58 are a reflection of the performance of learners in their post-test on summary writing comprehension in both English and Sesotho respectively.

Table 4.58: Performance of School C in post-test on summary writing

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	Post-test	59	1.7966 [90%]	.51794	.000	.000
Sesotho text	Post-test	59	1.2203 [61%]	.87233		

(t=4.363; df=94; p< 0.05)

This table shows that the post-test mean score of learners to retell an English text in Sesotho was 1.8 (or 90%) and a relatively low standard deviation (SD=0.5). The mean, however, was lower retelling a Sesotho text in English (M=1.2 / 61%) with an increased standard deviation (SD=0.9). This renders the group more homogenous in the post-test, which suggests that the group became more intact as a result of the experimental trials. This shift signals a post-test mean difference of about 0.6 points higher in retelling an English text in Sesotho than in retelling a Sesotho text in English and a standard deviation difference of about 0.4 points. The results of the t-test, comparing the strength of this mean difference, show that the difference between the post-test in language juxtaposition summary writing from an English text and from a Sesotho text comprehension trials is statistically significant at an alpha value of 0.05 (t=4.363; df=94; p<0.05). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores in the post-test, between writing a summary from an English text and from a Sesotho text.

It is clear from the results that, when comparing English and Sesotho, writing a summary in Sesotho from English had a higher mean (M=1.8 / 90%) compared to writing a summary in English from a Sesotho text counterpart (M=1.2 / 61%) and with a lower standard deviation (SD=0.5) than that from a Sesotho text. It should be noted that writing a summary from an English text had a mean score that exceeded the international minimum value of 75%, whereas from a Sesotho text, the mean score was below the benchmark. One interpretation from these results is that translanguaging treatment was useful in increasing levels of language juxtaposition from texts among learners who learn to read in more than one language. Such a gain is more prevalent in writing a summary from an English text than it is from a Sesotho text. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.12.1.4 Summary writing post-test trials in School D

School D was the second control group and therefore, was not exposed to the translanguaging intervention. Learners in this school did not write the pre-test, but only took the post-test. The results from the post-test on language juxtaposition of learners in this group appear in Table 4.59.

Table 4.59: Performance of School D in post-test on summary writing

Text Language	Test	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	Post-test	40	1.3000 [65%]	.88289	.793	.533
Sesotho text	Post-test	40	1.1750 [59%]	.90203		

(t=0.626; df=78; p> 0.05)

This table shows that the post-test mean score of learners to retell an English text in Sesotho was 1.3 (or 65%) and a relatively low standard deviation (SD=0.8). The mean, however, was lower in retelling a Sesotho text in English (M=1.1 / 59%) with an increased standard deviation (SD=0.9). This shift signals a mean difference of about 0.2 points between English and Sesotho sections in the post-test and the same standard deviation (SD=0.9). This renders that the group maintained more or less the same level in both languages. The results of the t-test, comparing the strength of this mean difference, show that the difference between the post-test in language juxtaposition summary writing from an English text and from a Sesotho text comprehension trial is statistically not significant at an alpha value of 0.05 (t=0.626; df=78; p>0.05). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores in the post-test, between writing a summary from an English text and from a Sesotho text.

It is clear from the results that, when comparing English and Sesotho, writing a summary in Sesotho from English had a higher mean (M=1.3 / 65%) compared to writing a summary in English from a Sesotho text counterpart (M=1.1 / 59%) and with the same standard deviation (SD=0.9) with that from a Sesotho text. It should be noted that writing a summary from both an English text and a Sesotho text had a mean score below the international minimum value of 75%. One interpretation from these results is that learners read without understanding and cannot be able to retell in a different language what they have read in another language. This therefore, shows that there is a need to introduce some treatment that can be useful in increasing levels of language juxtaposition among learners who learn to read in more than one language.

4.12.2 Analysis between subjects on summary writing

Further analysis was done between subjects in order to find effectiveness of translanguaging by comparing performance of learners between different groups on summary writing where the language of input was different from the language of output. This was done by analysing the post-test performance between different groups. The results of these comparisons are discussed below.

4.12.2.1 Analysis between experimental School A and control School B on summary writing

This analysis of the post-test performance between School A and School B was done to enable the researcher to determine the effectiveness of the translanguaging intervention that was done on School A and not with School B. Table 4.60 below shows the results of this comparison.

Table 4.60: Performance of School A and B on summary writing

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	School A	36	1.3333 [67%]	.82808	.320	.111
	School B	59	1.0339 [52%]	.90907		
Sesotho text	School A	36	1.4167 [71%]	.73193	.015	.013
	School B	59	0.9831 [49%]	.91899		

English ($t=1.610$; $df=93$; $p>0.05$) Sesotho ($t=2.538$; $df=86$; $p<0.05$)

This table shows that the post-test mean for English in School A was 1.3 (67%) and a relatively low standard deviation (SD=0.8), whereas the mean for School B was 1.0 (52%) with a higher standard deviation (SD=0.9) than that of School A. This renders that School A learners were more homogenous in the post-test, which suggests that the group became more intact as a result of the

experimental trials. This signals a mean difference of about 0.3 points higher than the group B performance in English post-test and a standard deviation increase difference of about 0.1 points. The results of the t-test, comparing the difference, show that the difference between the two groups in writing a summary in Sesotho from an English text is statistically not significant at an alpha value of 0.05 ($t=1.610$; $df=93$; $p>0.05$). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores between the two groups in English in the post-test. However, the post-test mean in writing a summary in Sesotho from an English text for both schools was below the international minimum value of 75%.

The second part of the table shows that the mean for writing a summary in English from a Sesotho text for School A was M=1.4 (71%) with a lower standard deviation (SD=0.7), whereas the mean for School A was lower (M=0.9 / 49%) and a higher standard deviation (SD=0.9) than that of School A. The t-test results reveal that the difference between the performance of the two groups in writing a summary in English from a Sesotho text is statistically significant at an alpha value of 0.05 ($t=2.538$; $df=86$; $p<0.05$). The null hypothesis, which predicted no increased variation in scores between the two groups in summary writing in the post-test, is therefore rejected. It should further be noted that the mean for both schools was below the international benchmark of 75%.

When comparing writing a summary in English and Sesotho respectively, writing a summary in English from Sesotho had more gains in School A (M=1.4 / 71%) and with a lower standard deviation (SD=0.7) compared to its counterpart in writing a summary in Sesotho from an English text (M=1.3 / 67%) and with a higher standard deviation (SD=0.8). On the other hand, in School B, writing a summary in Sesotho from an English text had more gains (M=1.0 /52%) compared to its counterpart in writing a summary in English from a Sesotho text (M=0.9 / 49%) with the same standard deviation (SD=0.9). When comparing the two schools on both languages, School A had high numerical values on both languages, that is, in writing a summary in Sesotho from an English text and writing a summary in English from a Sesotho text. One interpretation from these results is that translanguaging treatment, which was given to School A was useful in increasing levels of language juxtaposition among learners who learn to read in more than one language. Such a gain is more prevalent in writing a summary in English from a Sesotho text than writing a summary in Sesotho from an English text. This indicates that translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.12.2.2 Summary writing post-test trials between experimental School C and control School D

This analysis of the post-test performance between School C and School D was done to enable the researcher to determine the effectiveness of the translanguaging intervention that was done with School C and not with School D. Both schools did not take the pre-test, therefore no carry over effect tested on them. Table 4.61 below shows the results of this comparison.

Table 4.61: Performance of School C and D on Summary writing

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	School C	59	1.7966 [90%]	.51794	.000	.002
	School D	40	1.3000 [65%]	.88289		
Sesotho text	School C	59	1.2203 [61%]	.87233	.615	.803
	School D	40	1.1750 [59%]	.90263		

English ($t=3.203$; $df=97$; $p<0.05$) Sesotho ($t=0.250$; $df=97$; $p>0.05$)

This table shows that the post-test mean for English in School C was 1.8 (or 90%) and a relatively low standard deviation (SD=0.5), whereas the mean for School D was 1.3 (or 65%) with a higher standard deviation (SD=0.9) than that of School C. This renders that School C learners were more homogenous in the post-test, which suggests that the group became more intact as a result of the experimental trials. This signals a mean difference of about 0.5 points higher than the group D performance in English post-test and a standard deviation increase difference of about 0.4 points. The results of the t-test, comparing the difference, show that the difference between the two groups in writing a summary in Sesotho from an English text is statistically significant at an alpha value of 0.05 ($t=3.203$; $df=97$; $p<0.05$). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores between the two groups in English in the post-test. It should be noted that the post-test mean for School C had exceeded the international minimum value of 75%, but that of School D was below the international benchmark.

The second part of the table shows that the mean for writing a summary in English from a Sesotho text for School C was M=1.2 (61%) with a lower standard deviation (SD=0.8), whereas the mean for School D was lower (M=1.1 / 59%) and a slightly higher standard deviation (SD=0.9). The t-test results reveal that the difference between the performance of the two groups in writing a summary in English from a Sesotho text is statistically not significant at an alpha value of 0.05

(t=0.250; df=97; p>0.05). The null hypothesis, which predicted no increased variation in scores between the two groups, in summary writing in the post-test, is accepted.

When comparing writing a summary in English and Sesotho respectively, writing a summary in English from Sesotho had more gains in School C (M=1.8 / 90%) and with a lower standard deviation (SD=0.5) compared to its counterpart in writing a summary in Sesotho from an English text (M=1.2 / 61%) and with a higher standard deviation (SD=0.8). School B also had more gains (M=1.3 /65%) in writing a summary in Sesotho from an English text compared to writing a summary in English from a Sesotho text (M=1.1 / 59%) with a higher standard deviation (SD=0.9). When comparing the two schools on both languages, School C had high numerical values on both languages, that is, in writing a summary in Sesotho from an English text and in writing a summary in English from a Sesotho text. One interpretation from these results is that translanguaging treatment, which was given to School C was useful in increasing levels of language juxtaposition among learners who learn to read in more than one language. Such a gain is more prevalent in writing a summary in Sesotho from an English text than writing a summary in English from a Sesotho text. This indicates that translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.12.2.3 Summary writing post-test trials between two experimental Schools A and C

The analysis between the two experimental schools was done to detect the carry over effect of the pre-test in order to determine the effectiveness of the translanguaging intervention that was offered to the two schools. One experimental School A had a pre-test and experimental School C did not take the pre-test. Therefore, this helped in detecting any carry over effect on the performance of School A versus that of School C. Table 4.62 below shows the results of these two schools on summary writing where language of input differs from language of output.

Table 4.62: Performance of School A and C on Summary writing

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	School A	36	1.3333 [67%]	.82808	.000	.004
	School C	59	1.7966 [90%]	.51794		
Sesotho text	School A	36	1.4167 [71%]	.73193	.046	.242
	School C	59	1.2203 [61%]	.87233		

English (t=-3.016; df=52; p<0.05) Sesotho (t=1.178; df=84; p>0.05)

This table shows that the post-test mean for English in School A was 1.3 (67%) and a relatively low standard deviation (SD=0.8), whereas the mean for School C was higher (M=1.8 /90%) with a lower standard deviation (SD=0.5) than that of School A. This renders that both groups were homogenous in the post-test, which suggests that the groups became more intact as a result of the experimental trials. This signals a mean difference of about 0.5 and a standard deviation difference of about 0.3 points. The results of the t-test, comparing the difference, show that the difference between the two groups in writing a summary in Sesotho from an English text is statistically significant at an alpha value of 0.05 ($t=-3.016$; $df=52$; $p<0.05$). We are therefore able to reject the null hypothesis, which predicted no increased variation in scores between the two groups in writing a summary in Sesotho from an English text in the post-test. It should be noted that the post-test mean for School C exceeded the international minimum value of 75%, whereas for School A, the mean was below the international benchmark.

The second part of the table shows that the mean for writing a summary in English from a Sesotho text for School A was M=1.4 (71%) with a lower standard deviation (SD=0.7), whereas the mean for School C was lower (M=1.2 / 61%) and a higher standard deviation (SD=0.8). The t-test results reveal that the difference between the performance of the two groups in writing a summary in English from a Sesotho text is statistically not significant at an alpha value of 0.05 ($t=1.178$; $df=84$; $p>0.05$). The null hypothesis, which predicted no increased variation in scores between the two groups in summary writing in the post-test, is accepted.

When comparing English and Sesotho, writing a summary in English from a Sesotho text, had more gains (M=1.4 / 71%) in School A, with a lower standard deviation (SD=0.7), compared to its counterpart in writing a summary in Sesotho, from an English text (M=1.3 / 67%), with a higher standard deviation (SD=0.8). On the other hand, writing a summary in Sesotho from an English text had more gains (M=1.8 /90%) in School C compared to its writing a summary in English from a Sesotho text (M=1.2 / 61%) with a higher standard deviation (SD=0.8). When comparing the two schools on both languages, School C had high numerical values (M=1.8/90%) in writing a summary in Sesotho from an English text than School A and with a lower standard deviation (SD=0.5). On the other hand, School A had a higher mean (M=1.3/67%) in writing a summary in English from a Sesotho text, but with a higher standard deviation (SD=0.8). This shows that there was no carry-over effect from the pre-test on the performance of School A. One interpretation from these results is that translanguaging treatment, which was given to both schools, was useful in increasing levels of language juxtaposition among learners who learn to read in more than one language. Such a gain is more prevalent in writing a summary in Sesotho from an English text than writing a summary in

English from a Sesotho text. This indicates that translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.12.2.4 Summary writing post-test trials between two control schools, B and D

The analysis between the two control schools was done to further detect the carry over effect of the pre-test as a way of confirming the effectiveness of the translanguaging intervention that was offered to the experimental schools. One control School B had a pre-test and another control School D did not take the pre-test. Therefore, this helped in detecting any carry over effect on the performance of School B versus that of School D. Table 4.63 below shows the results of these two schools on summary writing where the language of input was different from the language of output.

Table 4.63: Performance of School B and D on Summary writing

Text Language	School	N	Mean	Std. Deviation	Sig	Sig. (2-tailed)
English text	School B	59	1.0339 [52%]	.90907	.854	.151
	School D	40	1.3000 [65%]	.88289		
Sesotho text	School B	59	0.9831 [49%]	.91899	.913	.307
	School D	40	1.1750 [59%]	.90263		

English (t=-1.446; df=97; p>0.05) Sesotho (t=1.027; df=97; p>0.05)

This table shows that the post-test mean for English in School B was 1.0 (52%) and a relatively low standard deviation (SD=0.9), whereas the mean for School D was higher (M=1.3 /65%) with a lower standard deviation (SD=0.8) than that of School A. This signals a mean difference of about 0.3 and a standard deviation difference of about 0.1 points. The results of the t-test, comparing the difference, show that the difference between the two groups in writing a summary in Sesotho from an English text is statistically not significant at an alpha value of 0.05 (t=-1.446; df=97; p>0.05). We are therefore able to accept the null hypothesis, which predicted no increased variation in scores between the two groups in writing a summary in Sesotho from an English text in the post-test. It should be noted that the post-test mean for both schools was far below the international minimum value of 75%.

The second part of the table shows that the mean for writing a summary in English from a Sesotho text for School B was M=0.9 (49%) with a similar standard deviation (SD=0.9), whereas the mean for School D was higher (M=1.1 / 59%) and with the same standard deviation (SD=0.9) as School B. The t-test results reveal that the difference between the performance of the two groups in writing

a summary in English from a Sesotho text is statistically not significant at an alpha value of 0.05 (t=1.027; df=97; p>0.05). The null hypothesis, which predicted no increased variation in scores between the two groups in summary writing in the post-test, is accepted.

When comparing English and Sesotho, writing a summary in English from a Sesotho text had more gains (M=1.3 / 65%) in School D, with a lower standard deviation (SD=0.9), compared to its counterpart in writing a summary in Sesotho, from an English text (M=1.1 / 59%), with a similar standard deviation (SD=0.8). On the other hand, School B had more gains in writing a summary in English from a Sesotho text (M=1.1 /59%) compared to its writing a summary in Sesotho from an English text (M=1.0 / 52%) with a higher standard deviation (SD=0.9). When comparing the two schools on both languages, School D had high numerical values in both writing a summary in Sesotho from an English text and in writing a summary in English from a Sesotho text. One interpretation from these results is that there has been no carry over effect that is seen on the results of School B because School D, which did not have a pre-test, had higher mean scores than the group, School B, which took the pre-test. It can be seen, from the results, that both schools had mean scores that are below the international benchmark of 75%. This confirms that learners read without understanding what they have read and therefore cannot summarise in a different language what they have read in another language. This therefore, calls for strategies that can increase levels of literal comprehension among learners who learn to read in more than one language.

4.13 Cross-comparison of the four groups on summary writing

Cross-comparison was also done among the four schools, two experimental and two control groups in order to determine their post-test means on the ability to write a summary of a text in a different language of the output from that of the input. This was done to further investigate the effectiveness of translanguaging in developing reading among bilingual learners.

Table 4.64: Cross comparison of the post-test on the four groups on summary writing

Text Language	School	N	Mean	Std. Deviation
English text	School A	36	1.3333 [67%]	.82808
	School B	59	1.0339 [52%]	.90907
	School C	59	1.7966 [90%]	.51794
	School D	40	1.3000 [65%]	.88289
Sesotho text	School A	36	1.4167 [71%]	.73193
	School B	59	0.9831 [49%]	.91899

Text Language	School	N	Mean	Std. Deviation
	School C	59	1.2203 [61%]	.87233
	School D	40	1.1750 [59%]	.90263

This table shows that School C had the highest post-test mean (M=1.8 / 90%) in writing a summary in Sesotho from an English text, with a relatively low standard deviation (SD=0.5). The second group was School A (M=1.3 / 67%) and with a slightly higher standard deviation (SD=0.8) than that of School C. The results therefore show School C to be more homogenous in writing a summary in Sesotho from an English text, which suggests that they became more intact as a result of the experimental trials. The two schools, C and A, are followed by School D (M=1.3 / 65%) and a higher standard deviation (SD=0.9) than that of the two experimental groups. The lowest post-test mean scores in writing a summary in Sesotho from an English text were in School B (M=1.0 / 52%) and with similar standard deviation (SD=0.9) to that of School D. This renders both School B and D to be heterogeneous. When comparing the four groups on writing a summary in Sesotho from an English text, the experimental groups outperformed the control groups. This therefore confirms the effectiveness of the translanguaging intervention offered to experimental groups.

The second part of the table shows the mean scores for writing a summary in English from Sesotho text post-test trials for the four schools. The highest mean score was that of School A (M=1.4 / 71%), which was higher than that of its English counterpart in the same time interval with a slightly lower standard deviation (SD=0.7). The mean for School C was second (1.2 / 61%) after that of School C and with a higher standard deviation (SD=0.9). When comparing English and Sesotho in School C, English had more gains (M=1.8 / 90%) than its Sesotho counterpart. The post-test mean on writing a summary in English from a Sesotho text for School D was the third (M=1.2 / 59%) and with a higher standard deviation (SD=0.9). The mean for School B was the lowest (M=0.9 / 49%), but with a similar standard deviation (SD=0.9) to that of School D. These results further confirm that the intervention had a positive impact on the performance of the two experimental schools. However, it should be noted that the mean scores for all the schools in writing a summary in English from a Sesotho text post-test trials were below the international minimum value of 75%. When comparing English and Sesotho, English had high mean scores than Sesotho in all the schools. One interpretation from these results is that translanguaging treatment is useful in increasing levels of language juxtaposition among learners who learn to read in more than one language. The gains were more prevalent in English than in Sesotho. Translanguaging therefore breaks the hegemony of English as the sole language of literacy in similar contexts.

