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BILITERACY READING DEVELOPMENT TRAJECTORIES IN A MULTILINGUAL SCHOOL: ASSESSEMENT OF ISIZULU AND ENGLISH GRADE 4-6 BILINGUAL READERS

A research report submitted to the Wits School of Education, Faculty of Humanities, in partial fulfilment of the requirements of the degree of Masters of Education at the University of The Witwatersrand

Supervisor: Prof L. Makalela.

Johannesburg, February 2015

DECLARATION

I hereby declare that this research report is my work. Wherever other resources have been used, they have been acknowledged. It is being submitted in partial fulfillment of the requirements for the degree of Masters of Education at the University of The Witwatersrand, Johannesburg. It has not been submitted before for any degree, award or examination at any other university.

_____ _____

Signature Date

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ABBREVIATIONS

LoLT	Language of learning and teaching
sd	Standard Deviation

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CHAPTER ONE: INTRODUCTION

1.1 BACKGROUND TO THE STUDY

The movement of people from their traditional home spaces to 'new homes' has become a norm in the post-modern world (Blommaert, 2010). There have been mainly two types of mobility: transnational and trans-local. Transnational mobility is whereby people move from one country to relocate in another country. Trans-local mobility is whereby people move from one place in a country to relocate in another place in the same country (Blommaert, 2010). At each of these movement blocks, people simultaneously lose shades of their languages. There has been new sight of linguistic contacts between communities that were separated from one another. In these new environments, the merger of old and new ways of communicating become a logical consequence and new sights of linguistic and identity negotiation arise. Under these circumstances, there have been mergers of language varieties to the extent that it increasingly becomes difficult to distinguish one language from another. Post-modern scholars (e.g., Garcia, 2009; Creese & Blackledge, 2010; Hornberger, 2004) refer to the process of utilizing linguistic dispositions in this context as 'languaging' to reflect high levels of fluidity and mobility of language systems across traditional language boundaries.

These fluid, hybrid and flexible ways of using languages have raised concerns on how the children who are born into these environments acquire literacy (see, for example, Makalela, 2014). One might want to know how reading develops for children whose mother tongue is none of the languages used in the classroom. One might also want to know if the issue of mother tongue is relevant among such children. Controversies are therefore bound to arise concerning the best way for children in these situations to acquire literacy, the best medium of literacy for them and what sort of theories about first and second language apply in these particular contexts. Thus the closing of boundaries among languages has spurred curiosity on the future language policies.

There is a huge debate and controversy in the fields of Socio-linguistics and Psycholinguistics concerning the best way to acquire literacy in the 21st century, a century characterized by massive fluidity and hybridity among languages. There are two opposing schools of thought concerning the issue. The first school of thought comprises monoliteracy advocates such as

Porter (1990) and Glaze and Cummins (1985) who view language and literacy from a monoglossic stance and support educational and language policies that promote practices that encourage learning to read and write in only one language. Contrary to this dominant thought, the post-modern view of language and literacy by scholars such as Hornberger (1990 ; 2000), Garcia (2009), Makalela (2012; 2013) advocates for opening up implementation and ideological spaces for the massive fluidity and hybridity among languages to which thousands of today's children are exposed. These scholars argue that, the 21st century scenario demands that literacy be acquired in two or more languages if education is to help the present and future generations keep pace with the dynamic and diverse century.

The conflicting arguments of these two contrasting schools of thought continue to stimulate systematic inquiry on the best ways to acquire literacy in the 21st century. Despite the apparent language hybridity in the world, most countries are still caught up in the trend of using monolingual practices (which are practices that encourage acquiring literacy through one language) in multilingual spaces, (see, for example, Hornberger, 2004; Garcia, 2009). However, the concept of acquiring literacy through one language has come under scrutiny with more scholars advocating for the great need to expand our understanding of development reading literacy from a stance that prefers biliteracy or acquiring literacy in two languages. Taken together, there is a substantial body of research which proves the irrelevancy of monoliteracy in the 21st century.

Adamson and Darling-Hammond (2013, p.116) remind us that "bilingual and dual language education is NOT a program of the past, it is the ONLY program for the future and here's why: monolingualism and monoliteracy is the illiteracy of the 21st century." What this implies is that the monolingual practices of the past can no longer equip today's children with the skills they might need for the new global economy. In spite of the apparent need for biliteracy in education systems, many children still learn literacy in just one language because their schools do not provide reading instructions in their home languages. Framed in this light, the need for a comprehensive understanding of biliteracy becomes more compelling.

Since the new socio-political dispensation of 1994, South Africa has experienced massive migrations both within and outside its borders giving rise to high fluidity among historical language boundaries and this has resulted in complex multilingualism in the country (Makalela, 2013). South African schools are drastically changing and are becoming more diverse

in terms of learner population than they were before. Many schools in the country which traditionally had to serve one particular African language speaking community, where the schools would be located are now continuously being faced with the challenge to admit learners with home languages different from the communities' which the schools serve. In this context, some of the learners find themselves having to receive academic instructions in a language which is different from their mother tongue. Faced with a wide divergent learner population in terms of home languages, promoting monolingualism and monoliteracy in these schools could be detrimental to the development of the learners' literacy skills.

The emergence of biliteracy development as a need for the South African education system has drawn attention in the last decade and has merited a systematic enquiry. Such a focus is spurred by the linguistic and cultural diversity that characterize the South African classrooms. Research on biliteracy in South Africa takes a cue from the works of Pretorius (2004) and Makalela (2012). These studies looked at development reading literacy for biliteracy development of learners reading in their mother tongue and English. Although some research (Makalela, 2012; Matjila & Pretorius, 2005; Paran & Williams, 2007; Pretorius & Ribbens, 2005; Van Rooyen & Pretorius, 2013) has been done around reading in home languages and reading for biliteracy development, research has overlooked investigating the need in reading for biliteracy development of children who have an intervening language between their home language and the Language of Learning and Teaching (hereafter LoLT). In South Africa, although primary (home) language instruction in the first four years of formal education is encouraged by the education ministry, the language policy of each school and the choice of LoLT are left to the governing bodies of schools. Under these circumstances, therefore, most of the children in South Africa are caught in the predicament of learning literacy in a school's home language and LoLT different from their own mother tongue, a situation where there is no match among the three languages: the school's home language, the school's LoLT and the child's mother tongue. It is against this backdrop that the current study seeks to investigate reading trajectories of learners who read in two languages that are not their 'home languages' as a case in point for literacy of migration and complex multilingualism.

1.2 STATEMENT OF THE PROBLEM

As I have pointed out earlier, reading in more than one language for literacy development is drawing increased attention among scholars in the field of Sociolinguistics and Psycholinguistics. Towards the end of the 19th century and much of the 20th century, researchers, educators and language policy planners considered bilingualism as an evil to the society as it was believed to slow down cognitive development (Makalela, 2012). However, in the 21st, characterized by an intensification of world-wide social interactions, high fluidity and hybridity among languages, bilingualism has become the norm. Looking at this century's younger generation, it can be realized that many of them grow up speaking two or more languages and, as a result have unique challenges in negotiating literacy skills. Unless there is more empirical and theoretical research on reading literacy development for biliterate or even multi-literate development, many children in the 21st century will remain disadvantaged by the education systems and language policies that maintain monologist practices.

In Africa, minimal research attention has been directed toward biliterate development and as a result, research on reading literacy has always come from the "north" focusing only on English as noted by Makalela (2012). Matjila and Pretorius (2004) also report that the few studies on reading in African languages and on the relationship between African languages and English, show little development of reading proficiency in home languages but reflect the high dominance of English in literacy development.

In South Africa, a number of studies which include Makalela (2012), Paran and Williams (2007) and Pretorius and Ribbens (2005) have been carried out on reading in home languages and the findings have shown that home languages have a great potential in developing initial literacy. In spite of these findings, South Africa's reading rate is reported to be disturbingly low (Department of education, 2005; Moloi & Strauss, 2005; Department of Education, 2011). The above studies tell of the many factors that jeopardize this potential role of home language in developing initial literacy. The noted factors include: print-poor environment (Paran & Williams, 2007), limited time in which the language is used (Pretorius & Ribbens, 2005), under qualified literacy teachers (Makalela, 2012), among other factors. As can be noted from these studies, research only exposes the problem of reading in home languages but there is a paucity of research on reading problems among children reading in two languages that are not their mother tongues. There is need for research that explores the predic-

ament of children who have to learn literacy in a school's home language and LoLT; different from their own mother tongue.

Although there are a number of studies, as noted above, which have looked at reading into second and/or additional languages in South Africa, few studies have focused on learners whose home language is different from the school's home language. The present study seeks to fill this gap by investigating reading trajectories of learners who have a different mother tongue from both the school's home language and LoLT. This research was conducted among grade 4-6 learners who are bilingual readers in a primary school in the Gauteng Province. These learners had to read first in isiZulu from grade 1-3 which is the schools' home language and in grade 4 they had to switch to English which is the LoLT in the school.

1.3 AIM AND OBEJECTIVES

The above discussed studies on biliteracy development show that generally schools in the present century still employ language in education policies and pedagogic practices that favor monolingualism as the target norm irrespective of the changing language context. Such practices place a huge constraint on the multilingual learners' linguistic flexibility. It is in this context that this study aims:

1.3.1 To investigate how bilingual children who are in the intermediate phase of their primary education (grade 4-6) and do not have isiZulu as their first language, mediate reading skills when reading in two languages (isiZulu and English) which are not their mother tongues.
This aim is underpinned by the following objectives:

- to identify their literal and inferential reading skills;
- to assess their vocabulary skill that includes: phonemic awareness, semantic awareness, and graphemic/spelling awareness;
- to evaluate their word picture matching skills in both languages;
- to determine the readers' reading rate/speed in both languages;
- to assess the motivations of the learners on the reading process;

1.4 RESEARCH QUESTIONS

1. What are the literal and inferential comprehension skills of the bilingual readers reading both in isiZulu and English?
2. What are the learners' vocabulary skills at phonological, semantic and graphemic levels in both languages?
3. Are the learners able to do word picture matching in both languages?
4. Is there a co-relation of reading skills between the two additional languages at vocabulary level and at comprehension level?
5. Are there differences between vocabulary and comprehension skills in the two languages?
6. What are the learners' reading rate/speed in both languages?
7. What are the learners' motivations for reading in languages that are not their mother tongue?

1.5 RATIONALE OF THE STUDY

The rationale of carrying out this study was prompted by my reflections on my teaching experience. I have realizing that teaching English to non-native speakers of the language is a mammoth task which demands from teachers a sufficient theoretical grounding which can help them to understand and deal with the complexity of the language classrooms. Teachers of the English language require a sound awareness of the best practices for language and literacy instruction. I have also realized that teachers are not aware of the connections between first language and second language acquisitions. Hither to, research based theories on teaching English to non- native speakers of the language has come from Europe. In Africa, there is a paucity of studies that focus on the Africa context of literacy development and on culturally- sensitive pedagogies, (Makalela, 2012; Mukerjee, 2003; Ricento, 2006). There is always the need for prior consideration before teachers could apply a theory into their own particular contexts suggesting that there is huge demand for research from Africa that would inform teachers on the applicability of the previously proposed theories and on the new theories that best suit the African context.

In addition, in South Africa, studies on reading in more than one language (see, for example, Makalela, 2012; Paran & Williams, 2007; Pretorius & Ribbens, 2005) have not focused on learners who have migrated within the country. Teaching English to non-native speakers of

the language has been even made more complex by the tremendous internal migration of people in the 21st century for economic, social and political reasons. The migrations have resulted in increased fluidity and diversity of languages leading to complex multilingualism. The presence of multilingual learners in today's classrooms is perceived as an outright challenge to the process of learning. In Africa, in general, and South Africa, in particular, where multilingualism is a prominent phenomenon due to the presence of eleven official languages, studies on reading in more than one language have not focused on learners whose first language is different from both the school's home language and LoLT and therefore there is dire need for research that informs on the best ways of dealing with multilingualism in schools.

The rationale of carrying this study also lies in realizing that despite the fact that people see that developing mastery of several languages, in this present era, is of high value, currently few countries and schools are actually planning for the development of education systems that support such a goal. In South Africa, the existing research, as has been noted above, does not talk to reality by not paying attention to learners whose first language is neither the school's home language nor the LoLT. In particular, there is need for studies that evaluate how South African schools deal with children in such a predicament in their multilingual classrooms. In other words, there is need for studies that evaluate how South African schools deal with these children in their multilingual classrooms.

1.6 SIGNIFICANCE OF THE STUDY

There are far reaching implications for a study on biliterate reading development in a multilingual classroom. The current study is small but significant contribution to a growing body of evidence that bilingualism and multilingualism affect today's education. Monolingualism, which was highly influenced by the ideology of one state of language which prevailed in the past, will not prepare today's children for the global economy which demands cross-cultural and cross-linguistic competence. A considerable amount of literature has been published on the advantages and benefits of both bilingualism and multilingualism in learning, and it is hoped that the findings of the present study will shed more light on the benefits of bilingualism in children's reading trajectories.

This study will have implications too, for language policy and planning in South Africa. Undoubtedly, with the diversity, fluidity and hybridity of languages that South Africa is currently experiencing, the country will require different approaches to how its citizens are resourced. There is need to identify the specific needs with regard to language development, that learners who are multilingual might have and pay attention to these needs in the education system. South African schools can no longer afford to ignore the need for adjusting institutional programs to better serve these groups.

It is also hoped that the results of the present study will produce an evaluative platform for the teachers to reflect further on their practice of teaching. The findings of this research could help teachers to be aware that a pedagogy that encourages monolingualism no longer holds in this century, hence (Adamson & Darling-Hammond, 2013 p.116) postulates, "monolingualism and monoliteracy is the illiteracy of the 21st century." Such awareness would help teachers to use appropriate teaching methods such as translanguaging for example that promotes bilingualism and multilingualism in the classrooms. It is expected that the results of this study would help teachers in their task of guiding classroom language practices that will "prepare learners for a future in which their success not only depends on an ability to understand diverse perspectives and cultures, but also on an ability to communicate in different languages," (Adamson & Darling-Hammond, 2013 p.120) .

The learners could also benefit from the implications of the study. If the teachers promote biliteracy and multiliteracy in the learning process, this would enable learners to make use of their linguistic repertoires that they bring to classroom. When the learners' linguistic endowments are put to good use, the learners would benefit from the advantages of bilingualism and multilingualism such as enhancing the brain executive function which directs the attention process that individuals use for planning, solving problems and performing various other mentally developing tasks (Makalela 2012). The findings of the study could also encourage bilingual and multilingual children to nurture and positively their linguistic endowments since fluency in one or more languages besides English is a valuable assert in the 21st century.

1.7 DEFINITION OF TERMS

In this section, terms are defined as used in the study:

Assessment: According to (Angelo, 1995 p.7), assessment is "an ongoing process aimed at understanding and improving student learning." In this study, assessment is taken to mean the process of understanding learners' reading skills.

