



(How) Should the language policy promote mother-tongue instruction or a straight-for-English approach in primary schooling in South Africa: What does empirical data contribute?

by
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Stellenbosch University*

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DECLARATION

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ABSTRACT

Language is a fundamental aspect of education and broader societal construction; we interact using language and learn through it. Understanding the historical development of languages in South Africa and their current status and use empowers policymakers to think strategically about language. This imperative is informed by the unequal development of languages and the effects on education in specific languages and economic opportunities. A lack of detailed attention would maintain the persistent inequalities we find in our society.

This thesis contributes to the language debate through four separate chapters. After an introductory chapter that sets out the rationale and structure of the thesis, the second chapter defines language planning, its key components, and how these have been applied to Afrikaans and African languages. The analysis showed that a systematic approach was followed for Afrikaans, while a sporadic process was followed for African languages. The political, social and religious environment to enable Afrikaans compared to African languages is discussed at length. All of this was applied through the language planning lens. The conclusion was that Afrikaans enjoyed systematic language planning and continues to enjoy this support for economic and cultural reasons. If African languages are to reach this level, similar investments in policy, status and language planning are required.

The third chapter considered the current language policies governing language in society. The primary focus was on basic education. However, policies governing universities and broader society were considered. The implications for the schooling and post-schooling sector were discussed in detail, including court cases. The implications for current policies and policy debates are raised. In addition, a policy implementation framework based on ambiguity and conflict was considered and applied. It is instructive in identifying challenges and areas of redirection.

The fourth chapter examined the application of the Language in Education Policy and curriculum policies. It used empirical data from two independent experiments to evaluate supporting literacy in the Home Language and English as an Additional Language. The evidence showed that

supporting Home Language is more strategic at a policy and sustainability level while exclusively supporting English First Additional Language has high costs for learning.

The fifth chapter applied all the lessons from the thesis to the international context. South Africa's participation between 2006 and 2016 in the Progress in Reading Literacy Study was examined. The data analysis identified similarities and differences in a range of variables, including race, socio-economic status, and language. The chapter revealed significant gains in performance, particularly amongst African languages. It concluded with a discussion on multilingualism, identifying 25% of classrooms as multilingual.

OPSOMMING

Taal is 'n fundamentele aspek van onderwys en breër samelewingskonstruksie – ons kommunikeer met behulp van taal en leer daardeur. Om te verstaan hoe die tale van Suid-Afrika histories ontwikkel het tot hul huidige status en gebruik, bemagtig beleidmakers om strategies oor taal te dink. Hierdie noodsaaklikheid word beleig deur die ongelyke ontwikkeling van tale en die uitwerking op onderwys in spesifieke tale en ekonomiese geleenthede. 'n Gebrek aan daadwerklike fokus sal bloot die voortgesette ongelykhede wat ons in ons samelewing vind, handhaaf.

Hierdie tesis dra by tot die taaldebat deur vier afsonderlike hoofstukke. Na 'n inleidende hoofstuk wat die rasionaal en struktuur van die proefskrif uiteensit, definieer die tweede hoofstuk taalbeplanning, die sleutelkomponente daarvan en hoe dit op Afrikaans en Afrikatale toegepas is. Die ontleding het getoon dat 'n sistematiese benadering vir Afrikaans en 'n sporadiese benadering vir Afrikatale gevolg is. Die politieke, sosiale en godsdienstige omgewing wat Afrikaans bemagtig het, word breedvoerig bespreek en vergelyk met die ontwikkeling van Afrikatale gesien deur die taalbeplanningslens. Die gevolgtrekking was dat die taalbeplanning van Afrikaans sistematies plaasgevind het en dat dit om ekonomiese en kulturele redes steeds hierdie steun geniet. Indien Afrikatale hierdie vlak wil bereik, word soortgelyke beleggings in beleid, status en taalbeplanning vereis.

Die derde hoofstuk handel oor die huidige taalbeleid wat taal in die samelewing reguleer. Die primêre fokus was op basiese onderwys maar beleide wat universiteite en die breër samelewing beheer, is ook in ag geneem. Die implikasies vir die skool- en naskoolse sektore is breedvoerig bespreek, insluitend tersaaklike hofsake. Die implikasies vir huidige beleide en beleidsdebatte is geopper. Daarbenewens is 'n raamwerk vir beleidsimplementering, gebaseer op dubbelsinnigheid en konflik, oorweeg en toegepas. Dit is insiggewend om uitdagings en areas van herleiding te identifiseer.

Die vierde hoofstuk ondersoek die toepassing van die Taal in Onderwysbeleid en kurrikulumbeleide. Dit het empiriese data van twee onafhanklike eksperimente gebruik om die ondersteuning van geletterdheid in die Huistaal en Engels as addisionele taal te evalueer. Die bewyse het getoon dat die ondersteuning van die huistaal meer strategies is op beleids- en volhoubaarheidsvlak, terwyl die uitsluitlike ondersteuning van Engels Eerste Addisionele Taal hoë kostes vir leer inhou.

Die vyfde hoofstuk pas al die lesse uit die studie in die internasionale konteks toe. Suid-Afrika se deelname tussen 2006 en 2016 aan die internasionale Vordering in Leesgeletterdheidstudie (PIRLS) is ondersoek. Die data-analise het ooreenkomste en verskille in 'n reeks veranderlikes geïdentifiseer, insluitend ras, sosio-ekonomiese status en taal. Die hoofstuk het beduidende winste in prestasie getoon, veral onder Afrikatale. Dit is afgesluit met 'n bespreking oor meertaligheid en 25% van klaskamers is as meertalig geïdentifiseer.

DEDICATION

The topic of my thesis was inspired by an ongoing struggle I and many others in South Africa and the rest of the continent experience; how to make sense of and leverage our languages beyond their intrinsic value. This thesis allowed me to explore this both in breadth and depth. I answered many questions, asked new questions, and best of all, learnt so much. I can now not only attest to the value of our languages, but through this work, I have also contributed to the scientific body of knowledge on this question and equally important, to the policy options we can adopt. This thesis is dedicated to the many children that have lost faith in the power of their own languages and who have not had the advantage of leveraging the benefits that come with learning in a language they know best. I hope to live long enough to see this change. I cannot think of a better ending than with an adapted version of this seminal writing by His Excellency, President Thabo Mbeki.

I am an African.

I owe my being to the hills and the valleys, the mountains and the glades, the rivers, the deserts, the trees, the flowers, the seas and the ever-changing seasons that define the face of our native land...

Because of that, I am also able to state this fundamental truth that I am born of a people who are heroes and heroines...

I am born of a people who would not tolerate oppression.

I am of a nation that would not allow that fear of death, torture, imprisonment, exile or persecution should result in the perpetuation of injustice...

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"Lord you are my portion and my cup of blessing; you hold my future. The boundary lines have fallen for me in pleasant places; indeed, I have a beautiful inheritance." Psalm 16:5-6. To God be the glory.

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LIST OF ACRONYMS

ANA	Annual National Assessments
BELA	Basic Education Laws Amendment
CAPS	Curriculum and Assessment Policy Statement
DBE	Department of Basic Education
EFAL	English First Additional Language
IILAL	Incremental Introduction of African Languages
LOI	Language of Instruction
L1	first language/home language
L2	second language
LiEP	Language in Education Policy
LTSM	learning and teaching support materials
NEPA	National Education Policy Act
NCS	National Curriculum Statement
NSC	National Senior Certificate
PANSALB	Pan South African Language Board
PED	provincial education department
PIRLS	Progress in International Reading Literacy Study
SASA	South African Schools Act
SGB	school governing body
SVR	Simple View of Reading
TIMSS	Trends in Mathematics and Science Study

CHAPTER 1: INTRODUCTION, CONTEXT AND OVERVIEW OF RESEARCH QUESTIONS

1.1 BACKGROUND TO EDUCATION IN SOUTH AFRICA

There have been significant gains in access to basic education in South Africa. Since 2009, more than 98% of learners between the ages of 7 to 15 years have been enrolled for education (Department of Basic Education, 2023a). This is in accordance with the South African Schools Act (SASA) of 1996 on compulsory education (Republic of South Africa, 1996b). However, Hanushek and Woessman (2007) and later Pritchett (2013) cautioned that access to education is incomplete; the quality of education measured through learner outcomes matters more than access. The authors argued that a society's cognitive skills, ability and knowledge lead to improved earnings rather than years of education.

While low and unequal educational outcomes in South Africa are well documented at the high school level (Van Broekhuizen, Van der Berg, & Hofmeyr, 2017; Department of Basic Education, 2010a, 2018), there is increasing recognition that these deficits start early and persist over the grades (Taylor, Van der Berg, Reddy, & Janse van Rensburg, 2011). In earlier research of mine, analysing the Early Grade Reading Study data from 230 schools from the North West Province, I have shown the stark differences that exist at the beginning of school and the gaps that widen by the end of Grade 1 (Mohohlwane, 2016). From the analysis of gain scores over the year, the home language gaps between strong and weak learners are large and grow over the school years.

Van der Berg (2015) demonstrates that early-grade performance patterns are consistent over time through establishing an “on-track” reference group of learners consisting of White and Indian learners of the appropriate age and grade, performing at the average benchmark in the Trends in Mathematics and Science Study (TIMSS) in Mathematics. The performance of the reference group is then tracked over time using Annual National Assessment (ANA) data which shows differences in learner trajectories firmly established by Grade 4. The number of learners on track decreases from Grade 1 throughout primary school. By the end of Grade 4,

approximately 58% of quintile 5 learners and 22% of learners in quintile 1 are on track. These patterns largely mirror Grade 12 university entrance attainment already. The patterns seen in mathematics performance have also been reflected in literacy, as measured in national, regional and international learner assessments.

More recent work in literacy by Wills, Ardington and Sebaeng (2022) found the same pattern. Using longitudinal data from Grades 1 to 7 comparing oral skills in letter sound recognition and oral reading fluency (ORF), categorising learners from non-readers to proficient readers. They found that learners were on different trajectories based on their initial performance. Using the same dataset, the Early Grade Reading Study, I complement this work by examining intervention gains, language acquisition and transfer. Identifying appropriate interventions may be a powerful policy-shifting lever to improve reading outcomes in poorer schools, addressing the skills and knowledge gaps in the education system.

The persistence of reading trajectories and the importance of tracking change over time was also evident in international assessments. The Progress in International Reading Literacy Study (PIRLS) 2006 results indicated that more than 87% of South African children had not yet learned to read for meaning by Grade 5 (Howie, Venter, Van Staden, Zimmerman, Long, Du Toit, Scherman, & Archer, 2008). The 2011 pre-PIRLS study provided a new benchmark of reading levels in Grade 4 in all 11 official South African languages, where 82% of learners in a nationally representative sample did not have the rudimentary reading skills required. Reading skills were particularly weak amongst learners tested in African languages, especially those assessed in Sepedi and Tshivenda (University of Pretoria, 2012). The 2021 PIRLS results (Department of Basic Education, 2023b) indicate a worsening situation, with 81% of learners not reaching the low international benchmark. Chapter 5 examined the change over time (between 2006 and 2016), particularly the languages that gained the most and the least.

Trends over time in trajectories and gains should be examined, as this study does. In the case of South Africa, these patterns are aligned to poverty, geographic location and race due to apartheid and the bi-modal system of education that has become its legacy (Fleisch, 2008). The largest of

these two systems consists of previously disadvantaged schools characterised by inefficiency and poor learner performance, with the second system mainly composed of historically White and Indian schools characterised by higher levels of performance, on average comparable to international benchmarks, as shown in the work of Van der Berg (2015) and Spaul (2015). The relationship between socioeconomic status, apartheid policy legacies and school quality are considered in the analysis as contextual factors that continue to influence education outcomes. The work in this thesis should be considered against this background.

Low and unequal education outcomes are not limited to South Africa. We see similar disparities across the world, though none are as large as in South Africa. The World Bank learning poverty report (2019) provides a global picture of low learning, specifically focusing on reading. Globally, approximately 53% of learners in the early years of schooling cannot read for meaning. This is defined as learning poverty in reading and other foundational skills, including numeracy. The concentration is in low-and-middle-income countries, dominated by Africa.

The components of learning poverty are threefold. First, learners are going through school without acquiring foundational skills. Second, where learning is happening, the learning rate is too slow. Third, learning deficits negatively impact further learning and the production of high-end skills required for strategic national development (World Bank, 2019). Azevedo (2020) estimated that learning poverty increased from 53% to 63% due to the COVID-19 pandemic schooling disruptions. The negative consequences experienced by the learners influences their potential in the labour market. In addition, it has national and global implications for poverty alleviation, economic development and human capital realisation (Azevedo, 2020; Pritchett 2013; World Bank, 2019).

The World Development Report (World Bank, 2018) highlighted three aligned policy responses. Tracking learning through assessment and using the outcomes to guide policy; acting on evidence of what works for learning outcomes; and tackling technical and political barriers at scale to ensure alignment of all actors across the system. All three aspects were addressed in this thesis. Chapter 5 focused on comparative measurement using international assessments that South

Africa participates in and how these can be used to measure progress in education outcomes. Chapter 4 focused on creating an evidence base to develop and measure interventions that can impact learning amongst the poorest learners and how to act on this evidence. Chapters 2 and 3 provided the broad policy and political landscape for reading.

1.2 THE SOUTH AFRICAN LANGUAGE LANDSCAPE

There is substantial research on learner performance and the quality of schooling nationally and internationally; however, there is limited research on the language of instruction. This study contributes to this research area. Learning and reading, specifically, are mediated by language. Language is used to teach and learn, regardless of the subject. The acquisition, transfer, use and policies on language are core aspects of any education system. These are significant and contested aspects in a multilingual South Africa with 12 official languages.¹

South African languages are all alphabetic² and are classified into three broad categories: West-Germanic Indo-European language family, Southern Bantu languages, and South African Sign Language (see Figure 1.1). Southern Bantu languages, which are the majority, are all transparent and agglutinating. We often refer to the Southern Bantu languages under the umbrella of African languages; however, they are not monolithic: differing in their linguistic typography. The main differences are orthographic, namely, writing conventions, including spelling and grammar and morphological, namely, how words relate to each other to make meaning.