4.14 Cross variables analysis

Cross-comparison was further done to compare how each group performed in the three variables of reading comprehension; literal, inferential and retell. This was meant to compare and gauge how and when combined, the three variables, give us a clue on which one is high/low on the effects of translanguaging. The following Table 4.65 shows the percentage mean scores of each school in each variable.

Table 4.65: Cross comparison on the three variables of reading comprehension

			Variables Mean (%)		
Text Language	**School**	**N**	**Literal**	**Inferential**	**Retell (Summary writing)**
English text	School A	36	88%	85%	67%
	School B	59	64%	44%	52%
	School C	59	94%	78%	90%
	School D	40	73%	48%	65%
Sesotho text	School A	36	67%	58%	71%
	School B	59	60%	17%	49%
	School C	59	81%	69%	61%
	School D	40	67%	51%	59%

This table shows that the post-test mean for reading comprehension from an English text in School A was higher in literal comprehension (M=88%), followed by inferential (M=85%) and the lowest is retelling in a different language (67%). For School B, the highest mean percentage was also in literal comprehension (64%), then retell (52%) and inferential (44%). However, School C had the highest percentage mean in literal comprehension (94%) followed by retelling in a different language (90%) and then inferential comprehension (78%). School D had the highest mean percentage in literal comprehension (73%), followed by retelling (65%) and then inferential (58%). The results therefore show that literal comprehension was the highest variable where learners performed better than in the other two variables in English reading comprehension. It should be noted that the schools with high numerical values on literal comprehension were experimental groups. The results further show that the experimental schools had higher mean scores even in the other two variables on English reading comprehension. This therefore suggests that translanguaging has been effective on improving reading comprehension ability of learners who learn to read in

more than one language. It has helped learners to recall what they had read, make inferences from text and retell stories in a different language of output.

The second part of the table shows the post-test percentage mean scores for each school on Sesotho reading comprehension in the three variables. The results show that School A had the highest Sesotho mean score in retelling a Sesotho text in English (M=71%), followed by literal comprehension (M=67%) and the lowest is inferential (58%). For School B, the highest mean percentage was in literal comprehension (60%), then retelling (49%) and then inferential (17%). School C had its highest percentage mean in literal comprehension (81%) followed by inferential (69%) and then in retelling (61%). School D had its highest mean in literal comprehension (67%), followed by retell (59%) and then inferential (51%). The results therefore show even in Sesotho reading comprehension, literal comprehension had the highest mean scores except in School A.

When comparing English and Sesotho, post-test reading comprehension trials, English had more gains in the three variables, especially literal reading comprehension than Sesotho. Most of the mean scores from English text reading comprehension trials had exceeded the international minimum value of 75%, whereas all those from Sesotho text reading comprehension variables were below the international benchmark, except with School C in literal comprehension. It should still be noted that experimental schools had high numerical values than control groups in all the three variables. This therefore suggests that translanguaging has been effective on improving reading comprehension of bilingual learners who learn to read in more than one language.

Furthermore, when comparing learners' performance among the three variables of reading comprehension, it seemed learners had higher mean scores in literal comprehension than the other two variables. This means that the level of information recall is higher than that of making inferences and retelling the text in a different language. However, it should be noted that even on this variable, the higher numerical values were more prevalent from an English text than from a Sesotho text. The lowest variable seemed to be that of making inferences. This suggests that learner's thinking ability above what appears on text was low especially with the control groups which had very low mean scores. Learners' ability of making inferences seemed to be low especially from a Sesotho text. One group had a mean score of 17%. In general, translanguging intervention improved learners' comprehension ability in both languages, but mostly in English as an additional language.

4.15 Conclusion

This chapter has presented the results on the main three variables of reading proficiency. These variables were vocabulary, reading fluency and reading comprehension. The results from all the three variables have proved experimental groups performing better than control groups. The improvement is seen in the post-tests than in the pre-tests, which therefore renders that the intervention had a great impact on the performance of learners. When assessing vocabulary of the Grade 5 bilingual learners, the results showed translanguaging as a process for meaning making (Makalela, 2015d) on learners who learn to read in more than one language. It does not only help learners to listen to sounds of words and write them correctly, but also, most importantly, to relate the meaning of those words to their actual world. This affirms what researchers have emphasised on bilingual learners' ability to draw from all their linguistic resources in order to make meaning of their world (Makalela, 2016; Garcia & Lin, 2016). Similar results of developing reading in bilingual learners appeared in reading fluency trials. Learners from experimental groups outperformed those from control groups.

Similar results were seen on reading comprehension variables, literal, inferential and retell. In all the three variables, experimental groups outperformed control groups. What appeared outstanding was that an experimental group which did not write the pre-test had higher mean scores than the one which took the pre-test. This made it clear that there was no carry-over effect from the pre-test and therefore suggests it was due to the impact of the intervention. On this section too, learners developed reading in another language, which means their attitudes towards learning another language changed and they used their knowledge of both languages in developing the second language (Makalela, 2015a). This confirms translanguaging as receiving information through reading or listening in one language and then making use of the information through writing in another language (Baker, 2011; Garcia, 2009).

When comparing English and Sesotho, English had high mean scores than Sesotho in School A and C, experimental schools, whereas control schools had high scores in Sesotho than in English text. However, the higher numerical values were seen on experimental groups in all the three variables than on control groups. One interpretation from these results is that translanguaging treatment is useful in developing reading proficiency among learners who learn to read in more than one language. It further breaks the hegemony of English as the sole language of literacy in similar contexts. It could have been expected that learners would do better in Sesotho than in English, but the results showed a different perspective. English had high numerical values than Sesotho. This confirms that bilinguals have the ability to develop their knowledge in all the languages as full

bilinguals, no language is superior to the other (Hornberger, 2015). Makalela further argues that one language is not enough for meaning making (2016) and bilinguals have an advantage of using all the linguistic resources they have in relation to different contexts; and the use of one language is not enough, one language needs another language to develop fully - Ubuntu translanguaging (Makalela, 2016).

These results showed translanguaging to be an effective approach in developing reading, but in order to gather more information on translanguaging, the researcher also had a qualitative analysis on the teachers' perspectives and classroom observations which are outlined in the following chapter.

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CHAPTER 5
DATA ANALYSIS AND INTERPRETATION: INTERVIEWS AND OBSERVATIONS

5.1 Introduction

The previous chapter presented the results on the pre-tests and post-tests that were given to Grade 5 learners from two experimental groups and two control groups. In addition to these tests, data was collected through classroom observations and teachers' interviews. This chapter presents findings from classroom observations and teachers' interviews. These observations were done to address one of the objectives, which sought to investigate classroom practises that take place in bilingual learners' classroom settings. Furthermore, teachers' interviews were also done to address the objective that sought to find teachers' perspectives in relation to the concurrent use of languages in bi/multilingual classroom settings. The results from both interviews and observations provide information on the effectiveness of translanguaging approach in bilingual classrooms, which is the main objective of this study. The results from the two aforementioned methods are presented below in two separate sections.

5.2 Observations

Observations were done in two schools selected randomly on both the experimental and control groups. It was not possible to do the observations in all the four schools due to time restriction on data collection and the researcher therefore did the observations on two schools. The purpose of the observations was to investigate classroom practices that take place in bilingual classrooms in relation to the use of two or more languages in developing reading. Each school was visited twice to observe different teachers teaching Grade 5 learners. Each observation lasted for thirty minutes and was divided into two intervals, which each took 15 minutes. Observation protocol sheets were used to capture any important information during the classroom observations. The observation protocol was divided into thirteen sections whose results are discussed below. Because it was not possible to capture all the proceedings in the classroom by taking notes, audio recordings were also used because they "allowed for the reconstruction of some of the critical interactions" (Ward, 2017:59) that a researcher might omit while taking notes. The findings from the lesson observations are presented below in relation to each and every criterion that was observed.

5.2.1 Observation protocol results for School 1 in two visits

School 1 was selected randomly among the four schools that participated in the study. As indicated earlier, lesson observations in this school were done to investigate the use of two or more languages in a bilingual classroom. There were about 8 criterions that were considered during the observations. These are eyes on print, hands on books, task done in class, grouping of learners, learners' participation, focus of instruction, language of instruction and teachers' role. Notes on instruction, classroom environment and general comments were also included during the observations to determine factors around the learning environment. The results for all these tools are presented below.

5.2.1.1 Eyes on print

The results from what was observed in relation to eyes on print during the two visits are presented below on Table 5.1.

Table 5.1: School 1 - Eyes on Print

Visits	Time intervals (in minutes)	
	Round 1 (15min)	Round 2 (15 min)
1st Visit	For the 1st 5 minutes all learners did not have their eyes on print. In the next 10 minutes all 36 learners had theirs on print.- reading from a text book	32 learners had eyes on print- reading from a text book and looking at the board as the teacher writes and explains some difficult words from a text
2nd Visit	For the 1st 10 minutes, all 36 learners had their eyes on print - reading from a text book	26 learners had their eyes on print - reading from a text book Seldomly looked on board

Table 5.1 above shows that during the first 5 minutes all learners did not have their eyes on print. They were sitting, listening to the directives and explanations from their teacher. In the next 10 minutes, all of them had their eyes on print. They were reading from a text book and seemed focused. While reading, a teacher would then identify some difficult words from the text and write them on the board. This appears on round 2, where they had to move between looking at their books and focus on what was written on the board. It could be seen from the table that reading of learners and understanding of concepts depended on their teacher. Another observation appearing on the table is that during the second round of the 1st visit, about 15% of learners started to lose focus on reading. This implies that a good number of learners, about 85% remained interested in reading either from their books or on the board. It should be noted that this was a Sesotho lesson where the

teacher interacted with learners in Sesotho even though on some instances he used English to clarify some concepts. The interpretation that could be given here is that when using ones' language, learners become very interested and focused because it was easy for them to follow what was done.

The second part of the table shows results from the 2nd observation. The table shows that all learners started their lesson with eyes on print, reading from a text book. There was no introduction that was made except to direct learners to the page that was to be read. During the second round of the observation, number of learners whose eyes were on print went down a bit. Similar results of regression to the 1st visit was seen during the second round. About 28% of learners did not have their eyes on print, some went out while others were playing. 72% of learners had their eyes on print until the end of the lesson. It should be noted that this was an English lesson and the teacher used only English except when explaining some concepts that she felt were not clear in English. This could be interpreted that most learners lose concentration and interest very quickly when they do not understand the language of instruction that is used. The number of learners that did not have eyes on print during an English lesson was more than that of a Sesotho lesson. This confirms that learners understand better in their home language than in another language.

5.2.1.2 Hands on books

This was another criterion that was observed during the classroom observation. This was in order to enable the researcher to see how much time learners had to interact with texts. The results from this observation are tabulated in Table 5.2.

Table 5.2: School 1 - Hands on books

Visits	Time intervals (in minutes)	
	Round 1 (15min)	Round 2 (15 min)
1st Visit	For the 1st 5 minutes all learners did not have their hands on books In the next 10 minutes all 36 learners had theirs hands on books - reading from a text book	32 learners had hands on books - reading from a text book as the teacher explains some difficult words from a text
2nd Visit	For the 1st 10 minutes, all 36 learners had their hands on books - reading from a text book	26 learners had their hands on books - reading from a text book

The table shows that, during the first visit all learners had hands on their books on the first round of the observation. They were reading a story from a book. One learner at a time was instructed to read aloud and other learners were to follow the reading from their books. During the 2nd round, some

learners started not to focus on their books. A similar pattern appeared during the 2nd visit. It was an English lesson and the teacher instructed learners to take out their books to a certain page where they were to read a story. At the beginning learners had their hands on books, but eventually during the second round, 15% of learners, during the first visit did not have their hands on books, whereas during the second visit, 28% of learners did not have their hands on books. The results from this criterion show that learners spend most of the time in class reading stories from their books when being guided or instructed by their teachers. In both visits, reading from text books was being done for the whole lesson.

5.2.1.3 Task done in class

The researcher also considered the tasks that were done during the classroom observations. This was done in order to identify the different tasks that learners do during their lessons. The results appear on the table below.

Table 5.3: School 1 - Task done in class

Visits	Time intervals (in minutes)	
	Round 1 (15min)	Round 2 (15 min)
1st Visit	No writing done - reading and listening to one reading & teacher's explanations of difficult words Learners were reading as a whole class - one learner reading aloud for the whole class	No writing done - Answering questions asked by the teacher & listening to one reading Learners continued reading as a whole class
2nd Visit	No writing done - reading from textbooks and listening to explanations made by their teacher. Learners were reading as a whole class - one learner reading aloud for the whole class	Listening to instructions and individually answering (aloud) questions from a comprehension passage Learners continued reading as a whole class, and raising hands to answer questions

Table 5.3 above shows that the task that was done in class during the first visit was reading from a text book. There was no writing that was done throughout the lesson. The teacher explained which story was to be read and instructed learners to take out their books and open on a particular page. One learner, at a time, was appointed to read aloud and others were to follow looking at their books. While a learner was reading, the teacher would interrupt a reader and give out some clarifications either by writing on the board or just explaining some difficult words from the text. A teacher would write such words on the board for learners to see how the words were written. There was a lot of interaction between the teacher and learners. Learners were eager to show how much they knew

about the concepts that were discussed. It should be noted that during the second round some learners did not have their hands on books.

The second part of the table shows results from the second visit. It shows similar results to the first visit. There was no writing that was done throughout the lesson. The teacher instructed learners to take out their books and open on a particular page. One learner, at a time, was appointed to read aloud and others were to follow looking at their books. While a learner was reading, the teacher would interrupt a reader and give out some clarifications of some difficult words from the text. In both visits, there was no clear indication of how teachers were able to follow up if learners had acquired vocabulary of the new words in writing because learners were not the ones writing the difficult words. It was also noticed that reading was done most of the time during lessons either Sesotho or English lesson. Learners also had an opportunity to interact with their teachers during reading to enhance learning.

5.2.1.4 Grouping of learners

Another criterion that was observed was grouping of learners in the classrooms during the lessons. This was to observe if there were any criteria used in grouping learners during the lessons. The results are portrayed on Table 5.4 below.

Table 5.4: School 1 - Grouping of learners

Visits	Time intervals (in minutes)	
	Round 1 (15min)	Round 2 (15 min)
1st Visit	Learners sat in small groups of 4/5 but reading as a whole class	Learners sat in small groups of 4/5 but reading as a whole class
2nd Visit	Learners sat in small groups of 4/5 but reading as a whole class	Learners sat in small groups of 4/5 but reading as a whole class

Table 5.4 shows that the grouping of learners in both visits was the same. Learners sat in groups of 4-5, but they were reading as a whole class with the guidance and instructions of a teacher. This grouping was not based on any criteria, but was the normal way of sitting during their lessons. This meant that grouping of learners was not considered to be an important factor during lessons.

5.2.1.5 Language of instruction

Language of instruction was another aspect that was observed. This was to determine how the linguistic resources of learners are being utilized during lessons. The results appear on the table below.

Table 5.5: School 1 - Language of instruction

Visits	Time intervals (in minutes)	
	Round 1 (15min)	Round 2 (15 min)
1st Visit	Language of instruction was Sesotho - 98% and 2% English words used for clarification	Language of instruction was Sesotho - 98% - and 2% English words used for clarification
2nd Visit	Language of instruction was 100% English, and Sesotho was used for explaining some concepts	Language of instruction was 100% English and some few clarifications done in Sesotho

The table shows that during the first and second round of the first visit, 98% Sesotho was used as a language of instruction and only 2% of English was used to clarify some concepts. This explains the fact that it was during a Sesotho lesson and the language used therefore was Sesotho following the curriculum. However, English had to be used for clarification purposes where a teacher felt he needed to clarify concepts which learners would understand better in English. The second visit took place during an English lesson and similarly, only English was used throughout the lesson except where a teacher felt a need to clarify some concepts in Sesotho for lack of understanding from learners. This could be interpreted that ‘monolingual bias rule’ was used during both lessons. The rule of 'one language at a time' still dominated this bilingual classroom; when it was time for Sesotho, learners were to use Sesotho only; and the same thing applied during an English lesson where they had to use only English.

5.2.1.6 Focus of instruction

Focus of instruction was another aspect that was observed during the two visits in this school. The results for this observation appear in the following table.

Table 5.6: School 1 - Focus of instruction

Visits	Time intervals (in minutes)	
	Round 1 (15min)	Round 2 (15 min)
1st Visit	The focus was on language - Sesotho reading comprehension	The focus was on language - reading comprehension
2nd Visit	The focus was on English language - reading comprehension	The focus was on English language - reading comprehension

The table shows that the focus of instruction during the first visit was Sesotho reading comprehension, where learners were assigned to read aloud, understand a text and be prepared to answer questions related to the text. The teacher focused on improving learners' vocabulary on Sesotho language by writing and explaining difficult words, which appeared in the text. Another aspect of focus was reading fluency, ability of learners to read aloud and with understanding in Sesotho. Lastly, the focus was on recall where learners were required to recall what they had read and answer questions from interacting with text. This could be interpreted that the teacher used different areas of reading proficiency to enhance learners' comprehension of text even though he did not allow them to use other languages except Sesotho, but he used English where he felt there was a need to do so.

The table shows that during the second visit, the focus of the lesson was English reading comprehension. Learners were to read aloud a text, one at a time. This was a text that appeared in their English text books. This could be interpreted that the teacher allowed learners to read aloud in order to develop their reading fluency. The teacher provided some clarifications of vocabulary words wherever there was a need. In this way, her focus was also to develop learners' vocabulary in English. After reading the passage, learners were asked some questions based on the text to test their ability to recall what they had read. It can be concluded that the teacher also used several strategies in order to enhance learners' understanding of text. This was why she opted using Sesotho to assist learners in understanding some concepts where necessary.

5.2.1.7 Teachers' role

It was imperative to also consider teachers' role during classroom observation to identify the part that he/she plays during the lesson. The results from this observation are outlined in the following table.

Table 5.7: School 1 - Teachers' role

Visits	Time intervals (in minutes)	
	Round 1 (15min)	Round 2 (15 min)
1st Visit	Teacher was instructing and guiding learners on what to do.	Teacher was lecturing and explaining difficult words and making clarifications where needed. He was also questioning learners on what they had read
2nd Visit	Teacher was lecturing, giving clarifications, asking questions and Circulating and overseeing instruction	Teacher was lecturing, giving clarifications, asking questions and Circulating and overseeing instruction

The table above shows that in both visits the teachers started their lessons with instructing and guiding learners on what to do. They introduced their lessons by instructing learners to take out their books and open a particular page on a passage to be read. They would then nominate learners in taking turns to read from a passage chosen and instruct others to read along. He was lecturing and explaining difficult words and making clarifications where needed. The table shows 100% of the instructions in the classroom were done by the teacher. Both teachers took control on explaining difficult words emerging from texts and wrote such words on the board where necessary. They also took responsibility of making sure that learners understand what the text was about. Any activity that was done in class was under the supervision of those teachers. The interpretation here was that teachers took control of the lessons and used various strategies to engage with learners and to enhance their reading comprehension.

5.2.1.8 Learners' participation

It was also imperative to look at learners' participation during the lessons. Researchers have pointed out that when learners are allowed to use their linguistic resources, they fully participate in class (Makalela, 2015c). The results from the observation on this aspect are presented below.