Bilingual: This term means being equally fluent in two languages and refrain from using it for someone who knows only a modest amount of a second language (Bialystok, Luke and McBride-Chang, 2005). In the current study this definition is adopted as it is.

Biliteracy: Hornberger (2004 p.156) defines biliteracy as "any and all instances in which communication occurs in two (or more) languages in or around the writing" where these instances may be events, actors, interactions, practices, activities, classrooms, programs, situations, societies, sites, or worlds. In the present study, biliteracy means the ability to read in two different languages (isiZulu and English) with the facility of a native speaker.

Bilingualism: The term is used to refer to the ability of communicate in two different languages with the facility of a native speaker. This definition is adopted as it is in the present study.

Reading Development: In the current study, reading development means the learners' reading skills which include vocabulary, literal and interferential skills and reading rate.

Monoglossic: In the present study, the term is understood to mean using pedagogic practices that promote acquiring literacy through only one language.

Mono-literacy: It is the process of acquiring literacy through one language and this definition is adopted in the current study.

Monolingual: The term refers to the ability to communicate in different languages with the facility of a native speaker. This definition is adopted as it is in this study.

Multi-literacy: According to Hornberger (2004), multi-literacy is any and all instances in which communication occurs in more than two languages in or around the writing where these instances may be events, actors, interactions, practices, activities, classrooms, programs, situations, societies, sites, or worlds This definition is adopted in the study.

Multilingualism: This term refers to the ability to communicate in several or many different languages with the facility of a native speaker. This definition is adopted as it is in this study.

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Multilingual School: In this study, this term is taken to mean a school that comprises of students/learners from different language backgrounds.

Translanguaging: Baker (2001) defines translanguaging as the process of making meaning, shaping experiences, gaining understanding and knowledge through the use of two languages. In this study, this definition is adopted as it is.

Trajectories: In this study, this term is taken to mean the stages of reading that the participants follow in the reading process.

1.8 CHAPTER OUTLINE

Chapter Two provides a review of literature conducted on the development of reading literacy for biliterate development. The literature was discussed under the following themes: vocabulary skills and reading comprehension in L2 reading research, reading rate/speed and reading motivation in L2 reading research. The Linguistic Interdependency Hypothesis, the Biliteracy Continua and Translanguaging frameworks which are the theoretical frameworks that are used to understand reading development in this research are also discussed in this chapter.

Chapter Three provides a description of the research methodology that was used in the study which consists of the following;

1. Research design
2. Population and Sampling
3. Research instruments and Data collection procedures
4. Data analysis methods

5. Validity and reliability
6. Ethical considerations
7. Limitations of the study

Chapter Four presents a detailed analysis and interpretation of the findings that emerged from this study.

Chapter Five provides the summary, conclusions and recommendations based from the research findings.

CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION

This chapter presents literature and some of the key models on the process of reading which can provide a comprehensive framework for understanding reading development in the current study. The chapter will firstly explore the theoretical frameworks which are used to understand reading development in the study, thereafter; it engages existing literature on development reading literacy for biliterate development. The theoretical frameworks that are used to understand reading development in this research are the Linguistic Interdependence Hypothesis developed by Cummins (1979), the Biliteracy Continua framework proposed by Hornberger (2000) and Translanguaging coined by Cen Williams in the 90's. For each of these models, the relevant components are described and the rationale for employing them in the present study is provided. Existing literature on development reading literacy for biliterate development is divided it into three broad categories. Firstly, studies on reading motivation. Secondly, research that refers to reading rate/speed in L2 reading is explored. Thirdly, research on word level reading (vocabulary) and comprehension in L2 reading in South Africa and internationally are explored.

2.2 THEORETICAL FRAMEWORK

There have been raging reading wars and swinging pendulums in the field of literacy hence different models have been developed to describe essential elements involved in the reading process. For many years, the phonics approach had enjoyed the luxury of being the model used in the teaching of reading until the introduction of the whole language approach by Kenneth Goodman and Frank Smith. All along these models have been concerned with first-language reading until recently (e.g, Garcia, 2009; Garcia & Kleifgen, 2007; Hornberger & Link, 2012) have researched into between language and literacy development in both L1 and L2. Some of the popular models that have been invented in order to explain reading development in L1 and L2 are the Linguistic Interdependence Hypothesis, the biliteracy continua framework and Translanguaging.

2.2.1 The Linguistic Interdependence Hypothesis

One of the common theoretical models that are used is bilingual studies is the Linguistic Interdependence Hypothesis (LIH). The LIH put forward by Cummins (1979) explains the relationship between the first language and the learning of another language. It proposes that there is a bi-directional transfer of literacy skills, behaviours and strategies between the first (L1) and the second (L2) language. This model postulates that proficiency in more cognitively demanding tasks (literacy, content learning, and abstract thinking) is just the same among all languages, Vrooman (2000). The hypothesis assumes that in the case of bilinguals, what may appear to be two very different languages on the surface is in-fact inter-dependent psychologically. This implies that bilingual children should have enough exposure to L1 and be fully developed in it so that they perform equally well when exposed to L2. The L2 skills greatly depend on L1 skills and once they are acquired in L1 they are not learned again in L2. In other words, as Vrooman (2000 p120) states, "an integral component of these facilitative aspects of language influence is that in the L1 be sufficiently developed prior to the extensive exposure to the L2 as would be found, for example in the educational environment."

In the present study, the LIH is used to evaluate the relationship between the participants' first language and learning the other two additional languages at school (isiZulu and English). The study seeks to find out if one's language is the ultimate factor for one to read in another language. The researcher would want to investigate if there is a bi-directional transfer of literacy skills, behaviours and strategies among the three languages as proposed by the model. This investigation attempts to answer the following research questions: is there a co-relation of reading skills between the two additional languages at vocabulary level and at comprehension level and are there differences between vocabulary and comprehension skills in the two languages (isiZulu and English)?

2.2.2 Biliteracy Continua Framework

The second theoretical framework underpinning this study is the biliteracy continua framework. This chosen framework attempts to explain the development of biliteracy along intersecting and nested continuum which is influenced by several interwoven factors in the learner's linguistically diverse environment.

To shed more light on biliteracy development, Hornberger (2000) proposed the biliteracy continua arguing that biliteracy is affected by the context of biliteracy, the development of the biliteracy, content of biliteracy and the media of biliteracy. Similarly, Hornberger (2000, p.28) argues that literacy acquisition is influenced by such factors as "society's ideology and orientation towards literacy and through the individual's different behaviours, interacting and literacy practices in a variety of domains be it home, school or community." This framework posits that bi-literacy assumes that "one language and literacy is developing in relation to another," (Makalela, 2013 p.13). The notion of 'continuum' assumes that languages and literacies are in a continuous inter-section which goes beyond the dichotomous classifications of bilingualism, (Hancock, 2010). There are no finite points on the continuum but all the points are inextricably and inextricably related.

It can be reasonably argued that this model offers a useful sociolinguistic perspective of the relationship between English and African languages as it "challenges the dominant educational discourse that claims that developing a children's L1 hinders the learning of English language," Hancock (2010 p.97). This is the reason why the model has been chosen as a framework that can inform this study. The model was chosen as a framework for this study also because it shows that learners' contexts of language and literacy use allow them "to draw from across the whole of each and every continuum," Hornberger and Link (2012, p 242). Drawing from every continuum creates more chances for the learners' full development of language and literacy. The participating learners have no first language that is offered at school forcing them to acquire literacy in two additional languages and this model allows the researcher to assess how the participants draw from different aspects of both isiZulu and English to aid their reading for biliterate development. The model fills in for the limitation of the LIH which argues that one must first develop his/her first language before moving to read in an additional language. The Biliteracy Continuum model says that the relation between one's first and second language exists in a continuum hence it is capable of explain the continuum of the languages that the participating learners have.

2.2.3 Translanguaging

It is almost axiomatic that monoglossic pedagogies in the schools are failing to meet the dynamic needs of the sociolinguistic realities of the majority of the speakers in the 21st century because these pedagogies tend to treat languages in silos (Makalela 2012). There has been a growing body of literature in the fields of Sociolinguistics and Psycholinguistics on the need to develop models that befit the multilingual linguistic complexities of the 21st century (Hornberger, 1990; 2012; Garcia, Bartlett, Kleifgen, 2006; Garcia, 2009; Makalela, 2012; 2013). One of the famously proposed models is Translanguaging, a model capable of closing gaps between languages. Consequently, it is capable of being an effective pedagogy in multilingual classrooms. A substantilal body of literature emanating from the UK, US and South Africa have presented assessments of the pedagogic efficacy of translanguaging and lend support to the idea that it is one of the best ways to cultivate and enhance the academic proficiency of children with linguistic heterogeneity (Creese and Blackledge, 2010; Garcia, 2009; Makalela, 2013).

Translanguaging is a term coined by Cen Williams in the 90's who claimed that it is a pedagogy where input can be given in one language and output can be given in another language thus creating space for learners to use all the languages that are accessible to them. In other words, it calls for the use of all the linguistic repertoires that an individual has in learning and it is a move from the monolithic, monoglossic view of language which is not applicable in this century as most people have become multilingual. Li Wei (2011, p. 1223), for example, postulates that, "translanguaging is going on between different linguistic structures and systems, including different modalities and going beyond them." She refers to the social space for multilingual language users as a "translanguaging space," which is the space constantly created for language practices as multilingual speakers make context-sensitive and strategic choices about the language systems they use to achieve particular communicative goals (Makalela, 2013). Translanguaging has a lot of affordances that enables it to be used as a theoretical framework for understanding reading among multilingual readers. A plethora of studies which include (Creese and Blackledge, 2010; Garcia 2009; Makalela, 2013; 2014) have shown the benefits of using translanguaging in multilingual classrooms. Creese and Blackledge (2010), argue that bilingual children should be taught differently from monolingual instructional approaches because their linguistic heterogeneity does not fit these models. They further argue that the major goal of education is to cultivate children's linguistic endowments instead of taking them away like what monoglossic pedagogies do when they treat languages

as isolated units. From their perspective, the structure of separate bilingualism used presently in schools, should give way to translanguaging as the bilingual pedagogy whose effectiveness can be seen in the complementary schools they have studied.

One of the major findings of Creese and Blackledge's (2010) study is that translanguaging allows learners to use their linguistic resources and increasing their cognitive benefits thus creating positive experiences at school for the learners. These findings find theoretical support from a variety of studies on translanguaging that were done in the UK, US and South Africa such as Wei (2011) and Makalela (2013, 2014) who all demonstrate, on the basis of empirical data, that translanguaging enhances and sharpens cognitive skills of learners. A study by Li Wei (2011, p.243), for instance, revealed that through translanguaging, " Chinese learners created critical and creative spaces for themselves using the resources they had despite the dominant monolingual context in which they were expected to operate." Likewise, Garcia (2009) studied a Grade 4 Spanish bilingual and observed that a Spanish 4th grader could do translanguaging while writing an essay which gives a 'scaffold' to write fluently in English 5 months later. Yet another study by Makalela (2013) showed that university students who are allowed to use translanguaging in one year of their language discovered their own culture and could also value the culture of fellow students. Makalela (2012) after studying Sepedi primary learners observed that translanguaging yields results in reading when input is given in one language and output is allowed to be given in another language. The vocabulary among the learners increased profoundly as learners were motivated to use the multilingual resources which they possess. All these observations, taken together, reveal that translanguaging is capable of increasing learners' epistemic access in schools and should be used in the present classrooms that are composed of diverse learners.

At another level, translanguaging is seen as a purposeful and powerful pedagogical alteration of languages in spoken and written, receptive and productive modes drawing on funds of knowledge, identities and social relations rooted and extended across national borders (Baker, 2001). It is a pedagogical tool that values what learners bring to school in their 'identity kits' thus preventing the school system , even if it is a state of agent meant to maintain the status quo, from subjecting learners to symbolic violence, (Gee, 1998; Bourdiei, 1990). Garcia (2009) proposes that translanguaging builds and promotes non- threatening environment for learners' linguistic identities and nurtures these identities and builds multiplicities of language uses and at the same time maintaining academic rigor.

Another useful attribute of translanguaging is that it has huge benefits even outside the classroom. Creese and Blackledge (2010), for example, discovered that translanguaging enables one to engage effectively with an audience when they observe a school principal using his ability to move between languages to engage with a diverse audience. This accords with Makalela's (2013, p.121) findings who, after examining discursive language practices among Black township natives, demonstrate that the participants revealed a great ability to "mesh codes with single thought units and could use more than three languages in one utterance." All these findings suggest that multilingual speakers have a unique linguistic flexibility that constitutes a language continuum which allows them to use their discursive resources according to the demands of their social environments. It can be argued therefore that translanguaging practices have a huge potential to develop a learners' epistemic access since it does not separate codes for multilinguals but makes use of all the languages accessible to the individual which are linguistic repertoires they bring to class. There is a continuous link of use of languages from outside classrooms to the classrooms which creates a safe and comfortable environment for learners when they come to school. Their linguistic repertoires are not dismissed when they come to school but they are fully utilized for the learner thus increasing epistemic access.

Several studies also exhibit the recognition that languages do not fit into clear bounded entities and that all languages are needed for meaning to be conveyed and negotiated. These studies include (Robertson, 2006; Sneddon, 2000) who found that bilingual children do not view their literacies and languages as separate but rather experience them as simultaneous. Makalela (2013) also makes the same observation that among multilingual speakers, languages are not separate limits but they are a continuum. This exhibits the fact that the languages among multilingual speakers are mutually intelligible but they have been artificially separated by political boundaries. Makalela (2013) eloquently testifies that the separatist's view of languages and classifications of 'first,' 'second' and 'mother' tongue do not fit the present socio-linguistic realities of African language and 21st century speakers. Therefore in such circumstances, the only way to help multilingual speakers to manoeuvre their way is to allow the use translanguaging in schools.

Creese and Blackledge (2010) have discovered that translanguaging allows and enables the establishment of identity positions. Other studies have also confirmed that translanguaging is

effective in both linguistically and culturally transformative ways. In Makalela' (2013) study, students were liberated from the negative stereotypes which separate African languages and translanguaging presented an opportunity to understand and appreciate the fact that the speakers of African languages are the same in their plurality and that African languages are mutually intelligible. This helped them to establish and build Ubuntu a concept which defines the unity of African people. It is clear from these studies that translanguaging is capable of fostering a higher degree of cultural unity and identity and therefore should be used in schools because when a learner feels that their identity is appreciated in the school they are likely to feel at home and learn effectively.