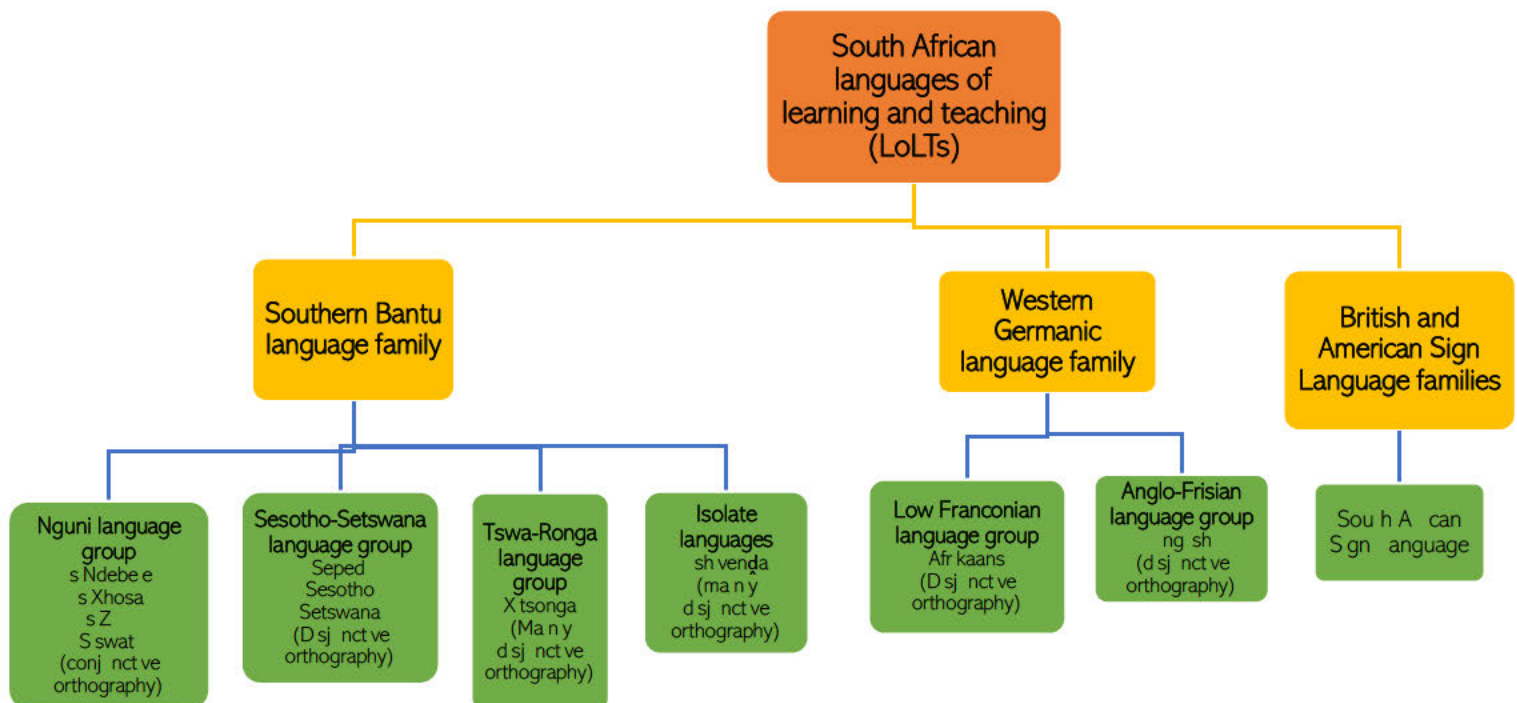
There are four sub-categories in the Southern Bantu language category:

¹ Sign language was approved as the 12th official language in May 2023 by the Portfolio Committee on Justice and Correctional Services, having considered the Constitution Eighteenth Amendment Bill [B1 – 2023]. Report of the Portfolio Committee on Justice and Correctional Services on the Constitution Eighteenth Amendment Bill [B1 – 2023]. Parliament South Africa. <https://pmg.org.za/taled-committee-report/5263/> and <https://www.parliament.gov.za/press-releases/na-approves-south-african-sign-language-12th-official-language> accessed 8 June 2023.

² Alphabetic languages are one of many types of written languages. They use a standardised set of letters to represent sounds. The letters are rearranged to form different words. This is different from Ideographic languages, where ideas are represented with specific graphic symbols, amongst others. Britannica Encyclopedia. Types of writing systems. <https://www.britannica.com/topic/writing/Alphabetic-systems> accessed 8 August 2023.

- The Nguni languages have a conjunctive orthography: one word may be a whole sentence (Khumalo, 1987; Nkomo & Wababa, 2013). The Sesotho-Setswana languages have a disjunctive orthography consisting of short word segments with prefixes and suffixes written separately (Machobane & Mokitimi, 1998; Machobane Matlosa & Mokitimi, 2003).
- Tshivenda and Xitsonga, while distinct from each other, mostly have a disjunctive orthography with compounding features making them “bridging languages” in their classification (Mathivha, 1973, Nengovhela, 2005). Tshivenda is classified as a language isolate, although it relates to some variants of the Shona language (Mathivha, 1973; Madiba, 2000). Xitsonga belongs to the Tswa-Rhonga (Guthrie, 1971) found amongst neighbouring countries (Junod, 1912).

Figure 1.1: South African official languages

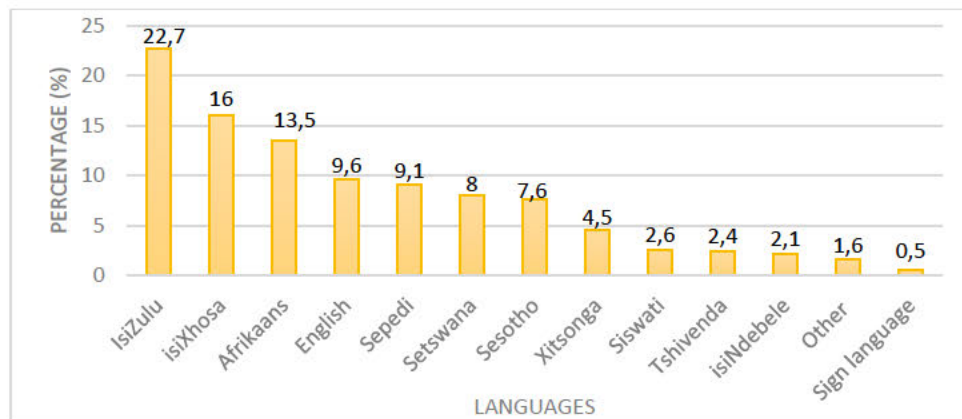


*Note: * The word Bantu is “a frequently occurring plural form of the word meaning person”. It is not only linguistic but it was also objectified almost immediately and used for ethnographic purposes. The term remains controversial due to its politicised nature, especially in South Africa. However, the linguistic label remains official.*

Within such a diverse language landscape, a range of questions require attention. Some unanswered questions are whether any language transitions should occur in schooling, from which languages and how best this may be mediated. The existing literature and research on African languages have largely focused on language and identity. For example, Maluleke (2005) discussed the selection of specific words in Bible translations from English to vernacular languages and the commentary they make on African identity; Janks and Makalela (2013) and Makalela (2016) reflected on Neville Alexander's position on the power of language in access, identity and social transformation. The focus on schooling built a case for using mother tongue instruction, with empirical data supporting this in recent years (Mackenzie & Walker, 2013; Taylor & Von Fintel, 2016; World Bank, 2005). However, there are still far too few studies of this nature, and the contribution to policy in education is often under-theorised.

De Vos, Van der Merwe and Van der Mescht (2015) reflected that more research has been completed on English and Afrikaans in South Africa than on African languages. This is disproportionate to the demographics of the South African languages. In Figure 1.2, we see that the largest number of languages spoken at a home language level are African languages, making up 77% overall. The largest language is isiZulu, 22.7%, followed by isiXhosa, 16%. English only makes up 9.6% as the home language, while Afrikaans is spoken by 13.5% of the population.

Figure 1.2: Distribution of the population by first language spoken (percentage)



Source: Statistics South Africa. (2012). *Census 2011: Census in Brief*. Statistics South Africa

Only 23% of South Africans spoke English or Afrikaans as their Home Language in 2012 (Statistics South Africa, 2012). The vast majority of learners in South Africa, 68%, were African language speakers and usually learned in an African language in the Foundation Phase. Inversely, only 32% of learners, many of whom are African Home Language speakers, start school learning in English or Afrikaans. Based on a specific interpretation of the national education language policy (Republic of South Africa, 1998a), learners are then expected to use the skills mastered in the Foundation Phase in their First Language (L1) to transition into learning in English, and in fewer cases Afrikaans, a second language(L2) in the Intermediate Phase and for the rest of their schooling. For most learners, English is often a second or third language. The number of learners learning in English increases drastically to 90% in Grade 4, from 23% in the Foundation Phase.

De Vos et al. (2015) showed that in linguistics, when research is conducted on African languages, it is on macro approaches with little focus on phonological, morphological and syntactic processes in reading, which are distinct and fundamental for reading in African languages. The work completed, and the existing gaps are well documented in a recently compiled annotated bibliography on reading in all nine African languages (Pretorius, 2018). This important contribution comprises only 38 annotated entries based on research articles from accredited journals, chapters from books, dissertations and theses spanning 2004 to 2017 on Southern African Bantu languages. In contrast, the annotated bibliography on reading in English as an additional language from 2007 to 2020 in South Africa has more than 110 studies (Biesman-Simons, Dixon, & Pretorius, 2021).

While some English as an additional language (L2) research examines second language acquisition (Biesman-Simons et al., 2021), it does not span all the African languages, nor does it explore any other kind of multilingualism outside English. In society, however, we find growing multilingualism amongst African home language speakers but not English speakers, according to the census comparison between 1996 and 2011 (Statistics South Africa, 2012; Posel & Zeller, 2016). As seen in Table 1.1, amongst Africans, English was the most spoken second language (L2) in 1996. However, looking at the summary row at the bottom of the table, this was small at 3.3%, while 88% reported not speaking any second language. By 2011, Africans that spoke English had

multiplied exponentially to 27.3% overall. A further 21% reported speaking an L2 that was another African language. IsiZulu was the second-largest L2 in both 1996 and 2011. Importantly the changes in Table 1.1 showed growing language diversity amongst African languages and not just English.

Table 1.1: Main second languages reported among Africans in 1996 and 2011

First home language	1996		2011	
	Main second language I (%)	Main second language II (%)	Main second language I (%)	Main second language II (%)
English	isiZulu (20.2)	Afrikaans (12.0)	isiZulu (12.7)	Other (10.2)
Afrikaans	English (10.7)	Setswana (10.2)	English (36.3)	Setswana (8.1)
IsiZulu	English (4.6)	Sesotho (2.3)	English (34.9)	Sesotho (3.7)
isiXhosa	English (3.7)	Sesotho (2.0)	English (34.0)	isiZulu (5.4)
Sepedi	isiZulu (1.8)	English (1.7)	English (19.8)	Setswana (4.0)
Setswana	English (3.2)	Afrikaans (3.0)	English (24.8)	Afrikaans (5.5)
Sesotho	isiZulu (5.5)	isiXhosa (3.0)	English (17.9)	isiZulu (10.5)
Tshivenda	isiXhosa (1.8)	English (1.5)	English (20.5)	Xitsonga (7.1)
Xitsonga	isiXhosa (4.8)	isiZulu (3.9)	English (14.5)	isiZulu (8.8)
isiNdebele	Sepedi (8.6)	isiZulu (6.1)	English (19.8)	isiZulu (16.7)
Siswati	Xitsonga (4.6)	isiZulu (4.1)	English (24.2)	isiZulu (9.4)
Other	English (15.8)	isiZulu (6.9)	English (51.5)	isiZulu (8.0)
Sign language	Nil	Nil	English (21.5)	Afrikaans (5.5)
All	English (3.3)	isiZulu (1.8)	English (27.3)	isiZulu (4.7)

Source: Posel, D., & Zeller, J. (2016).

Note: The data is from the South African Census 1996 and 2011. It is a 10% sample weighted to represent the South African population.

The language in education debate and appropriate policy response are complex but necessary. There are serious implications for learning and even legislation in South Africa. The Supreme Court has urged that policy refining on language in education is necessary (Hoërskool Ermelo v The Head of Department of Education: Mpumalanga, 2009). An appropriate response entails taking on board the status quo in policy interpretation; the benefits of learning in their home language, and the increasing multilingualism in the population. How to engage this at a policy level is addressed in Chapter 3. While the empirical benefits are examined in Chapter 4. And finally, the extent of multilingualism is examined in Chapter 5.

These conflicting and difficult language policy and practice issues are not unique to South Africa (UNESCO, 2003; UNESCO, 2016). Much of the developing world is multilingual (World Bank, 2005). Examining the compatibility of prevailing language in education approaches for these contexts and theoretical contributions and lessons gleaned from South Africa have broader applicability.

1.3 RESEARCH QUESTIONS AND THESIS STRUCTURE

The central motif in this study was language in education policy. Language development, its historical use, and what has shaped or influenced language policy in South Africa were considered. This is followed by an analysis of post-1994 language policies and their limitations, focusing on education. The next chapter contributes to the evidence base on effective language in education implementation practices. Reading outcomes are then benchmarked and compared over time nationally and internationally amongst South African languages. The papers that constitute Chapters 2 to 5 all contribute to a dimension of language in education policy. The overarching research question was, “Should the language in education policy promote mother-tongue instruction or a straight-for-English approach?”

The thesis is structured in a four-paper format, addressing the overall question through four distinct research papers, each with a clear and continuous single focus. For the sake of convention, these articles are represented as Chapters 2, 3, 4 and 5, with the final chapter, 6, drawing the overall conclusions. Each of the chapters are largely organised as self-contained article. In line with this, some words are used interchangeably, including learners, students and pupils.

Chapter 2 contributes to applying a language planning approach for South African languages. How Afrikaans developed is examined and contrasted with African languages during the same period. The use and status of languages and how these have persisted over time is also examined.

Chapter 3 synthesises language policy in post-Apartheid South Africa by analysing ten language policies. The policy cycles are then critically evaluated, identifying gaps and proposing a way forward.

Chapter 4 uses large-scale data to evaluate two similar reading interventions that only differ in their target language and province. This serves as an application of the language in education policy and provides an empirical contribution to the language in the education debate, which is still largely theoretical and ideological. The chapter also examines and contributes to several theories: language acquisition, reading acquisition, and language transfer.

Chapter 5 considers the use of international assessments to measure progress in reading outcomes. The focus is on measuring trends over time amongst South African languages. Providing a descriptive picture of the changing demographics of learners in the South African education system and the various correlations between wealth, province, and performance. The chapter also engages the advantages and disadvantages of writing in different languages.

The overall methodologies for each paper may be summarised as 1) policy analysis and evaluation; 2) quantitative data analysis: using empirical data to draw on national and international lessons; and 3) internal systematic appraisal: measuring the trends of reading outcomes based on international assessment measures. The role of ideology and qualitative research in developing and testing theories and literature is recognised especially in the policy analysis and overall literature. However quantitative data methods are adopted to test and advance policy implementation and options. The use of quantitative approaches is especially adopted to inform sub-samples of the population rather than shape national policies based on small scale research. Each chapter includes a literature review specific to the question. However, the overall central question remains consistent throughout the three articles.

CHAPTER 2: THE ALIGNMENT IN POLITICS, LANGUAGE DEVELOPMENT AND LANGUAGE POLICY

2.1 INTRODUCTION

This chapter aims to present the interplay of political changes, policy developments and language planning by examining historical and current developments. The historical discussion focuses on the development of Afrikaans, and the African languages as a counterfactual. The periods under consideration are colonialism, apartheid, and democracy.

The chapter examines these relationships against the language planning paradigm and highlights political and social planning as significant pillars against historical developments. Where possible, the direct effects on education are discussed.

2.2 WHY LANGUAGE MATTERS

South Africa's history showcases the interrelationship between power, identity and language. The language ecosystem does not develop incidentally; it is the product of deliberate efforts in the discipline of language planning. Robert Cooper reflected on language development when he said, "To plan language is to plan society" (Cooper, 1989, p. 182). Language planning first appeared in literature in 1959 in the work of Haugen (Cooper, 1989; Ngcobo, 2009). The term has since become commonly used with the broad definition: deliberate language cultivation encompassing administrative and political efforts to solve a language goal in society.