Table 5.8: School 1 - Learners' participation

Visits	Time intervals (in minutes)	
	Round 1 (15min)	Round 2 (15 min)
1st Visit	Learners were reading and listening to others reading aloud as appointed by the teacher	Learners were answering questions asked by the teacher in relation to the text that they had read. Learners participated well and showed confidence when answering questions.
2nd Visit	Learners seemed focused and read when appointed to read.	Learners continued to read, but some were very reluctant to read and some struggling to read. They were answering question asked.

The table shows that learners were reading when appointed to read aloud and others focused on their books while listening to the one reading. They also tried to relate some words to their daily activities when asked to do that and responded to questions with confidence. They showed interest in wanting to read especially during Sesotho lessons, there were many learners that raised their hands to be nominated for reading aloud. Their home language allowed them to fully engage and participate in class (Sah, 2018). It should be noted that some learners showed no interest at all to what was done in class and did not volunteer in reading and/or did not even read when chosen to do so. Some learners struggled with reading especially during the English lesson. Some learners were unable to express themselves fluently in English.

5.2.1.9 Notes on instruction

During the 1st visit, the teacher used 100% Sesotho as a medium of instruction, but when he realised that learners did not understand certain terms, he would use English to clarify those concepts. Though he would revert to English when there was a need, it could be seen that he was using the rule of 'one language at a time', and therefore suppressing the other language. The teacher's classroom management was good; he gave equal attention to all learners in the classroom and seemed not biased when selecting learners to read. He gave learners an opportunity to read aloud, but because there were many learners in the classroom, not all learners had a chance to read aloud. He guided his learners throughout the lesson and assisted them whenever there was a need. If a learner had a problem with reading, he would help him. Level of language that was used was appropriate to the level of the learners and he was explaining or clarifying difficult words that appeared in the text to improve learners' vocabulary. Most learners were active and participated in reading as appointed by the teacher and they were responsive to answering questions.

During the 2nd visit, the teacher used 100% English as a medium of instruction throughout. She would use Sesotho to explain some concepts that she identified not to be clear to learners. This she did in order to enhance understanding and learning. Although she used Sesotho for clarification purposes, she quickly reverted back to English. The level of the language used seemed to be appropriate for learners - they showed understanding. The teacher seemed focused on her lesson; there was no deviation. It was obvious that the teacher was in command - she did most of the talking and reading. However, she gave equal opportunity for learners to read aloud and answer questions. They were focused and engaged in the lesson. Learners had enough copies of textbooks. The teacher gave learners an activity to write in their notebooks. Learners seemed clear with what they were supposed to do and focused on their work.

During both visits, it was not clear how the teacher was able to pay attention to weak learners. It was difficult to determine learners' reading ability, as most of the time they were appointed to read aloud by their teacher. Some learners would read fluently and others struggled, but quickly they were assisted by their teacher and/or a chance to read was given to the next learner who answered the questions.

5.2.1.10 Notes on classroom environment

The walls in the classrooms had very few writings on them. Most of these seemed to have come from outside. Few books could be identified in the classroom. This showed lack of reading material at the school.

5.2.1.11 Active teaching rubric and rating

Both teachers displayed enthusiasm in their teaching and were very comfortable in the language that they used for each lesson. This was in line with what expired in interviews that they have skills to use different strategies in teaching learners to read. In some cases, they even made learners aware of the connections between what they were to read or were reading with content outside school learning and this helped learners understand text better.

Even though teachers appreciate the use of all learners' linguistic resources, they could not avoid the culture of language boundaries; that was fully maintained. During Sesotho lesson, only Sesotho was used and during English lesson, only English was used. There was no flexibility in using the languages. Both teachers that were observed showed high teaching rate qualities even though they were very biased in the use of languages. They came to class well prepared and ready with clarifications of difficult concepts.

5.2.1.12 General comments

Lessons were well organized and channeled to assist learners with reading proficiency, though there was no flexibility in the use of both languages. Teachers were not free to allow bilingual learners use their linguistic resources, they were channeled to use one language at a time. This affirms that the strategies used in schools still bear the colonial rule of 'monolingual bias' - one language at a time. It is true teachers themselves resorted to using another language when explaining some concepts to make learners understand, but quickly go back to the original language. It was evident that both teachers did not want their learners to use both languages at a time, but they as teachers, would do that when there was a need. Reading comprehension seemed to be the most focus in both visits, but teachers were in control of the lessons in selecting the readers and guiding them throughout. This seemed to create dependency on the learners who would then read while guided by their teachers.

5.2.2 Observations protocol results for School 2 in two visits

School 2 was also selected randomly among the four schools that participated in the study. As indicated earlier, lesson observations in this school were done to investigate the use of two or more languages in a bilingual classroom. Similarly, there were about 8 criterions that were considered during the observations. These are eyes on print, hands on books, task done in class, grouping of learners, learners' participation, focus of instruction, language of instruction and teachers' role. Notes on instruction, classroom environment and general comments were also included during the observations to determine factors around the learning environment. The results for all these tools are presented below.

5.2.2.1 Eyes on print

The results from what was observed in relation to eyes on print during the two visits are presented below on Table 5.9.

Table 5.9: School 2 - Eyes on Print

Visits	Time intervals (in minutes)	
	Round 1 (15min)	Round 2 (15 min)
1st Visit	For the 1st 10 minutes no eyes on print - teacher was introducing the lesson and giving learners time to take out their text books. After 10 min all 40 learners had their eyes on print - reading from their books	37 learners had their eyes on print - reading from a text book and looking at the board as the teacher asked learners to write difficult words from a text on the board and explained to them
2nd Visit	No eyes on print	No eyes on print during 1st 5 minutes. Next 10 min all 40 learners had their eyes on print - reading from a text book

Table 5.9 above shows that all learners did not have their eyes on print during the first ten minutes at the beginning of the lesson. The teacher was using this time to explain what was to be done during the lesson. Learners were therefore sitting and listening to the directives and explanations from their teacher. In the next 5 minutes of the first round and the second round all of them had their eyes on print. They were reading from a text book and seemed focused. While reading, a teacher would then identify some difficult words from the text and write them on the board. This appears on round 2, where they had to move between looking at their books and focusing on what was written on the board. It could be seen from the table that reading of learners and understanding of concepts depended on their teacher. Another observation appearing on the table is that during the second round of the 1st visit, about 8% of learners started to lose focus on reading. This implies that a good number of learners, about 92% remained with their eyes on print either from their books or on the board for the whole lesson. It should be noted that this was a Sesotho lesson where the teacher interacted with learners in Sesotho, even though on some instances she used English to clarify some concepts. The interpretation that could be given here is that when using ones' language, learners become very interested and focused because it was easy for them to follow what was done.

The second part of the table shows results from the 2nd observation. The table shows that none of the learners had their eyes on print during the first round and part of the second round. It should be noted that this was a Sesotho lesson and the teacher used only Sesotho. The table shows that most of the lesson, learners did not have their eyes on print.

5.2.2.2 Hands on books

This was another criterion that was observed during the classroom observation. This was in order to enable the researcher to see how much time learners had to interact with texts. The results from this observation are tabulated in Table 5.10.

Table 5.10: School 2 - Hands on books

Visits	Time intervals (in minutes)	
	Round 1 (15min)	Round 2 (15 min)
1st Visit	After 10 minutes all 40 learners had their text books -listening to one reading and following	37 learners had their text books - reading and in the last 5 minutes, all 40 were hands on books
2nd Visit	No hands on books	Last 10 min - all had hands on textbooks - reading

The table above shows that, during the first visit all learners did not have their hands on their books on the first round of the observation. It shows that during the first visit all learners were not hands on books for the first 10 minutes of the observation as the teacher was making an introduction of the lesson. It was only after 10 minutes that they had their hands on books. They were reading a story from a book. One learner at a time was instructed to read aloud and other learners were to follow the reading from their books. It should be noted that 8% of the learners did not have their hands on print during these last minutes of the lesson.

The second part of the table shows that learners did not have their hands on books for the first twenty minutes of the lesson. It was only after 20 minutes that all learners had their hands on books. They were reading a story from a book. One learner at a time was instructed to read aloud and other learners were to follow the reading from their books. During the 2nd round, in the last 10 minutes of the class, all learners had their hands on books. The results from this criterion show that learners spend most of the time in class reading stories from their books when being guided or instructed by their teachers. In both visits, reading from text books was being done for the whole lesson.

5.2.2.3 Task done in class

The researcher also considered the tasks that were done during the classroom observations. This was done in order to identify the different tasks that learners do during their lessons. The results appear on the table below.

Table 5.11: School 2 - Task done in class

Visits	Time intervals (in minutes)	
	Round 1 (15min)	Round 2 (15 min)
1st Visit	No writing, just listening to the one reading and listening to the teacher explaining words and watching how the words were written	They were not writing, just listening to the one reading and listening to the teacher explaining words and watching how the words were written
2nd Visit	No writing was done during the first round. Learners were reciting their clan praises	No writing done. Learners were reading a story from their text books; one reads and the rest listen, but also looking at their books.

The table shows that the task that was done in class during the first visit was reading from a text book. There was no writing that was done throughout the lesson. The teacher explained which story was to be read and instructed learners to take out their books and open on a particular page. One learner, at a time, was appointed to read aloud and others were to follow looking at their books. While a learner was reading, the teacher would interrupt a reader and give out some clarifications either by writing on the board or just explaining some difficult words from the text. A teacher would write such words on the board for learners to see how the words were written. There was a lot of interaction between the teacher and learners. Learners were eager to show how much they knew about the concepts that were discussed. It should be noted that during the second round some learners did not have their hands on books.

The second part of the table shows results from the second visit. It shows that there was no writing that was done throughout the lesson. During the 1st round to the beginning of the 2nd one, learners were reciting their clans' praises, one after another. 30% of learners were doing this task in front of the class and 70% listening. The interpretation for this activity was to show learners the importance of their culture in their lives. Bringing cultural practices into the classroom makes learners participate fully and with confidence in class. For the last 10 minutes of the lesson, learners were instructed to open their books and read a story. This was for listening comprehension. Learners were reading a story from their text books; one read aloud and the rest listened while silently reading from their books. While a learner was reading, the teacher would interrupt a reader and give out some clarifications of some difficult words from the text.

5.2.2.4 Grouping of learners

Another criterion that was observed was grouping of learners in the classrooms during the lessons. This was to observe if there were any criteria used in grouping learners during the lessons. The results are portrayed on Table 5.12 below.

Table 5.12: School 2 - Grouping of learners

Visits	Time intervals (in minutes)	
	Round 1 (15min)	Round 2 (15 min)
1st Visit	Learners sat in the normal way but reading as a whole class	Learners sat in their normal class sitting, but reading as a whole class
2nd Visit	Two groups; 70% of learners sitting while 30% standing at the front	Learners were reading as whole class; one at a time

The table shows that the grouping of learners during the 1st visit, was in their normal classroom sitting; all facing the board, but they were reading as a whole class with the guidance and instructions of the teacher. Some learners read fluently and others struggled, but quickly were assisted by their teacher and/or a chance to read was given to the next learner. During the second visit, for the 1st 20 minutes, 30% of learners were at the front of the class reciting their clan praises while 70% remained on their normal settings, listening to the ones reciting their clan praise. In the last 10 minutes of the lesson all learners were sitting as a whole class, in their normal classroom settings. Grouping of learners was not considered to be an important factor during lessons.

5.2.2.5 Language of instruction

Language of instruction was another aspect that was observed. This was to determine how the linguistic resources of learners are being utilized during lessons. The results appear on the table below.

Table 5.13: School - Language of instruction

Visits	Time intervals (in minutes)	
	Round 1 (15min)	Round 2 (15 min)
1st Visit	Language of instruction was Sesotho - 100%	Language of instruction was Sesotho - 100%; very few words in English for clarification
2nd Visit	Language of instruction was 100% Sesotho	Language of instruction was 100% Sesotho; few words in English for clarification

The table shows that during the first and second visits, the language of instruction was 100% Sesotho. It was only in few occasions, about 2%, where the teacher used English to clarify some concepts. This explains the fact that it was during a Sesotho lesson and the language used therefore was Sesotho following the curriculum. However, English had to be used for clarification purposes where a teacher felt he needed to clarify concepts which learners would understand better in English. It was during the 2nd visit where the teacher clearly stipulated that learners should only use Sesotho during the Sesotho lesson. This could be interpreted that the 'monolingual bias rule' was used during these lessons. The rule of 'one language at a time' still dominated this bilingual classroom; when it was time for Sesotho learners were to use Sesotho only, yet the teacher would use English where she felt there was a need to do that.

5.2.2.6 Focus of instruction

Focus of instruction was another aspect that was observed during the two visits in this school. The results for this observation appear in the following Table 5.14.

Table 5.14: School 2 - Focus of instruction

Visits	Time intervals (in minutes)	
	Round 1 (15min)	Round 2 (15 min)
1st Visit	The focus was on language - reading comprehension	The focus was on language - reading comprehension
2nd Visit	The focus was on Sesotho culture - knowing who you are!	The focus was on Sesotho reading comprehension

The table shows that the focus of instruction during the first visit was Sesotho reading comprehension, where learners were assigned to read aloud, understand a text and be prepared to answer questions related to the text. The teacher focused on improving learners' vocabulary on Sesotho language by writing and explaining difficult words, which appeared in the text. Another aspect of focus was reading fluency, ability of learners to read aloud and with understanding in Sesotho. Lastly, the focus was on recall where learners were required to recall what they had read and answer questions from interacting with text. This could be interpreted that the teacher used different areas of reading proficiency to enhance learners' comprehension of text, even though he did not allow them to use other languages except Sesotho, but he used English where he felt there was a need to do so.

The second part of the table shows that during the second visit, the focus of the lesson was first on socio-cultural aspects of the learners; where learners displayed their knowledge on their cultural identities. Secondly, on the last 10 minutes of the lesson Sesotho reading comprehension was a focus of the lesson. It can be concluded that the teacher saw the value of learners to know their identity, even though she could not allow them to make use of the linguistic repertoires that they brought into the classroom.

5.2.2.7 Teachers' role

It was imperative to also consider teachers' role during classroom observation to identify the part that he/she plays during the lesson. The results from this observation are outlined in the following table.

Table 5.15: School 2 - Teachers' role

Visits	Time intervals (in minutes)	
	Round 1 (15min)	Round 2 (15 min)
1st Visit	Teacher was giving instructions on what was done during the lesson. She would even choose who to read where and for how long.	Teacher was explaining difficult words and making clarifications where needed. She was also questioning learners on what they had read
2nd Visit	Teacher was giving instructions and guidance to learners to take turns.	Teacher was giving clarifications and asking questions.

The table above shows that in both visits the teacher started her lessons with instructing and guiding learners on what to do. During the first visit, after a lengthy introduction on reading, she nominated learners in taking turns to read from a passage chosen and instructed others to listen carefully and read along. She was lecturing and explaining difficult words and making clarifications where needed. The table shows 100% of the instructions in the classroom were done by the teacher. She was the one who explained difficult words emerging from texts and wrote such words on the board where necessary. During the second visit, she called learners who were ready to come to the front and recite their clans' praises. She even said "if you do not know your culture or identity, you will not have direction in life". This showed how much she valued the cultures of learners. Any activity that was done in class was under the supervision of the teacher. The interpretation here was that she took control of the lessons and used various strategies to engage with learners and to enhance their culture and reading comprehension.

5.2.2.8 Learners' participation

It was also imperative to look at learners' participation during the lessons. Researchers have pointed out that when learners are allowed to use their linguistic resources, they fully participate in class (Makalela, 2015c). The results from the observation on this aspect are presented below.

Table 5.16: School 2 - Learners' participation

Visits	Time intervals (in minutes)	
	Round 1 (15min)	Round 2 (15 min)
1st Visit	Learners were reading and listening to others reading aloud as appointed by the teacher	Learners were answering questions asked by the teacher from the text that they had read and referring back to the text.
2nd Visit	Learners seemed focused and participated fully in class - 30% reciting their clan praises & 70% listening & ululating.	Learners seemed focused and participated fully in the lesson. They were answering question asked.

The table shows that learners were reading when appointed to read aloud and others focused on their books while listening to the one reading. They also tried to relate some words to their daily activities when asked to do that and responded to questions with confidence. They showed interest in wanting to read especially during the 1st visit; there were several learners who raised their hands to be nominated for reading aloud. Their home language allowed them to fully engage and participate in class (Sah, 2018). It should be noted that some learners showed no interest at all to what was done in class and did not volunteer in reading and/or did not even read when chosen to do so.

The second part of the table shows that learners began their lesson with cultural issues. They were loudly and clearly reciting their clans' praises. Learners were very passionate about this activity and felt very excited. After the 1st activity, the last 10 minutes of the lesson, learners were reading from a Sesotho text, taking turns.

5.2.2.9 Notes on instruction

During the 1st visit, the teacher used 100% Sesotho as a medium of instruction, but when she realised that learners did not understand certain terms, she would use English to clarify those concepts. Though she would use English when there was a need, it could be seen that she was using the rule

of ‘one language at a time’, and therefore suppressing the other language. Some learners struggled with expressing themselves in Sesotho when answering questions, and opted to using English, but were discouraged by the teacher even though their answer was correct. She told them that during Sesotho lesson, they must use only Sesotho and English be used during its time - “No other language is allowed to be used during Sesotho lesson!” I discovered that learners were also whispering amongst themselves using both languages, their home language and English, but when responding to questions they tried to use only Sesotho.

The teacher’s classroom management was good; she seemed focused and well prepared for her lessons. She gave equal attention to all learners in the classroom and seemed not biased when selecting learners to read. She guided learners throughout the lessons and assisted them whenever there was a need. Level of language that was used was appropriate to the level of the learners and she was good in explaining or clarifying difficult words that appeared in the text to improve learners’ vocabulary. Most learners were active and participated in reading as appointed by their teacher and they were responsive to answering questions.

During the second visit, the lesson started well with learners reciting their clan praises which helped them to know their identity. They were very confident and happy when doing that. They were enthusiastic and willing to know more about their identity. The teacher used only Sesotho, and learners were also responding in Sesotho. They knew how to read even though some struggled a lot. They were reading from their books with the guidance of the teacher. When reading individually, some struggled to pronounce some words, but others could read fairly well. The teacher assisted them with the vocabulary and meanings of words.

5.2.2.10 Notes on classroom environment

The walls in the classrooms had very few writings on them. Most of these seemed to have come from outside. The prints on the walls were mostly in English, few were in Sesotho. These prints that were available were external posters more than what learners had produced. There were piles of books in the classroom packed in a closed book shelf. It was not clear how often learners were using the books, but I was informed that learners could only use the books in the presence of a teacher. This showed dependency and lack of confidence that were nurtured on learners.

5.2.2.11 Active teaching rubric & rating

The teacher in this school 2 also displayed enthusiasm in her teaching and was very confident in the language that she used for each lesson. She showed skills of using different strategies in teaching

learners to read. In some cases, she even made learners aware of the connections between what they were reading with their lives outside school learning. She encouraged learners to read even when they are at home. Even though this teacher in School 2 appreciated the use of all learners' linguistic resources, she could not hide that she believes in the culture of language boundaries; that was fully maintained. She emphasised that during Sesotho lesson, learners should only use Sesotho. She could not accept flexibility in using the languages from the learners.