In short, there is a substantial body of research on classroom and language programme practices which have exhibited the countless benefits of using translanguaging pedagogy in multilingual contexts. These researches have also revealed the opportunity to understand and appreciate the world view of multilingual speeches in their plurality thus creating a chance for governments to promote weaker and underdeveloped indigenous languages. Considering the complex linguistic issues in the 21st century, it can be argued that translanguaging should be adopted as a pedagogical tool that can effectively facilitate the acquisition of literacy skills by multilingual learners. Translanguaging enables one to appreciate that multilingual readers do not separate languages when they are reading. All the skills and aspects of the languages accessible to learners are used for the benefit for the learners. Translanguaging is thus used as theoretical framework in this study for the understanding of how multilingual learners read in two different additional languages. The learners are involved in the process of 'languaging' whereby they use all languages available to them simultaneously according to need and context.

The models discussed above offers a useful framework for understanding reading for biliterate development in the present study, whose principal goal is to assess the reading trajectories of bilingual children reading in isiZulu and English. These models are very relevant since this study compares reading development within and between languages.

2.3 MOTIVATION IN READING

Research has articulated the importance of motivation in reading (Onukaogu & Obafemi, 2008; Bauserman, 2006; Baker & Wigfied, 1999). Motivation falls into two types, intrinsic and extrinsic. Bauseman (2006) argues that intrinsic motivation to read is more powerful and leads to a learners' success more than extrinsic motivation. Onukaogu and Obafemi after studying the Nigerian education system observed that schools emphasize more on the extrinsic than intrinsic motivation thus leading to low reading rates in the schools. This observation finds theoretical support from Matjila and Pretorius (2004), Pretorius and Mampuru (2007) and, Makalela (2012) who argue that when children are motivated to read and have books made available to them, they read very successfully. Bauserman (2006) has recommended self-selection of reading material attention to characteristics of books, personal interest, access to books and active involvement of parents as factors for facilitating intrinsic motivation and for getting learners to read and write without inhibition. Onukaogu and Obafemi (2010 p.12) argue that the problem of most education systems in Africa is that "they want to stay with the learner all the time and this behavioural model of language instruction cripples the development of intrinsic motivation without which the learner cannot develop a critical, creative and independent learner." They further argue that intrinsic motivation can be further achieved if home, the community and the social government get involved in encouraging the learners to read. It is imperative that teachers, mentors and parents cultivate intrinsic motivation in children's reading. The effectiveness of teachers' cooperation with both parents and community in motivating children to read is also evident in a reading project done by Makalela (2012). Through an intervention programme to help primary school learners to read, the project ended up involving the whole community in motivating children to read which eventually led to high literacy achievement among the learners.

Research has also identified a number of salient factors in reading motivation which include: self- concept, value of reading, time spent talking about books, choice and types of texts available and the use of incentives. Gambrella, Palmer, Coddling and Mazzoni (1996), for example, postulate that learners' self -concepts and the value they place on reading are critical to their study success. In relation to self -concept, gender differences have been identified as also affecting motivation. Marinak and Gambrella (2007) having studied reading motivation among grade 3 learners found out that though grade 3 boys are equally as self-confident as their girl counterparts, their self-report valuing is less than that of girls. It has been also suggested that allowing children to choose what they want to read, enhances their interest in

reading (Cordova & Lepper, 1996; Lyengar & Lepper, 1999; Worthy & Mckool, 1996; Guthrine & Wigfield, 2000).

Other important factor in developing motivation for reading is read-alouds and discussions. These factors are deemed to be effective ways of engaging teachers in mastery modelling. According to McGee and Richgels (2003), read-alouds enable teachers to model important reading strategies and behaviours which is a very important way of promoting learners to read. Gambrella et al. (1996) propose that group discussions invite and enable learners to speak, interact, exchange views hence involving them into active learning leading to a deeper interest in reading.

Research also emphasizes the importance of providing a variety of books at all levels of education. Pappas (1993) indicates that kindergarten children preferred informational texts and Mohr (2006) noted that first graders preferred non- fiction books. In addition, Marinak and Gambrella (2007) found that third graders valued reading newspapers, magazines and books. It is important for teachers to consider the role of motivation in literacy learning in general and in reading particular because it predicts students' reading comprehension. A report of the programme for international students' assessment Organisation for Economic co-operation and development, (2010), showed that students' interest in reading directly influences the students' reading comprehension. Across the 64 countries who participated in the programme, students who enjoyed reading the most performed significantly better than students who enjoyed reading the least. It is also crucial for teachers to know that students, who are not motivated to read, will never reach full literacy potential. A study by Guthrine, Schafer and Huang (2001) revealed that students who were highly motivated but were coming from poor economic backgrounds perform better than students who were not motivated to read and had the same background. Promoting intrinsic motivation to read should be given a high priority in the reading curriculum.

The reviewed literature on reading motivation essentially reveals that learners need intrinsic motivation in order to read successfully and to achieve highly academically. The literature has underscored factors that are crucial to reading which the present study seeks to investigate.

2. 4 READING RATES IN SECOND LANGUAGE READING RESEARCH

A number of studies have considered the issue of reading rate in L2 reading research which includes (Matjila & Pretorius, 2004; Pretorius & Mampuru, 2007). Reading rates has always been investigated together with reading comprehension. Matjila and Pretorius (2004 p. 9) explain that "reading rate is always measured together with comprehension, to prevent readers skimming through the text and setting up artificially high reading speeds without understanding." An exploratory study of grade 8 reading skills in Setswana and English by Matjila and Pretorius (2004) showed that reading rates are very low in both English and Setswana, a South African indigenous language. The learners' performance in the home language (Setswana) was worse than it was in English. The conclusion of their study was that there was poor performance in reading rates in the first language because the learners were not readily engaging with the text and making use of their inference skills to perceive links between items of information in order to construct meaning as they read. This is a result of learners failing to get adequate exposure to reading material in their home languages. Reading materials are available in English in most cases. Their findings are consistent with the findings of other researchers in South Africa. Studies such as done by Pretorius and Mampuru (2007), Makalela (2012), show that both teachers and learners struggle not only with English but with literacy in general. However, Matjila and Pretorius (2004) warn us that reading rate in L2 should be treated with caution. They say that, "one need to be cautious in extrapolating from reading development in other language to reading in the African languages, especially with regards to reading rates, where agglutination and conjunctive orthography create longer linguistic units to be decoded." Their study further support the argument that although reading and language proficiency are related, simply knowing a language does not guarantee that one can read effectively in that language.

Another study by Pretorius and Mampuru (2007) confirms that generally learners in South Africa read slower than their expected level. The study was done among 104 grade 7 learners to examine the relationships between L1 (Northern Sotho) and L2 (English) proficiency in a high poverty primary school in South Africa through a reading intervention programme implemented in the school during the course of the year. The study revealed that reading rates were slow; learners were really slower in Northern Sotho than they were in English at the end of the year. The authors argue that these low reading rates among learners is caused by lack of a proper print environment and reading materials.

Makalela (2012) also investigated the reading speed among primary learners. He conducted a case study among grade 5 learners at a remote school in South Africa using a series of enquiry directed intervention measures that were administered to target learners, teachers and the school literacy environment. The research sought to establish the reading rates of participating learners in Sepedi and English. The results of this study show that learners have poor reading rates in both languages. However, their reading speed was better in Sepedi than in English both in pre-test and post-test. The findings exhibit, as the author says that, learners "had a speed reading advantage in their home language and that the intervention has significantly corrected deficiencies in English," (p.140). This was due to the pedagogical approach used to do the intervention. The researcher used translanguaging to facilitate the learners' reading techniques.

The above discussed research reveals that learners in South Africa read below their levels, they read below 75% which is the benchmark. The studies give various reasons for these poor patterns of performance as: poor print environment, inadequate exposure to reading material, and poorly trained teachers, among other reasons. It can be argued however, that learners are read below their standards because they are taught to acquire literacy skills through methods that do not fit the multilingual nature of their environment. The learners are taught through monoglossic practices that treat languages in silos when the languages are embedded into each other in the learners' minds. Research needs to pay serious attention to the multilingual nature of these learners and come up with learning/ teaching theories that match the linguistic endowments of these learners.

2.5 READING COMPREHENSION AND VOCABULARY SKILLS IN SECOND LANGUAGE READING

A considerable amount of literature has been published on second/additional language (L2) reading with scholars becoming increasingly aware that reading in L2 is a complex phenomenon. A central concern in the field, first articulated by Anderson (1984), revolves around the question: whether L2 reading is a language or a reading problem. This question becomes pertinent particularly in the African context where the majority of learners, due to political and historical reasons, gain literacy through a second/additional language.

Asfaha, Beckham, Kurvers and Kroon (2009 p.351) have observed that available research in L2 reading has mainly come from Western contexts proposing that reading is influenced by L1 reading and L2 proficiency. These authors argue that it is high time that research be done in non-Western contexts "where issues of access to adequate resources in reading and second language acquisition are at the forefront." Their view is also supported by Bernhardt (2005), Makalela (2012), (2013), Mukerjee (2003), Pretorius and Mampuru (2007), Williams (1996) who articulate that the claim that L2 language proficiency and L1 reading play primary roles is predicting L2 reading needs to be tested in non-Western countries where a lot of factors in L2 reading come into play.

The little research that has been done in Africa on L2 reading reveals that "formal accomplishment of literacy does not happen easily for many learners in Africa," Pretorius and Mampuru (2007 p.40). The major problem is the absence/low proficiency in L2. Although research in African countries has also articulated the importance of L1 in the development of reading literacy, it argues that despite the crucial role that L1 plays in L2 reading, due to historical, political, economic and social factors, in most cases L1 is not fully developed. Some of these factors include poor resources, poor print environment, inadequately trained teachers, and the complex multilingual nature of the continent, among other factors. It is of utter importance therefore for more studies to be done in Africa to establish to what extent is reading in L2 a language or a reading problem.

Some studies in Africa have attempted to address this problem by investigating reading comprehension in Africa. Asfaha et al (2009) seeking to investigate factors involved in L1 and L2 (English) reading among 254 4th graders randomly selected from schools with different languages and scripts in Eritrea, studied these learners' reading and language skills. The study was done in primary schools where the language of instruction is usually the learners' mother tongues from grade 1-5. They used L1 and L2 reading comprehension tests, L1 and L2 proficiency measures, L1 word reading and background data questionnaire to gather the require data. L1 reading comprehension results revealed significant results while the script based difference of L2 language proficiency, L2 reading comprehension and L1 word reading results were not significant. The data was analyzed through means, standard deviations and ANOVA tests and showed that the learners' performance was generally low across the reading tests. The learners were not able to read at the expected level and more variation was observed in

home language than second language. The results suggest that learners' have low reading performance irrespective of the language they use.

Their findings differ from Pretorius and Cumin (2010) investigated the reading levels of 7th graders in South Africa. Through an intervention programme at 3 schools for 3 years, the researchers examined the effects the programme had on the learners' reading abilities in home language (Northern Sotho) and second language (English). The reading proficiency in both languages was obtained through a reading comprehension test which combined a number of test items (multiple choice questions of an inferential nature, vocabulary questions,cloze items, identifying referents of anaphoric items and questions involving graphic information). A Pearson Product Moment correlation was applied to the post test sets of both languages and it was discovered that there were strong correlations obtained between reading in Northern Sotho and reading in English over the 3 years. In brief, the results exhibited the Matthew effect in both languages. Poor readers in one language were also poor readers in the other; similarly, learners who were good readers in one language were good readers in the other. The study reports that reading is mainly a language problem and they argue that when poverty stricken schools get assistance by making books available and by motivating learners to read, reading levels will definitely improve.

Another study by Pretorius and Mampuru (2007) showed more variance in L2 than L1. These researchers examined the relationships between L1 (Northern Sotho) and L2 (English) proficiency in a high poverty primary school (a school with very little resources) in South Africa through a reading intervention programme implemented in the school during the course of the year. The study examined the effects of accessibility of books and learners' reading proficiency in both languages. The study was done among 104 grade 7 learners. The data was analyzed through SPSS and it showed that there is a huge gap between language proficiency and reading ability, particularly in L1. L2 proficiency was discovered to be a strong determinant of L2 reading. In other words, L1 proficiency did not significantly predict L1 reading performance, but L2 reading was a strong prediction of L1 reading ability.

Matjila and Pretorius (2004) conducted a pilot study to examine reading abilities in Setswana and English among 88 grade 8 learners in South Africa. Data was collected through a reading comprehension tests, a questionnaire and a cloze passage, reading rate, literacy attitudes, perceptions and practice. Their findings show that the learners had low reading skills in both

languages. The results also suggest that although reading and language proficiency are related, simply knowing a language does not guarantee that one can read effectively in that language. They further argue that, “reading is a specific meaning-constructing skill that must be developed on extensive exposure to books,” Matjila and Pretorius (2004 p. 16).

This view is supported by Fakude (2014) who investigated correlations between variance of inference skills in L1 and L2. They used a self-developed one time series designed test to measure reading comprehension with the use of a test that sort the learners’ knowledge of anaphoric resolution and inference skills. The result of the study showed that learners struggle to read in both the home language and English. However, the scores were much worse in L2 than L1. Their conclusion was that “if these grade 7 learners enter a high school without the proper literacy skills that will enable them to use reading as a spear for learning and success then it is a much bigger challenge for reading comprehension,” Fakude (2014 p. 958).

Research has always investigated comprehension together with vocabulary skills. Bialystok, Luke & McBride-Chang (2005 p.234) basing on the argument that “children’s acquisition of literacy for language with different writing systems depends on the structure of the language and less on the children’s ability to perform these tasks in another language, ” investigated vocabulary skills among primary bilingual learners. They compared differences in the degree of language proficiency of bilingual Chinese children who were between 5 and 6 years in Canada using tasks reconstructed in parallel versions for both English and Chinese. The learners were tested on vocabulary and phonological awareness, effects of bilingualism on decoding, transfer of skills across languages. The researchers discovered that language proficiency matters in reading but phonological awareness and decoding skills should be built up separately for each language/writing system. In addition, establishing the skills in one language/system does not guarantee that these skills will be transferred to another language.

Matjila and Pretorius (2004) also investigated vocabulary skills in their study discussed above. These researchers argue that testing vocabulary is an indirect way of assessing reading ability. This study tested the students’ ability to infer the meaning of words when contextual clues were provided in the text. The results showed that the learners’ ability to infer word was very poor. They concluded that the learners had poor reading skills and argue that vocabulary knowledge and reading ability are closely linked so that “learners who read a lot tend to have larger vocabulary than learners who do little reading,” (p18).

Pretorius and Currin (2010) also investigated vocabulary skills among Grade 7 learners reading in Northern Sotho and English. Results at the intervention school showed some Matthew effect in both languages. They argue that such results are caused by the fact that learners do not have adequate access to print material. They further note that if learners get enough exposure to reading material they will improve their reading levels.