There should be no question regarding *whether* language can be planned but rather *how* it should be planned. The emphasis is on *who* plans *what*, *for whom* and *why* (Cooper, 1989, p. 31; Reagan, 2002). The answers to these questions vary greatly depending on the specific context. The South African response to these questions will be illustrated in the case of the development of Afrikaans and African languages in the following section.

Language planning has two foci: corpus planning and status planning. Corpus planning entails the development of terms, standardisation, grammatical rules and other linguistic development

aspects. Status planning focuses on the use and function of languages, including use as the medium of instruction in schools or as the language of business, and more complex aspects such as language minority rights (Cooper, 1989). The process of language planning involves political, educational, economic, and linguistic authorities who take into account the current dynamics (Ngcobo, 2009; Reagan, 2002).

A more recent addition to the language planning paradigm is language acquisition. Authors examining this area refer to language as problem, language as right, and language as resource (Hult & Hornberger, 2016). The underlying assumptions within this additional lens are discussed in the chapter directly and indirectly.

A good language planning policy or approach should apply four criteria: firstly, desirability, whether the community believes in the policy goal; secondly, justness, whether the policy is fair and equitable; thirdly, effectiveness, whether the policy achieves its objectives; and lastly, tolerability, whether the policy is resource-sensitive or viable within its context (Reagan, 2002).

The development of Afrikaans, as summarised in the section that follows, illustrates the concrete steps taken to develop Afrikaans and oppose English language status and African development, affirming the nature and practice of language planning.

2.3 THE COLONISATION OF SOUTH AFRICA

The first European language formally spoken by settlers in South Africa was Dutch. This followed the colonisation of the Cape by European settlers, who were mostly Dutch. A Dutch company established a trading station in the Cape in 1652. The Cape had previously also been used by the English and Portuguese as a trade stopover. The European settlers were mostly Dutch-speaking, but other European nationalities were present, including the Portuguese, Germans, and Huguenot French. They formed a new Cape Dutch community labelled Dutch. This community later evolved into the Afrikaner nation with a new language known as Afrikaans (Marjorie, 1982; Mesthrie, 2002; Hans, 2012; Silva, 1997). The positioning of Dutch and then Afrikaans by the local Dutch community was not incidental, they were set up to be the official languages and the languages of trade.

2.3.1 The politics behind language development for Afrikaans

In 1795 the Dutch handed power over to the British following instructions from Holland. Although the transition was resisted, British rule persisted. In 1822, English was formally introduced as the language of learning, business and government in the Cape (Hans, 2012; Marjorie, 1982; Silva, 1997). Further changes to the Dutch way of life were the abolition of slavery, land occupation, and ownership competition. These changes are cited as the main reasons for the Afrikaner Great Trek in 1836. However, the Voortrekker meta-narrative emphasises the loss of language autonomy amongst the primary reasons for the Afrikaners' Great Trek. There is evidence that emphasising language in the careful reconstruction of the motivation for the Great Trek was a fundamental part of the Afrikaner patriotism and nation-building efforts in the 1930s and 1940s (Bond, 2003; Grundlingh & Huigen, 2011; Somerville, 1990).

The historical timeline and developments between 1652 and the Great Trek are well documented, except for the development of the Afrikaans language, beyond its relationship with Dutch. In more recent accounts, although contested, this development has been attributed to primarily three groups; the European settlers, mostly represented by the Dutch; the colonised or indentured Khoi and San; and enslaved people of African descent, mostly from Angola, and those of Indo-Asian descent largely from Malaysia and the Indian subcontinent (Geffen, 2003; Roberge, 2002; Terreblanche, 2002). Complementarily, the sources of the first "truly Afrikaans" written texts are cited as a doggerel poetry verse in 1795, a transcribed dialogue by a Dutch traveller in 1825, letters to newspapers in 1830, as well as texts used in the mosque based on Arabic orthography within the Cape Muslim community in 1830 (Dangor, 2003; Davids, 2011; Mesthrie, 2002).

Three basic varieties of Afrikaans are customarily identified: Cape Afrikaans, East Afrikaans and Orange River Afrikaans. These differ based on the influence, population and distance between the language contributors. However, the standardised Afrikaans is largely based on Eastern Afrikaans, which is most like Dutch and was largely spoken by the Dutch population. Standardisation also included adopting Dutch language prestige norms (Pretorius, 2014).

The standardisation of Afrikaans was informed by power and politics with a deliberate effort to create a racially exclusionary variant of Afrikaans that privileged Afrikaner nationalism rather than inclusivity or following formal standardisation processes (Alexander, 2009; Giliomee, 2004). Deliberate decisions on both status planning - distinguishing a variant of Afrikaans - and corpus planning were implemented. This account is supported by the documented ideals of Afrikaner nationalism and the conceptualisation of “die volk” as best articulated by Hertzog and Malan, referring exclusively to White people committed to the idea of a distinct people when speaking about Afrikaners (Giliomee, 2004; Malherbe, 1925, 1977).

2.3.2 The contribution of missionaries to Afrikaans language development

Discussing language development in colonised territories without discussing the church would be remiss. The relationship between the state, the church and education dates back to the Dutch settlements’ establishment of the first school within a white settlement in 1658 (Malherbe, 1977). The school's original purpose was to instruct mostly West-African slaves in the Dutch language and the core elements of Christianity. This was extended to White learners in 1663, closely followed by schooling for Coloured learners in 1676. Malherbe (1977) detailed how the relationship between the church and state was highly integrated. The following quotation on the ideal teacher illustrates the point:

“The ideal teacher [of those days] is a man who is gentle, true, of good family and of good reputation. He is a man who knows how to write a good hand and who is good at reading... who can write letters and requests; who understands the scriptures so that he can educate the people; and who knows how to set a clock, how to manage, oil and clean it.”

The requirement was instituted through the Cape Commissioner-General, J. A de Mist, who systematised education and introduced a requirement for all people holding office to speak, read and write in Dutch from 1 January 1800 (Malherbe, 1925). Again, this extended the requirement from education to the rest of the government, illustrating the reciprocal relationship between the different spheres of language planning. This process expanded language use from a knowledge-based educational purpose to a governing purpose in language status.

A brief period of anglicising Afrikaners was introduced by Alfred Milner between 1901 and 1905 (Mesthrie, 2002), with English emphasised over Dutch in schools through the provision of state education for Whites while the education of Blacks was left to the churches and mission schools. However, following the South African War, which took place between 1899 and 1902 and subsequent political developments, the privileging of English was rejected.

Language development efforts by the 'Genootskap van Regte Afrikaners' (The Fellowship of True Afrikaners') were extensive (Davenport, 1966). The organisation was formed following initial discussions about translating the Bible into Afrikaans in 1875. The explicit aim of this society was establishing Afrikaans as a language in its own right, with a clear political end. At their first meeting, the society identified three types of Afrikaners, those with Afrikaans hearts, those with Dutch hearts and those with English hearts. An explicit decision was taken to mobilise those with Afrikaner hearts (Antonissen, 2017; Davenport, 1966).

The organisation was pivotal in lobbying for the official status of Afrikaans and ensuring that the language was written and formalised (Mesthrie, 2002; Roberge, 2012). According to Davenport (1966), the fervour of this work was based on a belief that the Afrikaans language was God-given. The translation work of the Bible into Afrikaans was a critical step towards standardisation. The organisation produced the '*Eerste Beginsels van die Afrikaanse Taal*' (First Principles of the Afrikaans Language), serving as grammars and dictionaries providing literature and material infrastructure.

Further efforts were establishing '*Die Afrikaanse Patriot*' (The Afrikaans Patriot) newspaper in 1876, a publication that largely communicated political ideas. Over time, it printed more than 93 650 Dutch and 81 000 Afrikaans books.

2.3.3 The media and civil society contributions to Afrikaans development

The contribution of media and communication is demonstrated through the establishment of Naspers³, a publishing company, in 1915. Naspers publications included an Afrikaans (initially

³ Naspers was established under the name De Nationale Pers Beperkt (National Press Ltd)

Dutch) daily newspaper, '*Die Burger*', (The Citizen) published from 1915 and edited by DF Malan until 1924, who later became the Prime Minister in 1948 when the National Party regained power (Davenport, 1966). The newspaper served as a mouthpiece for the National Party until 1990

A further significant organisation that influenced Afrikaans culture and nationalism was '*Jong Suid-Afrika*' (Young South Africa). The organisation formed by young Afrikaners in 1918 worked towards Afrikaner nationalism, maintaining an Afrikaner culture, developing an Afrikaner economy, and gaining control of the South African government (O'Meara, 1977; Bloomberg, 1990; Wilkins & Strydom, 2012). The organisation extended its influence and political activism, ultimately creating the *Federasie van Afrikaanse Kultuurverenigings* (FAK - Federation of Afrikaans Cultural Societies) as a public organisation responsible for Afrikaner culture. At the same time they established the Broederbond (Afrikaans brotherhood), which ultimately became a secret organisation, to focus on politics (Davenport, 1966, Bloomberg 1990; Wilkins & Strydom, 2012; O'Meara, 1977). At the end of Apartheid, most cabinet members were affiliated with the Broederbond. A damning list was published by Wilkins and Strydom (2012) in 1978, listing 7 500 members, constituting 60% of the organisation. The list included 24 university and college rectors (vice chancellors), 468 Afrikaner school headmasters (principals), 16 judges, 67 magistrates, 59 heads of government departments and the editors of 22 media publications.⁴

Through these and other efforts, Afrikaans was recognised as a medium of instruction by the Provincial Education Departments in 1914 and as an official language in addition to English in 1925 (Mesthrie, 2002; National Language Service Department of Arts, Culture, Science and Technology, 2011; Roberge, 2002).

It is clear from the discussion above that the establishment of Afrikaans was not only a linguistic effort but that cultural and societal organisations and the media were at the forefront,

⁴ A count of the list and their mapping was done in this newspaper article based on the Wilkin and Strydom book: <https://www.dailymaverick.co.za/opinionista/2022-04-19-how-the-broederbonds-tentacles-penetrated-deep-into-the-heart-of-south-africa/> accessed 14 June 2023

demonstrating that nationalism and language development are a societal and political process. The development of Afrikaans during this era clearly met the criteria of corpus and status planning. Linguistic development was always accompanied by practical purpose and use, situated within society, politics and governance. The language policies were, therefore considered, desirable, tolerable, just and fair amongst their proponents.

2.4 THE DEVELOPMENT OF AFRICAN LANGUAGES DURING COLONIALISM

The section above mapped out the development of Afrikaans during the colonial era. This section discusses the counterfactual development of African languages during the same period. Discussions on African languages must start with recognising Khoi and San languages, which are now largely extinct. The records on the number and range of these languages cite 11 variants. Although linguists consider these languages distinct, the word 'Khoisan' is typically used to refer to these different groups of people and languages (Marks, 1972). The factors contributing to the death of these languages have been cited as colonialism, population decreases based on disease, particularly smallpox, and the compulsory education of the Khoisan, initially in Dutch and subsequently in Afrikaans (Traill, 2002). A 1950 examination of speakers of the Nama language in the Northern Cape revealed that the language of education changed the affiliation of speakers from monolingual Nama speakers to Afrikaans. Afrikaans is the predominant language in Northern Cape. A further language of assimilation was isiXhosa for the Nama people in Eastern Cape where isiXhosa dominates (Marks, 1972; Traill, 2002).

The remaining languages spoken in South Africa, often referred to as African languages, are linguistically labelled as part of the Southern Bantu languages. The first classification of these languages as Bantu languages was by Doke (Maake, 1993). This broader language family extends across a third of Africa and a range of countries, including Cameroon, Kenya and South Africa, with approximately 400 variants spoken by approximately 250 million people (Herbert & Bailey, 2002). There is little written on the pre-Bantu population and the spread of the language families, although agriculture, village life and societal economic developments are cited as the main influential factors (Herbert & Bailey, 2002). While there is little recorded independent of

missionaries there are limited records on history of creative writing including poetry and novels and newspaper publication including work by John Jabavu (Presidency, n.d.) .

The term Bantu was first used by W. H. I. Bleek in 1857 or 1858, citing it as a frequently occurring plural form of the word meaning person (Silverstein, 1968). A reading of the literature explains the label as a linguistic classification based on the recurrent patterns amongst the categorised languages. The word Bantu translates to people and occurs across most languages (Herbert & Bailey, 2002; Herbert & Huffman, 1993; Silverstein, 1968). However, the use of the word was not only restricted to a linguistic label, but it became objectified almost immediately and used as an ethnic label for ethnographic purposes (Herbert & Huffman, 1993). Alternative terms used have been Bantoid, Semi-Bantu, and Sub-Bantu, amongst others, in a contested manner largely based on linguistic properties (Herbert & Bailey, 2002). In the current conversation, the term remains controversial due to its politicised nature, which will be discussed in the following section. The linguistic language label, however, remains the official categorisation of these languages to date.

2.4.1 The contribution of missionaries to the writing of African languages

Much has been written about the controversial role of the church in developing African languages, emphasising either the philanthropic aspects or the imperialist aspects of the missionary efforts (Comaroff & Comaroff, 1986). In their examination, Comaroff and Comaroff (1986) focused on the cultural implications and how this, in turn, affected the political local environment, arguing that the impact of missionaries differed across groups and places. How the missionaries were perceived is not well documented; suffice it to say that the relationships emerged based on their temporary advantages of military aid and guns and technical skills like building irrigation systems.

Missionary societies recorded include the British and Foreign Bible Society, the American Bible Society and the French Bible Society (Hermanson, 2004). Three perspectives of the missionaries are summarised in Comaroff and Comaroff (1986): firstly, the Methodists who actively sought political influence through chieftdom recognition and collaboration with the local authorities; secondly, those who participated in local life amongst the Batswana, influencing a shift in cultural

beliefs; and thirdly, individual evangelists that transacted with the local population, the colonial state and economic interests.

Along with initiating time as a resource to be scheduled and monitored, the missionaries introduced literacy as an aspect of their endeavours. The church and school were seen as companions, with learning regarded as the door to the church. The Protestant faith was grounded in the reading of the Bible; thus, several missionaries, including the Methodists, were devoted to translating, printing and teaching the Bible from as early as 1830 (Comaroff & Comaroff, 1986, 1997). Between 1857 and 1936, Bibles were translated into six of the nine African languages, the first being Setswana, followed by isiXhosa. The translations were completed by groups of missionaries, often from the same Bible society (Alexander, 1989; Doke, 1958; Hermanson, 2004). The education of a selection of Africans created a black elite that was then serendipitously or intentionally employed by the colonial state. Thus the interaction between the church and the state was solidified (Comaroff & Comaroff, 1986, 1997; Hermanson, 2004; Alexander, 1989).

Translation theory was not well developed in the early 19th century (Hermanson, 2004), and the approach used by most missionaries was the study of Latin, Hebrew and Greek, with some attempts to complete word-for-word translations or idiomatic uses of African languages. This was done in collaboration with local native speakers. Mesthrie (2002) commented that certain components such as prefixes, infixes and suffixes within-subject nouns and verbs were only discovered and documented 30 years after the initial African languages were documented. He also highlighted the prestige and official status the selected dialects enjoyed at the cost of other dialects or consensus within the language groups. This continues to be a divisive factor amongst African language speakers. Heugh (2016), and Makalela (2005) argued that the ethnic and language distinctions in much of Africa did not exist before colonisation (before the 19th century), much the same as the geographical nation-state divisions. The language composition was marked by misspellings, mis-invention and inappropriate language typology interference from the missionaries' home languages, including English, German, and other Western languages (Makoni, 2003; Janks and Makalela, 2013).