5.2.2.12 General comments

Lessons were well organized and channeled to assist learners with reading proficiency, though there was no flexibility in the use of both languages. Learners were therefore not allowed to use their linguistic resources; they were channeled to using one language at a time. Even though she appreciated that the use of all learners' linguistic resources could enhance learners' comprehension, she could not avoid the culture of language boundaries; that was fully maintained. During Sesotho lessons, only Sesotho was used, except by her when the need arose. She would use English to explain some concepts, but quickly go back to Sesotho.

Reading comprehension seemed to be the most focus in both visits and the teacher was in control of the lessons; in selecting the readers and guiding learners throughout on what to do. This seemed to create dependency on the learners who would then read only when guided by their teacher. In both visits, there was no clear indication of how the teacher was able to follow up if learners had acquired vocabulary of the new words because she did not give them chance to write the words down.

The teacher in School 2 used several teaching strategies to enhance learning in her classroom. For example, during the 2nd visit, she began her lesson with an activity that tested learners' knowledge on their cultures. This activity seemed to be very interesting to learners and they did it with enthusiasm and confidence. This then made one aware that language is not only cognitive, but also involves social and cultural aspects (Ward, 2017).

5.2.3 Conclusion

It has become clear from the observations that teachers believe on the use of both languages in order to enhance learning, but they fear what they say it is forbidden by the Department of Education. It is not clear to them how they should merge the use of two or more languages in their teaching. The old belief of one language at a time still governs their teaching. Learners, on the other hand, appeared to be flexible in the use of both languages whenever there was a need. This affirms that

the movement from one language to another happens automatically (Kim, 2015) to bilinguals depending on the environment. It can be concluded from the observations that teachers translanguage between languages, but do not allow their learners to do the same with the fear that the use of two or more languages causes confusion. In general, they seemed to appreciate the concurrent use of languages to enhance learning, but not free to apply the strategy.

5.3 Interviews

In addition to the observations, interviews were conducted in order to address the study objective which sought to evaluate teachers' perceptions and opinions in relation to the concurrent use of languages in a bilingual classroom and in developing reading. This objective contributes to the main objective of the study, which is to investigate the effectiveness of translanguaging in developing reading. This section presents the results from the interviews that were conducted with the four teachers. This was done following thematic analysis based on the themes which appeared on the results.

5.3.1 Teachers' background knowledge

This first part of the interviews required name of the school, subjects taught, years of teaching experience and qualifications. The following Table 5.17 shows the findings for this section.

Table 5.17: Teachers' background

Teachers	Name/School	Subject/s you teach	Years Teaching Experience
Teacher 1	A	Sesotho, Life skills	20
Teacher 2	A	Maths, English (FAL), NST	23
Teacher 3	B	Sesotho, Maths, Life Skills	39
Teacher 4	C	Sesotho, EMS, CA	3

The table shows that there were four teachers that participated in interviews for this study; two from the same school and the other two from two different schools. The table further shows that all the four teachers were teaching languages, in their schools; either Sesotho or English. It can be seen that each one of them either teaches Sesotho or English, not both. This shows that there is separation of languages even with the teachers' subjects. The results affirm the historical belief of separation of languages in the classroom situation, where it was believed that knowledge and use of more than one language at a time causes cross-contamination and confusion (Jacobson & Faltis, 1990). One

teacher who taught Sesotho did not teach English and one who taught English was not teaching Sesotho. This further speaks to the concept of 'one language at a time' to avoid cross-contamination of languages. When looking at years of experience in teaching, the results reveal 75% of the teachers had between 15-39 years of teaching experience, and only 25% had less than ten years of teaching experience.

5.3.2 Teachers' understanding of reading

Table 5.18 below presents findings on teachers' understanding of reading and how they teach learners to read. This appeared as one of the themes from the interviews and the results are presented below.

Table 5.18: Teachers' understanding of reading and how they teach learners to read

Statement	Strongly disagree	Disagree	Strongly agree	Agree
I teach learners how to read			50%	50%
My learners are interested in reading			25%	75%
My learners experience difficulties in reading	25%		50%	25%
My learners read more materials outside of their school prescribed texts	50%	25%	25%	
I am an effective promoter of learner's reading habits.			50%	50%
I received good preparation (at tertiary level) to teach reading.			50%	50%
I am an effective promoter of learners' reading skills		50%	50%	
I always find new and better ways to help learners read.			50%	50%
I believe that most of the teachers in my school are dedicated to teaching reading			25%	75%
I believe that most teachers in my school are effective in promoting learner reading in and outside of the classroom.			50%	50%

Table 5.18 above shows higher percentages on the third (strongly agree) and the fourth column (agree). This means that teachers agreed with the statements reflecting their understanding with reading. Only 25% of the teachers disagreed that their learners had difficulties with reading whereas 75% agreed that their learners had difficulties in reading. This high percentage confirms what researchers have found, that learners in South Africa read below the expected reading level

(Makalela, 2014; Hurst & Mona, 2017). 50% of the teachers also disagreed that their learners read outside of the classroom while 50% agreed that they do. This means what learners do outside the school also affects what is done in school. Another outstanding issue from table 18 was that of teachers being effective promoters of reading, where 50% of them agreed while 50% disagreed. This shows that they had different perspectives in relation to their role on developing reading to learners. The general interpretation that could be given, based on the table, was that teachers see and believe that they teach learners how to read and that they find new strategies that can assist learners to read. Some even pointed out that they have some extra lessons for learners who have difficulties in reading, but they still encounter problems with learners' ability to read. However, it should be noted that there is nowhere in the table above where all the teachers have the same opinion in the statements that were posted.

The table also shows that 100% of the teachers uphold that they had received good training to teach reading, although they struggle to identify the core problem of some learners' inability to read. This could be interpreted that teachers have ability to use different approaches in teaching reading to learners, but they fail to relate reading as being culturally and socially rooted (Makalela, 2014).

The following extract further represents how teachers view reading.

Extract 1 Reading is a tool used to get information and understanding it and be able to use that information to follow instructions and be equipped with knowledge to use later/ in future. It involves spelling of words and understanding of text.

This teacher understands reading as a tool that is used for getting information and understanding what the information entails. He further shows that it is through reading where one becomes equipped with knowledge. This means that the teacher has a clear understanding of what reading is. He says it does not only involve spelling of words, but also understanding what is portrayed with those words. It shows that the teacher asserts that reading goes beyond articulating words, but as an interaction between a reader and the text. I believe the teacher sees the importance of comprehension in reading.

Furthermore, the following extract adds on to the previous one:

Extract 2 I think the use of both languages can improve learners' reading because reading is not only the matter of reciting the letters but it goes further to understanding of whatever the person is reading and being able to express oneself.

The teacher in extract 2 alludes that reading goes beyond reciting letters, but is the understanding of the content and ability to express oneself. This means that some teachers do not only consider reading as the ability to say words, but also understand what those words mean and be able to apply the meaning in context. This supports what Makalela (2015) refers to when arguing that reading should not be considered as 'letteracy' but 'literacy' in the true sense of being literate. This means that learners should not only be able to utter letters in words but should be able to understand the semantic meaning of the words and use them appropriately. On the other hand, the following extract shows a different view in relation to reading.

Extract 3 Reading for me is the ability to spell and pronounce words correctly using any language. I believe the first thing is to try to teach learners phonics and word formation processes and how to pronounce the words.

The extract displays that to this teacher reading means only the ability to pronounce words correctly and as result they need to start with phonics, word formation processes and pronunciation of words when teaching reading. This understanding reveals that this teacher was not able to relate meaning to the social and cultural aspects of learners. She declares that they begin with teaching phonics, then meaning of words to make learners understand text. This shows that they follow a certain hierarchy in teaching reading and do not consider the cultural aspects surrounding a learner (Makalela, 2015c). Makalela further argues that in teaching reading, some of the cultures are followed even when they do not fit into the African culture. He gives examples of teaching learners 'one-word' syllables which appear in the English language, but do not feature in African languages. He upholds that there is a need to reconsider approaches that are used in teaching African languages because reading involves interaction between the reader and text (Makalela, 2014).

5.3.2.1 Availability and accessibility of material

Another theme which emerged from the interviews was availability and accessibility of reading materials in both languages in their classrooms. Table 5.19 below presents findings on the responses of the teachers on availability of material in both languages in the classrooms.

Table 5.19: Availability and accessibility of reading material

Statement	Strongly disagree	Disagree	Strongly agree	Agree
We have many books in English in our school and classrooms to support teaching of reading skills.			50%	50%
We have many books in Sesotho in our school and classrooms to support teaching of reading skills.		50%		50%
My learners have appropriate comprehension levels of texts given to them.		50%	50%	
The books we have in the classroom in English are at an appropriate reading difficulty level for my learners.			75%	25%
The reading materials in the classroom are accessible to the learners (i.e., appropriate height)		25%	50%	25%
My classroom is rich with texts collected outside of school			50%	50%
My classroom is rich with texts created by learners		50%		50%

Table 5.19 shows that the books available in Grade 5 classrooms were available and accessible to learners. It appeared from the table that 100% of teachers agreed that they had books in English while with material in Sesotho, 50% agreed that there was material while the other 50% disagree that they have books. This means there was a general view among the teachers on the availability of material in English more than in Sesotho. This also was an indication of scarce material on the Sesotho language; most books available were in English. 75% of the teachers believed that the books were of appropriate reading difficulty level for the learners. Extract 4 also confirms what appeared in table 19 above.

Extract 4 We have many books in English in our classrooms to support teaching reading skills but not that many in Sesotho. The books we have in the classroom are at an appropriate reading difficulty level for my learners. The reading materials in the classroom are accessible to the learners.

The teacher in the above extract confirms that there was material in the classrooms, but mainly in English than in Sesotho. This affirms that what Cekiso (2012) pointed out that lack of material, especially in African languages, seem to be a major problem in schools in South Africa and other colonial countries.

5.3.3 Reading with understanding

Another theme that appeared from the interviews was reading with understanding. This was seen in the following extract.

Extract 5 My learners struggle with reading with understanding especially when reading in English. They are unable to express themselves and cannot follow instructions, so they keep on failing the tests. They struggle in reading; they seem to be shy or not confident. This is why I teach them to read in my presence so that I can help them.

Extract 6 It is true that learners must be able to know the meaning of the difficult or new words before reading text but you will find that even after the words have been explained they have difficulty in reading with understanding especially with an English text.

The teachers in the above two extracts show that their learners struggle with reading and understanding what they have read. They further claim that their learners are unable to express themselves fluently, especially in English. The teacher in Extract 5 indicates that lack of understanding and not being confident in reading leads to learners not following instructions and eventually fail. This affirms what other researchers found that reading with understanding seemed to be a major problem in South Africa (Cekiso, 2012; Makalela & Fakude, 2014). Learners are most of the time able to decode information from text, but not understanding what they are reading (Vaish-Subhan, 2015). The extract further shows that the teachers prefer to make their learners read in their presence so as to help them understand better. This could mean that teachers do not notice that reading with learners in class all the time was advocating for dependency and lack of confidence when reading (Hurst & Mona, 2017).

The teacher in Extract 6 also shows that lack of vocabulary in a language contributes to learners having difficulty in reading. The claim from this teacher speaks to the issue that, in South Africa and other countries in the world, learners in intermediate phase have a problem in relation to reading with understanding (Makalela. 2015). Makalela points out that in a classroom where vocabulary is improved, learners become confident and interactive in class and lack of vocabulary leads to poor reading comprehension.

5.3.3.1 Lack of confidence

Another theme which emerged several times from the interviews was lack of confidence in reading. The following extract shows what transpired from the interviews.

Extract 7 My learners are interested in reading but cannot read on their own, they depend on other intelligent learners or their teachers. Sometimes my learners read without concentration and/or have a problem with spelling of words, especially when reading in English, therefore they are unable to comprehend the text. This leads to lack of confidence and they become shy to read.

The teacher in extract 7 indicates that though learners might be interested in reading, they depend on either intelligent learners or their teachers to assist them in reading. She further points out that once learners encounter spelling problems, they do not understand what they would be reading and this leads to not being confident. It can be seen from extract 4 that teachers alluded that their learners are unable to read on their own and most of the time depend on someone to assist them. This dependency contributes to being self-doubting when they have to read in class. This teacher argued that the problem is even more obvious in reading English texts than in Sesotho. This affirms that lack of developed vocabulary and reading comprehension, regardless of a language, leads to learners becoming unconfident and not active in class (Makalela, 2015d).

5.3.3.2 Bilingualism of learners

Another theme that emerged from the interviews was learners' knowledge of two languages. The following table shows teachers' responses on their learners' ability of speaking and reading in more than one language.

Table 5.20: The knowledge and use of two languages

Statement	Strongly disagree	Disagree	Strongly agree	Agree
My students are strong speakers of English.		50%	25%	25%
My students are strong readers of English.		25%	50%	25%
My students are strong writers of English.		75%	25%	
My students are strong speakers of Sesotho.			100%	
My students are strong readers of Sesotho.		25%	50%	25%
My students are strong writers of Sesotho.		50%	25%	25%
I am comfortable teaching reading, writing, and speaking in English.		25%	25%	50%
I am comfortable teaching reading, writing, and speaking in Sesotho.		25%	50%	25%

The table shows that most teachers agreed that their learners are bilingual learners. This can be seen on their responses appearing on the table 5.20 above. The first column of the table was blank which indicates that none of the teachers disagreed with the fact that there is knowledge of more than one language in his/her classroom. They have indicated in their responses that learners were speakers of Sesotho at 100%, but gave a lower percent in an indication of whether they were strong speakers of English. However, they agreed that their learners can speak, write and read in both languages even though not at the same level. The table also presents that even the teachers themselves have the ability of using both languages; which implied that they were also bilinguals like their learners. The following extract further affirms how they feel about teaching in both languages.

Extract 8 I have to be comfortable in English because I am an English teacher; it is not the matter of choice. Well, I sometimes have to use Sesotho when teaching but that is not allowed.

It could be seen from the above extract that the teacher indicated to be comfortable in using English only because she teaches English, but because of her ability to translanguage, she sometimes uses Sesotho to explain concepts to learners. This further shows that the teacher understands a need to use all languages that learners know in order to help them understand better. She accepted the issue that their learners are bilingual learners. She further alluded that the knowledge of more than one language helps her to be able to intermingle between the two languages. She pointed out that being a bilingual person is a great advantage because one can explain in another language what seemed difficult to be understood in the other language. This means the teacher was aware that the two languages complement each other and the knowledge of the two is an advantage to bilingual learners. In this way, a bilingual person has flexibility to use an appropriate language at a particular situation where there is a need (Spooner, 2017; Makalela, 2015a; Garcia, 2011).

5.3.3.3 Teachers' use of two languages

Another theme was the perceptions of teachers in relation to the use of two languages in developing reading. The following extract reveals what they said.

Extract 9 Absolutely, these two languages play a crucial role because they integrate. You cannot use Sesotho without using English even use English without referring to Sesotho so that the learners can understand. Reading requires understanding and to help learners understand you have to use all the languages that they know.

Sometimes you have to explain some English concepts in Sesotho to make learners understand what you are talking about or explain some Sesotho words in English.

The above extract shows that the teacher understands that the two languages cannot be separated; one language is used in order to explain concepts in another one. He says that one cannot use English without referring to Sesotho or Sesotho without referring back to English. On the other hand, this teacher further claims that even when teaching Sesotho, he sometimes has to use English to explain some Sesotho concepts. This means that the two languages seemed to complement each other. This avows the 'Ubuntu translanguaging' framework in which Makalela (2015) upholds that all languages complement each other and are all necessary in a bi/multilingual learner; 'you are, because I am'. The use of both languages enhance understanding of text to learners. What was portrayed in the above extract was supported by the following extract.

Extract 10 To be honest, even when teaching English, you sometimes have to use the home language so that they can understand, even though it is not allowed. Most of the time you have to use both languages, otherwise learners would not be able to understand. It is an advantage to know both languages.

The extract above further shows that this teacher affirms that when teaching in English, one has to use the home language to assist learners to understand what is being discussed. The extract further shows that the use of both languages is a benefit to learners. Therefore, what the teacher says correlates to what Sah (2018) has specified when he points out that teachers use L1 to "enhance the students' comprehension since learners with a lower level of proficiency in L2 struggled to understand lessons" (pg 9).

5.3.3.4 Teachers' perceptions on the use of two languages

The last theme that emerged from the interviews was teachers' perceptions in relation to the use of two languages. The following extracts portray what they said.

Extract 11 I wish it were accepted, for a child to maybe be taught by telling the story in their home language and then after that, tell them the same story in English. Like you read the same story in Sesotho and in English and if its English they must present the story in English and if you are teaching Sesotho, the learners must be given an opportunity to present it in Sesotho, I think it will be better that way. At the end of the day, it will make sense to the learners and they will be able to understand, even

when learners answer questions they will be able to do so easily and efficiently because they would be able to understand what that story is all about.

The above extract indicates that the teacher wishes it was accepted to use both languages in teaching so that sometimes the language of input differs from the language of output. She argues that this could assist learners to make sense and understand text better. She further indicates that this could assist learners to respond efficiently because they wold have understood what was on the text. This perception of this teacher seemed to agree with the concept that using linguistic resources of leaners maximises their understanding and allows them to participate actively in class (Madiba, 2014). Furthermore, another extract which adds to the previous one says:

Nevertheless, some teachers had a negative perception about the concurrent use of languages. The following extract shows what other teachers said in relation to the use of two languages.

Extract 12 Eventhough my learners have shown their happiness with the kind of test that you gave them and even asked me to follow the same style; I hope you are not encouraging that languages should be taught using both concurrently. This will not benefit our learners in anyway. They need to practice and speak English in order to become fluent in it and should be discouraged to use this code switching that you seem to be advocating for.

The above extract displays that learners were happy in using both languages concurrently, but the teacher showed her unhappiness towards that as she believed that might not benefit their learners and must be discouraged. Her belief on how learners should learn and become fluent in English was by suppressing their knowledge of the other language. This is against what other researchers found when they show that using learners' linguistic resources can boost their self-confidence and enable them to do better academically (Garcia, 2012; Rosen. 2017). Furthermore, allowing learners to discuss L2 concepts using their L1 gives them confidence (Pachero & Miller, 2015). It is also highlighted that teachers experience confidence and become effective in their teaching if they allow the use of all linguistic resources of learners in bilingual classrooms (Creese & Blackledge, 2015; Cummins, 2015).

5.4 Conclusion

The observations and responses from interviews reveal that teachers use both languages, especially the home language in order to enhance understanding of some difficult concepts appearing when reading. This affirms that the use of L1 assist learners in understanding and relating meaning of

difficult concepts in another language (Sah, 2018; Madiba, 2014). Some teachers even echoed that it becomes easy for learners to understand concepts if all the languages they know are being used. One teacher said

This meshing of languages affirms the ‘Ubuntu translanguaging’ which shows that there is no language that is complete without the other (Makalela, 2016). This framework stipulates the idea that one language depend on the other; ‘I am because you are’ and ‘you are because I am’. It can be concluded, therefore, that it was not easy for teachers to use only one language in bilingual classrooms. The main problem that teachers have is teaching in fear of the curriculum and their belief on how they should conduct their teaching in relation to the language policy.