The above discussed literature explores the reading problems encountered in L2 reading. The studies show that a lot of factors prevent learners from reading the second language (English) at the expected level. The studies further reveal that although the learners' reading levels are poor in English, the levels are even worse off in the learners' first languages. However, there is a paucity of studies published on children who read in languages that are not their first languages. Williams (1996) raises an important point when he talks about the existence of varieties and dialects of the language instruction. For Williams (1996) one of the conditions that L2 reading research in Africa has to strive to fulfil is that the researcher must make sure that the L1 being tested is actually the L1 of the speaker and not simply a language the subject speaks proficiently. Williams' (1996) argument can be taken further to propose that learners should be tested on every language that they use in school even if the language is not the learners' first language. It can be argued that learners read below their standards as research shows, because they are being taught through education systems and pedagogical approaches that are irrelevant to their socio-cultural and linguistic situations. Continuing promoting educational systems and monoglossic pedagogies that emphasize on the concepts of mother tongue, first or additional languages simply perpetuate the failure of the learners. There is need for more research that focuses on and speaks to the reality of today's multilingual context. Today's children can no longer be separated according to languages nor can they be identified with the concepts of mother tongue, first or additional languages. The children are growing up speaking more than two languages simultaneously where the languages are enmeshed and embedded into each other. Research needs to investigate how these children manage to read and negotiate academic content in situations where they are taught to read through and by monoglossic pedagogies.

2.6 CONCLUSION

This chapter has reviewed literature on the development of reading literacy for biliterate development and revealed that research only tells of the problems of reading in home languages but there is a paucity of research on reading problems among learners who read in languages that are not their home languages/ mother tongues. There is need for research that explores the predicament of children who have to learn literacy in a school's home language and LoLT different from their mother tongues. Reading literacy theories seem to be lopsided and are unable to account for complex reading development in the context of mobility. In particular, they fail to account for concurrent development of reading skills/strategies and synergies between languages that are not the readers' L1. The reviewed literature also exhibited that most schools, particularly in South Africa, use education systems that employ monoglossic frame works and practices that encourage learners to acquire literacy through one language and or through subtractive bilingualism. Subtractive bilingualism is whereby learners are allowed to learn first in their mother tongue up to a certain stage, and then the mother tongue is removed so that the learners learn in another language as the LoLT, usually English. There is need for research that investigates the best way to help today's multilingual children to acquire literacy. The present research seeks to fill in this gap by investigating the reading skills of learners who do not have isiZulu as their mother tongue but are acquiring literacy through isiZulu and English . The next chapter discusses the research methodology used in this study. It explains where the research was done, how the sample was selected and the methods used to analyze data.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 INTRODUCTION

The aim of this study was to investigate how multilingual children mediate reading in two languages which are not their first languages. The previous chapter discussed literature for biliterate development. This chapter describes the research design, population, sampling procedures, data collection methods and analysis techniques that were used to answer the research questions. The chapter also reports on ethical considerations that apply to this study.

3.2 RESEARCH DESIGN

The present research is quantitative. A quantitative research, according to Aliaga and Gunderson (2000 p. 1), can be defined as "explaining phenomena by collecting numerical data that are analyzed using mathematically based methods (in particular statistics). In other words, the quantitative descriptive method is primarily concerned with finding out the degree to which a phenomenon is. In this particular study, I employed the quantitative descriptive method because the study is primarily concerned with finding out the extent (i.e. numerical value) to which bilingual readers reading in isiZulu and English, which are both not the readers' first languages, mediate reading strategies in these two languages. For the purposes of this research, I considered the quantitative design as the most appropriate design to elicit the required data.

3.3 POPULATION AND SAMPLING

The sample for this study was 45 bilingual readers who are in the intermediate phase of their primary education which is from grade 4-6. The fourth, fifth and sixth graders were chosen as the best subjects for this study because it is in this phase where the switch from using indigenous languages as the medium of instruction to English takes place and I thought this was a critical period of transition thereby making this stage highly suitable for the current study. The span from Grade 4- 6 is also important in that it represents the entry and the exit levels to the intermediate phase. These learners also have varying experiences in learning in both isiZulu and English and their reading skills in both languages are relatively comparable.

In the present research, Grade 4-6 learners are taken to be an intact group because the learners are at the same level of education and or reasoning.

For the purposes of selecting the sample for the study, the multiple stage sampling procedure was used. Multiple stage sampling was employed in order to cater for both probability and non- probability methods since this was a quantitative study. Firstly, purposive sampling was used to select the school. MacMillan and Schumacher (2010) argue that in order to employ purposive sampling, participants have to have specific qualities which illustrate the purpose of the project. Put in other words, when purposive criterion sampling is used, subjects are hand-picked on the basis of specific characteristics. In the current study, I chose one particular multilingual school. The school is composed of learners from different language backgrounds. The school is located in a predominately Sepedi speaking area but other South African indigenous languages are also found in the area. The school has Sepedi, isiZulu and English as its official languages. The school was specifically chosen because it uses isiZulu as one of its home languages and as a language of instruction from grade 1-3. It uses English as the LoLT from grade four upwards. Since the current study focused on investigating how children who do not have isiZulu and English as their first languages, mediate reading in these two languages, the school was considered the best site to provide the required data.

Secondly, I used simple random sampling to select the participants. The tests were administered to every learner who was in grade 4-6 and this was done for ethical reasons. I was careful not to separate the required participants from their classes because this could have created anxiety in the participants and they could have felt singled out and uncomfortable that they were the only ones writing a test. Making every learner write the tests helped the participants to relax as they saw themselves being assessed as a group.

Finally, I employed stratified random sampling which is useful in such researches because it ensures the presence of the key subgroup within the sample. In support of this, MacMillan & Schumacher (2010) define stratified sampling as “a method of sampling that involves the division of a population into smaller groups known as strata. In stratified random sampling, the strata are formed based on members' shared attributes or characteristics.” Due to these affordances, I considered using this sampling method as the most appropriate for the study. The first step in using this sampling method was to split the population into different strata. I therefore used the Grades and the different first languages as the strata. In the second stage, I

randomly picked from every grade the scripts of the learners who did not have isiZulu as their first language. All in all, I managed to have in total 45 participants which are considered good enough for descriptive statistics that I employed to analyze the data.

3.4 RESEARCH INSTRUMENTS AND DATA COLLECTION PROCEDURES

The following sub-sections describe the research instruments, data collection and data analysis procedures that were employed in the study.

In the present study, I adopted both the vocabulary and comprehension equivalent tests from a lager multilingual literacy project- Wits Abafunde bahlalefe Multilingual Literacy Project (WAMLiP). The tests have been in use for more than three years. I have decided to adopt these tests because their elements address the objectives of this study which are basically to determine the comprehension strategies of bilingual readers who do not have isiZulu and English as their first languages, but are reading in the two languages.

3.4.1 Motivation for reading

Motivation is one of the key factors that influence reading. Research confirms that learners' motivation is a key factor in successful reading (Baker & Wigfield, 1999). Since motivation is crucial in the reading process, the current research sought to find out the participants' motivations for reading. To capture these motivations, the first part of the test paper (see Appendix 1) had ten questions to which the participants had to fill in by choosing YES/NO. These ten questions sought to find out what, how and why the participating learners reading both of the languages. Basically, the questions aimed at establishing the learners' reading patterns and habits both at home and at school. The questions were all in English. Each question was measured at 1, YES=1 and NO=0.

3.4.2 Vocabulary Test

After the part on motivation, the second part of the test paper tested vocabulary skills. The part had different sections testing on different aspects of vocabulary skills. Section A, specifically tested the learners both on spelling and picture word mapping (see Appendix 1). There were 10 questions in English (questions1-10) and 10 questions in isiZulu (questions11-20).

The learners were given four pictures for each question to match to the word that the test giver would have called out. The learners were required to identify the picture that matched the word called out and tick it. The learners were also required to spell the word in the spaces provided. The pictures were from different subjects done at this level such as mathematics and life orientation, among other subjects. The pictures were representatives of high frequent words from the grade 4-6 English and isiZulu main text books on all the subject that are studied at this level. The words ranged from disyllabic words to polysyllabic words because such words are not too difficult for learners at this level. The words in the two languages were different in order to avoid carry over effects from English to isiZulu but the range of syllables and level difficulty were maintained. Spelling was rated on a scale of 1-4 where (1= unrecognized, 2= recognized, 3= recognized but with minor corrections, 4= correct). Identification of the picture was measured at 1 where 1= correct identification and 0=wrong identification.

After this section, the section that followed, section B (see Appendix 1) tested on word recognition skills both in English and isiZulu. Learners were given four pictures and a written word for each question. In this case the learner was supposed to indicate the picture that matched the given word. Again the words were high frequent words from the learners' text books on various subjects for both languages. This was scored at 1, where 1=correct matching and 2=wrong matching. Question 1-10 were in English and 11-20 were in isiZulu. The words were different in both languages but the same level of difficulty was maintained, they also ranged from disyllabic to poly-syllabic words.

3.4.3 Reading Rate

Before attempting the comprehension questions in both languages, learners' reading rates were established. The learners were assessed on reading rate which was taken to determine, more or less, the pace at which they were reading. The learners were given a reading passage first in English (see Appendix 2) and were all told to start reading at the same time, and after a minute, they were stopped and asked to circle the word they had been reading when they were stopped. The number of words that a learner would have read in a minute was taken to be the learner's reading rate/speed. After the reading rate test in English, it was also done in isiZulu (see Appendix 3) and the same procedures were followed. After this, the learners

were then asked to do the comprehension test. They started with the English comprehension test and thereafter, they did the isiZulu comprehension test.

3.4.4 Comprehension equivalent tests

One of the objectives of this research project was to determine the bilingual learners' comprehension strategies in the two languages, isiZulu and English, and to identify the participants' reading skills in both languages, (see objective 1.3.2). Administering comprehension tests to the participants at both the vocabulary and comprehension levels was considered the most appropriate way to gather the required data. Studies such as Fakude (2014), Makalela, (2010), Pretorius and Mampuru (2007), confirms the effectiveness of vocabulary and comprehension questions in assessing a child's comprehension skills. Study mode (2015) postulates that reading comprehension questions test one's ability to understand a passage on the basis of what is said and implied in the passage. According to Porter (1990 p.93), good learners use a variety of comprehension strategies simultaneously and "they know how to deliberately apply specific strategies to aid their comprehension, participation with regard to challenging text or information." In this study, the comprehension tests that I chose had the mentioned qualities. As a result, I concluded that they had the capacity to provide adequate data to determine how the participants mediate comprehension strategies in both languages.

As mentioned above, the comprehension equivalent tests, (see Appendix 2 and 3) were adopted from a lager multilingual literacy project- Wits Abafunde-bahlalefe Multilingual Literacy Project (WAMLiP). Using these tests, the participants were tested both on literal and inferential comprehension skills. The comprehension questions in the tests were based on Bloom's taxonomy to allow the testing of all cognitive skills used in reading thus allowing the testing for both literal and inferential skills that the research sought to investigate. The texts that were used as the comprehension passages for both the English and isiZulu languages were extracted as they are from the Wits Abafunde-bahlalefe Multilingual Literacy Project (WAMLiP). Both passages had about 320 words each and were about animals. The English passage was about ants, a snake and a bird. The snake went and coiled itself around the bird's eggs and took possession of them by force. The bird cried for help until some ants came to its rescue. The ants bit the snake and the snake finally left the bird's eggs. The isiZulu passage was about different animals. In this case, it was about an elephant which went to shake a tree where a bird had laid its nest. The bird protested but the elephant would not lis-

ten until the bird flow into the elephant's ear and pricked until the elephant ran away. The general theme in both stories was that powerful people in life should not use their power to oppress others because they can be defeated by people who are thought to be weak. I decided to use stories on animals because they easily capture the interest and imagination of children at this level whose life experiences are still limited to answer inferential comprehension questions.

The five questions that tested literal comprehension skills were multiple choice questions for each language. All the answers for the literal questions were in the passage and the learners had to pick up these answers from the passage. This was measured at the value of 1. The inference part of the comprehensions in both languages required the learners to write a paragraph on what they could have done if they were in the position of one of the characters particularly, the bird. The answers were not provided in the passage and the learners had to infer the answers from the passage. These parts were assigned 2 marks each.

The test as a whole was administered to all the learners who were assessed as a group in their respective classrooms. Each participant was issued with a question paper to answer as an individual. The question paper provided spaces where the participants could write the answers. In order to ensure that that the learners understood the instructions correctly, and to clarify any words that may have been incorrectly read, the test giver went through the question paper with the participants. The tests were administered by both an L1 isiZulu speaker (research assistant) and L2 English speaker (the researcher). The entire test took participants about 45-60 minutes to complete.

3.5 DATA ANALYSIS

The data collected from all the different segments of the tests that were administered to the participants were put to coding and verification through the SPSS software. Thereafter it was analyzed using descriptive statistics involving means to measure the central tendencies and standard deviations to measure dispersion. Further matched t-tests were done to determine whether observed mean differences between the languages were statistically significant. The calculations of the matched t-test were pitched at the conventional significant level 0.05.

3.6 VALIDITY AND RELIABILITY

A number of instruments were used in the present research to investigate how multilingual children mediate reading in two languages which are not their home languages. It was important to consider the reliability and validity of the instruments that were used to collect data because, as Nunnally (1978) argues that, research requires dependable measurements.

The relationship between the concepts validity and reliability is such that a valid test will also be reliable. Phelan and Wren (2006 p.1) define validity as referring "to how well a test measures what it is purported to measure" and reliability as "the degree to which an assessment tool produces stable and consistent results. Put differently, test reliability means that repeated measurements will give nearly the same results (Carmines & Zeller 1979). Thus the reliability of a test can be considered to be a measure of its consistency. In this study, reliability and validity were ensured by adopting the assessment tools from a lager multilingual literacy project, Wits Abafunde- bahlalefe Multilingual Literacy Project (WAMLiP) where these tools have been in use for three years now. The instruments adopted could be considered standard tests and they are claimed to have a validity of 90% (Makalela 2012). The researcher also asked two different people to check the accuracy of the texts/test before they were given to the participants to ensure inter-reliability. In addition, a pilot study was also done to determine the reliability of the tests.

3.7 ETHICAL CONSIDERATIONS

The ethical clearance to conduct this research was sought from the Wits School of Education. The researcher also sought permission to conduct the research from the Gauteng Department of Education under a lager multilingual literacy project- Wits Abafunde- bahlalefe Multilingual Literacy Project (WAMLiP), (see Appendix 4). Permission was also sought from the respective local school authorities.

All participants were informed at the beginning of the study what the research was about and what it intended to achieve. The participants were asked to sign consent forms before participating in the study. Since the participants in this study are considered vulnerable, their parents were given the information sheets and consent forms to inform or decline their child's participation in the research. The principals' and teachers' consent was also sought. It was

made clear to all (participants, parents, principals and teachers) that participation was voluntary and that they would be allowed to withdraw from the study at any time.