The first Setswana Bible translation was more perilous (Doke, 1958), compiled by Moffat, a missionary who was neither a linguist nor a competent Setswana speaker. He is quoted as framing his translation shortcoming as a result of deficiencies in the language. The development of the isiXhosa translation by Rev. J. W. Appleyard was far more rigorous and followed the Greek method mentioned above; however, the critique is that as much as these were earnest efforts, there were misinterpretations of idioms (Doke, 1958; Hermanson, 2004). The less than benign translation of the Bible is highlighted in the choice of wording (Comaroff & Comaroff, 1986, 1997); a translation by A.J. Wookley in 1908 chose the word “ancestor” for translating “demon”. Badimo (ancestors) are sacred beings in Setswana. Maluleke (2005) argues that a better word choice could have been used. This definition serves as one example of many and is not only present in the Bible translation but also in the early Setswana dictionaries developed by missionaries. Such mistranslations present the African languages’ translations of the Bible not just as benign opportunities for indigenous language access to the Bible but show the interaction between specific cultural and political values held by the missionaries. Maluleke (2005) further confirmed the relationship between the Setswana Bible and learning to read; those interested in the Bible were afforded educational opportunities. Finally, Maluleke (2005) argued that African language Bible translations were not singular events to be documented and dated but reflect an interaction between society and politics. It follows that these translations are incomplete and limited; they should, therefore, be a continuous process requiring revisiting.

A symmetrical comparison of the Afrikaans and African language development in the colonial era means that there should be a discussion on the political context and the contribution of the media and social organisation for African languages. Unfortunately, this is not possible due to a few possible reasons, including the extent of colonialism leaving little or no opportunity for these facets, little documentation and the rarity of these documents in publicly accessible formats. The main tenet of developing African languages in colonialism is resultantly limited to the roles of the missionaries and religion.

The development of African languages under colonialism demonstrates the inverse effect colonialism had on African languages compared to Afrikaans. The presence of language planning

through corpus and status planning is hardly evident. The development of African languages during this time was incidental and was led by religious use rather than state planning, governance or explicit politics. The development was inefficient and prone to errors and inconsistencies, although the religious goals provided some sort of overarching purpose. This starkly contrasts the preceding discussion on the development of Afrikaans during the same period.

2.5 APARTHEID

This section discusses the development of Afrikaans and African languages during the Apartheid era simultaneously. Unlike the colonial period, more comprehensive documentation is available for Afrikaans and African languages in this period.

Afrikaans finally consolidated dominion in 1948 when the National Party came into power, conducting governance, business and administration almost exclusively in Afrikaans. The National Party segregated people by race and language, codifying this in legislation. While segregation and inequality existed prior, as demonstrated in the discussions on colonialism, 1948 marked the start of Apartheid. Legislation governing all spheres of life by race at the cost of Africans and the benefit of White people was introduced systematically. The policies included language in education. According to Bond (2003), the 1961 Constitution provided that:

no court of law shall be competent to enquire into or pronounce upon the validity of any Act passed by Parliament, other than an Act which repeals or amends the provisions of section 128 or 113 ... [referring to English and Afrikaans as official languages].

2.5.1 Education landscape and practices for Afrikaans and African languages

The education of Black children continued under the care of missionaries, with state provisions limited to salaries for approved teaching posts. However, the missionaries were under-resourced for the number of learners they were teaching. Shortly after the end of World War II, in 1948, the government took over control by withdrawing state subsidies to missionary schools (Giliomee, 2009). The main reason for taking over was to oversee the discipline of African youth who were becoming politically conscious. They were also identified as a resource to create a

semi-skilled labour force. The church strongly opposed the closing of missionary schools (Giliomee, 2012; Greaves, 1955; Seroto, 2013).

The Bantu Education Act (Union of South Africa, 1953) solidified the ethnic use of the term “Bantu” by defining it as synonymous with native, referring to people of aboriginal descent or the African race. This shift in using the word Bantu from a linguistic classification continued. The word Bantu became politicised and ultimately rejected and associated with oppression and apartheid. The use of the word has ceased, and it is considered derogatory (Van der Waal, 2011).

The Bantu Education Act (Union of South Africa, 1953) defined Bantu schools as those serving Bantu people and created a Department for Native Education. Education was used systematically to entrench the principles of Apartheid, summarised as the superiority of white individuals and the inferiority of black individuals. “Education for black South Africans aimed to prepare them to accept inequality as part of the unchallenged order” (page 69: Christie & Collins, 1982).

The Bantu Education Act strongly emphasised providing mass literacy for Black people. Prior to the Apartheid era, approximately 15% to 30% of six-to-sixteen-year-olds were enrolled in school. One of the Bantu education goals was doubling primary enrolment over the next 10 years, which more than doubled by 1963 (Hartshorne, 1953; Giliomee, 2009).

Now turning to Bantu education teachers, according to the Christian National Education doctrine (Rassool et al., 2006), historically, “all teachers were to be trained to produce efficient and loyal citizens, consistent with the aims of Apartheid education...the ideal of teaching towards the development of men and women of rectitude, efficient and loyal citizens of their country” (Beard and Morrow, 1981:9). This must have had a profound impact on the values, passion and worldview of teachers across the country. Teaching could be viewed historically as a reluctant agent of Apartheid. Currently, teachers are expected to act as agents of change in democratic South Africa. This cannot occur until their old identity is reconciled with their new envisioned identity. The authors argue that this form of hegemonic control was consolidated in fundamental pedagogics, an authoritarian philosophical approach to education comprising formal didactics, which invested the educator with supreme authority and thus reduced the learner to a passive

receptor of knowledge (Rassool, Edwards & Bloch, 2006). In summary, this doctrine was coupled with under-educating or systematically under-developing black teachers who predominantly taught in townships.

On June 16, 1976, approximately 15 000 young people marched against the Apartheid government in opposition to the language policy and other educational inequalities (Grundlingh & Huigen, 2011; Marjorie, 1982). This followed two language amendments to the 1974 Bantu Education Act (Union of South Africa, 1953). The first was extending mother tongue instruction from four to eight years (Giliomee, 2009, 2012; Seroto, 2013). The second was extending Afrikaans to an additional subject – as one of the languages of learning alongside English in Bantu schools (Ndlovu, 2011; Oakes, 1994). Students, parents, teachers, school principals, and even homeland leaders rejected these language policy changes. Evidence of this is demonstrated by the African Teachers Association of South Africa's (ATASA) submission of a memorandum to the Department of Bantu Education in January 1976⁵ (Ndlovu, 2011, pp. 330–331). This memorandum clearly articulated opposition to the language changes, but neither the Department nor Parliament recognised the seriousness of this. The opposition escalated, resulting in the 1976 June 16 protests by students, parents and communities. Placards at the march included slogans such as “Blacks are not dustbins”, “Afrikaans stinks”, “Away with Kaferkaans”, and “Afrikaans is a tribal language” (Marjorie, 1982; Ndlovu, 2011, p. 335; Oakes, 1994). Part of the response to the protests was reintroducing English as a medium of instruction after four years of home language instruction (Giliomee, 2009).

Segregation was enforced at all levels of schooling. It included the development of universities offering education exclusively in Afrikaans to White students. Universities articulated the concept of “volksuniversiteite” (public/people's universities) – institutions providing students with an opportunity to express their Afrikaner ethnicity and culture and receiving education equipping them to lead Afrikaans people (Seroto, 2013). To foster this development, the government spent

at least 10 times as much per student on White students as on Black students from primary to higher education (Bond, 2003, p. 16); although this gap was reduced to 4.5 times by 1991 (Gustafsson & Patel, 2006).

The largest contribution of the church to African languages during the Apartheid era was that of the Bible Society of South Africa, which became independent in 1965 and established more robust translation approaches. The most noteworthy of these was the convening of 17 projects working on translations, totalling 100 people in 1967. They established translation committees and introduced the theory of dynamic equivalence⁶, creating training seminars for new translators where necessary. It consisted of competent translators knowledgeable about the church and theology with an editorial committee with competence in Greek and Hebrew with at least a thorough working knowledge of African languages, and at least two mother-tongue speakers (Hermanson, 2004). The significance of dynamic equivalence was particularly significant as it reduced cultural bias by prioritising the social interpretation of the text.

However, even though these reflect substantial developments for African language Bible contribution, the Afrikaans Bible translation efforts exceeded these by establishing larger editorial committees with academics and representatives from the Dutch Reformed Churches. These panellists were proficient in Afrikaans and Greek or Hebrew and could translate from the original texts. The translations were then subject to a larger committee for publications, and validation took place over several years of meetings (Hermanson, 2004).

2.5.2 The contribution of the media, publishing houses and civil society to Afrikaans and African languages in Apartheid

The negative relationship between Black people and the state and well-founded education quality concerns harmed how African languages were viewed. This cast a shadow over Doke's pivotal African language development work (Maake, 1993) between 1935 to 1953, who was the

⁶ Dynamic equivalence theory approaches translation from a sociolinguistic perspective. "The readers of a translated text should be able to comprehend it to the point that they can conceive of how the original readers of the text must have understood and appreciated it". (Nida, 2009., p. 6)

editor of the Bantu Treasure series hosted at the Witwatersrand University Press. The Bantu Treasure series work included 11 publications by Doke as well as publishing work by African scholars, including Sol Plaatje's Setswana translations of Shakespeare, B.W Vilakazi's isiZulu poetry and Mqhayi's isiXhosa poems. Doke influenced and oversaw the translation of several English classic literature works into all the African languages, advocated and led research on African languages and initiated writing in isiZulu amongst his counterparts. Although these had their limitations, the government's language boards instituted the ultimate rejection of this (Maake, 1993). The publishing of African language material by Afrikaans publishers who were seen as government collaborators cemented the sense of isolation and protest against African languages by Black anti-Apartheid activists. A government survey (Giliomee, 2009) confirmed the distaste for African languages amongst parents; at least 60% of parents preferred English or English and Afrikaans rather than African languages as a medium of instruction in secondary school.

Now turning to Afrikaans, language development was complemented by increased resource allocation such as textbooks and intensive cultural promotion of Afrikaans (Grundlingh & Huigen, 2011; Silva, 1997). Afrikaner-owned publishing houses became the principal providers of school textbooks. During 1990-1998, Afrikaans clearly dominated literary publishing, defined as poetry, drama and fiction books. The number of Afrikaans books published during this time is estimated at 2 800, while only 970 were published in English, and a total of 1 200 were published across all nine African languages (Galloway, 2002).

It is clear that during Apartheid, the status planning aspect in terms of language use, including official status, was elevated through legislation, a coherent vision and a purpose for using Afrikaans beyond basic education. At the same time, developments in corpus planning for African languages occurred mostly through the work of missionaries. However, the status aspect through the extended use of African languages in schooling was not coherently communicated or valued, negatively affecting developments.

2.6 DEMOCRATIC SOUTH AFRICA

So far, this chapter has discussed the history of language development, contrasting Afrikaans and African languages. This final section discusses the current status of language and corpus planning and attempts to grapple with why African languages have not attained a similar status to Afrikaans or English following the political change to democracy in 1994.

The political discourses of governments are strategic levers for language planning. This section examines the conference resolutions and election manifestos of the three largest political parties in South Africa in the democratic era. These are the African National Congress (ANC), which has been the governing party since the introduction of a democratic dispensation in 1994, the Democratic Alliance (DA) founded in 2000 (Mottiar, 2015) and the Economic Freedom Fighters (EFF), which was established in 2013 (Economic Freedom Fighters, 2014).

While the ANC has political manifestos available from as early as 1991, the initial four manifestos from 1991, 1997, 2002 and 2007 do not mention any resolutions on curriculum reform and have thus been omitted from the analysis. Table 2.1 below shows that overall, political parties have given education between 3% and 14% focus in their overall policy-making.

Table 2.1: Proportion of political party resolutions on education in relation to total resolutions

	ANC Mangaung Resolution 2012	ANC Nasrec Resolution 2017	ANC Election Manifesto 2019	DA Manifesto Election 2009	DA Elective Congress 2019	DA Elective Congress 2020	EFF Mangaung Resolutions 2014	EFF Election Manifesto 2019
Number of education resolutions	55	20	11	36	17	3	18	99
Total number of resolutions	553	656	139	304	367	63	238	732
Percentage	10	3	8	12	5	5	8	14

Source: own compilation based on party manifestos

Attention to the early grades has differed depending on the available information, the development stage of the education system, and the country's development. The initial emphasis for the first 15 years of the ANC government was on adult basic education. In Table 2.2, the ANC made strong recommendations on language policy emphasising African languages. Of the three parties, the ANC had the largest emphasis that included pronouncements on education. We also see the introduction of several curriculum resolutions in the same period, as in the ministerial review of the curriculum (Department of Basic Education, 2009), which recommended the current curriculum with clear content specifications per subject and a textbook catalogue. The DA similarly had its most numerous education and language resolutions in 2009, around the time of the Ministerial curriculum review, with specific curriculum reform resolutions. We then see EFF making significantly more resolutions on education, focusing on early childhood development (ECD) and mother tongue instruction.

In line with the overall manifesto assessment, these reveal broader ideological thrusts, specifically, the language debate and the introduction or extension of African languages for teaching and learning as an area of emphasis, followed by a more recent emphasis on technology as the main curriculum reform mechanism. The table below shows the enduring emphasis on curriculum reform and African languages as the core of curriculum change.

Table 2.2: Political party resolutions on education, 2012-2020

ANC Mangaung Resolution 2012	ANC NASREC Resolution 2017	ANC ELECTION MANIFESTO 2019	DA Manifesto Election 2009	DA Elective Congress 2019	DA Elective Congress 2020	EFF Mangaung Resolutions 2014	EFF Election Manifesto 2019
Develop an indigenous language policy which seeks to ensure that one African language should be compulsory in schools depending on the region by 2014 (ANC, 2012, 17).	Adopt a policy to introduce a minimum of 3 languages into the curriculum in schools, this must include at least one African language (ANC, 2017: 37)	Amend the curriculum and provide the necessary resources to prepare learners for the 4th Industrial Revolution (ANC, 2019:40).	DA will conduct a detailed review of Outcomes-Based Education, with a view to correcting defects with as little disruption as possible and ensuring that it is relevant to our needs. Schools should be able to opt out of the national curriculum if there is a demand for this in the school community, and if the proposed curriculum meets certain requirements (DA, 2009: 11).	Reviewing the curriculum to ensure that it equips learners for participation in a competitive, global knowledge economy by including subject-like coding and programming which will help school children prepare for an economy shaped by the Fourth Industrial Revolution	The right to mother tongue education where reasonably practicable is a non-negotiable and fundamental element of the Bill of Rights and is no less important than any other constitutional right (DA, 2020:6).	The EFF government will introduce free decolonised education for all (EFF, 2019:54)	The EFF government will prioritise indigenous ways of teaching, learning and development (EFF, 2019: 55).
Ensure the development and promotion of indigenous language, with the view to include the programme in the curriculum (ANC, 2012: 17).	Intensify and promote programmes to improve literacy and numeracy of all learners (ANC, 2017:37).		A decision on which language of teaching to use should be made by the school governing body in accordance with the Constitution. The DA will ensure the development of teaching materials and programmes in all the required languages in schools (DA, 2009:11).		Urgent and active steps be taken to expand access to mother tongue education at every institution where it is reasonably practicable (DA, 2020: 6).	b. The rights of Khoi and San children to be taught in their own language (EFF, 2014: 30).	The EFF government will introduce vernacular languages as the foundation of the education system in all provinces (EFF, 2019: 59).
					The state significantly expand investment in developing all of South Africa's official languages to ensure that mother tongue education becomes "reasonably practicable" in public primary schools, high schools, universities, and all other public training institutions across the country (DA, 2020, 6).		