Chapter 6

Summary, Conclusion and Recommendations

6.1 Introduction

The previous two chapters delineated findings from the methods that were used for data collection. They presented and interpreted findings from tests, which sought to identify vocabulary, reading fluency and reading comprehension, consecutively, in bilingual learners. Furthermore, chapter 5 presented and interpreted findings from observations responding to the objective which sought to identify translanguaging practices in bilingual classrooms and interviews which were to identify teachers' perspectives on the concurrent use of two languages in bilingual classroom settings. This chapter therefore gives a general summary of all the chapters and objectives of this study. The chapter further highlights recommendations and gives a brief conclusion to the study. The discussion is done in four sections: study objectives, summary of the chapters, recommendations and conclusion.

6.2 Study Objectives

6.2.1 Objective 1: Assessing Reading Proficiency

One of the objectives of this study was to assess reading proficiency of bilingual learners in order to determine the effectiveness of translanguaging approach. In an effort to do this, learners' vocabulary, reading speed and reading comprehension in both languages were assessed in a battery of pre- and post-tests.

6.2.1.1 Vocabulary

The results from this current study show that learners acquire new vocabulary in both languages as they come across some terms that appear to be new. The analysis that was done within the subjects on how the use of two languages improve vocabulary of bilingual learners showed that learners were able to understand and acquire new vocabulary when allowed to use both languages. I also found out that learners perform better in semantic awareness than in other categories of vocabulary. This means that they were able to use the knowledge of the two languages in meaning making. Therefore, translaguaging intervention played a vital role in developing learners' vocabulary.

6.2.2 Objective 2 - Assessing Reading Fluency

Another objective to testing reading proficiency of Grade 5 bilingual learners was to evaluate reading fluency of learners by testing their reading speed per minute in both languages. in relation to this objective, results reveal that learners from experimental groups outperformed those from control groups in both English and in Sesotho. I also found that levels of reading fluency on African bilingual learners were high in English than in their HL after the intervention. This means that allowing bilingual learners to use both languages becomes a stepping stone to becoming fluent in English as a second language.

6.2.3 Objective 3 - Assessing Reading Comprehension

Reading comprehension of Grade 5 bilingual learners was assessed on three categories: literal comprehension, inferential and retell. The purpose of this was to respond to the main objective which sought to investigate effectiveness of translanguaging on reading development. The results from the three categories of reading comprehension show that experimental groups outperformed control groups in all the three categories. These high values were mostly prevalent in English than in its Sesotho counterpart.

6.2.3.1 Literal / Recall

When investigating levels of information recall of these learners, from both English and Sesotho texts, it was found that experimental groups had means that were far higher than the international minimum value, whereas control groups had means that were below the international benchmark. This affirms that levels of information recall of bilingual learners were below the expected level, but with translanguaging this level of information recall was improved.

6.2.3.2 Inferential

Learners' ability to make inferences was another aspect that was investigated in this research. It was found that this ability seemed to be the poorest in comparison with the other two variables, recall and retell. It was only from an English text where experimental groups performed above the international minimum value of 75% and from a Sesotho text all the groups performed below the expected level, even though experimental groups had higher mean values than control groups. This further suggested that the experimental groups' performance was improved as a result of translanguaging intervention.

6.2.3.3 Language Juxtaposition- Retell

The findings from retelling a story where the language of input differs from language of output revealed that understanding of one language improved performance in the other language. For example, learners whose reading fluency was low in Sesotho improved and performed better when writing a summary in Sesotho from an English text and those that their reading fluency level was low in English, performed better when writing a summary in English from a Sesotho text.

6.2.4 Objective 4 - 0bserving classroom practices

In observing classroom practices, I found that teachers used the two languages concurrently during their teaching, though they did not allow their learners to do the same. Even though they saw the value of using both languages, they were still following the 'one language at the time' rule and therefore did not freely practise what they believed to be useful. It was further discovered that during classroom observations, there was lack of adequate reading material for the learners especially in their HL. Even on the classroom walls, the few writings that were available were in English and none were produced by the learners themselves.

6.2.5 Objective 5: Teachers' Perspectives on the use of two or more languages

From this study, it was found that teachers understood the importance of using both languages in bilingual classrooms, but they did not allow their learners to use those languages. They were in a confusing position of making use of the languages when teaching, but denied learners the advantage of using their languages. They were clinging to the 'monolingual bias' rule.

6.3 Summary of chapters

6.3.1 Chapter 1

This chapter revealed that nowadays the world has become a bi/multilingual world due to globalization and other factors. As a result, this has made researchers view languages not as separate entities, but practices that involve the linguistic and cultural background of learners. Researchers argued that appropriate approaches need to be applied in bi/multilingual classrooms to avoid creating a monolingual environment in bilingual settings. This chapter presented the main objective of the study as determining the effectiveness of translanguaging approach on developing reading in Sesotho-English bilinguals. The chapter further presented the 5 objectives of the study which were used to achieve the aim of the study. The main objective was to test reading proficiency of learners by assessing vocabulary, reading fluency and reading comprehension. Another objective was to

observe translanguaging practices that take place in bilingual classrooms. The last objective was to find teachers' perpectives in relation to the use of two languages. The chapter further explained the terms that were to be used throughout this study.

6.3.2 Chapter 2

This chapter presented the three related frameworks that underpin this study in hierarchical manner, showing a complex relationship between two languages in a bilingual person. These theories are Linguistic interdependence hypothesis (LIH) where the relationship between L1 and L2 was regarded to be interdependent, meaning the level of competence in L1 determines level of competence in L2. The LIH theory calls for classroom context where both languages are considered on the same importance. The second framework is The continua model of biliteracy which reveals the complex interrelationship that is there between the languages. It alludes that languages should be looked in relation to all dimensions surrounding a bilingual person. The last and the main framework of this study is translanguaging framework which pursue an idea of considering languages in bilingual contexts and portrays languages as not just rules and structures, but practices and process of making meaning, shaping experiences, gaining understanding and knowledge through the use of two languages. This framework informs this study as the study was evaluating the effectiveness of using both languages in a bilingual classroom in order to enhance reading. The chapter further looked at different concepts that emanated from translanguaging. Empirical studies that have been conducted based on the three frameworks were also discussed in this chapter.

6.3.3 Chapter 3

Chapter 3 discussed the methodology that had been followed in this study. It included the design and procedures that were followed in collecting and analyzing data. It could be seen in this chapter that the study used mixed methods approach in order to respond to the objectives. Data was collected following qualitative and quantitative designs. For qualitative design, observations and interviews were used and for quantitative design, Solomon four experimental group design was used to compare performance of the learners. The chapter further elaborated on the ethical aspect and validity of the study.

6.3.4 Chapter 4

This chapter presented the results from the quantitative analysis to determine performance on learners on the post-test. Comparison was done within and between the subjects to determine the effectiveness of translanguaging after the intervention. The results revealed that learners from the schools that were given an intervention performed better that those who were in the control schools.

This therefore means that translanguaging was an effective approach that could be used in developing reading in bilingual settings.

6.3.5 Chapter 5

Chapter 5 presented findings from qualitative analysis. These were the results from the classroom observations and teachers' interviews. The results revealed that both languages were used in the classrooms though they were used only by teachers who did not allow their learners to use the two languages. It has been clear from this chapter that 'monolingual bias' rule is still dominating in bilingual classrooms where the belief is to use one language at a time to avoid contamination. In practice, teachers use and see the need to use both languages, but feel not free to do so as they fear the policy.

6.3.6 Chapter 6

This last chapter gives a summary of the whole study. It reflects back on the objectives of the study, summarizes the chapters, present recommendations and gives a conclusion to the whole study.

6.4 Recommendations

The results of this study show that learners are able to perform and understand texts better when both languages are used. Therefore, this study recommends a flexible use of learners' linguistic resources in the classroom to help them to actively participate in class, understand concepts and perform well in their learning process. The use of the two languages should not only be used by teachers but also learners. The study also found that learners improved in their performance in English when they first understood the concepts in their home language. Therefore, this study further recommends that teachers should not suppress learners to express themselves in their home languages as this also improves the knowledge of the second language. The language policy in South Africa allows learners to use languages that they are comfortable with in the learning process. This shows allowance of the use of the eleven languages but this does not seem to be the practice in the schools. Teachers are still on the 'monolingual bias' idea where one language dominates and suppresses other languages (Makalela, 2015b).

Another finding was that the knowledge of the two languages was an advantage to learners to improve in both languages and a result, the study recommends no boundaries to be drawn between languages. All languages should be considered equal as one is not complete without the other. I therefore recommend implementation of Ubuntu translanguaging in bi/multilingual classrooms. When languages are treated the same there is fluent movement between languages depending on

the context. This is a practice that happens outside classroom and can also apply within bi/multilingual classroom contexts. Finally, the study observed lack of reading material in African languages which could affect the implementation of using these languages in academic settings. Therefore, I recommend vast production of African languages reading material which could be produced by the learners themselves.

For further research, the study recommends inclusion of other African languages to test effectiveness of translanguaging, the study should not be restricted to two languages but all languages resources that learners have in the classroom. This means that research be done in multilingual classroom settings where learners are fluent in more than two languages. When looking at learners in areas such as SOWETO, it shows that they make use of several languages and it would be interesting to have an environment where all those languages are allowed to be used in a classroom to enhance learning. The study also recommends a longitudinal study where teachers went through a thorough training of making use of more than one language and test effectiveness of translanguaging when it is thoroughly practiced not only in language courses but all the courses offered at schools.

6.5 Conclusion

This study aimed at testing the effectiveness of translanguaging strategies in developing reading in bilingual classroom settings. In order to do this the study tested reading proficiency, in its categories of vocabulary, fluency and reading comprehension, of Grade 5 bilingual learners from two experimental and two control schools. This study was centred within translanguaging practices in bilingual classrooms in Gauteng province and was based on three frameworks, Linguistic interdependence hypothesis, the continua model of bilitercy and translanguaging framework as the main framework. The study used quantitative and qualitative designs in analysing data. It was found that learners from experimental groups outperformed those from control groups in all the variables that were used. This meant that the translanguaging intervention that was offered to experimental groups had a positive effect on developing bilingual learners' reading skills through the use of their home language, Sesotho and English as an additional language. Translanguaging did not only help learners to improve in different areas of reading proficiency, but also served as a tool that helped them make sense and meaning through the use of two languages. From these findings, I agree with the concept of 'Ubuntu translanguaging' which advocates for the idea of one language not being complete without the other, 'I am because you are' (Sefotho & Makalela, 2016). The study therefore views this 'Ubuntu translanguaging framework (Makalela, 2016) as a pedagogical framework that can be used in South African bi/multilingual schools. The study also showed that teachers in

bilingual classrooms still consider languages as separate entities that ‘contaminate’ each other and as a result, they do not allow their learners to concurrently use both languages, even though they themselves use both languages to enhance comprehension. This study therefore considers translanguaging as a pedagogy for meaning making. I therefore argue that when learners are allowed to use their linguistic resources in classrooms, they develop in reading and perform better academically as reading is the backbone of learning. The concurrent use of languages in bi/multilingual classrooms can be an approach that is used to help learners make meaning of their world and live as true bi/multilinguals. I therefore recommend Ubuntu translanguaging as an effective pedagogical practice in developing Sesotho-English bilinguals reading.

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APPENDICES

APPENDIX 1

Wits School of Education

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

27 St Andrews Road, Parktown, Johannesburg, 2193 Private Bag 3, Wits 2050, South Africa Tel: +27 11 717-3064 Fax: +27 11 717-3100 E-mail: enquiries@educ.wits.ac.za Website: www.wits.ac.za

4 September 2015

Student Number: 954472

Protocol Number: 2014ECE017D

Dear Malephole Sefotho

Application for ethics clearance: Doctor of Philosophy

Thank you very much for your ethics application. The Ethics Committee in Education of the Faculty of Humanities, acting on behalf of the Senate has considered your application for ethics clearance for your proposal entitled:

Effectiveness of translanguaging strategies for reading development among Sotho-English bilinguals

The committee recently met and I am pleased to inform you that clearance was granted.

Please use the above protocol number in all correspondence to the relevant research parties (schools, parents, learners etc.) and include it in your research report or project on the title page.

The Protocol Number above should be submitted to the Graduate Studies in Education Committee upon submission of your final research report.

All the best with your research project.

Yours sincerely

M Mabeta

Matsie Mabeta
Wits School of Education

011 717 3416

cc Supervisor: Prof L Makalela

APPENDIX 2

GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

For admin. use
Ref. no:

GDE RESEARCH REQUEST FORM

REQUEST TO CONDUCT RESEARCH IN INSTITUTIONS AND/OR OFFICES OF THE GAUTENG DEPARTMENT OF EDUCATION

1. PARTICULARS OF THE RESEARCHER

1.1	**Details of the Researcher**
Surname and Initials:	SEFOTHO, M. M. P.
First Name/s:	MALEPHOLE, PHILOMENA
Title (Prof / Dr / Mr / Mrs / Ms):	MRS
Student Number (if relevant):	954472
SA ID Number:	
Work permit no. (If not SA citizen)	

1.2	**Private Contact Details**
Home Address	***Postal Address (if different)***
HOUSE PROTEA	
100 DUXBURY ROAD	
HATFIED	
PRETORIA	
Postal Code: 0083	***Postal Code:***
Tel: 012 420 2047	***Cell:*** 0791571257
Fax:	***E-mail:*** malephole.sefotho@gmial.com

2. PURPOSE & DETAILS OF THE PROPOSED RESEARCH

2.1	Purpose of the Research (Place cross where appropriate)	
Undergraduate Study - Self		
Postgraduate Study - Self		
Private Company/Agency – Commissioned by Provincial Government or Department		
Private Research by Independent Researcher		
Non-Governmental Organisation		
National Department of Education		
Commissions and Committees		
Independent Research Agencies		
Statutory Research Agencies		
Higher Education Institutions only		×

2.2	Full title of Thesis / Dissertation / Research Project
· Strategies for Sesotho-English bilinguals' reading development: Efficacy of Translanguaging	

2.3	Value of the Research to Education (Attach Research Proposal)
This research will help learners to value and make use of all language resources that they have in order to develop their reading skills	

2.4	Date
Envisaged date of completion of research in GDE Institutions	31 / 10 / 2017
Envisaged date of submission of Research Report and Research Summary to GDE:	31 /12 / 2017

2.5	Student and Postgraduate Enrolment Particulars
Name of institution where enrolled:	University of Witwatersrand
Degree / Qualification:	PHD
Faculty and Discipline / Area of Study:	Humanities, School of Education
Name of Supervisor / Promoter:	PROF LEKETI MAKALELA

2.6	**Employer**
Name of Organisation:	
Position in Organisation:	
Head of Organisation:	
Street Address:	
Postal Code:	
Telephone Number (Code + Ext):	
Fax Number:	
E-mail:	

2.7 PERSAL Number (GDE employees only)

3. PROPOSED RESEARCH METHOD/S

(Please indicate by placing a cross in the appropriate block whether the following modes would be adopted)

3.1 ***Questionnaire/s (If Yes, supply copies of each to be used)***

YES		**NO**	×

3.2 ***Interview/s (If Yes, provide copies of each schedule)***

YES	×	**NO**	

3.3 ***Use of official documents***

YES		**NO**	
If Yes, please specify the document/s:			×

3.4 ***Workshop/s / Group Discussions (If Yes, Supply details)***

YES		NO	
	X		
Translanguaging lessons for two weeks for Grade 5 learners			

3.5 ***Standardised Tests (e.g. Psychometric Tests)***

YES		NO	
	X		
If Yes, please specify the test/s to be used and provide a copy/ies			
It will be pre-tests and post-tests to test reading proficiency, focussing on vocabulary			
reading fluency and comprehension, of Grade 5 learners			

4. INSTITUTIONS TO BE INVOLVED IN THE RESEARCH

4.1 ***Type and NUMBER of Institutions (Please indicate by placing a cross alongside all types of institutions to be researched)***

INSTITUTIONS	Write NUMBER here
Primary Schools	4
Secondary Schools	
ABET Centres	
ECD Sites	
LSEN Schools	
Further Education & Training Institutions	
Districts and / or Head Office	

4.2 Name/s of institutions to be researched (Please complete on a separate sheet if space is found to be insufficient)

Name/s of Institution/s
NT. PRIMARY SCHOOL
MA. PRIMARY SCHOOL
TS. PRIMARY SCHOOL
SS. PRIMARY SCHOOL

4.3 District/s where the study is to be conducted. ***(Please indicate by placing a cross alongside the relevant district/s)***

District/s			
Ekurhuleni North		***Ekurhuleni South***	
Gauteng East		***Gauteng North***	
Gauteng West		***Johannesburg Central***	X
Johannesburg East		***Johannesburg North***	X
Johannesburg South		***Johannesburg West***	
Sedibeng East		***Sedibeng West***	
Tshwane North		***Tshwane South***	
Tshwane West			

If Head Office/s (Please indicate Directorate/s)

4.4 Number of learners to be involved per school (Please indicate the number by gender)

Grade	1		2		3		4		5		6	
Gender	B	G	B	G	B	G	B	G	B	G	B	G
Number										25	25	

Grade	7		8		9		10		11		12	
Gender	B	G	B	G	B	G	B	G	B	G	B	G
Number												

4.5 Number of educators/officials involved in the study (Please indicate the number in the relevant column)

Type of staff	*Educators*	*HODs*	*Deputy Principals*	*Principal*	*Lecturers*	*Office Based Officials*
Number	4					

4.6 Are the participants to be involved in groups or individually?

Groups	×	*Individually*	×

4.7 Average period of time each participant will be involved in the test or other research activities (Please indicate time in minutes)

Participant/s	Activity	Time
GRADE 5 LEARNERS	PRE-TEST & POST-TEST	2 HOURS EACH
EDUCATORS	INTERVIEWS	1 HOUR EACH

4.8 Time of day that you propose to conduct your research.

***Before* school hours**		***During school hours (for limited observation only)***		***After* School Hours**	

4.9 School term/s during which the research would be undertaken

First Term		***Second Term***		***Third Term***	

CONDITIONS FOR CONDUCTING RESEARCH IN GDE

Permission may be granted to proceed with the above study subject to the conditions listed below being met and permission may be withdrawn should any of these conditions be flouted:

1. The District/Head Office Senior Manager/s concerned must be presented with a copy of this letter;
2. A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB.)
3. A letter / document that outlines the purpose of the research and the anticipated outcomes of such research must be made available to the principals, SGBs and District/Head Office Senior Managers of the schools and districts/offices concerned.
4. The Researcher will make every effort obtain the goodwill and co-operation of all the GDE officials, principals, SGBs, teachers and learners involved. Participation is voluntary and additional remuneration will not be paid;
5. Research may only be conducted after school hours so that the normal school programme is not interrupted. The Principal and/or Director must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.
6. Research may only commence from the second week of February and must be concluded before the beginning of the last quarter of the academic year. If incomplete, an amended Research Approval letter may be requested to conduct research in the following year.
7. Items 6 and 7 will not apply to any research effort being undertaken on behalf of the GDE. Such research will have been commissioned and be paid for by the Gauteng Department of Education.
8. It is the researcher's responsibility to obtain written parental consent and learner;
9. The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.
10. The names of the GDE officials, schools, principals, parents, teachers and learners that participate in the study may not appear in the research report without the written consent of each of these individuals and/or organisations.
11. On completion of the study the researcher must supply the Director: Education Research and Knowledge Management with an electronic copy (and a hard copy if possible) as well

as a Research Summary (on the GDE Summary template) of the completed Research Report;

12. The researcher may be expected to provide short presentations on the purpose, findings and recommendations of his/her research to both GDE officials and the schools concerned;

13. Should the researcher have been involved with research at a school and/or a district/head office level, the Director and school concerned must also be supplied with a brief summary of the purpose, findings and recommendations of the research study.