The participants and the school authorities were promised that the children's names and the names of their schools would not appear in the final research report. The identities of the participants would be protected at all costs. They were also told that the raw data that collected will be kept under the custody of the supervisor and will be destroyed within a period of 3-5 years.

3.8 LIMITATIONS OF THE STUDY

There are two limitations to the study. First, the sample for the study was relatively small. The research had targeted 60 learners but only 45 were available to participate in the study. Be that as it may be 45 is a reasonable number to do quantitative study.

The second limitation to the study was that there was missing data on some of the biographical information that was sought from the participants. The missing data was on gender/sex of some of the participants.

3.9 CONCLUSION

This chapter has described the research methodology that has been employed in this study. As a quantitative study, it relied on multi-stage sampling procedures to elicit data from 45 participants. Details of data collection procedures, especially how the use of instruments adapted from Wits Abafunde-ba-hlalefe Multilingual Literacy Project (WAMLiP) were described. Analysis relied on paired t-tests to compare means across a number of variables. The next chapter presents an analysis and discussion of the findings of this study.

CHAPTER FOUR: DATA PRESENTATION, INTERPRETATION AND ANALYSIS

4.1 INTRODUCTION

As mentioned previously, this study aimed at investigating how multilingual children mediate reading in two languages which are not their home/first languages. This chapter presents, interprets and analyzes the data obtained from the study. The presentation follows data segments from questions on learners' motivation, vocabulary questions (see Appendix 1) comprehension equivalent tests and oral reading speed tests (see Appendix 2 and 3). The type of data obtained from the tests is ordinal and descriptive statistics was used to analyze it. As mentioned earlier, means were used to measure central tendencies and standard deviations were used to measure dispersion. Further, statistical inferential tests, t- tests pitched at the alpha value of 0.05 were conducted to measure significance levels.

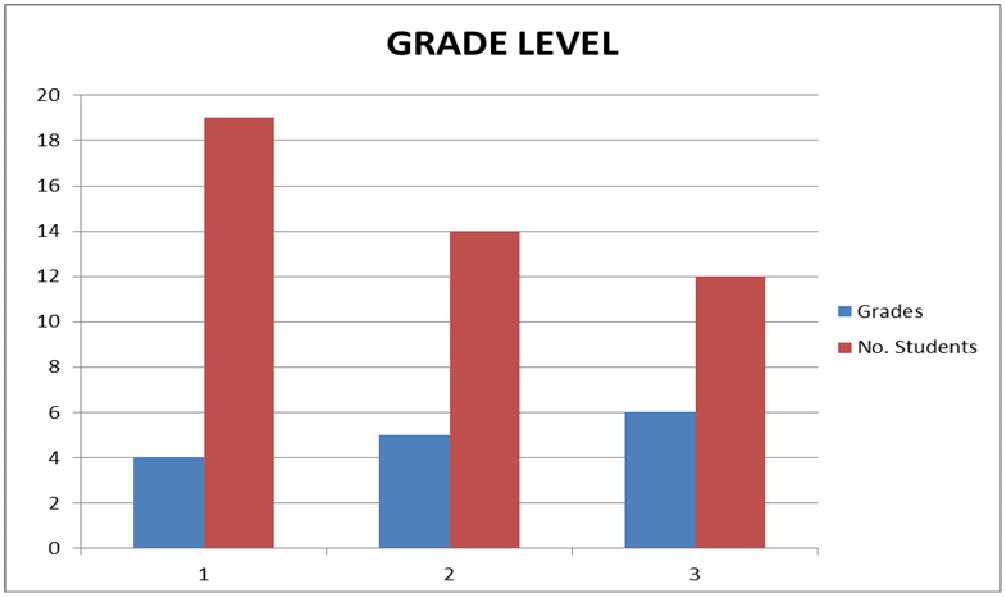
4.2 BIOGRAPHIC INFORMATION

The forty five participants were asked to provide their demographic information including grade, gender and language background. It was necessary to elicit this information to ensure that all the characteristics required in the sample were represented. The results are summarized below.

4.2.1 Grade Level

The participants were asked to indicate their grade level in the study. The results of their responses are presented in Fig 1 below.

Figure 1: Grade Level

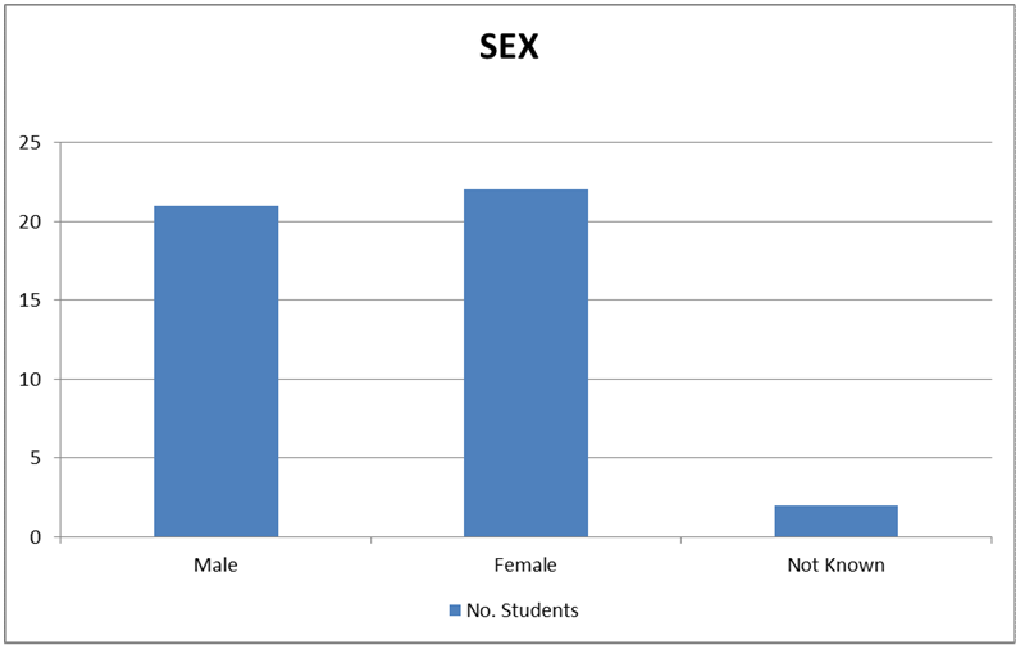


The majority of the learners (19) were in grade 4 and this constitutes 42% of the sample. The second highest number of participants (15) was from grade 5 which is 31% of the sample. The lowest number of participants (12) was from grade 6 and this constitutes 26% of the sample. It was necessary to find out the grades of the participants in order to ensure that all the grades in the intermediate phase were represented.

4.2.2 Gender/Sex

Gender is the next biographical variable that this study focused on. The responses are presented in Fig 2 below.

Figure 2 : Gender / Sex

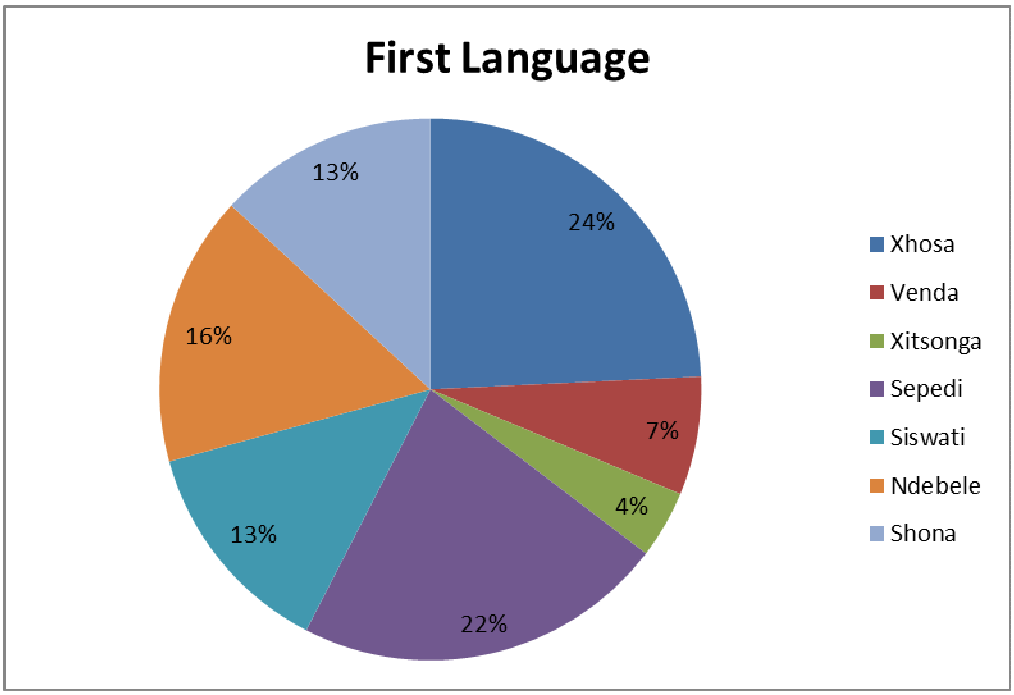


The figure shows that (21) of the participants, 47% of the learners were male and (22) of the participants, 49% were female. Two participants, 4% did not indicate their sex. In order to avoid bias towards one sex, the participants had to indicate their sexes and this helped the researcher to ensure that all the sexes were represented in the sample.

4.2.3 Language Background

The participants were also asked to indicate their home language in the study. The results of their responses are presented in Fig 3 below.

Figure 3: First Language



This figure shows that only seven home languages are dominant among the learners in this study. The majority of the learners have isixhosa as their home language (24%), followed by Sepedi with 22%. Ndebele had 16%. Siswati and Shona had 13% each while Venda had 7%. Xistonga had 4%.Language was the major determinate factor for the learners to participant in the study, it was crucial therefore for the participating learners to indicate their first languages. For a learner to participate in the present study, they should not have isiZulu as their home/first language. Eliciting the learners' language background helped the researcher to know which and how many languages are available in the area to reflect the diversity of languages among the learners.

4.3 MOTIVATION

Available research on reading shows that most classroom teachers acknowledge that lack of motivation is at the root of many problems that learners face in reading for literacy achievement (Cordova & Lepper, 1996; Gambrell, Palmer, Codling & Mazzoni, 1996). It was necessary in this study to determine the reading motivation of the participating learners. The study posed this research question: What are the learners' motivations for reading in languages that

are not their mother tongues? To answer this question, the first part of the test paper (see Appendix 1) had 10 questions that sought to elicit information on the learners' motivation for reading both at home and at school. The results are summarized in Table 1 below.

Table 1: Motivation

Number of participants	Minimum score	Maximum Score	Mean	Standard Deviation (sd)
45	0	9	5.73	2.807

This table shows a minimum score of 0/10, a maximum score of 9/10, a mean of 5.73 and a standard deviation of 2.807. The mean score of 5.73 out of 10 shows that the degree to which these learners were motivated to read was low. For learners to be considered highly motivated to read, they should have an average score of 60% and above. The standard deviation 2.807 shows that the group is homogenous. There are no real differences between the participants who are highly motivated and those who are not.

4.4 VOCABULARY SKILLS

4.4.1 Spelling Awareness

One of the objectives of the present study was to assess the learners' vocabulary skills, which included phonemic, semantic and grapheme awareness. Informed by this objective, the study sought to answer the following question: What are the learners' vocabulary skills at phonological, semantic and grapheme levels in isiZulu and English? The participants were tested first on their spelling awareness. The results of this component of reading are presented in Table 2 below.

Table 2 : Word Reading (Spelling)

Language	Number of Participants	Minimum Score	Maximum Score	Mean	Standard Deviation (sd)
English	45	9	39	23.82	9.576
isiZulu	45	3	39	27.71	10.359

t = 1.849 df = 88 p > 0.05

These test results show that the minimum score in the English spelling tests was 9/ 40 and the maximum score was 39/40. In isiZulu, on the other hand, the minimum score was 3/40 and the maximum score was 39/40. The learners had a mean score of 23.82 out of 40 (60%) in English and a mean of 27.71 out of 40 (69%) for isiZulu. Both mean scores show that the learners have low spelling awareness in both languages since both means are far below 75% of the total mark which is considered the bench mark. Although the mean scores are both lower than the expected standard, the results show that the mean score was higher (69%) than English (60%) implying that the learners performed better in isiZulu than in English. The standard deviations were 10.359 for IsiZulu and 9.576 for English. Both standard deviations show that the participating learners were a homogenous group in their level of spelling awareness in each of the languages.

To compare the means between the two languages, a paired t- test was conducted and pitched at a significance level α of 0.05. The results ($t = 1.849$; $df = 8$; $p > 0.05$) indicate that there is no statistically significant difference between the learners' performance in the two languages. This suggests that the learners performed essentially at the same level despite the language they were reading in.

What is striking about these results is that learners have displayed a relatively high level of spelling awareness at 69% in IsiZulu which is not their mother tongue. This finding was unexpected because reading research in South Africa has generally found out that usually learners do not read well in African/home languages. (see, for example, Pretorius & Mampuru 2007; Pretorius & Currin 2010; Makalela, 2012; 2010; Matjila & Pretorius, 2004). When compared to other learners in the previous studies, the present learners actually read at a higher level. Matjila and Pretorius (2004) report that, generally, learners in South Africa read below the level of 60%. Since the learners in the present study could read relatively well in a

language which is not their mother tongue compared to learners who read poorly in their own mother tongues as seen in the previous studies, it can be argued that the concept of first/ home language for these type of learners is irrelevant. These learners are coming from a background where there is diversity of languages as reflected in Figure 3 on the biographic information of the learners. In such a background, there is usually hybridity, fluidity and fuzziness among language boundaries allowing learners to use all the languages accessible to them so that it will be difficult to put clear boundaries among these languages and attach one language to a child claiming it to be the child's true or clear mother tongue (Makalela, 2013).

4.4.2 Word Picture Mapping

Another aspect of vocabulary skills that was tested in this study in conjunction with spelling awareness was word picture mapping. After spelling the word, the learners had to identify the picture that matched the spelt word. The results of this set of data are shown in Table 3 below.

Table 3: Word Reading (Word picture mapping)

Language	**Number of Participants**	**Minimum Score**	**Maximum Score**	**Mean**	**Standard Deviation (sd)**
English	45	4	10	8.40	4.545
isiZulu	45	1	10	8.18	1.838

t = 0.301 df = 88 p >0.05

The results showed that the learners had minimum score of 4/10 and a maximum score of 10/10in English. They had a minimum score of 1/10 and a maximum score of 10/10 in isiZulu. The learners' mean score was 8.40 out of 10 which is equivalent to 84%, in English and 8.18 out 10, which is equivalent to 82% in isiZulu with regards to word picture mapping skills. These two mean scores exhibit that the participating learners have high word picture mapping skills (above 80%) in both languages. These results further suggest that these learners can read very well in both languages. The results also reflect that the mean score was slightly higher in English (84%) than in isiZulu (82%). The standard deviations were low in

both languages which were 4.545 for English and 1.838for isiZulu. This indicates that the learners' performance was homogeneous in both languages.