Source: own compilation based on party manifestos

We now turn to language policies. The democratic era language landscape in South Africa is encircled primarily by the rights and responsibilities articulated in the Constitution of South Africa (Republic of South Africa, 1996a). The Constitution redresses historical inequalities across society, including in language. All 11 official languages were given equal status, with a commitment to developing the various languages through enabling policies.

The Pan South African Language Board (PanSALB) was established in 1995 (Pan South African Language Board Act, 1995) with an exclusive mandate to develop all official languages. This was the first consolidated language planning organisation. Unfortunately, the board has been plagued by significant failures in delivering its mandate over an extended time. In 2011, the Chief Executive Officer was dismissed after a two-year suspension and investigation for reasons including financial mismanagement (South African Government, 2011). The Auditor-General's opinion from the 2014/2015 Annual Report raised gross underperformance concerns. Key areas of the shortcomings include inadequate appointing of language committees, failure to provide oversight of lexicography units, and over-expenditure (Pan South African Language Board, 2015). By 2016 the governance and performance matters had not been resolved, and the Minister of Arts and Culture, the department overseeing PanSALB, dissolved the board. This matter was challenged in the High Court with a ruling supporting the Minister's decision (Madiba and Others v Minister of Arts and Culture and Others, 2017).

While the 2020/2021 Annual Performance Plan showed some progress in appointments and oversight, current challenges include a lack of research since 2015 and a lack of progress in linguist human rights attainment. Other challenges identified were weaknesses in language planning, standardisation and supporting language in education (Pan South African Language Board, 2021).

Two main points are discussed to explain the status quo and propose levers of change. The first is on the economic returns of investing in language development, and the second is on multilingualism in the South African context.

2.6.1 The economic domination of English

The use of English, starting in the church, followed by missionary education and then in employment by the colonial state, resulted in the emergence of a small black middle class that could read and write in English (Comaroff & Comaroff, 1986, 1997; Hermanson, 2004; Alexander, 1989). This point was made earlier in this chapter. What was not adequately discussed, however, is the generative nature of language and culture, which meant that this was not only an acquisition of language but of English culture as well as elite status (Alexander, 1989; Heugh, 2009). This cultural change was both incidental and deliberate, as the version of Christianity preached frowned upon several aspects of African practices, promoting the adoption of Western culture (Comaroff & Comaroff, 1986; Maluleke, 2005) instead.

In current times, role modelling by the middle class has maintained the high status of English and contributes to the notion that what is to be known is knowable only in English and that South Africa is part of Anglophone Africa (Mesthrie, 2002; Pennycook, 2005; McKinney, 2020). This sentiment has been confirmed through the South African Social Attitudes Survey, based on a nationally representative sample. When asked which language should be the main language of instruction, responses have increasingly favoured English. In 2003, the response was 55% in favour of English, while 41% chose African languages; this had increased to 65% in favour of English in 2018 (Human Sciences Research Council, 2019). A significant critique of the survey however, is how the question was asked. Respondents were asked which language they think should be the main language of instruction. This allowed them to select a single language even if they had a preference for more than one language.

This outcome should not be entirely surprising for two reasons. Firstly, the negative association with African languages resulting from the Bantu education system under Apartheid means most African people have been willing to maintain their first language in primary family contexts but have not experienced the capacity of African languages developing into languages of power.

Secondly, according to Bourdieu (2009), a language is only worth what its speakers are worth. When one language dominates the market, it becomes the norm against which the “price” of

other languages are determined and how competency is defined. The power and authority in economic and cultural relations correspond with social values. Internationally and in South Africa, English has a sizably larger economic value. English is used in the formal economy, and the indigenous South African languages are used in the informal economy. Literacy in English is far more significant and meaningful for most South Africans than mastery of their home language (Alexander, 2005; Klapwijk & Van der Walt, 2016). There is a direct relationship between English proficiency and earnings in South Africa. The earnings of African men reporting literate proficiency in reading and writing English were 55% higher than those who did not. These findings by Casale and Posel (2011) are based on an analysis of the 2008 first wave of the National Income Dynamics Study (NIDS), a nationally representative longitudinal study. Participants proficient in English who had a post-schooling qualification, signalling higher levels of English literacy, had an even higher advantage of an additional 97% in earnings. There were hardly any returns to African language proficiency. This demonstrates the perceived and rewarded upward mobility of English and inequality of languages (Casale & Posel, 2011).

Using the same 2008 NIDS data, McKenzie and Muller (2017) found that, firstly, English proficiency significantly affected labour participation and employment for African women, reflecting that poor English language proficiency among working-age African women acted as a barrier to economic participation; and secondly, that individuals with higher English proficiency occupied higher-level positions than those who were not proficient. Kahn, Branson and Leibbrandt (2019) provided evidence of the persistence of this trend from 2008 to 2017. In their paper, using NIDS data over five waves, English proficiency positively affected employment probabilities and wages of non-English home language speaking males. Those who were English proficient were 22 percentage points more likely to be employed, and English proficiency was associated with a wage premium of 33%.

Based on these empirical findings that have a real bearing on the livelihoods and future outcomes of African people, it is unsurprising that while there may be an appreciation for African languages, parents and young people continue to value English over African languages because there is an economic return for English. English then serves an economic purpose (Wright, 2002), where

English proficiency seems to be the only bridge for transitioning from the informal to the formal, from unemployment to employment and for better earning and positions. The economic value of English mastery is indisputable. Considering that South Africa is multilingual, a major question facing the country today, is how to make multilingualism 'profitable', such that the value is not only based on ideology and identity but that there is material value. The next section of this chapter addresses the question of multilingualism in the South African context.

2.6.2 Multilingual policy development

Internationally, language diversity is a norm, with more than 7 000 languages spoken worldwide in 2020. Although some monolingual countries exist, most countries and regions have multiple languages (Alexander, 1989; Eberhard, Simons & Fennig, 2020; UNESCO, 2003). In Africa, there are up to 2 500 languages spoken with no monolingual states, and languages are spread across borders and even regions, making it the continent with the second largest indigenous languages at 30% after Asia with 32% (Eberhard et al., 2020; Ouane & Glanz, 2010).

In South Africa, multilingualism has increased. An analysis of the 2016 Census shows an increase from 12% in 1996 to almost 50% in 2011. This is mostly due to significant growth in African people speaking English as a second language and acquiring other second languages. Overall, Africans are becoming more multilingual, with second-language growth seen mostly in English, followed by isiZulu (Posel & Zeller, 2016).

The implications of multilingualism have been complex and, in some cases, controversial, starting primarily with ideological differences, language dominance involving privileging some languages over others and encompassing communication dilemmas (Heugh, 2013). To some extent, this fractured multilingual framing has resulted in the dominance of colonial languages, as discussed above, for both South Africa and the rest of the continent. African countries are still referred to as Anglophone, Francophone or Lusophone based on the languages of their colonisers, as opposed to Afrophone, even with its multilingual language resources (Brock-Utne, 2007). An international language survey commissioned by UNESCO showed that only 176 African languages out of 2 500 are used in African education systems (Ouane & Glanz, 2010).

Although multilingualism is complex, some scholars reject the idea that multilingualism is overwhelmingly problematic by interrogating monolingualism. What makes monolingualism problematic is its implicit exclusivity in a context where other languages exist (Alexander, 1989; Ouane & Glanz, 2010; UNESCO, 2003). The case of South Africa and the elevated status of Afrikaans explained throughout this chapter give context to why monolingualism cannot be accepted as a national language planning position. This has been acknowledged in the Constitution of South Africa through recognising 12 official languages (Republic of South Africa, 1996a; Ngcobo, 2009). Banda (2012) argues for a deeper conception of multilingualism; with categorisations such as a national or regional language seen as subjective labels. Reflecting on English as a national language warrants this critique, while it may be used nationally for official purposes, the census language statistics discussed show that it is not used or known well nationally. Banda (2012) and McKinney (2020) argue that current multilingual language planning is still performed within a monolingual western paradigm of seeing multiple monolingual languages in parallel rather than seeing the fluidity of simultaneous multilingualism as a lens.

Yet the questions of maintaining multilingualism and offering schooling in multiple languages at acceptable standards within limited resources and time constraints still require careful consideration. As presented below, three main policy scenarios may be offered to further establish a multilingual perspective. The first two policies summarise and reflect on existing ideas to date while the third option is informed by possibilities based on current nascent policies.

2.6.2.1 *Policy scenario 1*

Nhlapo (1944) and Alexander (1989) proposed the establishment of single Nguni and Sesotho languages in written form. They argue that similarities within these discretely distinct language groups are proof of their artificial separation. This argument recognises the history of the flawed development of African languages, discussed earlier, and the significant role of language planning. These authors argued that new languages could be standardised for academic purposes and adopted as national official languages, while the remaining African languages could be adopted as regional languages, depending on the dominant language groups within provinces. Learners would receive their education in one of these two African languages for the first five to

six years, with English as a subject. A full transition to learning in the English medium could occur in Grade 5 or 6, similar to what is articulated in the existing language in education policy. This policy proposal by Nhlapo and Alexander indirectly ascribed power to the majority population in the country by consolidating the similarities and recognising that a shared language has embedded power through consolidation. This proposal makes a considered argument on the merits of dethroning English, or rather de-constructing and reconstructing the dominant language discourse.

Secondly, they proposed tangible ways of using language as an object of communication. Unifying languages within the Nguni and Sotho groups would dismantle the colonial era classification and reimagine them based on different criteria. To this end, the development of Kiswahili and its growth as a regional language may provide valuable lessons and a relatively successful case study of a similar endeavour. The proposal is silent, however, on how Xitsonga and Tshivenda would be accommodated. Thirdly, the proposal potentially creates an enabling environment for development by implying a pooling of resources. This, in turn, starts to undo the dialectical relationship between English and the indigenous languages by allowing prioritisation.

However, the major critique of their proposal is that it presents diversity and multilingualism as a problem and does not celebrate the complexity that has come to define South Africa. This is particularly the case currently as ethnic identities, however flawed in authenticity, have been established since 1955 (Heugh, 2016). This exercise is even more unfeasible now than then. The standardisation process would be a near-impossible feat as it has been problematic even within a single language with varying dialects. It is difficult to imagine that the process within a language group rather than a single language would be any easier. Should this be adopted as a policy option, more practical difficulties would be how the final languages within these groups would be selected, whether the required expertise to merge these exists, and finally, whether the South African society would accept this.

2.6.2.2 *Policy scenario 2*

An alternative response is based on recognising the significance of mother tongue education. Internationally, education theory promotes mother-tongue instruction, recommending that schooling should begin in the language the child knows best, often their mother tongue (Brock-Utne, 2007; Heugh, 2005; Mackenzie & Walker, 2013; Ouane & Glanz, 2010; UNESCO, 2003). Even within the limited empirical studies in Africa, the findings apply in Botswana, Tanzania, Ethiopia and Kenya (Heugh, 2000; Ouane & Glanz, 2010; Piper, Zuilkowski & Ong'ele, 2016). In South Africa, the work of Taylor and Von Fintel (2016), cited earlier, makes the same case. Using longitudinal national assessment data, they found that learners receiving their education in their mother tongue in the first three years of schooling outperformed learners from the same background who received their first three years of schooling in English. This positive impact was significant in both English and Home Language outcomes. This was further supported by the study cited earlier (Eriksson, 2014) examining the effect of the 1955 Bantu Education Act, which mandated an increase in home language learning from four to six years. There was a positive impact of the increased home language literacy on long-term educational outcomes and earnings. This was a return measured in terms of later English proficiency.

These studies highlight an often understated or misunderstood outcome – that home language literacy in African languages is particularly useful for future learning outcomes in African languages and English. The application of this for broader stakeholders, including parents, is that learning an African home language well is the best pathway towards earning returns in English within a multilingual context such as South Africa, where both home language and English as an additional language are offered. Even more striking, these positive and significant outcomes were applicable across all nine African languages. The main critique of this approach is that it does not address the dominance of English but endorses the status quo without proposing alternatives or critiquing the current policy.

2.6.2.3 *Policy scenario 3*

A third alternative is a hybrid of these two scenarios that is in line with the most recent language in education developments. This will be discussed in the next chapter which examines the draft

Basic Education Laws Act (BELA) bill, the draft National Policy for the Provision and Management of Learning and Teaching Support Material (LTSM), the Incremental Introduction of African Languages (IIAL) and the Revised Language Policy for Higher Education amongst others. The implementation scenario could be providing mother-tongue education for the first six years within the existing language in education policies, recognising the success of the proven language policy while extending it. Then implementing the full version of the Incremental Introduction of African Languages Policy by making English a compulsory First Additional Language while also introducing an African First Additional Language. This would be a recognition of the role and significance of English while affirming the increasing multilingualism of African learners and ensuring that all non-African learners in South Africa learn an African language at the First Additional Language level. This may even address the idea of regional languages. The additional African language could be selected based on the largest regional languages within the province. The role ascribed to the SGB through the BELA Bill, namely selecting languages that reflect the school population and broader schooling context and national priorities with routine approval by the Provincial Head of Department, would also ensure that the language selection remains relevant. Finally, the Revised Language Policy for Higher Education implemented alongside these policies would develop the corpus required to offer African languages as academic languages beyond Grade 6 and, ultimately, at the university level. Through these efforts, the economic returns for investing in African languages alongside English may start to be realised.

2.7 CONCLUSION

This chapter has demonstrated the long history of overlaps between power, identity and language. The practice of language planning examined from colonial times to date clearly demonstrated this, with better alignment in desirability and tolerability for Afrikaans at the expense of African language development. These remains as current issue, and the persistent language dilemma provides a theoretical lens to understand the continued undercurrent of this intersectionality.

The comparison over the three periods discussed above, contrasting the development of Afrikaans and African languages, clearly reflects how carefully and systematically language

planning was done concerning Afrikaans. The interplay between political power and identity, corpus planning and status planning is apparent. The questions of who, for whom, why and how that emerged in the discussion also point to why African languages have continued to lag in developing. The significance and the urgency to engage comprehensively in language planning afresh in South Africa cannot be overstated.

Political will is still required to clarify the responsibility for the implied standards and guidelines from the policies, make provisioning possible through specific resourcing and develop clear implementation details, and respond to known and documented policy design and implementation shortcomings. This includes reviewing the functionality of PANSALB concerning its mandate and a more systematic approach to language policies and development in universities.

The final section clarifies that systematically addressing the persistent dilemma of the mother-tongue or straight-for-English question requires broad consideration of the implications of the current inequalities. One of the biggest realities parents, learners and broader stakeholders face is the high economic returns to English and even Afrikaans, in contrast to no commercial return for African languages. The call to commercialise multilingualism so that the majority of South Africans may earn returns on their language proficiency warrants some thought and has a direct bearing on education policy. However, as this chapter has shown, the successful implementation of language policies is complex and requires political, technical and social collaboration from various stakeholders. The model followed for Afrikaans is an important example of this.