DECLARATION BY THE RESEARCHER	
1. I declare that all statements made by myself in this application are true and accurate.	
2. I accept the conditions associated with the granting of approval to conduct research and undertake to abide by them.	
Signature:	
Date:	2017/06/30
DECLARATION BY SUPERVISOR / PROMOTER / LECTURER	
I declare that: (Name of Researcher) MALEPHOLE SEFOTHO …….	
1. is enrolled at the institution / employed by the organisation to which the	
2. The questionnaires / structured interviews / tests meet the criteria of: ✓ ***Educational Accountability;*** ✓ ***Proper Research Design;*** ✓ ***Sensitivity towards Participants;*** ✓ ***Correct Content and Terminology;*** ✓ ***Acceptable Grammar;*** ✓ ***Absence of Non-essential / Superfluous items;*** ✓ ***Ethical clearance***	
3. A hard copy, electronic copy and Research Summary (after completion) will be sent by of the researcher to the GDE.	
Surname:	MAKALELA
First Name/s:	LEKETI
Institution / Organisation:	UNIVERSITY OF WITWATERSRAND
Faculty / Department (where relevant):	HUMANITIES, SCHOOL OF EDUCATION

Telephone:	0117173002
E-mail:	leketi.makalela@wits.ac.za
Signature:	
Date:	2017/06/30

ANNEXURE A: ADDITIONAL INFORMATION FOR GROUP RESEARCH

This information must be completed by **every** researcher/ student who will be visiting
GDE Institutions for research purposes.

By signing this declaration, the researcher / students accepts the conditions associated with the granting of approval to conduct research in GDE Institutions and undertakes to abide by them.

Supervisor/ Promoter / Lecturer's Surname and Name……

DECLARATION BY RESEARCHERS / STUDENTS:

Surname & Initials	Name	Tel	Cell	Email address	Signature

N.B. This form (and all other relevant documentation where available) may be completed and forwarded electronically to Diane.Buntting@gauteng.gov.za and please copy (cc) ResearchInfo@gauteng.gov.za. The last 2 pages of this document must however have the original signatures of both the researcher and his/her supervisor or promoter. It should be scanned and emailed or hand delivered (in a sealed envelope) to Diane Buntting, Room 509, 111Commissioner Street, Johannesburg. All enquiries pertaining to the status of research requests can be directed to Diane Buntting on tel. no. 011 843 6503.

APPENDIX 3

LETTER TO THE PRINCIPAL

DATE

Dear NAME

My name is '***MALEPHOLE PHILOMENA SEFOTHO***. I am a PhD student in Languages, Literacies and Literatures Division at the School of Education, University of the Witwatersrand. I am doing research on the effectiveness of Translanguaging Strategies for Reading Development among Sesotho-English Bilinguals. This study will be done with grade 5 learners reading in Sesotho languages and English.

My research involves administering a battery of tests on a number of different reading skills. Each test takes about 2 hours to complete. Participants will be audiotaped during the reading tests. I will also hold mini interviews (meta-cognitive reflections) with the participants. The findings of this study will be complied into a report that will be submitted to Wits School of Education. The report will also be made available to the participants and your school. The results of this study will also be presented at conferences. Confidentiality will be maintained in this study and there will be no mention of the participants' names, names of schools or districts.

I wish to request your permission to come and collect my data from your school, working with your grade 5 learners with the assistance of their teachers. The research participants will be reassured that they can withdraw their participation at any time during this project without any penalty. There are no foreseeable risks in participating in this study. The participants will not be paid for this study.
All research data will be destroyed between 3-5 years after completion of the project.

If you require any further information, please do not hesitate to conduct me. I am really looking forward to working with you; and would very much be glad to receive your response as soon as is convenient to you.

Yours sincerely

SIGNATURE: _____

NAME: Malephole P. Sefotho

University of Witwatersrand
School of Education
Division of Languages, Literacies & Literatures
27 St Andrews Road
Parktown
Johannesburg 2193

EMAIL : malephole.sefotho@gmail.com

Alt Email: 954472@students.wits.ac.za

Cell: +27 791571257

Telephone (H) +27 124202047

APPENDIX 4

Principal's Consent Form

Please fill in and return the reply slip below indicating your willingness to allow me to conduct the research at your school. The topic of my research project is: ***Effectiveness of Translanguaging Strategies for Reading Development among Sotho-English Bilinguals***

I, _____ the principal of _____ Primary School

I agree that the Grade 5 learners at this school can participate this study. ***YES/NO***

Permission to be audiotaped

I agree that the learners be audiotaped during the interview or reading test. ***YES/NO***

I know that the audiotapes will be used for this project only. ***YES/NO***

Permission for interview

I agree that the learners may be interviewed for this project. ***YES/NO***

I know that the learners do not have to answer all the questions asked. ***YES/NO***

I know that the researcher, Malephole Sefotho will keep the information confidential and safe and that the learners' names and the name of their school will not be revealed. ***YES/NO***

I know that all the data collected during this study will be destroyed within 3-5 years after completion of my project. ***YES/NO***

Principal Signature: _____ **Date**: _____

APPENDIX 5

LETTER TO THE TEACHERS

DATE

Dear NAME

My name is **MALEPHOLE PHILOMENA SEFOTHO**. I am a PhD student in Languages, Literacies and Literatures Division at the School of Education, University of the Witwatersrand. I am doing research on the effectiveness of Translanguaging Strategies for Reading Development among Sotho-English Bilinguals. This study will be done with grade 5 learners reading in Sotho languages and English.

My research involves administering a battery of tests on a number of different reading skills. Each test takes about 2 hours to complete. Participants will be audiotaped during the reading tests. I will also hold mini interviews (meta-cognitive reflections) with the participants. The findings of this study will be complied into a report that will be submitted to Wits School of Education. The report will also be made available to the participants and your school. The results of this study will also be presented at conferences. Confidentiality will be maintained in this study and there will be no mention of the participants' names, names of schools or districts.

I wish to request for your assistance when working with your grade 5 learners

The research participants will be reassured that they can withdraw their participation at any time during this project without any penalty. There are no foreseeable risks in participating in this study. The participants will not be paid for this study.
All research data will be destroyed between 3-5 years after completion of the project.

If you require any further information, please do not hesitate to conduct me. I am really looking forward to working with you; and would very much be glad to receive your response as soon as is convenient to you.

Yours sincerely
SIGNATURE:_____
NAME: *Malephole P. Sefotho*

University of Witwatersrand
School of Education
Division of Languages, Literacies & Literatures
27 St Andrews Road
Parktown
Johannesburg 2193
EMAIL: malephole.sefotho@gmail.com
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Cell: +27 791571257

Telephone (H) +27 124202047

APPENDIX 6

LETTER TO THE PARENTS – (English version)

DATE

Dear Parent

My name is **MALEPHOLE PHILOMENA SEFOTHO**. I am a PhD student in Languages, Literacies and Literatures Division at the School of Education, University of the Witwatersrand. I am doing research on the effectiveness of Translanguaging Strategies for Reading Development among Sotho-English Bilinguals. This study will be done with grade 5 learners reading in Sotho languages and English.

My research involves administering a battery of tests on a number of different reading skills. Each test takes about 2 hours to complete. Participants will be audiotaped during the reading tests. I will also hold mini interviews (meta-cognitive reflections) with the participants. The findings of this study will be complied into a report that will be submitted to Wits School of Education. The report will also be made available to the participants and your school. The results of this study will also be presented at conferences. Confidentiality will be maintained in this study and there will be no mention of the participants' names, names of schools or districts.

I wish to request your permission to allow me work with your child in grade 5. Your child will be reassured that they can withdraw their participation at any time during this project without any penalty. There are no foreseeable risks in participating in this study. The participants will not be paid for this study. All research data will be destroyed between 3-5 years after completion of the project.

If you require any further information, please do not hesitate to conduct me. I am really looking forward to working with you; and would very much be glad to receive your response as soon as is convenient to you.

Yours sincerely

SIGNATURE: _____

NAME: *Malephole P. Sefotho*

University of Witwatersrand
School of Education
Division of Languages, Literacies & Literatures
27 St Andrews Road
Parktown
Johannesburg 2193
EMAIL: malephole.sefotho@gmail.com
Alt Email: 954472@students.wits.ac.za

Cell: +27 791571257

Telephone (H) +27 124202047

LENGOLO LE YANG HO MOTSWADI (Sesotho version)

LETSATSI:

Motswadi ya ratehang

Lebitso la ka ke Mmalephole Philomena Sefotho. Ke moithuti ya etsang lengolo la PhD junifesiteng ea Wits, lekaleng la Dipuo. Dingoloa le Dibuka, sekolong sa Botichere.

Ke etsa dipatlisiso hodima tshebediso ya dipuo tsa Sekhowa le Sesotho. Ke rata ho fumana na mokhwa wa ho sebedisa dipuo tsena tse pedi hammoho o ka ntlafatsa lerato la ho bala ho barutuwa ba sebedisang puo tsena tse pedi. Dipatlisiso tsena ke lakatsa ho di etsa le barutwana ba sehlopha sa bohlano dikolong tsa mathomo.

Ho etsa dipatlisiso tsena ke tla fa barutwana diteko tsa mekhwa e fapaneng ea tsebo ya ho bala. Teko ka nngwe e tla nka hora tse ka bang pedi. Barutwana ba nkang karolo mona ba tla hatiswa ka nako eo ba etsang teko ya ho bala. Hape ke tla fana ka dipotso tseo ke tla fumana maikutlo a barutwana ka tshebediso ya puo tsena tse pedi. Sephetho sa dipatlisiso tsena se tla tlalehwa sekolong sa matichere, Wits esita le ho dikolo tseo barutwana ba leng ho tsona le ho lekala la mmuso la thuto. Tlaleho ya boithuto bona e ka sebediswa dibokeng tsa dipatlisiso e le ho fana ka sephetho sa dipatlisiso tsena. Dingwolwa tsohle tse ileng tsa sebediswa boithutong bona di tla tabolwa le ho fediswa ke junifesity ya Wits kamora dilemo tse tharo ho isa ho tse hlano.

Ke tiisa mona hore boithuto kapa dipatlisiso tsena di tla etsoa ka hloko e kgolo le hore mabitso a barutuwa, mabitso a dikolo le a ditereke tseo dikolo di leng ho tsona a ke ke a hlahiswa ka tsela efe kapa efe ha ke fana ka tlaleho ea sephetho sa boithuto bona. Ke tiisa hore ngwana wa hao o na le bolokolohi bah o emisa ho sebetsa le nna boithutong bona hose khatello ya letho. Ke kopa le teng ho hlakisa hore ha ho moputso wa letho o tlang ho fuwa ngwana ho ba karolo ya boithuto bona.

Ka mabaka ao ke a boletseng, ke kopa tumello ya hao hore ke sebetse mmoho le ngwana wa hao ya sehlopheng sa bone ho isa ho sa botshelela ya sekolong sena seo ke tla ya etsa boithuto ho sona. Ke kopa o tlatse foromo ya boitlamo, e tsamayang le lengolo lena o e fe ngwana wa hao ho tla le yona sekolong. Ke tla thabela tumello ya hao ho sebetsa le ngwana wa hao, mme

ke kopa o se ke wa tswafa ho buwa le nna le ho botsa haeba ho ena le se sa hlakang ka mosebetsi ona wa boithuto.

Wa hao ka hlompho

Tekeno: _____

Lebitso le aterese: Malephole P. Sefotho

University of Witwatersrand
School of Education
Division of Languages, Literacies & Literatures
27 St Andrews Road
Parktown
Johannesburg 2193

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Alt Email: 954472@students.wits.ac.za
Nomoro ya Cell: +27 791571257
Nomoro ya mohala wa lapeng: +27 124202047

APPENDIX 7

Parent's Consent Form (English version)

Please fill in and return the reply slip below indicating your willingness to allow your child to participate in my voluntary research project called: Effectiveness **of *Translanguaging Strategies for Reading Development among Sotho-English Bilinguals***

I, _____ the parent of _____ in Grade _____

I agree that my child can participante this study. ***YES/NO***

Permission to be audiotaped

I agree that my child may be audiotaped during the interview or reading test. ***YES/NO***

I know that the audiotapes will be used for this project only ***YES/NO***

Permission for interview

I agree that my child may be interviewed for this project. ***YES/NO***

I know that he/she can stop the interview at any time and does not have to answer all the questions asked. ***YES/NO***

I know that he/she can stop participating in this study at any time. ***YES/NO***

I know that the researcher, Malephole Sefotho will keep my information confidential and safe and that my child's name and the name of his/her school will not be revealed. ***YES/NO***

I know that all the data collected during this study will be destroyed within 3-5 years after completion of this study. ***YES/NO***

Parent Signature: _____ Date: _____

Boitlamo ba Motswadi – (Sesotho version)

Ke kopa o tlatse foromo ena, mme e khutlele ho nna. Foromo ena ke bopaki ba thahasello eo o nang le yona ho dumella ngwana wa hao ho ba karolo ya boithuto bona boo ke tlang ho bo etsa sekolong seo a leng ho sona. Dipatlisiso tsa ka ke ho fumana na tshebeliso ya dipuo tse pedi, ho batho ba sebedisang dipuo tseo e ka sebetsa ho thusa ho ntlafatsa mokhwa wa bona wa ho bala ***(Effectiveness of Translanguaging Strategies for Reading Development among Sotho-English Bilinguals)***

Nna,_____ke le motswadi oa _____

ya sehlopheng sa _____ Sekolong sa _____

Ke dumella ngwana wa ka ho nka karolo boithutong bona. ***Ee/Tjhee***

Ke dumella hore ngwana wa ka a ka rekotwa ka nako ya dipotso kappa ya teko ya ho bala. ***Ee/Tjhee***

Ke kholwa hore kgatiso tseo di tla sebediswa bakeng sa boithuto bona feela. ***Ee/Tjhee***

Ke dumela hore ngwana wa ka a ka botswa dipotso se amanang le boithuto bona. ***Ee/Tjhee***

Ke tseba hore ngwana wa ka o na le bolokolohi ba ho emisa ho araba dipotso neng le neng ha a batla le hore ha a tlamellwa ho araba potso tsohle. ***Ee/Tjhee***

Ke tseba hore ngwana wa ka o na le bolokolohi ba ho nka karolo boithutong bona, mme a ka emisa neng le neng ha ho hlokahala. ***Ee/Tjhee***

Ke tseba hore mofuputsi, Malephole Sefotho o tla boloka ditaba tsohle tsa boithuto bona ka lekunutu le ka hloko e kgolo le hore lebitso la ngwana wa ka le sekolo sa hae di ke tsa phatlalatswa. ***Ee/Tjhee***

Hape ke tseba hore ditaba tsohle tse tla bokellwa nakong ya boithuto bona di tla fediswa kamorao ho dilemo tse tharo ho isa ho tse hlano ***Ee/Tjhee***

Boitekenyo ba Motswadi: _____ Letsatsi: _____

APPENDIX 8

Boitlamo ba Morutuwa

Ke kopa o tlatse foromo ena, mme e khutlele ho nna. Foromo ena ke bopaki ba thahasello eo o nang le yona ho ba karolo ya boithuto bona boo ke tlang ho bo etsa sekolong seo o leng ho sona. Dipatlisiso tsa ka ke ho fumana na tshebeliso ya dipuo tse pedi, ho batho ba sebedisang dipuo tseo e ka sebetsa ho thusa ho ntlafatsa mokhwa wa bona wa ho bala ***(Effectiveness of Translanguaging Strategies for Reading Development among Sotho-English Bilinguals)***

Nna, _____ke le morutuwa ya sehlopheng sa _____ Sekolong sa _____

Ke dumela ho nka karolo boithutong bona. ***Ee/Tjhee***

Ke dumela hore dipuisano tsa nako ya dipotso kapa ya teko ya ho bala di ka hatiswa. ***Ee/Tjhee***

Ke kholwa hore kgatiso tseo di tla sebediswa bakeng sa boithuto bona feela. ***Ee/Tjhee***

Ke dumela hore ngwana wa ka a ka botswa dipotso se amanang le boithuto bona. ***Ee/Tjhee***

Ke tseba hore ke na le bolokolohi ba ho emisa ho araba dipotso neng le neng ha ke batla le hore ha ke ya tlamellwa ho araba dipotso tsohle. ***Ee/Tjhee***

Ke tseba hore ke na le bolokolohi ba ho nka karolo boithutong bona, mme nka emisa neng le neng ha ho hlokahala. ***Ee/Tjhee***

Ke tseba hore ditaba tsohle tsa boithuto bona di tla bolokwa ka lekunutu le ka hloko e kgolo le hore lebitso la ka le la sekolo sa ka di ke ke tsa phatlalatswa. ***Ee/Tjhee***

Hape ke tseba hore ditaba tsohle tse tla bokellwa nakong ya boithuto bona di tla fediswa kamorao ho dilemo tse tharo ho isa ho tse hlano ***Ee/Tjhee***

Boitekenyo ba Morutuwa: _____ Letsatsi: _____

APPENDIX 9

Data collector: Mrs MALEPHOLE P SEFOTHO - PhD student: 954472

PRE-TEST

Name…….. **School…….**

Teacher……... **Grade……...**

Date…… **Gender…….**

Bontsha na o dumellana kapa ha o dumellane le tse latelang/ do you agree or disagree with the following?

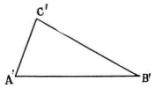
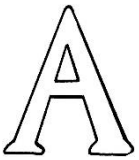
	HA KE DUMELE DISAGREE	*AGREE/KEA DUMELA*
1. I like reading/ Ke rata ho bala	☐	☐
2. I learn things from reading / Ke fumana thuto e ngata ha ke bala	☐	☐
3. We read a lot in school/ Re bala haholo ha re le sekolong	☐	☐
4. Reading is boring / Ho bala ho ya bora	☐	☐
5. My parents read books for me / Batswadi ba mpalla dibuka hae	☐	☐

Section A

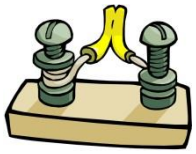
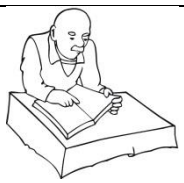
Listen to the word the teacher says. Find the picture that goes with the word. Put an X in the small box under the correct picture. Write the correct word in both English and Sesotho in the first box on the left. Questions from 1 to 5 are in English and 6 to 10 are in Sesotho.

Example

- _____Flower_____ – _____Palesa_____				
	☐	☒	☐	☐

1. _____ _____				
	☐	☐	☐	☐
2. _____ _____				
	☐	☐	☐	☐
3. _____ _____				
	☐	☐	☐	☐
4. _____ _____				
	☐	☐	☐	☐
5._____ _____				
	☐	☐	☐	☐

Sesotho version

_____Mokoko_____ _____cock _____				
	☐	☒	☐	☐
6. _____ _____				
	☐	☐	☐	☐
7. _____ _____				
	☐	☐	☐	☐
8. _____ _____				
	☐	☐	☐	☐
9. _____ _____				
	☐	☐	☐	☐
10. _____ _____				

	☐	☐	☐	☐

Section B

Match the following words to the four possible pictures provided below.