The next task was to test whether the differences that resulted in the two subjects were statistically significant. A paired t- test was conducted to compare the means scores in English and isiZulu whose results showed that the differences were not statistically significant ($t = 0.3$; $df = 88$; $p>0.05$) which implies that there are no real differences between the participants' performance in English and isiZulu.

In contrast to previous studies such as Pretorius and Currin (2010) and, Matjila & Pretorius (2004) who observed that, in South Africa, generally, learners have poor reading skills including vocabulary skills even in their own mother tongues, the present study shows that learners have very high scores in vocabulary skills, 84% in English and 82% in isiZulu. An important issue emerging from these findings is that learners are capable of reading in languages that are not their mother tongues. This point has also been observed of the results on the learners' spelling skills above. Taken together, these results confirm the argument that the concept of first/home or mother tongue does not apply to learners who have access to a number of languages. The participating learners live in an environment where boundaries among languages have become blurred. Under these circumstances, it is difficult to tie learners to specific languages as their mother tongues. All the languages are at the learners' disposal and the languages are used interchangeably as needs so demand. In other words, the learners are involved in a process that could be referred to as 'languaging' whereby they move from one language to another language in continuous action of engaging in language use. In this case, the learners understand all the languages around them hence they are capable of reading in any of the languages that are not considered as their mother tongues officially. It is also significant to note that the learners read at more or less the same level in English and isiZulu as reflected by the t test results which showed that the differences between the mean scores in the two languages are not statistically significant. Reading at the same level in languages that are not the learners' languages further confirm that they can read in whatever language that they understand.

4.4.3 Word Recognition

To further define the learners' vocabulary skills, the learners were tested on word recognition whereby they had to select among four given pictures for one question, a picture that matched the given word in the question. The results of this aspect of vocabulary skills are reflected in Table 4 below.

Table 4: Word Reading (Word Recognition)

Language	Number of Participants	Minimum Score	Maximum Score	Mean	Standard Deviation (sd)
English	45	0	10	6.38	1.800
isiZulu	45	1	10	6.91	2.703

t = 1.251 df = 88 p >0.05

Table four above shows that the learners had a minimum score of 0/10 and a maximum score of 10/10 in English. They also had a minimum score of 1/10 and a maximum of 10/10 in Isi-Zulu. The results further show a mean score of 6.38 out 10 (64%) in English and a mean of 6.91 out of 10 (69%) in isiZulu. Both these mean scores show that the participating learners have poor reading skills in both languages since their performance is below (75 %) which is considered as the bench mark. These results further reveal a higher mean score of 6.91 in isi-Zulu than in English which has a mean score of 6.38 suggesting that the learners performed better in isiZulu than in English. The standard deviations were both low, 1.800 in English and 2.704 in isiZulu. This shows that the learners were a homogeneous group in their performances in both languages. A paired t test was conducted to compare the mean scores in both languages. The results of the t test showed that the differences in the mean scores were not statistically significant (t = 1.25; df = 88; p >0.05), suggesting that there are no real differences between the participants' performance in English and isiZulu. These findings reveal that although the learners performance in both languages is taken to be below standard , they still show that they are capable of reading in a language that is not their mother tongue. These results further confirm the argument that the concept of home/ first languages or mother tongue are irrelevant for this type of learners.

4.5 READING SPEED/ RATES

One of the main objectives of the study was to determine the reading speed/ rate of the learners in both languages and one of the research questions was: What is the learners' reading rate/speed in English and isiZulu? Table 5 below reflects the reading rates in the two languages.

Table 5: Reading Speed

Language	Number of Participants	Minimum Score	Maximum Score	Mean	Standard Deviation (sd)
English	45	0	322	128.64	72.226
isiZulu	45	0	258	122.40	69.309
	t = 0.418	df = 88	p>0.05		

With regards to reading rate, the tests showed a minimum reading rate of 0 words per minute and a maximum reading rate of 322 words per minute in English. In isiZulu, the minimum reading rate was 0 words per minute and the maximum reading rate was 258 words per minute. The tests also show that the learners have an average speed of 128.64 words per minute in English and an average of 122.40 per minute in isiZulu. These results reveal that the learners have very low reading speeds (below the benchmark of 160 words per minute) in both languages. The tests show that the learners had a standard deviation of 72.226 in English and standard deviation of 69.309 in isiZulu. Both of these standard deviations show that the participating learners did not diverge much from the means, showing that they performed at more or less the same level. A paired t test was conducted to compare the mean reading speed scores in both languages. The differences in the reading speeds between the two languages was found not to be statistically significant ($t = 0.418$; $df = 88$; $p>0.05$) which means that there are no real differences between the participants' reading speeds in English and isiZulu.

The fact that learners read below the standard speed is consistent with findings of other researchers in South Africa. These include studies done by Pretorius and Mampuru, (2007), Matjila and Pretorius (2004) and Makalela (2010), (2012) which observed that learners in South Africa read below the bench mark of 160 words per minute. An important issue emerging from these findings is that the learners in this study, who read in a language which is not their mother tongue, read at par with learners who were reading in their own mother tongues.

This observation further confirms the claim that a learner can read in any language that he/she understands, which does not necessarily have to be the learners' first language.

4.6 LITERAL COMPREHENSION

Identifying the learners' literal reading skills was another objective of the present study. This objective led to the following research question: What are the literal comprehension skills of the bilingual readers in both isiZulu and English? The results on this aspect of reading are presented in Table 6 below.

Table 6: Literal Comprehension

Language	**Number of Participants**	**Minimum Score**	**Maximum Score**	**Mean**	**Standard Deviation (sd)**
English	45	0	5	1.73	1.286
isiZulu	45	0	5	1.62	1.3

t = 2.046 df = 88 p > 0.05

The test results show that the learners had a minimum score of 0/5 and maximum score of 5/5 in English. These results also show that the learners had a minimum score of 0/5 and maximum score of 5/5 in isiZulu. The results further show a mean score of 1.73 out 5 (35%) in English and a mean score of 1.62 out of 5 (32%) in isiZulu. This reflects that the learners' degrees of literal comprehension skills when measured against the 75% are low in both languages: 35% in English and 32% in isiZulu. The standard deviations were 1.286 in English and 0.726 in isiZulu. Both the standard deviations show that the learners were a homogeneous group in their performances in both languages. A paired t test was conducted to compare the mean scores in both languages and it showed that the differences among the mean scores in the two languages are not statistically significant ($t = 2.046$; $df = 88$; $p > 0.05$). There are interesting observations and arguments that can be made as far as these results are concerned. The first observation is that it is on this particular aspect of reading that the learners performed the worst. The reason for this poor performance could be that comprehension skills require higher cognitive skills compared to vocabulary skills. The learners would therefore

need a lot of coaching to do well here as they might have not yet mastered this high level skill. Another reason could be that the learners are just not motivated to read as has been reflected by the results on motivation. This lack of motivation is likely to affect their comprehension skills. However, it can also be observed that despite the fact that these results are very poor, they are in the same range with results from other studies. Fakude (2014), for example, indicate that primary school learners in South Africa read at a level of (+/- 40%). From these observations it can still be argued that learners observed in this study are quite capable of reading in languages that are not their mother tongues.

4.7 INFERENTIAL COMPREHENSION

Oakhill, Cain and Yulli (1998) argue that the ability to answer text-based inference questions rather than literal ones is a reliable indicator of how well a reader understands a text. Informed by this argument, it was necessary therefore in this study, in addition to assessing the learners' literal comprehension skills, to assess their inferential comprehension skills. This research posed the question: What are the inferential comprehension skills of the bilingual readers in both isiZulu and English? In order to assess their inferential processing for read information the participating learners were asked one high order question (in both languages) to connect the stories they had read to their imagined life situations. The question was measured at a score of 2. The results of this test are shown in Table 7 below.

Table 7: Inferential Comprehension

Language	**Number of Participants**	**Minimum Score**	**Maximum Score**	**Mean**	**Standard Deviation (sd)**
English	45	0	2	1.18	0.8
isiZulu	45	0	2	0.80	0.8

$t = 2.046 \quad df = 88 \quad p < 0.05$

With regards to inferential comprehension, the test showed that learners had a minimum score of 0/2 and a maximum of 2/2 in English and also a minimum score 0/2 and maximum score of 2/2 in isiZulu. The tests results also show a mean score of 1.18 out of 2 (59%) in

English and a mean score of 0.80 out of 2 (40%) in isiZulu. These results show that the learners have low inferential skills in both languages. The standard deviations were 0.8 in both languages showing that the learners were a homogeneous group and they did not diverge much from the means. The next task was to test whether the differences in the two means was statistically significant. A t test was done and the results indicated the differences were statistically significant ($t = 2.046$; $df = 88$; $p < 0.05$). These results suggest that the learners performed well in English than in isiZulu. The reason for this could be that there are a lot of reading materials in English than in the local languages exposing the learners to more practice in English than in indigenous languages. Previous studies which include Pretorius & Mampuru (2007) argue that learners do better in English because English is a well-resourced subject.

The interesting thing to note about these findings is that they reveal that learners in this study read at par with learners from previous studies. The fact that these none first language speakers of isiZulu read at the same level with first language speakers of South African's indigenous languages makes one to further argue that the issue of first language is not important in reading particularly with multilingual readers.

4.8. THEORECTICAL INTERPRETATIONS

From the results of this research, four major theoretical interpretations can be deduced. Firstly, this research confirms the claim that, in South Africa, primary school leaners read below expected standards. Conforming findings from previous studies on reading in second language in South Africa, the findings of the present research have also revealed that primary school learners in South Africa read below the standard bench marks. The participating learners performed below the benchmark (75%) in all the tests they were given. On spelling awareness they scored an average of 60% in English and 69% in isiZulu. On word matching skills tests, they had a mean score of 63% in English and 69% in isiZulu. Concerning literal comprehension skills they had an average of 35% in English and 32% in isiZulu. On inferential comprehension skills they had an average of 59% in English and 40% in isiZulu. All these marks when compared against the 75% benchmark, they are considered to be below standard. It was only in picture matching skills that they had 84% in English and 82% in isiZulu.

The results from this study also showed that the learners' reading speed was below the expected standard. The standard reading speed is 160 per minute but from the findings of this study the learners' had an average reading speed of 128 words per minute in English and 122 words per minute in isiZulu. The findings that learners' read below the expected level, as has been mentioned above, finds theoretical support from studies which include: Pretorius & Lephalal (2011), Pretorius and Mampuru (2007), Matjila and Pretorius (2004), Makalela (2010), (2012) and, Fakude (2014). This research therefore adds to the growing body of evidence of that primary school learners in South Africa read below the expected levels.

The second theoretical interpretation unique to this study is that a learner can read in any language which s/he understands and it does not necessarily need to be the learners' mother tongue. In this way, the mother tongue factor is not important when it comes to reading. The learners in this study do not have isiZulu as their mother tongue but they read in isiZulu and English, both languages not their mother tongues, at the same level with mother tongue speakers who read in their mother tongues and English in previous studies. Previous research, as mentioned above, has shown that mother tongue speakers read below the expected standards in both their mother tongues and in English. Similarly, the present research has shown that, the participating learners actually read better than the learners from previous studies. Fakude (2014) observed that learners were reading at low levels in both the participants' home language and English with average of (= +/-40%). In another study, Matjila and Pretoria (2004) reports that the learners' performance on all components of the assessment tasks in both languages was at frustration level (i.e. below 60%). Pretorius and Currin (2010) noted extreme low reading comprehensions scores at the start of the intervention programme (30% and 29.5% for Northern Sotho and English, respectively). After 3 years of intervention, the mean score for Northern Sotho comprehension had still not reached 40% while the mean for English comprehension rose up to 47.8%. Comparing with results from these previous studies it can be argued that learners in the present study read far above the mother tongue speakers and the results exhibit that learners are capable of reading in a language that is not their mother tongue.

To further show that these learners are reading at a better level than mother tongue speakers, their performances could be compared to the Annual National Assessment (ANA) results. ANA tests are South African national tests used to evaluate learners' performance across the country. The ANA results of 2012, 2013 and 2014 show that learners perform be-

low 60% which means that the present learners are much better when compared to the learners who sat for the 2012, 2013 and 2014 ANA examinations as indicated in tables below.

Table 8: National average percentage marks for Home languages, 2012, 2013 & 2014

Grade	2012	2013	2014
4	43	49	57
5	40	46	57
6	43	59	63

Table 9: First additional language average percentage mark 2012, 2013 & 2014

Grade	2012	2013	2014
4	34	39	41
5	30	37	47
6	36	40	45

The 2012 ANA results showed that the national average performances for grades 4 were 43% in Home language and 34% in First Additional language. For grades 5 the average was 40% in Home language and 30% in First Additional language. For grade 6 the average was 43% in Home language and 36% for First additional language. The 2013 ANA results showed that the national average performances for grades 4 were 49% in Home language and 39% in First Additional language. For grades 5 the average was 46% in Home language and 37% in First Additional language. For grade 6 the average was 59% in Home language and 40% for First additional. The 2014 ANA results showed that the national average performances for grades 4 were 57% in Home language and 41% in First Additional language. For grades 5 the average was 57% in Home language and 47% in First Additional language. For grade 6 the average was 63% in Home language and 45% for First additional language. The results reveal that learners in the intermediate phase across the country read below 60% on average. The fact that the learners in the present study also read in English, which is a foreign language at such a level, confirms that they are even better readers. This finding was unexpected and suggests that a learner can read in any language as long as they understand it.

A significant issue emerging from these findings is the irrelevancy of first /home language among multilingual learners. As has been mentioned in the section on the learners' biographic information, the participating learners come from a mixed language background. The learners live in a high density suburb which since the dawn of South Africa's new political dispensation the area has experienced a lot of migration. These movements of people have consequently led to a leakage among language boundaries. The learners grew up expose to more than one language which makes it difficult to tie them to a particular language as their mother tongue. In other words, the way how these learners manage to read in two languages that are not their mother tongues can be understood through the principles of translanguaging. As translanguaging theory suggests, these have an extended repertoires of languages that they pool together to suit their communication needs. The learners' information on first /home languages shows that there are 8 languages in the area including isiZulu. Under these circumstances, the learners use all these languages as need so demand and it can be argued that what they are doing is 'languaging.' It will be very difficult to assign them a mother tongue suggesting that the mother tongue concept is artificial labelling for them. This concept is too idealistic for such a community that is characterized by high levels of migration and multilingualism. When these learners are outside school they use all the languages accessible to them but when they come to school, the school tries to put boundaries among the learners' languages by demanding learners to learn in only one particular language thus constraining the learners' linguistic wiring and creativity.