CHAPTER 3: LANGUAGE IN EDUCATION POLICY AND PRACTICE

Chapter 2 provided a detailed overview of language planning, and the relationship between language and politics. The discussion spanned from the Colonial era through Apartheid and the post-Apartheid era. Although education policy is one aspect of language planning, its significance cannot be overstated. This chapter focuses on analysing and critiquing post-democratic education policies.

A broad reading on public policy defines it as a statement of intent or action to transform an existing or anticipated problem. This definition results from a summary following the reading of Cloete and De Coning (2011), who referenced different authors on policy. Firstly, Easton (1985:134) defined policy as “authoritative allocation, through the political process, of values to groups or individuals in the society.” Another definition by Baker, Michaels, and Preston (1975:12-15) defined policy as “a mechanism employed to realise societal goals and to allocate resources.” A third definition by Hogwood and Gunn (1984:23-24) stated that “the aims of policy are usually identifiable at a relatively early stage in the process but change over time, and in some cases may only be defined retrospectively”. A further definition is a pre-emptive approach, which emphasises identifying a perceived problem and developing a future-oriented solution, while a reactive approach focuses on efforts to effectively and efficiently respond to existing problems in society (Cloete & De Coning, 2011).

We can summarise the main definitions for policy as the problem-oriented policy approach, the policy-as-legislation approach, and the policy-as-text-and-discourse approach. The next section discusses these in detail.

3.1 POLICY DEFINITION APPROACHES

The problem-orientation approach is based on the work of Lasswell (Farr, Hacker & Kazee, 2006; Fischer, Miller & Sidney, 2007; Lasswell, 1956), arguing for a shift in practice from political sciences as an elite privilege focusing on advising those in power, towards orientation to public policy for the good of society. This is an important principle in a democratic society. Laswell

argued against studying policy for its own sake but rather as an explicit effort to respond to societal problems. This approach defines four common traits: context relevance, problem orientation, a multi-disciplinary focus and scientific rigour.

The critique of Lasswell (Eulau, 1980; Farr et al., 2006; Fischer et al., 2007; Lasswell, 1956) mainly regards updating the understanding of the human choice and policy process. The emphasis on science implies technocracy and thus still presents policy within an elitist practice without accounting for important developments such as the role of quantitative data as a lever in policy. A further critique is that the distinction between *knowledge of* and *knowledge in* the policy process is an unnecessary separation between applied research specialisation that may be subject-specific and knowledge of policy and political science expertise. There is also a proposal for greater integration between research, policy analysis and the policy process. A third key component is a nuanced understanding of the policy audience, recognising the important contribution of a range of actors, not only policymakers but civil society, the judiciary, institutional oversight organisations and the public. The final adaptation is recognising the complex and often contested policy environment to facilitate the broadening of policy options developed (Cairney & Weible, 2017; Cloete & De Coning, 2011; Zittoun, 2011).

The second approach, the policy as legislation approach, argues that public policy decisions are articulated and executed through policy papers, written plans or administrative orders (Mugabe, 2011; Department of Basic Education, 2019c). This approach emphasises understanding the role and authority of different spheres of government and the relationship between different tiers of government. It also emphasises that understanding the distinctions between functions and authority informs the process of introducing policies or laws in the sector, distinguishing between the differences between laws, namely, legislation, statutes, regulations, and by-laws as policy instruments.

Laws may be defined as written rules created and enforced through social or governmental institutions to regulate human behaviour. They are initiated by institutions endowed with authority in terms of the Constitution of South Africa and have a binding effect. The parliament,

provincial legislatures and municipalities are constitutionally empowered to enact laws. These laws, in turn, apply to the whole country, provinces and municipalities. On the other hand, policies are a manifestation of the executive authority in governing through implementing government programmes – they are not law. The power to develop and implement policies lies with the National Executive Authority and the Provincial Executive Authorities. Policies apply within organisations or institutions. Basic education policies only apply to the Department of Basic Education, Provincial Education Departments, districts or schools. Within this context, the sector may introduce policies to enact the laws governing education. The distinction between functions and authority also informs the process of introducing policies or laws in the sector.

Applying this to language in education, the South African schools Act (Republic of South Africa, 1996b) would be a national law governing language in education, amongst other areas, with application to the entire country. The National Curriculum Statements, which include curriculum on reading are policies intended to implement aspects of language learning but they are not the law. The relationship between legislation and policy concretises the idea of policy being a tool to enact government plans in response to societal problems.

In this chapter, this may be interpreted to mean that all policies in language-in-education should find their anchoring in legislation. However, the absence of policy may be interpreted as the absence of a government programme to address language in education issues. The critique of this approach (Bowe, Ball & Gold, 1992) is the assumption that policy is a two-step process, firstly, a generating process followed by an implementation process. This linear, top-down understanding portrays a detachment between these two processes, while the actual relationship is far more complex. The definition of policy as text and discourse discussed in the next section offers a more iterative and nuanced understanding of policy.

The third and final approach is viewing policy as text and discourse (Ball, 1993), defining policy as contested representations encoded and decoded in complex ways, “always in a state of ‘becoming’, of ‘was’ and ‘never was’ and ‘not quite’” (Ball, 1993, p. 11). Ball argued that the very act of writing policy results from contestation and, is thus, a compromise between different

interest groups and politics. This, in turn, shapes interpretation, reinterpretation and misinterpretation. Ball also argued that the formal policy document is an incomplete understanding of policy. The policy is reinterpreted by readers, implementers and critics and thus policy is constantly being reshaped (Ball, 1993; Bowe et al., 1992). Bonacina-Pugh (2012) frames the implementation aspect and the resultant policy reinvention as policy as practice; extending Ball's framework to policy as text, discourse and practice. Applying this to language in education, the national curriculum would be seen as only a part of the language policies. Other equally important parts would include teacher understanding and enactment when teaching languages. Bonicina-Pugh (2012) supports this arguing for classroom practice to be considered. Regardless of the distance between the intended and enacted language lesson, this too would be considered as part of language policy.

Ball (1993:14) cited Foucault in defining policy as discourse: "Discourses are practices that systematically form the objects of which they speak... Discourses are about what can be said, thought, and who can speak, when, where and with what authority." Ball argued that although the policy text is always reinterpreted, policy as discourse sets the parameters for engaging, and communicates certain values and ethics. "The effect of policy is primarily discursive; it changes the possibilities we have for thinking 'otherwise'" (Ball, 1993:15). In further developing this position (Ball, 2015) reflected on policy as discourse, emphasising the ways policy defines roles and positions, inviting those affected to speak, listen, work and value specific outcomes.

In reflection on the relationship between policy as text and as discourse, Ball (2015) argued that policy enactment is not linear. Through formal revisions, feedback is generated and informs discourse and text interpretation, if not the specific policy text. This results from the difficulty in fully predicting the effects of policy even when the intentions are clear. Often, the reality of policy fragmentation results in incoherent reforms that may contradict each other (Bowe et al., 1992). The process of contestation should not be regarded as necessarily negative or unusual; it should be viewed as a usual means for developing and testing ideas (Bowe et al., 1992).

In agreement with Ball's understanding of policy as both text and discourse, this perspective was adopted for this chapter. This framing acknowledges the role, function and formal codifying of government's decisions as discussed in the policy as legislation section, and it orientates this towards problem-solving. However, understanding the contestation, complexity and non-linear relationship between policy generation and implementation provides new insights. The language-in-education policy, which is the focus of this thesis, requires an analysis of both the text and legislation, but this would be an incomplete assessment, and thus, reflecting on the interpretation of the text and the discourse in implementation provides a powerful lens.

The next section extends the policy conceptual framework by focusing on implementation frameworks, starting with what makes a policy successful and how we can conceptualise implementation.

3.2 POLICY IMPLEMENTATION FRAMEWORKS

Policy implementation has different definitions (O'Toole, 1986, 2000; O'Toole & Montjoy, 1984), ranging from a reference to only those with authority for implementation to being inclusive of all actors. The main obstacle to implementation is a lack of coherence in the goals, causal theory, resources, actors, and attitudes or perceptions. There is often little effort to systematically test previous insights from hypothesising.

There is often a split into two major schools of thought in policy implementation literature: the bottom-up or top-down approach. Most reviewers (Cloete, 2019; Cloete & De Coning, 2011; Farr et al., 2006; Fischer et al., 2007) now agree that convergence is possible and preferable, with macro-level variables forming the top-down component and the micro-level variables considered as the bottom-up variables. At the macro level, central actors develop policy, while local actors react to the policy and develop implementation programmes at the micro level. Some authors (Matland, 1995; O'Toole & Montjoy, 1984; Sabatier & Mazmanian, 1980) argued that both models should be applied to different stages of policy implementation or should at least accommodate some level of complementarity.

Matland (1995) reconciled these approaches by focusing on conflict and ambiguity as crucial factors. The next section defines this framework which was adopted for this chapter.

3.2.1 The Matland policy framework

Matland's policy ambiguity/conflict model is a contingency model that attempts to provide a more comprehensive basis for understanding implementation. Ambiguity is not necessarily negative in this model. Avoiding ambiguity in policy is possible where actions and actors are known, resulting in high goal attainment. However, if actions were only limited to the unambiguous, important but difficult questions would remain unanswered. Ball (1993, 2015) and Bowe et al. (1992) question the extent of uncontested, coherent and rational policies as the order of the day. This perspective helps to put aside the question of whether ambiguous policies should be enacted or not. They are, in fact, enacted. Policy ambiguity results from numerous sources but largely falls into two categories: ambiguous goals and ambiguous means. Ambiguity in language allows for legislative compromises by diverse actors who interpret the same policy differently. This is an inevitable result of working in a political process. Ambiguous resource allocations or processes for implementation appear most commonly where the required technology or responsibility is unclear.

The extent of ambiguity inherently affects the policy direction and implementation process significantly. There is a cost to this; it affects the ability to define, measure and monitor success. However, ambiguity may allow for an experimental policy space where learning happens throughout the implementation process, providing new lessons and new goals.

The other component, conflict, is not always possible to avoid. Some policies are unavoidably controversial. Policy conflict exists when more than one party sees the policy as directly relevant to their interests and has incongruent views. There must be interdependence of factors, incompatibility of objectives and a perceived zero-sum game. This conflict gets raised with increased incompatibility and perceived stakes for each actor. There are three ways to gain compliance from actors: normative, coercive, and remunerative. In low-conflict scenarios, there is normative compliance, which is sufficient. The instructions are received and perceived as

legitimate, with little controversy and supervision necessary. The normative approach prompts compliance through shared goals or the legitimacy of the person making the request in a hierarchical sense. This is the mechanism used most in policy. In the coercive approach, threats of sanctions may be used for failing to comply with requests. There are only a few cases where this is required. In the remunerative approach, incentives are introduced to produce desired results, especially to persuade external parties to participate in policy implementation.

Matland (1995) proposed a four-paradigm framework: low ambiguity – low conflict, low ambiguity – high conflict, high ambiguity – high conflict, and high ambiguity – low conflict, as seen in Table 3.1. The section that follows applies this to South African language policies.

Table 3.1: Conflict and ambiguity framework

		Policy ambiguity	
		Low	High
Level conflict	Low	Administrative implementation (planning and resources)	Experimental implementation (context, variation, learning)
	High	Political implementation (power and feedback)	Symbolic implementation (local coalitions)

Source: Matland, 1995

3.3 LANGUAGE IN EDUCATION POLICIES IN SOUTH AFRICA

The language in education policies in South Africa are guided primarily by the rights and responsibilities articulated in the Constitution of South Africa. The Constitution serves to redress historical inequalities and future educational outcomes. The specific declarations on language in education in the Constitution are discussed below, as well as ten key policies that respond to the Constitutional prescripts. These policies continue to form the basis for language in education. The section first discusses the initial policies and how they relate to language planning and policy. This first phase took place in the early years of democracy and all the policies were developed between 1994-1996, establishing the post-Apartheid education system. A critique is then offered, incorporating advocacy and societal responses. This is followed by a discussion of the second development phase which focused on curriculum and promotion, taking place between

2008 and 2012 with critiques and broader societal responses. Finally, the most recent developments spanning the 2013 period to date are discussed.

3.4 THE FIRST PHASE OF LANGUAGE IN EDUCATION POLICIES IN SOUTH AFRICA

The policies reviewed in this section are (i) the Constitution of South Africa, (ii) the National Education Policy Act, (iii) the South Africa Schools Act, and (iv) the Norms and Standards for Language Policy in Public Schools.

3.4.1 The Constitution of South Africa

The Constitution of South Africa originally recognised 11 official languages. The number of official languages was recently increased to 12 in May 2023 by the Portfolio Committee on Justice and Correctional Services, considering the Constitution Eighteenth Amendment Bill [B1 – 2023] (Republic of South Africa, 2022; National Assembly, 2023). This amendment adopts South African Sign Language as a 12th language. While the official languages are limited, promoting and respecting other languages commonly used by communities in South Africa, including Hindi and Greek, are also mentioned. De Klerk (2002) documents the contested ideologies that informed the selection of language, demonstrating that different ideologies led to the inclusion of all language within a contested space.

The Constitution gives authority to provinces to use any of these languages for governance, with a minimum of two languages used (Republic of South Africa, 1996a). In the specific area of education, the Constitution enshrines the right for everyone to receive education in any of the official languages of their choice in public schools, wherever this is reasonably practical. It further proposed that all implementation options should be considered, including single-medium education (Republic of South Africa, 1996a).

The Constitution tasks the national and provincial governments with monitoring and regulating the use of languages. It then makes provision for establishing a Pan-South African Language Board (PANSALB) to promote and create conditions for the development and use of the official languages. We now turn to the specific education policies empowered by the Constitution.

3.4.2 The National Education Policy Act and the South African Schools Act

The National Education Policy Act (NEPA) of 1996 provides for determining national education policy by the Minister of Education after consultation with the Council of Education Ministers (CEM). The CEM members are the minister, deputy minister and provincial political heads of education. NEPA specifies the function of the minister as determining the language in education in addition to other functions, while provinces are mandated to coordinate administrative actions and implement national policy (Republic of South Africa, 1996c). The South African Schools Act (SASA) of 1996 then mandates the Minister to determine norms and standards for language policy in public schools. The Act delegates the responsibility to determine the school's language policy to school governing bodies (SGBs) (Republic of South Africa, 1996a).

3.4.3 The Norms and Standards for Language Policy

The 1998 Norms and Standards for Language Policy in Public Schools, also known as the Language in Education Policy (LIEP), is the third component of the language in education policies. It is based on the principle of the right to home language instruction while providing learners with access to a global language such as English. There are at least two references that allude to this considering the language history of South Africa from the policy as follows: “ those drawing on comparative international experience demonstrating that, under appropriate conditions, most learners benefit cognitively and emotionally from the type of structured bilingual education found in dual medium...”, “ to support the teaching and learning of all other...languages which are important for international trade and communication... (page 2 Republic of South Africa, 1998a). On language as a subject, learners are required to study at least one language in Grade 1, with an additional language offered from Grade 3. It further requires learners to study two languages in Grades 10 to 12 (Republic of South Africa, 1998a).

On the language of learning and teaching (LoLT), the policy states that the LoLT of public schools must be an official language; it does not prescribe which language. The policy then discusses LoLT in two categories by grade; a LoLT for Grades 1 to 6, and Grades 7 to 12. The policy is ambiguous in distinguishing these two categories, it does not explicitly state that the LoLT must change but that a school's LoLT may be maintained until Grade 6 at a minimum. Consideration for the LoLT

for Grade 7 to 12 include learner numbers, resources availability and other conditions as determining factors. In implementation, this means that schools could continue with the same LoLT from Grade 1 to 12 after due consideration at the end of Grade 6. The policy is clear that a second language as a subject should be offered from Grade 3.