1. Newspaper


☐

☐

☐

☐

2. Speech


☐

☐

☐

☐

3. Church

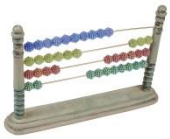
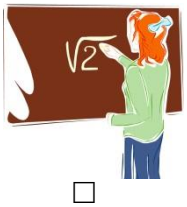

☐

☐

☐

☐

4. Divide


☐

☐

☐

☐

5. Electricity


☐

☐

☐

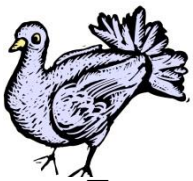
☐

Sesotho version

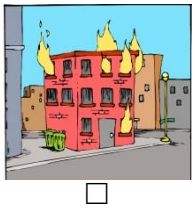
6.Hloedisa
_____

 ☐  ☐  ☐  ☐

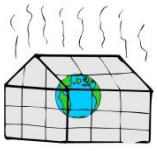
7.Naha
_____

 ☐  ☐  ☐  ☐

8. foloka
_____

 ☐  ☐  ☐  ☐

9. Ho hlophisa
_____

 ☐  ☐  ☐  ☐

10.Botelele
_____

 ☐  ☐  ☐  ☐

Section C

Read the story that follows. After you finish reading, answer each of the questions at the end.

THE ANTS AND THE SNAKE

There were ten eggs in partridge's nest: beautiful, round, light green eggs. Snake slid up to the nest and chased partridge from her nest. He said, "Go away. These eggs are mine." He coiled his body around and around the eggs. He lay there, quiet still. Partridge could not get near her nest or her beautiful round eggs. Partridge was very angry, so she called all the animals. She said, "Come and help me, please. Come and help me! Come and help me!"	14 31 46 61 77 83
Elephant heard her cries. He came and said, "What is the matter, partridge?" "Oh," cried partridge, "Snake has coiled his body around my eggs and I cannot get to them. I needed somebody sensible to chase snake away." "Don't worry, partridge," Elephant said. "I will step on snake and squash him, like this." And he stamped on his big feet down on the ground. Partridge flapped her wings and cried out loud, "No, no! Not you. If you step on snake, you will break all my eggs. I need somebody sensible to chase snake away." all the animals came, one after the other, and said to partridge, "We would like to help you." But she told them to go away. "You are too big. You will break my eggs," she said.	97 113 124 141 157 175 190 208 214
Poor partridge was very worried. Snake was still lying in her nest. Just then a family of Red Ants came along. They said, "Partridge, we heard your cries from far away. We have come to help you." the ants went right up to snake. They crawled all over snake. They crawled under Snake. They climbed onto Snake. All the time they bit him with their small, sharp jaws. Bite, bite, bite, in all the soft places on Snake's body. Snake soon uncoiled from around the eggs and slid away as fast as he could. That is how partridge got her eggs back. Not even one egg was broken.	230 245 262 276 292 308 322

Make X in the appropriate circle, next to the correct answer.

1. **What does the story tell us?**

☐ When you are big, you cannot help others.

☐ The snake shouldn't coil Partridge's eggs.

☐ The weak can sometimes defeat the strong.

☐ The ants are clever.

2. **Which of these things happened first? The snake**

☐ Broke partridge's eggs.

☐ Chased Partridge from her nest.

☐ Coiled his body around the eggs.

☐ Killed the elephant.

3. What did the ants do to stop the snake from coiling at partridge's eggs?

☐ Killed the snake.

☐ Bite the snake.

☐ Climbed onto the snake.

☐ Threatened the snake.

4. Which phrase in the story tells us that the Elephant thinks he can help Partridge?

☐ What is the matter…?

☐ I will step on the snake …

☐ Don't worry ….

☐ Elephant killed the snake.

5. The story ends happily because, the ants …!

☐ Killed the snake.

☐ Bite the snake.

☐ Climbed onto the snake.

☐ Threatened the snake.

6. Imagine that you are partridge. What can you do to stop the snake?

(Write your answer in the space below.)

7. Re-tell the story in Sesotho (summarize)

Section D

Bala pale e latelang. Ha o qetile o arabe dipotso tse latelang:

Nonyana le tlou

Mohlare wo mogolo o ile wa mela ka sethokgweng. Mo godimo ga mohlare wo Sefate se seholo se ile sa mela naheng. Holima sefate seo, nonyana e ile ya aha sehlaha sa yona. Nonyana e ne e dula le bana ba yona ba bararo. Ka letsatsi le leng, tlou e ile ya fihla moo sefateng. Yona e ile ya fihla ya ikgohla ka sefate s aba sa qala ho kobeha. Bana ba nonyana ba ile ba tshoha, ba itswarella ka mma bona. Nonyana ya bula molomo, ya re "Hei wena phoofolo e kgolo, ho na le difate tse ngata ka mona ka morung; ke ka lebaka lang o suthumetsa sefate see? Bana ba ka ba tshohile ebile ba tlo wa mona sefateng".	15 32 52 70 86 103 120 123
Tlou ya se ke ya re letho empa ya sheba nonyana ka mahlo a yona a manyenyane, ya qahamisa ditsebe tsa yona tse kgolo ka moya, ya tsamaya.	141 151
Letsatsi le latelang, tlou ya boela ya ikgohla ka sefate sane hape. Bana ba nonyana ba itswarella ka mapheo a mma bona. Mma bona jwale a halefa a re "Ke o laela hore o tlohele ho tekatekisa sefate sena sa rona", a rialo, "ho seng jwalo ke tla o rutela ba bangata".	167 186 203 204
"O ka nketsang, ke le moholo hakaale kaale?" Tlou ya rialo. "Ha ke rata nka sisinya sefate sena hore sehlaha seno sa hao la bana ba ha oba wele kwana hole." Nonyana ya itholela.	220 237 238
Letsatsi le latelang, tlou ya khutla hape, ya sisinya sefate hape. Ka lebelo la lehadima, nonyana ya fofela ka hare ho tsebe ya tlou ena e kgolo, ya e ngwapa ka maoto a yona. Tlou ya sisisnya hloho empa hwa se etsahale letho. Ka ho utlwa bohloko ya kopa nonyana hore e e tlohele le yona ya tshepisa hore e ke se hlole e sisinya sefate seo. Nonyana ya tloha tsebeng ya tlou, ya boela sefateng, baneng ba yona.	253 272 287 305 317
Tlou ha e ya ka ya hlotse e kgutlahape ho tla ingwaya ka sefate seo.	332

Bala dipotso tse latelang ebe o kgetha e le nngwe ya dikarabo eo o nahanang e nepahetse ebe o tswaya X ka lebokoseng le bapileng le karabo eo.

1. Pale ye e re ruta eng?

☐ ha o na le matla, o tshwenya ba bang

☐ Tlou e se ke ya sisinya difate

☐ Ba hlokang matla ba ka hlola ba nang le matla

☐ O se ke wa tshoha

2. Ke eng ye etsahetseng pele?

☐ Nonyana e ile ya re bana ba ikhutse

☐ Nonyana e tshositse tlou

☐ Nonyana e boleletse tlou hore e tlohe

☐ Nonyana e ile ya fofela kahara tsebe ya tlou

3. Ke polelo efe e bontshang hore tlou e nahana hore e na le matla?

☐ Hei, wena phoofolo ye kgolo

☐ Tlou ya se bolele letho

☐ Letsatsi le latelang, tlou ya kgutla

☐ O tla nketsa eng?

4. Nonyana e ile ya etsa jwang hore tlou e se hlole e kgutla?
   - ☐ Nonyana e ile ya loma tlou
   - ☐ Noyana ya fofela ka tsebeng ya tlou
   - ☐ Nonyana e ile ya ngwapa tlou ka maoto a yona ka tsebeng
   - ☐ Nonyana e ile ya sisinya sefate

5. O bona pheletso ya pale ee e bile efe?

   ☐ Tlou e ile ya shwa

   ☐ Sefate se ile sa wela

   ☐ Tlou e ile ya boela ya kgutla

   ☐ Bana ba nonyana ba ile ba sala ba phela hamonate

6. Ha o ne o le nonyana, o na le bana, ke eng e nngwe yeo o neng o ka e etsa ho thibela tlou ho sisinya sefate? (ngwala karabo meleng e latelang)

7. Ngola kakaretso ya pale ena ka senyesemane.

APPENDIX 10

Data collector: Mrs MALEPHOLE P SEFOTHO

P0ST-TEST

Personal details:

Name…….. **School…….……**

Teacher……... **Grade……...**

Date…… **Gender…….**

Bontsha na o dumellana kapa ha o dumellane le tse latelang/ do you agree or disagree with the following?

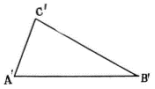
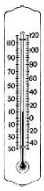
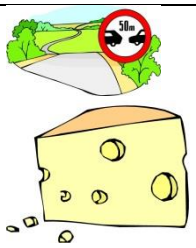
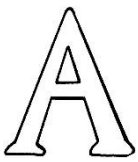
		AGREE/KEA DUMELA	*HA KE DUMELE DISAGREE*
6.	**I like reading/ Ke rata ho bala**	☐	☐
7.	**I learn things from reading / Ke fumana thuto e ngata ha ke bala**	☐	☐
8.	**We read a lot in school/ Re bala haholo ha re le sekolong**	☐	☐
9.	**Reading is boring / Ho bala ho ya bora**	☐	☐
10.	**My parents read books for me / Batswadi ba mpalla dibuka hae**	☐	☐

Section A

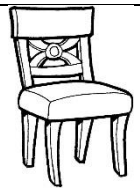
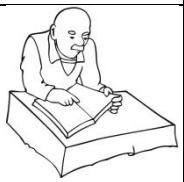
Listen to the word the teacher says. Find the picture that goes with the word. Put an X in the small box under the correct picture. Write the correct word in both English and Sesotho in the first box on the left. Questions from **1 to 5** are in **English** and **6 to 10** are in **Sesotho**.

Example

_____Flower_____ _____Palesa_____				
	☐	☒	☐	☐

1. _____ _____				
	☐	☐	☐	☐
2. _____ _____				
	☐	☐	☐	☐
3. _____ _____				
	☐	☐	☐	☐
4. _____ _____				
	☐	☐	☐	☐
5. _____ _____				
	☐	☐	☐	☐

Sesotho version

11. _____ _____				
	☐	☐	☐	☐
12. _____ _____				
	☐	☐	☐	☐
13. _____ _____				
	☐	☐	☐	☐
14. _____ _____				
	☐	☐	☐	☐
15. _____ _____				
	☐	☐	☐	☐

Section B

Match the following words to the four possible pictures provided below AND write the words in a different language to how it is written, if the word is in English, write its Sesotho identical word, if it's in Sesotho, you write it in English.

6. Nails

_____


☐

☐

☐

☐

7. Drama

_____


☐

☐

☐

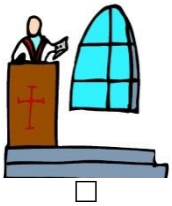
☐

8. Wheel

_____

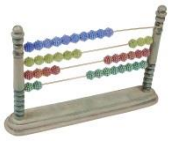

☐

☐

☐

☐

9. Classroom

_____


☐

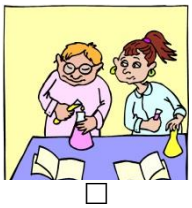
☐

☐

☐

10. Crossing

_____


☐

☐

☐

☐

Sesotho version

11. Mollo
_____

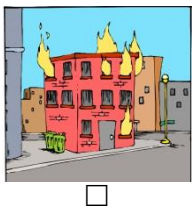
 ☐  ☐  ☐  ☐

12. Setimela
_____

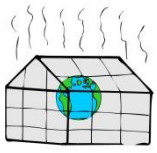
 ☐  ☐  ☐  ☐

s

13. Telefishene
_____

 ☐  ☐  ☐  ☐

14.Tsela
_____

 ☐  ☐  ☐  ☐

15. Lekgotleng
_____

 ☐  ☐  ☐  ☐

Section C

Read the story that follows AND Answer each of the questions at the end.

HENNY PENNY

One day Henny-Penny was scratching in the farmyard looking for something good to	13
eat when, suddenly, something hit her on the head. "My goodness me!" she said. "The	28
sky must be falling down. I must go and tell the king." She had not gone far when she	47
met her friend, Cocky-Locky. "Where are you going in such a hurry?" he called out.	62
"I am going to tell the king that the sky is falling down," said Henny Penny. "I will	80
come with you," said Cocky-Locky. So Henny-Penny and Cocky-Locky hurried	90
along together towards the king's palace. On the way they saw Ducky-Lucky	102
swimming on the pond.	106
"Where are you going?" he called out. "We are going to tell the king the sky is falling	124
down," replied Henny-Penny. "We must go quickly, as there is no time to lose." "I	139
will come with you," said Ducky-Lucky, shaking the water off his feathers. So	152
Henny-Penny, Cocky-Locky and Ducky-Lucky hurried on together towards the	162
king's palace. On the way they met Goosey-Loosey, who called out, "Where are you	176
all going in such a hurry?" "We are on our way to tell the king the sky is falling	195
down," said Henny-Penny.	197
"I will come with you," said Goosey-Loosey. So Henny-Penny, Cocky-Locky,	207
Ducky-Lucky and Goosey-Loosey hurried on together towards the king's palace.	217
Round the next corner they met Turkey-Lurkey. "Where are you all going on this fine	232
day?" she called out to them. "It won't be a fine day for long," replied Henny-Penny.	248
"The sky is falling down, and we are hurrying to tell the king." "I will come with	265
you," said Turkey-Lurkey. So Henny-Penny, Cocky-Locky, Ducky-Lucky, Goosey-	272
Loosey and Turkey-Lurkey all went on towards the king's palace. Now on their way	284
they met Foxy-Loxy who asked, "Where are you going in such a hurry?"	299
"We are going to the king's palace to tell him the sky is falling down," replied Henny-	316
Penny. "That is a very important message," said Foxy-Loxy. "I will come with you.	330
In fact if you follow me I can show you a short cut to the king's palace, so you will	350
get there sooner." So Henny-Penny, Cocky-Locky, Ducky-Lucky, Goosey-Loosey	358
and Turkey-Lurkey all followed Foxy-Loxy. He led them to the wood, and up to a	373
	389

dark hole, which was the door to his home. Inside his wife and five hungry children were waiting for him to bring home some dinner. That, I am sorry to say, was the end of Cocky-Locky, Ducky-Lucky, Goosey-Loosey and Turkey-Lurkey, for, one by one, they all followed Foxy-Loxy into his home, and they were all eaten up by the hungry fox family. Henny-Penny was the last to enter the Fox's hole and she heard Cocky-Locky crowing in alarm in front of her. Squawking with fright and scattering feathers, she turned and ran as fast as she could for the safety of her own farmyard. There she stayed and she never did tell the king that the sky was falling down.	397 410 424 440 454 469 486 492

Answer the following questions and make an [X] in the appropriate box next to the correct answer.

1. Why was Henny-Penny going to the King?
   - ☐ To tell him her problems.
   - ☐ To tell that the sky is falling.
   - ☐ To report Goosey-Loosey

2. Which of the animals is the second to ask where Henny Penny was going?
   - ☐ Cocky-Locky
   - ☐ Turkey-Lurkey
   - ☐ Goosey-Loosey.

3. Which family ate the animals?
   - ☐ Henny-Penny’s family
   - ☐ Ducky-Lucky’s family.
   - ☐ Foxy-Loxy’s family.

4. Where was Ducky-Lucky when she asked Henny-Penny where she was going?
   - ☐ Seating under the tree.
   - ☐ Swimming on the pond
   - ☐ On the sight of the road.

5. After running away where did Henny-Penny go?

☐ To her own farm yard.

☐ She went to call for help.

☐ She ran to the King's place to report.

6. Imagine you are Henny-Penny, what would you have done to prevent your friends from being eaten.

7. Summarize the story in Sesotho.

Dikolobe tse nyane tse tharo

Kgale kgale ho kile hwa ba le dikolobe tse nyane, di le tharo, tseo di neng di fihletse	18
nako ya ho tloha hae ho ya ipatlela tsa bophelo ba tsona. Pele di tloha moo hae, mma	36
tsona a di bolella hore “ntho e ngwe le e ngwe eo le e etsang le e etse ka bohlale kaha	58
ke yona feela tsela ya ho phela lefatsheng mona. Kolobenyana ya mathomo e ile ya	73
aha ntlo ya yona ka mahlaka, kaha e ne e le ntho e bonolo eo e ka e etsang.	92
Kolobenyana ya bobedi ya aha ntlo ya yona ka dithupa, ntlo ena ebe e tiile ho feta ya	111
mahlaka. Kolobenyana ya boraro ya aha ntlo ka ditene; ntlo ena yona ebe e tiile ho	127
feta ya mahlaka le ya dithupa.	133
Bosiung bo bong hwa fihla phiri ya ho se loke e kgolo. Phiri e ne e rata ho ja dikolobe	153
tse nyane, tse nonneng; homme ya bona kolobe e nyane ya mathomo ka ntlong ya	168
mahlaka. Ya re “mpulele, mpulele kolobenyana, ho seng jwalo ke tla hemela ka hare	183
ke be ke hemele ka ntle ka matla, ke fefole ntlo ena ya hao, ke e dihele fatshe” “Eseng	201
ka meriri yaka ya seledu”, hwa rialo kolobenyana. Efela phiri e ile ya fokela ntlo ho	216
fihlela e wela fatshe, jwale ya ja kolobenyana ya mathomo.	228
Phiri ya fetela ho ntlo ya dithupa, ya re “mpulele, mpulele kolobenyana, ho seng jwalo	243
ke tla hemela ka hare, ke be ke hemele ka ntle ka matla, ke fefole ntlo ena ya hao, ke e	264
dihele fatshe”. “Eseng ka meriri yaka ya seledu”. Efela phiri ya fefola ntlo yela; ya	280
wela; eaba phiri e ja kolobenyana ya bobedi.	288
Phiri ya fetela pele ho ntlo ya ditene. “Mpulele, mpulele”, ho lla phiri, “ho seng jwalo	304
ke tla hemela ka hare, ke be ke hemele ka ntle ka matla ho fihlela ke fokela ntlo ya	323
hao e wela fatshe. “Eseng ka meriri yaka ya seledu” hwa fetola kolobenyana. Jwale,	337
phiri ya hemela ka hare ya qeta, ya hemela ka ntle ka matla a maholo; efela ya pallwa	355
ke ho fokela ntlo ya ditene le ho e diha fatshe.	366
Efela ho tloha kgale phiri ebe ele phofolo e masene haholo, ya hlwella ka hodima ntlo	382
hore e fumane tsela ya ho kena ka ntlong ya ditene. Kolobenyana ya re ha e bona	399
phiri e hlwella hodima ntlo, ya besa mollo o moholo ka tlung, ya beha ketlele e kgolo	416
ya metsi. Phiri ya qetella e bone lesoba la tjhemele, ya khukhunela ho theohela fatshe,	431
homme ya wela kahare ho ketlele ya metsi a belang. Seo ebile ho fela hwa mathata a	448
kolobenyana le phiri eo e sa lokang. Letsatsi le latelang, kolobenyana ya mema mma	462
yona hore atle. Mma yona a re “Wa bona hee hore ka tsela yeo keo boleletseng ka	479
yona, tsela ya maleba-leba a ho phela lefatsheng, ke hore o sebetse dintho hantle le ka	495

bohlale, kamoo o ka kgonang kateng”. Ka lehlohonolo kolobenyana yeo e ithutile thuto e kgolo. Homme ya phela ka thabo ho fihlela pheletsong.	507 518

Kgetha e le nngwe e nepahetseng ya dikarabo tse latelang potso tse latelang; tshwaya ka [X] ka lebokoseng pela karabo e nepahatseng.