The third theoretical interpretation that arises from the findings of this study is that there is no linear relationship between the acquisition of the so called 'first' and 'second' language. The concepts suggested by the second language theories from the West such as those proposed by the Linguistic Interdependency Hypothesis theory do not apply universally. The Linguistic Interdependence Hypothesis theory assumes full proficiency in first (L1) as a precursor for second (L2) reading development. In addition, it assumes a linear linguistic development on literacy development between L1 and L2. Firstly, on the basis of the findings, I argue that concepts such as L1, L2 or additional languages no longer apply to the complex multilingual nature of the present day communities where children grow up speaking more than two languages. There is no distance between Shona, Sepedi, Venda and an isiZulu speaking children because they could all read in isiZulu and in English. Secondly I argue that there is no clear linear relationship between or among languages but rather languages do embed in each other. Basing on the performance of the learners in the present research, one can ask which thresh-

old in ‘one’s language’ should be reached. It can also be argued that for these learners decoding and comprehension occurs simultaneously in more than two languages and how then do we account, theoretically, for the murky reading development in these contexts.

They way in which the learners were reading in this study could be understood using the biliteracy framework and translanguaging frameworks. The biliteracy framework argues that literacy is affected by the context, development, and the media of biliteracy. It also suggests that one language and literacy is developed in relation to another in a continuous interaction, all points; are inextricably linked. This model could be used to explain how the participating learners in the present study read since they could decode and comprehend simultaneously in two different languages which are both not their mother tongues. It could be argued that their reading skills are inextricably linked in both English and isiZulu where the languages are not in a dichotomous key classification of bilingualism. In their minds, the learners are not treating the languages in silos but they are ‘languaging’ from one language to another. The learners dwell on the aspects of all the languages available to them and use the languages concurrently to epstemically access knowledge both at school and home.

This claim that multilingual learners use all languages that are at their disposal simultaneously finds theoretical support in the translanguaging framework which is one of the frames that has been used to understand reading in the current study. Translanguaging claims that there are no boundaries between languages but rather appreciates the fact that languages cannot be controlled as that they flow, leak or are embedded into each other and thus can be used in classroom context to enhance understanding of new concepts. In this case, Translanguaging offers better explanations as to how multilingual learners read.

The final theoretical interpretation that comes from the findings of this study is that it is wrong to assume that literacy can only be acquired through one language. The assumption that literacy should be acquired through one language is based on the one-nation, one language, ideology which dominated Europe in the 1820s (Makalela, 2005; Ricento 2006). The ideology aims at avoiding cross-contamination between the target language or the medium of instruction, usually English and foreign language in the case of European countries or indigenous in the case of African countries. According to the ideology, schools should fulfil their roles as agents of the states and should therefore insist on monolingual practices that protect the hegemonic position of states’ dominant languages. This ideology due to

political, economic and historical factors has been adopted and perpetuated in the multilingual and African contexts where multilingual learners are forced to learn through only one indigenous language then later transfer to English as the LoLT as a policy. The findings in this study reject the assumptions and principles of this theory and suggest that it is possible for learners to learn in whatever language and any language can be used as the LoLT. The important issue is simply to develop the languages concerned.

4.9 CONCLUSION

This chapter aimed at presenting and analyzing the data found in the study. The findings are that generally learners have poor reading skills (+/- 60%) in isiZulu and English when compared to the 75% bench mark. However, the results reveal that the learners in this study read at a better level than their mother tongue counter parts from other studies. From the findings in this study four theoretical interpretations were made. Firstly, primary school learners in South Africa read below the expected standards. Secondly, the concepts of mother tongue, first, second language or additional languages no longer apply to today's multilingual learners. Thirdly, the theories on second language which are based on Western contexts such as the Linguistic Hypothesis theory do not necessarily apply in multilingual contexts like Africa. The fourth theoretical interpretation is that the use of monolingual and monologic approaches used to teach learners in multilingual contexts could stifle creativity and impede cognitive growth and development of the multilingual learners. The following chapter summarizes the findings of this study and recommends areas that may require further exploration.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter aims at summarizing the whole study describing briefly the issues found in each of the chapters. It is also concerned with exhibiting the extent to which the research topic and questions have been addressed. It also seeks to give recommendations specific to the research findings.

5.2 SUMMARY OF THE STUDY

Chapter one served as an orientation to the study and outlined the problems that necessitated the study. The problem statement of this study was that world-wide, due to the massive migration of people, children grow up speaking more than one language and this imposes unique challenges on how these children negotiate literacy skills. There is very little research on how multilingual children acquire literacy skills through languages that are not their mother tongues. In South Africa too, minimal research attention has been directed towards bi/multiliterate development despite the fact that the country is highly multilingual, with eleven official languages. The South African language- in- education policy leaves the choice of the indigenous language as languages of instruction to the discretion of the schools' governing body. In this context, many children find themselves having to acquire literacy skills through languages that are not their mother tongues. This study was also aimed at shedding more light on the reading skills of learners who do not have isiZulu as their mother tongue but they acquire literacy through isiZulu from (grade 1-3) and then through English from (grade 4 upwards). The problem statement therefore, was focused on the following objectives:

- To assess the motivations of the learners on the reading process
- To assess their vocabulary skill this includes: phonemic awareness, semantic awareness, graphemic/spelling awareness.
- To evaluate their word picture matching skills in English and isiZulu
- To determine the readers' reading rate/speed in both languages
- To identify their literal and inferential reading skills

Chapter two provided a literature review categorized in themes which are as follows; theoretical frameworks, motivation in reading, word level reading in L2 reading, reading rates and reading comprehension skills in L2 reading. The reviewed literature shows that research only tells of the problems of reading in home languages where the learners are reading below the expected level. The reviewed literature also exhibited that although there is an immense amount of research about reading in home and second language reading few studies have been conducted to determine how multilingual readers read in languages that are not their home languages/ mother tongues. There is need for research that explores the predicament of children who have to learn literacy in a school's home language and the LoLT different from their mother tongues. Reading literacy theories seem lopsided and are unable to account for complex reading development in the context of mobility. In particular, they fail to account for concurrent development of reading skills/strategies and synergies between languages that are not the readers' first language.

Chapter three described the research methodology that was employed in this study. The research design employed is quantitative. Through multiple sampling procedures, 45 bilingual readers were selected as the sample for the study. The instruments used were vocabulary and comprehension equivalent tests which were adopted from a larger multiliteracy project called Wits Abafunde bahlalefe Multilingual Literacy Project (WAMLiP). The participating learners were tested on reading rate/speed, vocabulary skills. The data gathered from these tests was coded and verified through the SPSS software. Thereafter, it was analyzed using descriptive statistics involving means to measure the central tendencies and standard deviations to measure dispersion. Further matched t-tests were done to determine whether observed mean differences between the languages were statistically significant.

Chapter four aimed at discussing the findings of the study in-order to address the research questions. The first research question sought to establish the learners' motivation for reading and the findings show that learners were not highly motivated to read because their degree of motivation is less than 60% and this is considered to be way below the benchmark. The second research questions of the study asked about the learners' vocabulary skills in both isiZulu and English. On spelling awareness they scored an average of 60% in English and 69% in isiZulu. These results reflect that the learners have low spelling awareness in both languages since both means are far below 75% which is considered the benchmark. The learners had high word picture mapping skills since their average performance was above

80% in both languages. On word picture mapping skills they had 84% in English and 82% in isiZulu. Concerning word recognition skills the participating learners performed poorly with an average percentage below 75 % which is the bench mark. They had a mean score of 63% in English and 69% in isiZulu. The study also sought to find out the learners' reading speeds in both languages. The findings on the learners' reading speeds show that the learners reading speeds were lower than the 160 words per minute which is the bench mark in both languages. They had average reading speeds of 128 word per minute in English and 122 words per minute in isiZulu. Another research question aimed at establishing the comprehension skills of the participating learners.

The results reflect that learners' degrees of literal and inferential comprehension skills are low in both languages. Concerning literal comprehension skills they had an average of 35% in English and 32% in isiZulu. On inferential comprehension skills they had an average of 59% in English and 40% in isiZulu. This chapter also discussed the theoretical interpretations particular to this study. From the findings of this study four theoretical interpretations were made. The first is that primary school learners in South Africa read below the expected standard. Secondly, the concepts of mother tongue, first, second language or additional languages do apply to today's multilingual learners. The third theoretical interpretation was that the theories on second language which are based on Western contexts such as the Linguistic Hypothesis theory do not necessarily apply in multilingual and African contexts. The fourth and final theoretical interpretation is that the mono-lingual and monologic approaches used to teach learners from multilingual contexts constraints the multilingual speakers' linguistic endowments.

5.3 MAJOR FINDINGS OF THE STUDY

This research has investigated how bilingual children who are in the intermediate phase of their primary education and do not have isiZulu as their first language, mediate reading skills when reading in two languages. The theoretical frameworks that have been used in this research are the Linguistic Interdependency Hypothesis, Biliteracy Continua framework and Translanguaging.

The first major finding was that the participating learners are not highly motivated to read as is reflected by their average score on motivation which was 57%. This score is considered to be below the bench mark which is 75%. The second finding was that the learners have low vocabulary skills in both isiZulu and English. On spelling awareness they scored an average of 60% in English and 69% in isiZulu. On word matching skills tests, they had a mean score of 63% in English and 69% in isiZulu. Both the mean scores show that the learners have low spelling awareness in both languages since both means are far below the 75% bench mark. However, on picture matching skills they had 84% in English and 82% in isiZulu. Thirdly it was found that learners have low reading speed in both languages. They had average reading speeds of 128 word per minute in English and 122 words per minute in isiZulu. Both these reading speeds are considered to be below the standard which is 160 words per minute. The other finding was that participating learners have low literal and inferential comprehension skills. Concerning literal comprehension skills they had an average of 35% in English and 32% in isiZulu. On inferential comprehension skills they had an average of 59% in English and 40% in isiZulu. These average score are below the 75% benchmark hence the leaners are said to have poor comprehension skills. Overall, the participating learners read in both languages at more or less the same level and they read at par with other participants from previous studies. In fact the learners in this study who are non- mother tongue speakers of the languages that they were tested in, read at a better level than learners from previous studies who are mother tongue speakers of the indigenous languages that they were tested in. The learners in this study had mean scores of below 40% in only three out of the ten tests that they had. Learners from previous studies are reported to read below 40% in all aspects of the tests that they had.

5.4 RECOMMEDATIONS

This research set out to investigate how multilingual learners mediate reading in two languages that are not their mother tongues and several findings have been made. Basing on these findings some recommendations could be made.

One of the findings of this study is that the participating learners were not very highly motivated to read and they read far below the expected standards. Their motivation to read is rated to be below 60% and their general performance in most components of the

tests they were given is far below the 75% benchmark. Basing on these findings it is recommended therefore, that schools should implement intervention programmes that could motivate children to read and teach learners more reading skills so that their performance may rise to the expected standards.

Secondly, this study has found out that non-mother tongue speakers of a language can read in that language. The results have further shown that the participating learners perform at an even higher level than learners from other studies who are mother tongue speakers of the indigenous languages that they were tested in. These findings suggest that the concept of mother tongue is not important factor when it comes to reading and the concept is even irrelevant to this kind of learners. It is recommendable therefore for schools to deceit from emphasizing on this concept in teaching children to read. Schools should open up traditional spaces and reject policies that are restricted to formalized, monolingual, monoculture, monologist and rule governed forms of language and accommodate and promote the linguistic endowments of multilingual learners which they bring to school. Schools and education systems should consider refraining from treating languages in silos if they truly need to equip learners with skills to keep abreast with the challenges they would meet at the end of their school lives.

The findings of this study have revealed that theories about second language reading do not apply universally. The study has shown that theories such as the Linguistic Interdependence Hypothesis theory fail to account for the complex reading development in the context of multilingual readers read and how learners without a mother tongue being offered in school, read in other languages that are not their mother tongues. It is recommended that research should come up with new theories that speak to the multilingual contexts instead of relying on theories that were researched in monolingual Western context.

The findings of this study suggest that the approaches that are being used to teach multilingual learners are limited and they constrain the multilingual learner. Basing on these findings, it is recommended that educational institutions should resist being made state agents which insist on monolingual practices that tend to silence the ways in which multilingual children access information outside the school setting as this limits their success in education resulting from failure to negotiate academic content. It is recommendable for policy makers to re-

think language policies in education and include heteroglossic pedagogical practices in their policies.

It is recommended, therefore, that teachers should use dynamic approaches to teaching such as translanguaging. The use of translanguaging as a pedagogical tool enables the education of the total learner by valuing the languages the learner has at his/her disposal, his background , experiences, skills and intellectual capacities all channeled into helping them to negotiate and understand education material. These linguistic repertoires are utilized for the learners' academic achievement as well as their total individual development. Translanguaging offers possibilities of opening up traditional spaces and pedagogical replacement of monoglosic practices in the present schools. Translanguaging would equip the African child who in most cases is the one who is expected to learn in a language which is not a mother tongue, to operate fully in today's society.

5.5 CONCLUSION

The purpose of the present research was to investigate how multilingual children who are in the intermediate phase of their primary education (grade 4-6) who do not have isiZulu as their first language, mediate reading skills when reading in two languages (isiZulu and English) which are not their mother tongues. The results of the study revealed that learners read below the expected standards. The results also showed that although the learners read below the benchmarks, they read at par with their counter parts from previous research. These findings are significant in that they suggest that learners can read in any language they understand, which does not have to be their mother tongues. These findings add to the understanding that the concept of mother tongue is irrelevant in the reading process. This study adds to the body of knowledge around reading in a second language and rejects some of the principles suggested in the theories on second language reading. This study specifically rejects claims such that there is a bi-directional transfer of literacy skills, behaviours and strategies between the first (L1) and second (L2) language. The study suggests that there is need for new theories research in multilingual contexts to explain theoretically for the murky reading development in these contexts. To develop new lenses of understanding literacy from complex multilingual spaces, future research should concentrate on children who have to do literacy in languages other than their mother tongues.