The policy design follows an additive multilingualism approach, where mastery of the home language arguably enables learning additional languages. Stating that multilingualism should become a defining characteristic of being South African, the preamble acknowledges the contestation, contradictions, and tensions in society on language-in-education. It emphasises that the implementation of this policy should continue to be guided by research and a broader national language plan. Further aims of the policy are the development of all 11 official languages, the development of redress programmes for previously disadvantaged languages broadly and education (Republic of South Africa, 1998a).

The policy recognises parent and learner choice in selecting the LoLT. They are given the discretion to choose schools based on the LoLT. The role of the school as mandated in SASA is affirmed; LoLT determining should be through the SGB. However, schools are required to stipulate how they will promote multilingualism by offering more than LoLT. Should parents, learners or the SGB be dissatisfied, this should be referred to the Provincial Education Department. This includes incidents where the desired LoLT is not offered in schools, or there is dissatisfaction with an SGB's effort to promote multilingualism. Should these matters not be resolved satisfactorily, the policy makes provision for an appeal to the MEC, PANSALB and the Arbitration Foundation of South Africa (Republic of South Africa, 1998a).

3.4.4 A critique of the first post-apartheid phase of policy development

The four policies discussed reflect the initial phase of the post-apartheid language in education development. The pronouncement of the policies governing language in education was preceded by extensive debate and included considerations of the roles and responsibilities of government at the national and provincial level, in addition to schools and parents. Although the policies are the most progressive language in education policies to date in South Africa, there are gaps,

implementation challenges and omissions. Murray (2002) argued that the landmark change in this era was that schools could no longer refuse to accept learners due to their poor language proficiency, as they did in the past. Schools may, however, continue to choose Afrikaans and English as the LoLT. This is still the case in most high-performing schools previously only admitting White learners. This action continues to effectively exclude poorer African learners (Howie et al., 2017; Chisholm & Sujee, 2006). Maintaining the option to not offer any African languages also contributes to the low status of African languages. Finally, concerning the role of parents and SGBs, the assertion that parents and learners have the opportunity to fully exercise school choice based on language is not accurate. Other barriers to access include fees for quintile 4 and 5 schools and admission policies that give preference to learners living within a specific radius of the school; this has a significant impact considering the persistence of segregation by race based on Apartheid spatial planning amongst others (Zizzamia, Schotte & Leibbrandt, 2019; Lilenstein, 2023).

In 2006, at a language colloquium hosted by PANSALB, the Minister of Education reiterated that the goals of policy and practice should be to increase the use of and competence in the mother tongue⁷, as a medium of instruction, at least in primary school; improve ability in a second language, such as English, to support further study and respond to the legitimate desires of parents and learners; and developing communicative ability in at least one African language, for all South African children (Pandor, 2006a).

Practically, the language policy is sufficient, as it promotes the home language until Grade 6 and does not require revision, although implementation had not been adequate. In acknowledging the tension between research findings that promote mother-tongue instruction and the social reality, a major obstacle identified in mother-tongue provisioning was the preference for English as a medium of instruction by most parents. This is compounded by the poor English teaching

⁷ Mother tongue and home language both refer to the language a learner knows best. In South Africa the terms mother tongue had a negative Apartheid connotations however the phrase appears in some policies especially from the 2000s. This thesis largely uses home language however, there are instances of referral to mother tongue in response to the policy language.

available to learners in many schools (Pandor, 2006a). In response to the findings of the ministerial task team and the colloquium, the Department of Education committed to developing a language plan that focused on providing mother-tongue instruction until Grade 6; developing a second language programme for the general and further schooling phase; a national programme to revitalise the teaching and learning of indigenous languages in higher education institutions; and advocacy efforts to empower parents (Pandor, 2006b).

Vorster, Mayet and Taylor (2013) identified obstacles to implementing these proposals as a lack of development of the African languages as academic languages, a lack of curriculum statements in African languages, insufficient numbers of teachers with proficiency in effective teaching of African languages, societal lack of the valuing of African languages, and balancing a bilingual approach that provides adequate English teaching to enable the LoLT transition to English in later grades. The requirement is to still transition to English while ensuring that adequate language development takes place in English to enable this.

In reflecting on this first phase of development and the critique in light of language planning, it is clear that the main focus of this phase was on legislative development as reflected in the declarations of the Constitution of South Africa, such as equality, justice and recognising the previous marginalisation of African languages. This was further narrowed to schools as policy sites with pronouncements on bilingualism and articulation on using African languages in Grades 1 to 6. What was not clearly articulated is comprehensive implementation enabling such work as the development of terminology and the development of African languages as academic languages. This is seen in the failure to realise the policy goal of home language teaching until Grade 6 and a lack of change in tertiary education.

Two definitions of policy emerge in interpreting this phase as conceptual frameworks: policy as legislation and policy as text and discourse. These were discussed earlier with the definitions provided. The four policies developed, described and critiqued exercise constitutionally vested authority in the language in the education space. However, in the critique on implementation of

parent choice we experience the incompleteness of a theoretical framework with reinterpretation, critique, resistance and context becoming determining factors.

3.4.5 Application of the Conflict and Ambiguity framework

This section applies the Matland (1995) conflict and ambiguity implementation theoretical framework to the four policies discussed. In this framework, where ambiguity and choice are low, with little conflict, there are opportunities for choices based on rational decision-making processes. This largely becomes an administrative implementation exercise determined by resources. In this scenario, the policy is explicitly stated for each level of implementation with clear links. The actors are clear about expectations, responsibilities, and tasks. Low ambiguity and conflict result in stable environments where standard operating procedures may be developed and efficiencies may be gained. Applying this criterion, most policies discussed in this development phase can be categorised as administrative implementation.

The Constitution of South Africa followed a rational process. It provided very specific criteria and applicability in all the sections relating to language status, applicability, and responsibility. The National Education Policy Act similarly provided clear delegations of authority between the national government and provincial education departments, while the South African Schools Act further delegated authority with clear roles and responsibilities for the government and school governing bodies.

The main assumption of this analysis is that implementation largely becomes a technocratic process with debates and discussions focused on details of compliance and monitoring. Therefore, the main challenges are expectedly technocratic. To assume that this technocratic implementation is easy is erroneous, as even when there is high consensus, implementation requires substantial effort. Table 3.2 shows the categorisation of these policies in the framework diagram.

Table 3.2: Conflict and ambiguity framework in language policies South Africa

	Policy ambiguity
Low	High

Level conflict	Low	Administrative implementation (planning and resources) Constitution of South Africa National Education Policy Act South African Schools Act	Experimental implementation (context, variation, learning)
	High	Political implementation (power and feedback) Norms and Standards for Language Policy in Public Schools/ Language in Education Policy (LIEP)	Symbolic implementation (local coalitions)

Source: Matland, 1995 (adapted)

The defining feature of the low ambiguity, high conflict category is a non-consensus environment. The expectation can, therefore, be *political implementation* determined by the most powerful actors in terms of influence and resources. In these cases, administrative actors have limited influence on the policy outcomes. Success depends on the extent of dominance of those initiating the policy, whether they have sufficient resources or may coerce or incentivise the dissenting parties and bargain. Although coercion is an option, such mechanisms are only effective if they can be easily monitored or clearly affect the core mission of those sanctioned. If the sanctions are peripheral in impact, then coercion is ineffective. Unresolved policy segments may then be included through ambiguous writing for later resolution within a context of fleeting coalitions.

This implementation model complements the contestation discussions in defining policy, as Bowe et al. (1992) argued. The LiEP fits into this category. The role of government is limited, with authority delegated to school governing bodies to determine the LoLT. This is decentralisation to the 26 000 plus schools in the country.

Testing these parameters was seen in the Mpumalanga Department of Education and Another v Hoërskool Ermelo and Another case (*Hoërskool Ermelo v The Head of Department of Education: Mpumalanga*, 2009). The case resulted from the school's refusal to admit 130 English-speaking Grade 8 learners and amend the LoLT policy to the dual medium of English and Afrikaans. The Court found that the SGB failed to act within reason and had not sufficiently demonstrated that

the LoLT reflected the community serviced by the school. Similar court cases have since taken place. The court ruled that the provincial head of department legally had the right to withdraw the function of determining the LoLT from the SGB if there was reasonable ground. The court case demonstrated a form of coercion remedied by legal intervention in reinterpreting the text of the policy. This reflects the idea of a policy cycle and feedback generation in a contested space, leading to a reiteration without eliminating conflict.

3.5 THE SECOND PHASE OF LANGUAGE IN EDUCATION POLICIES IN SOUTH AFRICA

Curriculum policy is integral in delivering the ideals informing the language of education policies. The second phase of policy development focused on this. The curriculum has been reviewed and revised since the inception of schooling. Substantial writing on these changes, including reviews of curriculum design, policy and implementation, has been produced. A detailed discussion of these is beyond the ambit of this chapter, but this chapter discusses the current curriculum policy on language and the Language Compensation policy.

3.5.1 The National Curriculum Statements

The current curriculum implemented is the National Curriculum Statements (NCS) Grade R–12. The NCS is commonly referred to as CAPS; however, CAPS really refers to only part of the NSC. The NCS comprises of the following:

1. National Curriculum and Assessment Policy Statements Grades R–12 in schools (CAPS) for each approved school subject as listed in the policy document National Senior Certificate: A qualification at Level 4 on the National Qualifications Framework (NQF);
2. The policy document, national policy pertaining to the programme and promotion requirements of the National Curriculum Statement Grades R–12; and
3. The National Protocol for Assessment Grades R–12

The NCS was gazetted in 2011, and implementation was phased in across different grades. It was implemented in the Foundation Phase and Grade 10 in 2012, Intermediate Phase and Grade 11 in 2013, and Senior Phase and Grade 12 in 2014. The NCS is based on four main principles (Department of Basic Education, 2011a,2011b):

1. Social transformation as a mechanism to create equal education opportunities for the entire population;
2. Human rights, inclusivity, environmental and social justice;
3. Encouragement of critical learning through engagement with the material as opposed to rote learning based on regurgitation instead of internalisation and reflection;
4. Clearly defined standards of knowledge and skills for each grade of education completed.

According to regulations on the NCS, specifically on language (Department of Basic Education, 2015), learners are required to learn one official language at the home language level in Grade R. In the Foundation Phase, learners are required to learn two official languages, one at the Home Language level and the other at the First Additional Language level. Learners are permitted to take a third official or non-official language at the Second Language level or higher, provided that additional time is created during the school day without compromising the first two languages. The regulation then states that if the Language of Learning and Teaching (LoLT) in Grades 1–3 is not the same as in Grade 4 onwards, the official language offered at the First Additional Language level must be the LoLT for Grade 4. The CAPS documents are available in all 12 official languages for Home Language, First Additional Language and Second Additional Language. In addition, the CAPS documents are provided in all 12 official languages for the remaining two Foundation Phase subjects, namely Mathematics, and Life Orientation. Effectively, this provides the curriculum resources enabling different language choices in both – which language to study at the Home Language level and the choice of LoLT.

For the Intermediate Phase and the remaining phases, the regulations again require two languages, with at least one at the Home Language level and the second at a First Additional Language level or higher, as well as provision for third languages with similar conditions as in the Foundation Phase. However, CAPS documents for non-language subjects, including Mathematics, Social Sciences and Natural Sciences and Technology, are only provided in English and Afrikaans.

A complement to the curriculum statements has been the development of national catalogues of textbooks as recommended by a ministerial task team on LTSM in 2010. A national catalogue for Grades 1–3 and 10 was published in 2011; Grades 4–6 and 11 in 2012; and Grades 7–9 and 12 in 2013. In each case, the catalogues preceded the phased curriculum development (Department of Basic Education, 2019b).

3.4.4 The Language Compensation Policy

A lesser-known policy in this category is the Language Compensation Policy in the National Senior Certificate (NSC), enacted as an examination standardisation process fulfilling the General and Further Education and Training Quality Assurance Amendment Act (Republic of South Africa, 2008). The NSC is a national school-leaving examination taken at the end of 12 years of schooling. The NSC examinations may only be taken in English or Afrikaans except for the language subject which are taken in any of the 12 official languages or other additional languages. Since 1999, learners whose first language is not English or Afrikaans have received an extra 5% of their original mark on non-language subjects. This is intended to compensate for the language disadvantage experienced by these learners (Umalusi Council for Quality Assurance in General and Further Education and Training, 2016). The policy was initially introduced as a short-term measure with the expectation that the English or Afrikaans proficiency of mostly African learners would improve. In 2016 the Umalusi Council⁸ stated that the language compensation would be retained at 3% from 2016 until 2022 (Umalusi Council for Quality Assurance in General and Further Education and Training, 2016).

Using four statistical methods, including the method used by Umalusi (Taylor, 2014), provides empirical evidence of the presence of the language disadvantage. Using race as a proxy in one of the methods on NSC data, Black learners who scored above 80% on non-language maths items scored lower than their White counterparts on maths items which included language. This seems to point to a language disadvantage rather than poor content knowledge. Taylor concluded that

⁸ Umalusi is the official education quality assurance council. It sets and monitors standards for general and further education and training in South Africa in accordance with the National Qualifications Framework Act No 67 of 2008 and the General and Further Education and Training Quality Assurance Act No 58 of 2001.

if this language compensation policy is based on a language disadvantage, then it should continue to be implemented.

3.4.5 A critique of the curriculum development phase

Although the curriculum acknowledges all the official languages equally, the interpretation that there is an expected transition to either English or Afrikaans at Grade 4 at the latest is supported by the provision of CAPS documents only in those languages. Similarly, the approved LTSM catalogue developed by the Department of Education includes English or Afrikaans options for only non-language subjects from Grade 4 onwards. In a similar critique offered by the Bua-Lit collective, comprising researchers, activists, educators and teacher educators, they state that the curriculum “supports neither teaching through the home language beyond Grade 3 nor dual-medium bilingual education. The language requirements of the CAPS have effectively changed language policy through the back door by introducing an additional language from Grade 1 and by implicitly enforcing a change in the language of learning and teaching (LoLT) for African language children in Grade 4. This change is enforced by providing teaching and learning resources as well as assessments exclusively through English” (Bua-Lit collective, 2018). Although what they say about assessment is inaccurate, their interpretation is fair.

Similarly, although the LTSM catalogue has improved overall textbook quality, the approved textbooks are only offered in English or Afrikaans in Grade 4 onwards for non-language subjects. The need to provide detailed guidelines on the content for African language material, especially in the Foundation Phase, has also been acknowledged (Department of Basic Education, 2019b). Even the current provisioning for English is critiqued with the argument that children transitioning to English as a second or third language as the LoLT require more resources than a single textbook per the catalogue (Bua-Lit collective, 2018). Furthermore, the National Senior Certificate examination in Grade 12 may only be written in English or Afrikaans, and the same applies in tertiary education. Learners are, therefore, expected to transition to one of these languages as the LoLT during their education.