1. Phiri e jele kolobenyana efe pele?

   ☐ Ya bobedi

   ☐ Ya mathomo

   ☐ Ya boraro

2. Kolobenyana ya boraro e agile ntlo ya mofuta ofe?

   ☐ Ntlo ya bojwang.

   ☐ Ntlo ya dithupa

   ☐ Ntlo ya ditene.

3. Phiri e sa lokang e kene jwang ka ntlong ya kolobenyana ya boraro?
   ☐ E hemetse ka hare, ya hémela kantle, homme ya bululela ntlo fatshe.

   ☐ E khukhunetse ka hare ka lesoba la tjhemele.

   ☐ E buletswe lemati ke kolobenyana eo.

4. Ho etsahetseng ka phiri e kgolo ya ho se loke?
   ☐ E jele dikolobenyana kaofela ya tsamaya.

   ☐ E wetse ka hare ho ketlele e kgolo ya metsi a belang.

   ☐ Yona le kolobenyana ya boraro ba bile metswalle.

5. Phiri e fumane kae lesoba la ho kena ka ntlong ya kolobenyana ya boraro?
   ☐ fesetereng.

   ☐ leboteng la ntlo.

   ☐ kaholimo ho ntlo.

6. Ha o ne o le kolobenyana ya mathomo, o ne o tla etsa jwang ho itshereletsa?

7. Ngola kakaretso ya pale ena ka Senyesemane.

APPENDIX 11

MARKING STRUCTURE FOR BOTH PRE & POST-TESTS

SECTION A- had 10 items and on each item there are three things to do. (***Phonemic***)

- With the 1- 5, the words were dictated in English and learners were
  - ✓ to listen to sounds of phonemes in English
  - ✓ identify the sound and transcribe it into letters

- With 6 - 10 the words were dictated in Sesotho and learners were
  - ✓ to listen to sounds of phonemes in Sesotho
  - ✓ identify the sound and transcribe it into letters

SECTION B had 10 items on each language (Grapheme)

- Here the words that were dictated in section A were put into meaningful units and learners were to identify an appropriate picture relating to that word.

SECTION C had 10 items on each language (Semantic)

- Here the words were already written 1- 5 in English, 6 - 10 in Sesotho. Learners were to match each word to an appropriate picture representing that word.

SECTION D- Learners were tested on their ***Reading speed per minute from an English Text***

- Number of words that learners read per minute from an English text were recorded.

SECTION E - Learners were tested on their ability to recall, infer and summarise what they have read – (***Comprehension skills)***

- Question 1 -5 were multiple choice questions – testing recall
- Question 6 - testing inferential skills
- Question 7 - writing a summary but in a different language from the input language

SECTION F - Learners were tested on their ***Reading speed per minute from a Sesotho text***

- The numbers there are number of words that learners read per minute from an English text.

SECTION G- Learners were tested on their ability to recall, infer and summarise what they have read

- Question 1 -5 were multiple choice questions
- Question 6 - testing inferential skills
- Question 7 - writing a summary but in a different language from the input language

MARKING MEMO

SECTION A- Question 1-10 (Vocabulary)

- **a, & b** – ***(On a scale of 0 – 4)***
  - 4 marks for the correct word
  - 3 marks if the word is wrong by one letter
  - 2 marks if the word is recognizable
  - 1 mark if the word is slightly recognisable
  - 0 if the word is entirely unrecognizable
- **c, -** 1 mark each for correct recognition of picture

SECTION B- Question 1-10 (Word picture mapping)

- 1 mark each for correct recognition of picture

SECTION C- Question 1-10 (Word picture mapping)

- 1 mark each for correct recognition of picture

SECTION D & F (Reading Speed/Fluency)

- Number of words read per minute

SECTION E & G

- ***Question 1 – 5 = Literal Comprehension***
  - 1 mark each

- ***Question 6 = Inferential – (on a scale of 0 – 2)***
  - 2 marks for a response with a reason
  - 1 mark for moderate response – statement not substantiated
  - 0 for irrelevant answer

- ***Question 7 = Retelling the story in different language– (on a scale of 0 – 2)***
  - 2 marks for sufficient summary
  - 1 mark for moderate summary
  - 0 irrelevant or copied from text

APPENDIX 12

Translanguaging Intervention Lesson Plan 1

Grade 5 ***Date:***

Subject: ENGLISH ***Duration: 1 hour***

Theme: Reading Comprehension

Sub theme: Literal, Inferential skills

AIM

The aim of this lesson is to teach learners how to read and comprehend text using all the linguistic resources that they have, in particular Sesotho as Home Language and English as Additional Language and be confident in using both languages concurrently. Activities for this lesson will encourage a deliberate move from one language to another where the language of output will be different from that of input.

Objectives:

By the end of the lesson learners should be able to:

- ✓ Read text with understanding
- ✓ Allow themselves to translanguage between their HL and AL in order to enhance understanding of text
- ✓ Answer literal and inferential questions without a problem

Skills

By the end of the lesson learners should have:

- ✓ used and improved their reading, speaking, writing and listening skills
- ✓ developed critical reading and thinking skills in both languages
- ✓ been able to think beyond what is on the text
- ✓ developed confidence in expressing themselves in both languages
- ✓ been able to embrace the language resources they have and use them concurrently, and be confident in both languages.

Key Words

- ✓ ***Home language – Sesotho***
- ✓ ***Additional language – English***
- ✓ ***comprehension***
- ✓ ***Literal questions***
- ✓ ***Inferential questions***

Introduction

- ✓ The lesson will begin with asking learners' different language resources that they have.
- ✓ Then I will introduce some English words and phrases and ask learners to explain them using their HL, followed by explaining such in English.

Procedure of the lesson:

	Lesson's Procedure	***RESOURCES***	***TIME ALLOCATION***
	Introduce the topic of the lesson -- • Make a clear introduction on how the lesson will proceed.	Teacher and learners interaction	5 minutes
	Giving handouts – • Discussing the title of the comprehension passage and interacting with learners to find what they think and understand about the title. • Introducing the passage: read the passage and make learners be able to relate the title to the content and context.	Material – reading comprehension passages	10 minutes

	Reading aloud of text • Learners read the text aloud; turning turns. • pausing in between to allow discussion of the contents of the passage • helping learners to understand what the passage is about • allow learners to work in pairs and discuss the text in both languages	Comprehension passages Writing of difficult words on the board	20 minutes
	Answering of Literal questions – • Learners will be given some time to discuss and answer the questions in both languages and tick the correct answers.	Group activity	10 minutes
	Discussion of the answers	Class activity	10 minutes
	Conclusion		5 minutes

Next lesson

- ✓ Using the same passage, learners will be guided on inferential, recall and retell skills using both languages
- ✓ Writing of their own stories

The Lion and the Hare Story:



Once upon a time, there lived a lion in the jungle. He was very powerful and strong, and all the animals of the jungle feared him. The lion used to dominate and kill other animals in the jungle for his food, and sometimes, even unnecessarily.

One day, the animals of the jungle decided to find a way out, and called for a meeting. All the animals of the jungle, including the lion, were present for the meeting. One of the animals then put forward a proposal for the lion. They asked the lion to stop hunting down the animals in the forest, and in return, they would send one animal a day to his den, where he could kill the animal and eat it as his food. The lion agreed, but placed a condition. If the animal did not reach his den in time, he would hunt down each animal of the jungle. The animals agreed to this condition.

One day, it was the hare's turn to go into the lion's den. He didn't want to die! So, to save his life, he quickly came up with a plan. The hare entered the lion's den a little late, and when the

lion asked him the reason for being late, he told him that there was another lion in the jungle, who was claiming to be the king of the jungle. Hearing this, the lion got angry and demanded to see the other lion. The hare cleverly took him to a well full of water, and told the lion to look down into the well. The lion saw his own reflection in the well, and thought it was another lion. Getting angry, he jumped into the well and drowned. The hare went back happy that he managed to save his life, and narrated the entire event to his fellow animals.

Questions

1. What lesson do we learn from this story?
   A. Being late makes one to suffer
   B. being Intelligent can save one's life
   C. the strong ones always defeat the weak
   D. the weak always defeat the strong ones
2. What condition were put by the animals to the lion?
   A. the lion should hunt and eat the animals
   B. the lion should not hunt the animals but only eat them
   C. they will provide food for the lion daily
   D. the lion should stop eating other animals
3. Which statement from the passage shows that the animals continued taking turns to be eaten by the lion?
   A. One day, it was the hare's turn to go into the lion's den
   B. they would send one animal a day to his den
   C. The hare entered the lion's den a little late
   D. the animals of the jungle decided to find a way out
4. How did the hare save its life from the lion?
   A. By not going to the lion's den
   B. By making a plan and tricking the lion
   C. By forcing the lion to go to the well and drown
   D. By running away from the lion

APPENDIX 13

Observation Protocol:

School:
Teacher Name: _____

Date:

Observer: ***MALEPHOLE M. PHILOMENA SEFOTHO***

Grade:
Class Period: _____ ***Content Area:*** _____

Starting Time: ***Ending Time:***

Number of Learners in Room:

Special Needs Students in this Classroom (identified from interview):
_____

_____

_____

_____

_____

_____

Special Conditions Surrounding the Observation:

_____

_____

_____

_____

_____

Round One: *10-minute Observation (enter number of learners in each 60 second period)*

	1	2	3	4	5	6	7	8	9	10
Eyes on Print										
Hands on Books (textbooks or trade books)										
Writing										

5-minute Reflection

How were the students grouped for instruction? **(Check all that apply.)**

- ☐ One-on-one with the teacher
- ☐ Small groups or pairs
- ☐ Whole group

About how much of the talk was is in English?

- ☐ None
- ☐ 25%
- ☐ 50%
- ☐ 75%
- ☐ 100%

What was the major focus of instruction? (Select all that apply.)

- ☐ Life orientation
- ☐ Mathematics
- ☐ Natural Sciences
- ☐ Language
- ☐ Other _____

What was the teacher's role?

(Check all that apply.)

- ☐ Telling or lecturing
- ☐ Guiding practice
- ☐ Circulating or overseeing instruction
- ☐ Questioning
- ☐ No active involvement

What texts were included in the "eyes on print"? Put a 1 next to the texts viewed most often, a 2 next to the texts viewed next most often, a 3 (etc.)

- ☐ Chalkboard
- ☐ Visual Aids (other than chalkboard)
- ☐ Paper (notebooks, worksheets)
- ☐Books (in the hands of students)
- ☐ Books (in the hands of teacher)
- ☐ Other _____

What kind of "writing" was observed? Put a 1 next to the form of writing observed most often, a 2 next to the writing next most often, a 3 (etc.)

- ☐ On the chalkboard.
- ☐ Copying on paper or in notebooks.
- ☐ Composing on paper or in notebooks.
- ☐ Recording observations or discussion.
- ☐ Other _____

Notes on Instruction

(Please provide expansion or elaboration on language, materials, focus, grouping, teacher role, and the accommodations that teachers made to meet the needs of special students.)

Round Two: *10-minute Observation*

	1	2	3	4	5	6	7	8	9	10
Eyes on Print										
Hands on Books (textbooks or trade books)										
Writing										

5-minute Reflection

How were the students grouped for instruction? (Check all that apply.)

- ☐ One-on-one with the teacher
- ☐ Small groups or pairs
- ☐ Whole group

About how much of the talk was is in English?

- ☐ None
- ☐ 25%
- ☐ 50%
- ☐ 75%
- ☐ 100%

What was the major focus of instruction? (Select all that apply.)

- ☐ Life orientation
- ☐ Mathematics
- ☐ Natural Sciences
- ☐ Language
- ☐ Other _____

What was the teacher's role? (Check all that apply.)

- ☐ Telling or lecturing
- ☐ Guiding practice
- ☐ Circulating or overseeing instruction
- ☐ Questioning
- ☐ No active involvement

What texts were included in the "eyes on print"? Put a 1 next to the texts viewed most often, a 2 next to the texts viewed next most often, a 3 (etc.)

- 3 Chalkboard
- ☐ Visual Aids (other than chalkboard)
- ☐ Paper (notebooks, worksheets)
- 1 Books (in the hands of students)
- 2 Books (in the hands of teacher)
- ☐ Other _____

What kind of "writing" was observed? Put a 1 next to the form of writing observed most often, a 2 next to the writing next most often, a 3 (etc.)

- 2 On the chalkboard.
- ☐ Copying on paper or in notebooks.
- 1 Composing on paper or in notebooks.
- ☐ Recording observations or discussion.
- ☐ Other _____

Notes on Instruction

(Please provide expansion or elaboration on language, materials, focus, grouping, teacher role, and the accommodations that teachers made to meet the needs of special students.)

If accommodations were made for any special needs learners, describe these:

Active Teaching Rubric

	Strongly Disagree	Disagree	Agree	Strongly Agree
Teaching is goal oriented.	☐	☐	☐	☐
Teacher displays enthusiasm (passion for kids, content, learning)	☐	☐	☐	☐
There is engaging content (that relates to learner interests, experiences)	☐	☐	☐	☐
Tasks are challenging (but not overwhelming) in terms of demands on the learner;	☐	☐	☐	☐
Teacher presents content and instructs with clarity & accuracy.	☐	☐	☐	☐
The teacher models learning.	☐	☐	☐	☐
The teacher provides variability in methodologies (activity and participation patterns).	☐	☐	☐	☐
The teacher organizes space, time and movement to insure lesson "flow" (with minimum disruptions)	☐	☐	☐	☐
There is movement (by teachers to assess and support; by learners as in "total physical response" and hands on learning.)	☐	☐	☐	☐
There is a positive climate (physical, social and emotional). for risk-taking and learning	☐	☐	☐	☐
The teacher questions, listens carefully to responses and builds on learner's ideas;	☐	☐	☐	☐
The teacher promotes and participates in discussion;	☐	☐	☐	☐
The teacher adapts instruction for special needs learners;	☐	☐	☐	☐
The teacher assesses (checking or understanding) and adapts instruction DURING the lesson;	☐	☐	☐	☐
The teacher uses a variety of instructional aids (multi-modal support for learning)	☐	☐	☐	☐
The teacher insures that learners make connections of content to outside school learning;	☐	☐	☐	☐
The teacher and learners author texts around the content as a support to and record for learning.	☐	☐	☐	☐

Overall Active Teaching Rating				
None	Low	Moderate	High	Very High
1	2	3	4	5

Were there any teacher- or student-created products that were created during this lesson? **(Check all that apply.)**

- ☐ Worksheets
- ☐ Student writing (more than individual words)
- ☐ Chart or poster
- ☐ An object or artifact
- ☐ Art
- ☐ Other _____

APPENDIX 14

Teacher Questionnaire (Pre-Assessment)

School: _____

Teacher Name: _____

Date: _____

Interviewer: ***MALEPHOLE PHILOMENA SEFOTHO (ST. # : 954472)***

Grade: _____

Starting Time: _____

Introduction to the teacher:

I am Malephole Sefotho from Wits School of Education. I am a PhD student doing research on how effective can the concurrent use of two languages develop bilingual learners' reading skills. I am going to ask you questions that relate to reading using Sesotho and English in your Grade 5 lessons. Please be honest and free as much as possible in your responses and give me any necessary information that you think would be useful. I promise that your responses will be treated with confidentiality and your name will not in any way be disclosed or used for any other purpose.

Your Teaching Background

Name/School	
Subject/s you teach	
Years Teaching Experience	
Preparation/certification level	

QUESTIONS

Introduction to the Teacher: For the next set of questions, I will ask you first to give me a number that relates your views on a scale of 1 to 4, with 1 meaning you strongly disagree; 2 meaning you mildly disagree; 3 meaning you agree; and 4 meaning you strongly agree.

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. I teach learners how to read	☐	☐	☐	☐
2. My learners are interested in reading	☐	☐	☐	☐
3. My learners experience difficulties in reading	☐	☐	☐	☐

4. My learners read more materials outside of their school prescribed texts	☐	☐	☐	☐
5. My students are strong speakers of English.	☐	☐	☐	☐
6. My students are strong readers of English.	☐	☐	☐	☐
7. My students are strong writers of English.	☐	☐	☐	☐
8. My students are strong speakers of Sesotho.	☐	☐	☐	☐
9. My students are strong readers of Sesotho.	☐	☐	☐	☐
10. My students are strong writers of Sesotho.	☐	☐	☐	☐
11. I am comfortable teaching reading, writing, and speaking in English.	☐	☐	☐	☐
12. I am comfortable teaching reading, writing, and speaking in Sesotho.	☐	☐	☐	☐
13. I am an effective promoter of learner's reading habits.	☐	☐	☐	☐
14. I received good preparation (at tertiary level) to teach reading.	☐	☐	☐	☐
15. I am an effective promoter of learners' reading skills	☐	☐	☐	☐
16. I always find new and better ways to help learners read.	☐	☐	☐	☐
17. I believe that most of the teachers in my school are dedicated to teaching.	☐	☐	☐	☐
18. I believe that most teachers in my school are effective in promoting learner reading in and outside of the classroom.	☐	☐	☐	☐
19. We have many books in English in our school and classrooms to support teaching of reading skills.	☐	☐	☐	☐
20. We have many books in Sesotho in our school and classrooms to support teaching of reading skills.	☐	☐	☐	☐
21. My learners have appropriate comprehension levels of texts given to them.	☐	☐	☐	☐
22. My learners' reading speed is at an appropriate level.	☐	☐	☐	☐
23. The books we have in the classroom in English are at an appropriate reading difficulty level for my learners.	☐	☐	☐	☐
24. The reading materials in the classroom are accessible to the learners (i.e., appropriate height)	☐	☐	☐	☐
25. My classroom is rich with texts collected outside of school	☐	☐	☐	☐
26. My classroom is rich with texts created by learners	☐	☐	☐	☐
27. Most of the learners' parents can read and write.	☐	☐	☐	☐
28. Parents come to school to talk to me about reading development and challenges their children have.	☐	☐	☐	☐
29. My learners have parents who support their reading initiatives at home	☐	☐	☐	☐
30. I have seen evidence of self-directed reading from my learners (i.e., reading at home)	☐	☐	☐	☐

31. Describe how your learners read texts given to them in class. Provide as much details as possible.

32. What is reading to you? Describe how you go about teaching it to your learners. Give as much details as possible.

ORAL INTERVIEWS

33. Do you use both languages during the same lesson when teaching?

34. Do you allow your learners to use both or more languages during your language lesson? Why?

35. What is your perception about the concurrent use of languages in developing reading?

36. Is there anything else that you would like to share in relation to reading in both languages?

APPENDIX 15

Letter from Language Editor

To whom it may concern

Re: Confirmation of Language Editing Service

This is to certify that I, Dr. Moodiela Victor Mathobela (MA Linguistics, PhD) language edited Mrs. Malephole M. Philomena Sefotho's PhD Thesis entitled:

"Strategies for Reading Development among Sesotho-English Bilinguals: Efficacy of Translanguaging"

For further enquiries, please feel free to contact me.

I hope you find the above in order.

Kind regards,

Mathobela

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Date: 29 September 2018

KEA LEBOHA



THANK YOU