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APPENDICES

APPENDIX 1: MOTIVATION QUESTIONS

Personal Details:

Name _____ School _____

Teacher _____ Grade _____

Date _____ Gender _____

_____

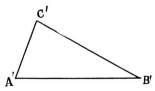
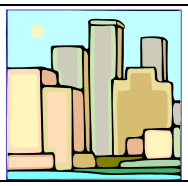
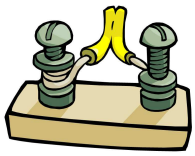
What do YOU think?	Disagree **NO**	Agree **YES**
1. I like reading	☐	☐
2. Reading is boring.	☐	☐
3. I learn things from reading	☐	☐
4. We read a lot in school.	☐	☐
5. Reading is difficult.	☐	☐
6. I like reading in Sepedi	☐	☐
7. I like reading in English.	☐	☐
8. I read books at home	☐	☐
9. My parents read books	☐	☐
10. I go to library to read	☐	☐

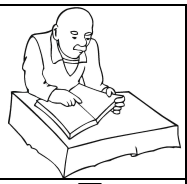
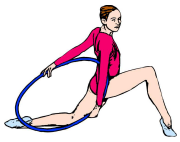
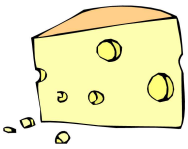
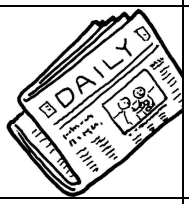
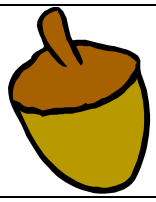
APPENDIX 2: VOCABULARY TEST FOR BOTH LANGUAGES

Section A

Listen to the word the teacher says. Find the Picture that goes with the word.
Put an X under the picture. Write the word in the first box on the left.
Example

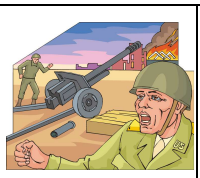
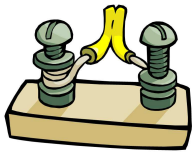
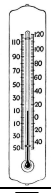
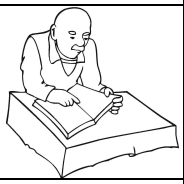
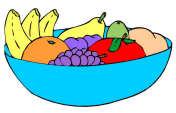
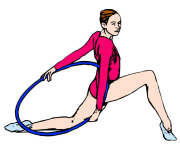
_____Flower_____				
	☐	☒	☐	☐

1. _____				
	☐	☐	☐	☐
2. _____				
	☐	☐	☐	☐
3. _____				
	☐	☐	☐	☐
4. _____				
	☐	☐	☐	☐
5. _____				
	☐	☐	☐	☐

6. _____				
	☐	☐	☐	☐
7. _____				
	☐	☐	☐	☐
8. _____				
	☐	☐	☐	☐
9. _____				
	☐	☐	☐	☐
10. _____				
	☐	☐	☐	☐

ISIZULU (VERSION)
Lalela igama umcwaningi alishoyo.Thola isithombe esihambelana nalo. Bhala uphawu X ebhokisini elincane elingaphansi kwesithombe okuyisona sona.Bhala igama okuyilo ebhokisini lokuqala ngasesandleni sesinxele.
Isibonelo:

_____Inkukhu_____				
	☐	☒	☐	☐

11. _____				
	☐	☐	☐	☐
12. _____				
	☐	☐	☐	☐
13. _____				
	☐	☐	☐	☐
14. _____				
	☐	☐	☐	☐
15. _____				
	☐	☐	☐	☐
16. _____				
	☐	☐	☐	☐
17. _____				
	☐	☐	☐	☐
18. _____				
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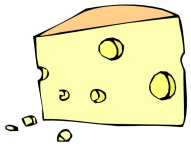
19. _____				
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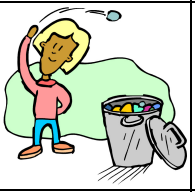
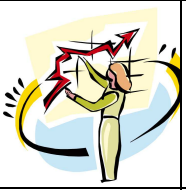
20. _____				
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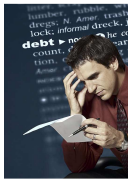
SECTION B: Match each of the following words to the 4 possible pictures provided.

1. Newspaper



☐ ☐ ☐ ☐

2. Speech






☐ ☐ ☐ ☐

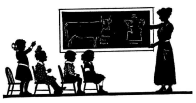
3. Fire






☐ ☐ ☐ ☐

4. Dentist






☐ ☐ ☐ ☐

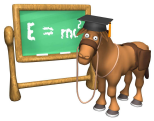
5. Church

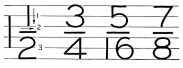





☐ ☐ ☐ ☐

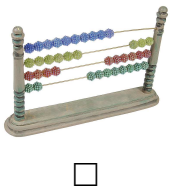
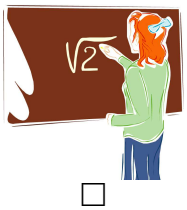
6. Vehicle



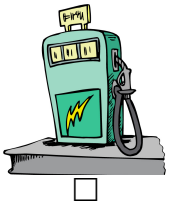
☐ ☐ ☐ ☐

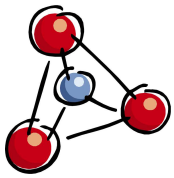
7. Divide

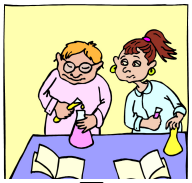


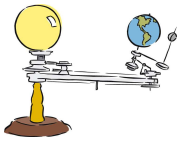
8. Petrol



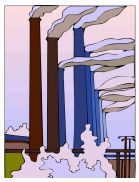



9. Electricity



10.Liquid







Qondanisa lamagama alandelayo ezithombeni ezine ozinikiwe ngezansi

11. Popola






12. Chitha



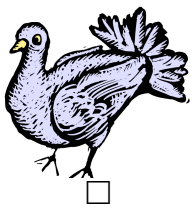
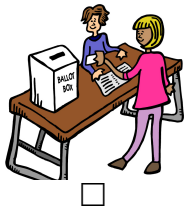



13. Isitulo



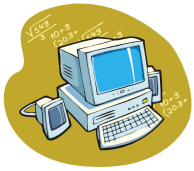



14.Izwe

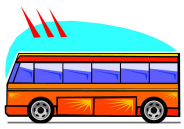





15.Okuhambayo



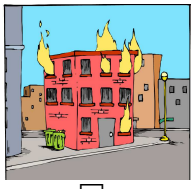



16. Bukela

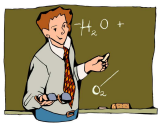


17.Ncibilika






18.Bukisisa



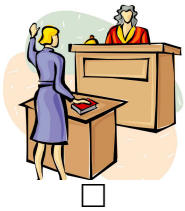


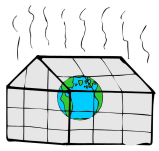

19. Ubude






20. Beka



APPEDIX 3: ENGLISH COMPREHENSION EQUIVALENT TEST

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!"	16 33 50 67 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.	98 115 128 146 163 180 197 214
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.	232 248 267 281 297 316 322

Make a X in the appropriate circle.

1. What does the story tell us?
   - o When you are big, you cannot help others.
   - o The snake shouldn't coil Partridge's eggs.
   - o The weak can sometimes defeat the strong.
   - o The ants are clever.

2. Which of these things happened first? The snake
   - o Broke partridge's eggs.
   - o Chased Partridge from her nest.
   - o Coiled his body around the eggs.
   - o Killed the elephant.

3. What did the ants do to stop the snake from coiling at partridge's eggs?
   - o Killed the snake.
   - o Bite the snake.
   - o Climbed onto the snake.
   - o Threatened the snake.

4. Which phrase in the story tells us that the Elephant thinks that he can help Partridge?
   - o Don't worry…
   - o I will step on snake…
   - o What is the matter…?
   - o Elephant killed the snake

5. The story ends happily because
   - o The snake ran away.
   - o The ants killed the snake.
   - o Partridge got her eggs back.
   - o The elephant killed the snake.

6. Imagine that you are partridge. What can you do to stop the snake?

(Write your answer in the space below.)

APPENDIX 4: ISIZULU COMPREHENSION EQUIVANENT TEST

Funda lendaba elandelayo. Uma usuqedile bese uphendula imibuzo ekugcineni.

Inyoni nendlovu

Isihlahla esikhulu sakhula phakathi ehlathini. Phezulu kwesihlahla, inyoni encane yase yenzele umndeni wayo wezinyoni ezingabantwana isidleke. Ngelinye ilanga, indlovu yafika. Yancika esihlahleni, yazinwaya emhlane. Isihlahla saqala ukuhle-phuka futhi sanyakaza. Izinyoni ezingabantwana, ngokwesaba zazama ukuncika futhi zizifihle kumama wazo. Waveza umlomo ngaphandle kwesidleke, wathi, "Hheyi si-lwane esikhulu, kukhona izihlahla eziningi lapha! Yini unyakazisa lesi? Izingane zami ziyesaba, futhi zingawa kulesi sidleke."	16 35 54 64 84 102
Indlovu ayishongo lutho, kodwa yabuka inyoni ngeso layo elincane, yanyakazisa amadlebe amakhulu emoyeni, yasuka yahamba.	118 135
Ngosuku olulandelayo, indlovu yabuya futhi yazinwaya esihlahleni futhi. Isihlahla saqala sanyakaza. Izingane zenyoni ezithukile zaphinda futhi zancika futhi zazifihla emaphikweni kumama wazo. Manje uMama Wezinyoni wayesecasukile. "Ngithi yeka ukunyakazisa isihlahla sethu," ememeza, "noma ngizokubonisa!"	153 164 181 195
"Ungasenzani isilwane esikhulu njengami?" kuhleka indlovu. Ukuba bengifuna, bengizonyakazisa lesi sihlahla kakhulu ukuze isidleke sakho nezingane zakho ziwe futhi ziphonseke le kude."	209 223 229
Umama wezinyoni akashongo lutho.	246 260
Ngosuku olulandelayo, indlovu yabuyela yanyakazisa isihlahla futhi. Ngokushesha okukhulu, umama wezinyoni wandiza wawela phezu kwenye yamadlebe amakhulu endlovu, khona lapho, wathinta indlovu ngokuyidlokoloza ngonyawo lwayo. Indlovu yanyakazisa ikhanda layo…kwangenzeka lutho. Ngoba indlovu yezwa ubuhlungu, Yabe isicela inyoni ukuthi ihambe futhi yathembisa indlovu ukuthi izoyeka ukuz-inyakazisa isihlahla.	278 294 311 328

Inyoni yandiza yashiya indlebe yendlovu yabuyela esidlekeni sayo, eceleni kwezingane zayo. Indlovu ayiphindanga yabuya futhi ukuzozinwaya umhlane wayo.	

Bhala isiphambano esikokeleni esifanele

1. Le ndaba isifundisani?
    - Uma unamandla ungahlupha abanye.
    - Izindlovu akufanele zinyakazise izihlahla.
    - Ongenamandla kungenzeka amehlule onamandla
    - Bhekana nengozi.
2. Yikuphi kulezi zinto okwenzeka kuqala? Umama wezinyoni
    - Waxwayisa izingane zakhe
    - Wethusa indlovu
    - Wayitshela ukuthi iye kozenwaya kwenye indawo.
    - Wawina umncintiswano.
3. Yimuphi umusho kule ndaba ositshela ukuthi indlovu icabanga ukuthi inamandla amakhulu? Iqala ngamagama adwetshelwe
    - “Hheyi, silwane esikhulu…”
    - Indlovu ayishongo lutho
    - Ngosuku olulandelayo, indlovu yabuya…
    - “Ungasenzani…”
4. Wenzani umama ukuze indlovu ingabe isabuyela kuleso sihlahla?
    - Wayitshela ukuthi iyeke.
    - Yazenwaya emhlane.
    - Inyoni yadlokoloza indlebe yendlovu.
    - Wafaka ichopho lomlomo wakhe kuyo.
5. Le ndaba iphela kahle ngoba
    - Indlovu yafa.
    - Indlovu ayibuyanga.
    - Isihlahla sasiqine ngokwanele.
    - Izinyoni zafunda ukundiza.

6. Cabanga ukuthi ungumama wezinyoni. Yini okunye ongakwenza ukuvimba indlovu ngapandle kokuyidlokoloza indlebe?
7. (Bhala umbono wakho mayelana nendaba kulesi sikhala osinikiwe ngezansi.)

APPENDIX 4

GAUTENG PROVINCE
Department: Education
REPUBLIC OF SOUTH AFRICA

For administrative use:
Reference no. D2015 / 265 G

GDE AMENDED GROUP RESEARCH APPROVAL LETTER

Date:	**19 August 2014**
Validity of Research Approval:	**19 August 2014 to 3 October 2014**
Previous GDE Research Approval letter reference number	**D2015/190 dated 3 June 2014**
Name of Supervisor/s:	**Professor L. Makalela**
Name of Researchers:	**Ferreira A; Mwepu D; Ntombela S; Malephole S; Kunze R; Gennrich T and Mgijima V.**
Address of Supervisor:	**18 Pitchstone**
	Kapital Street
	Northriding
	2193
Telephone Number:	**011 717 3002; 072 665 4298**
Email address:	**Leketi.makalela@wits.a.za**
Research Topic:	**Re-imagining literacies, policies and languages from below: A conceptualization of language and literacy in super-diverse multilingual contexts**
Number and type of schools:	**TEN Primary and SIXTY Secondary Schools**
District/s/HO	**Ekurhuleni North; Ekurhuleni South; Gauteng East; Gauteng North; Gauteng West; Johannesburg Central; Johannesburg East; Johannesburg North; Johannesburg South and Johannesburg West**

Re: Approval in Respect of Request to Conduct Research

2014/08/20

Making education a societal priority

Office of the Director: Knowledge Management and Research
9th Floor, 111 Commissioner Street, Johannesburg, 2001
P.O. Box 7710, Johannesburg, 2000 Tel: (011) 355 0506
Email: David.Makhado@gauteng.gov.za
Website: www.education.gpg.gov.za

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted.

The following conditions apply to GDE research. The researcher may proceed with the above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be flouted:

1. *The District/Head Office Senior Manager/s concerned must be presented with a copy of this letter that would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study.*
2. *The District/Head Office Senior Manager/s must be approached separately, and in writing, for permission to involve District/Head Office Officials in the project.*
3. *A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB) that would indicate that the researcher/s have been granted permission from the Gauteng Department of Education to conduct the research study.*
4. *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, respectively.*
5. *The Researcher will make every effort obtain the goodwill and co-operation of all the GDE officials, principals, and chairpersons of the SGBs, teachers and learners involved. Persons who offer their co-operation will not receive additional remuneration from the Department while those that opt not to participate will not be penalised in any way.*
6. *Research may only be conducted after school hours so that the normal school programme is not interrupted. The Principal (if at a school) and/or Director (if at a district/head office) must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.*
7. *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.*
8. *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.*
9. *It is the researcher's responsibility to obtain written parental consent of all learners that are expected to participate in the study.*
10. *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.*
11. *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.*
12. *On completion of the study the researcher/s must supply the Director: Knowledge Management & Research with one Hard Cover bound and an electronic copy of the research.*
13. *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.*
14. *Should the researcher have been involved with research at a school and/or a district/head office level, the Director concerned must also be supplied with a brief summary of the purpose, findings and recommendations of the research study.*

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9th Floor, 111 Commissioner Street, Johannesburg, 2001
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Website: www.education.gpg.gov.za

The Gauteng Department of Education wishes you well in this important undertaking and looks forward to examining the findings of your research study.

Kind regards

.....

Dr David Makhado

Director: Education Research and Knowledge Management

DATE: 2016/08/20

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