A recent evaluation of the design and implementation of the NCS commissioned by the DBE found the curriculum to be the best curriculum to date in content and guidance to teachers, but implementation is still ineffective. The main challenges were time management, teacher knowledge, the provision of learning and teaching resources, and assessment practices (Department of Basic Education & Department of Planning, Monitoring and Evaluation, 2017). While acknowledging the progress made, a further critique of the content of curriculum policy for language was discussed in a 2016 unpublished report by Class Act, one of the largest literacy NGOs in South Africa with extensive experience in implementing the literacy curriculum in the African languages. The report was developed as part of the DBE's commissioned research on reading in the Foundation Phase. The critique may be summarised as follows:

1. The curriculum documents specify that learners should use an expanding vocabulary but then do not specify how to do this. In the case of English First Additional Language, a high-frequency word list is provided, but this is not the case in any of the African languages.
2. There is insufficient progression across the year and grades in the listening and speaking curriculum subcomponent. It lacks specific objectives and benchmarks and examples based on different types of stories and stages within stories.
3. There are suggestions on the kinds of phonics that should be taught each term, but a comprehensive list is not provided and the guidelines are inconsistent across languages.
4. Phonemic awareness is mentioned, but there is no consistency or a systematic progression in the teaching of this skill.
5. The curriculum emphasises reading but there is an insufficient supply of reading materials.

A Department of Basic Education report on the Early Grade Reading Study in Setswana in the Foundation Phase (Class Act Educational Services, 2016) also identified curriculum limitations:

1. Insufficient allocation of time for group-guided reading, which results in substantial numbers of learners losing the opportunity to read individually;
2. Insufficient opportunities to read extended texts; and

3. Low cognitive demand in written work.

There has been substantial development in the curriculum provisioning and specification. However, the gaps in the broader policy, failure in micro policy at the classroom level and weak implementation continue to maintain language inequality more than 20 years after democracy. There is still little research on effectively teaching literacy or standards, including the quantity of writing or reading required for effective education in African languages and English as an additional language. Neither the policies nor the curriculum has successfully specified reading benchmarks, minimum standards for reading materials, a growing body of academic vocabulary or proven programmes on language and literacy in the African languages.

3.5.3 Application of the Conflict and Ambiguity framework

In the last section of this second development phase, the implementation framework is presented again with the NCS included and a rationale provided for this.

The NCS for Grades 1 – 3 falls into administrative implementation due to the explicitly stated details for each level of implementation, with clear links. The policy is clear about the different languages, and the idea of choice is affirmed by providing resources across all 12 languages. There are low levels of ambiguity and conflict, resulting in stable environments where standard operating procedures articulated through CAPS have been developed. The critique is largely about efficiencies such as detailed revision and better material rather than an absence of materials. The main assumption that implementation is largely a technocratic process with debates and discussions focused on compliance and monitoring details, is proven again by the critique being on the depth and breadth of materials for implementation or the ability of teachers rather than a lack of clarity in the policy. The NCS for Grades 4 to 12 has characteristics of administrative implementation, as well as political implementation similar to the LiEP policy.

Although this scenario assumes a linear process and the literature discussed in the policy definition section challenges this, some policies become administrative over time with little contestation. The Language Compensation Policy in the National Senior Certificate is a case in point. The text of the policy concerning the calculation of marks and the composition of language

subjects to attain the certificate is clearly stated and standardised. While the discourse on quality, value and usefulness is contested, this policy largely complies with the administrative implementation requirements.

Table 3.3: Conflict and ambiguity framework in language policies South Africa

		Policy ambiguity	
		Low	High
Level conflict	Low	Administrative implementation (planning and resources) Constitution of South Africa National Education Policy Act South African Schools Act Language Compensation policy in the National Senior Certificate National Curriculum Statements Grade 1 to 3	Experimental implementation (context, variation, learning)
	High	Political implementation (power and feedback) Norms and Standards for Language Policy in Public Schools/ Language in Education Policy (LIEP)	Symbolic implementation (local coalitions) National Curriculum Statements Grade 4 to 12

Source: Matland, 1995 (adapted)

However, the NCS may be categorised as *symbolic implementation* as the curriculum policies reaffirm constitutional values, national language commitments and goals. However, the policies are characterised by high ambiguity and high conflict with contested and competing interpretations that cannot be concurrently implemented. This is seen in the lack of a direct pronouncement on the LoLT, accompanied by the implicit interpretation by the provision of only English and Afrikaans curriculum documents and LTSM for non-language subjects, thus only

supporting learning in these languages. As per the criteria for such policies, they aim to redistribute power or resources. However, very little information is provided on the process and implications and how to proceed.

3.6 THE THIRD PHASE OF LANGUAGE IN EDUCATION POLICIES IN SOUTH AFRICA

The third phase of language policies, categorised in this thesis, spans broadly from 2013 until 2023. The four latest language in education policy developments have been the (i) draft Basic Education Laws Act (BELA) bill, (ii) draft National Policy for the Provision and Management of Learning and Teaching Support Material (LTSM), (iv) Incremental Introduction of African Languages (IIAL) and, (iv) the Revised Language Policy for Higher Education.

3.6.1 The Basic Education Laws Amendment Bill and the Learning and Teaching Support Materials Policy

The BELA Bill aims to update and amend several pieces of basic education legislation. This includes the National Education Policy Act (NEPA), the South African Schools Act (SASA), the Employment of Educators Act, the General and Further Education and Training Quality Assurance Act, and the South African Council for Educators Act. The initial Bill was gazetted in 2011. Consultations were completed with provinces and education trade unions. The Bill was approved by Cabinet and subsequently published for public comment in 2017. The final round of feedback was completed in June 2023, although an official report or statement is not yet available.⁹ A detailed discussion of all the amendments is beyond the scope of this chapter. The sections highlighted will be limited to those relating to the language in education policies.

According to the BELA Bill, public school governing bodies (SGBs) must submit the language policy to the provincial head of department (HOD) for approval. The HOD may approve, reject or make recommendations to the policy. Secondly, the LoLT policy of schools should be amended every three years if the context changes or when necessary or requested by the HOD. The policy goes on to say the HOD may direct a school to offer more than one LoLT. To enact this, the HOD must

⁹ <https://businesstech.co.za/news/lifestyle/695601/new-laws-for-schools-in-south-africa-ready-to-take-the-next-step/>

inform the SGB in advance. The SGB should hold public consultations or hearings, and a final public declaration of the decision should be made. Considerations for the amendments should include the Constitution and equity; the number of learners speaking the language; effective utilisation of resources; and the general language needs of the broader community. The Mpumalanga court case cited earlier in the chapter is recognised as one of the contributing cases. The main emphasis is that determining a school's LoLT is a devolved function. It is not the exclusive preserve of the school, and therefore the HOD is not precluded from intervening. The BELA Bill also makes provision for centralised LTSM procurement to realise economies of scale by suspending the SGB function to procure textbooks. However, this would follow consultation (Department of Basic Education, 2017).

Supplementing the LTSM section has been the 2014 publication of a draft LTSM policy aimed to further guide the sector. This follows recommendations from a 2010 ministerial committee on LTSM (Department of Basic Education, 2010c). The policy aimed to guide the development, procurement, and management of all LTSM, including textbooks. In addition to the same BELA recommendations on centralised procurement, the draft policy advocated a decentralised approach to LTSM development, providing the DBE with the latitude to generate LTSM from a range of sources, as well as by internally producing or commissioning the development of LTSM for subjects/languages under what is referred to as state publishing. The policy also addressed intellectual property issues, clarifying cases where intellectual property and reproduction rights reside with the DBE and where they will reside with the creators and developers of the material (Department of Basic Education, 2014).

Public comments on the draft LTSM Policy were received from various stakeholders ranging from SGBs, universities, political parties, and publishers to teacher unions. The main areas of emphasis and discussions among these stakeholders were; central procurement, particularly for section 21.1.c schools who have the right to procure LTSM directly, contending that the proposed central procurement ignores SGB powers in the SASA; that the policy should be developed with funding norms and standards of public schools as well, rather than as a stand-alone policy; and that the DBE should consider ratifying the Marrakesh Treaty on copyright practices which require

contracting parties to create limitations and exceptions to copyright laws that would facilitate access to printed materials for readers with visual impairment. Other concerns were the loss of profit by the publishing sector and limitations to teacher flexibility through the provision of core LTSM. Comments received on the LTSM section of the BELA Bill were similar, indicating agreement with the centralised procurement, recognising that this is about efficiency, particularly as this would be executed in consultation with schools. Due to the interrelationship between these two policies, the LTSM policy will only be finalised once the BELA Bill, which addresses some concerns, is finalised.

3.6.2 The Incremental Introduction of African Languages

The 2013 publication of the Incremental Introduction to African Language draft policy was a significant development. The preamble acknowledged the language challenges that have persisted in South Africa and recognised the poor learning and language outcomes in the schooling sector. The policy aimed to primarily promote and strengthen the use of African languages by all learners from Grades 1 to 12 at the Home Language and First Additional Language levels, increasing parents' confidence in choosing African languages. Secondly, the policy aimed to improve access beyond English and Afrikaans, ensuring that all non-African language speakers speak an African language. Finally, the policy also aimed to promote social cohesion by developing and preserving African languages (Department of Basic Education, 2013). The policy was broadly consulted with education unions, the education portfolio committee, PANSALB and the Afrikaanse Taalraad.

The policy discussed clear linkages to the Constitution of South Africa, the Bill of Rights, NEPA, SASA and the curriculum developments, framing Incremental Introduction to African Languages as a further contribution by providing new opportunities and options. The main proposed change is the introduction of a second language benchmarked at the First Additional Language level; otherwise referred to as a second First Additional Language. The choices for the language are a selection of Xitsonga, Tshivenda, a Nguni language, a Sesotho-Setswana language, or Afrikaans. The selection of a language would be determined by the majority language. Schools may be designated to specific languages where this is not possible, especially in multilingual contexts.

Offering English as a Home Language or one of two FAL (level) options would become compulsory. To enable this, the policy proposed an increased school day, ranging from an additional 2 hours per week in Grades 1 and 2 to 5 hours in Grades 10 to 12. (Department of Basic Education, 2013).

The provision of LTSMs is discussed specifically as a requirement. The policy highlighted the need to develop material in African languages at the First Additional Language level. Teacher provisioning is explicitly discussed, with various options for staffing, including multi-grade teaching, itinerant teachers or roving teachers, while maintaining a 1:20 teacher-pupil ratio in multigrade contexts and a 1:40 ratio in rural contexts. The funding, monitoring and evaluation implications are also discussed.

It was envisaged that the IIAL policy would be implemented incrementally, commencing in Grade 1 in 2015 and continuing until 2026, when it will be implemented in Grade 12 (Department of Basic Education, 2013). In 2018 an IIAL Strategy Sector Plan 2017-2029 was published and shared with provinces with training and additional LTSM developed. However, the policy has not been implemented as originally designed. To date, the DBE has developed Grade 1–3 resources at the Second Additional Language (SAL) level instead of the First Additional Language level. Resources include anthologies, workbooks, lesson plans, big books, and posters in ten languages. These resources have been distributed to schools implementing the IIAL (Department of Basic Education, 2019b).

A further significant divergence was a reduction of the target for full implementation from all schools to a reduced 2 630 schools, with approximately 50% of these – 1 324 – implementing (Department of Basic Education, 2018). By 2020, the target had been further reduced to 2 585, with 82% of schools (21 99) implementing the SAL version (Department of Basic Education, 2020c).

3.6.3 Revised Language Policy for Higher Education

The final policy development in this period has been the Revised Language Policy for Higher Education, gazetted in February 2018. The policy revised the 2002 language in higher education

policy. In 2003, a ministerial committee chaired by Professor Njabulo Ndebele was established to provide advice for developing and using African indigenous languages as a medium of instruction in higher education. While this is not a specific policy, it provides context. The findings were that the current language policies were adequate; however, the future of African languages as mediums of instruction was under severe threat if no actions were taken immediately in a long-term national plan with clear implications for the provincial and local levels. The recommendations from the committee included that each tertiary institution in South Africa should identify and develop an indigenous African language for academic use (Department of Higher Education, 2003). A survey of 21 higher education institutions undertaken by the Council of Higher Education in 2000 showed that 16 institutions offered English only as the medium of instruction while the remaining ones favoured Afrikaans but had started introducing English. At the time, Stellenbosch University was the only institution offering Afrikaans exclusively although some English concessions were allowed (Council of Higher Education, 2001). The use of African languages took place solely as a subject specialisation area, and none of the institutions formally explored the development of offering any African language as the medium of instruction.

The revised 2018 policy aimed to enforce the use of all official South African languages in higher education institutions in all functional areas, including scholarship, teaching and learning, and broader communication. The broader aim of the policy is fulfilling the Constitutional commitment to language parity, particularly for indigenous African languages. The policy recognised the weak language proficiency of most university students in both English and African languages, arguing that proficiency is far worse in English and, thus, a lack of language support in university for home language speakers is inefficient, serving as a barrier. The policy also argued that the deliberate apartheid era underdevelopment of African languages and the current practice of only using Afrikaans as the medium of instruction in former Afrikaans medium universities is a form of discrimination (Department of Higher Education, 2018).

The revised policy proposed universities as the primary custodians of the scholarship of African languages, clarifying the requirement for higher education institutions to diversify the language of learning to include indigenous African languages, over and above the inclusion of English in

relation to scholarship as well as exploring strategies to intellectualise African languages. Regarding communication, higher education institutions must translate communication into at least three official languages (Department of Higher Education, 2018).

Enabling factors for implementation are recognised as revising university language policies and plans and collaborative programmes across institutions under the leadership of African language departments with language development centres. The DBE is mentioned as a partner contributing by producing learners competent in their home language. The Department of Arts and Culture is charged with developing dictionaries across the languages and creating a multidisciplinary terminology bank in collaboration with PANSALB. The policy strongly emphasises monitoring and evaluation with vice-chancellors expected to report annually, commitment to annual measurements of implementation by DHET, and the availability of funding through DHET. The policy was finalised in 2020 and the implementation timeframe was set to start in January 2022 (Department of Higher Education, 2020). How well implementation takes place is yet to be seen. However, the DHET has established Centres for African Languages Teaching as a funding mechanism for this policy. The most prominent of these is at the University of Johannesburg, with the explicit aim of conducting practice-based research and research-based practice to develop teachers who teach African languages in the foundation and intermediate phases through the medium of African languages. The two languages of focus are Sesotho and isiZulu. Further information is not yet available.

3.6.4 Critique of the third phase of language policies

Both the BELA Bill and IIAL present the most comprehensive responses to the critique of earlier language in education policies. They provide detail on corpus aspects and incorporate additional monitoring and accountability, providing explicit direction on the position and role of African languages. However, the policy implementation shift in the Incremental Introduction of African Languages to only focus on schools previously not offering any African language at the Second Additional Language level rather than full policy implementation reflects a lack of effectiveness. The scaling down of the implementation is concerning, considering how comprehensive the Incremental Introduction of African Languages draft policy is and its potential to shift the

education landscape. Part of the implementation challenges cited by the DBE are the lack of teachers competent to teach in African languages and the impression that African languages do not have any international value (Department of Basic Education, 2019a). To assess confidence to teach in multiple languages teachers were asked several questions in a nationally representative survey in 2017. Most Grade 3 teachers felt confident teaching in English at 41% or very confident at 50%; 22.4% were confident in teaching, and the lowest levels were for Xitsonga and Tshivenda at below 1% (Department of Basic Education, 2019a).

The third and final major policy in this phase, focusing on higher education, critiques the role of higher education institutions and DHET in developing African languages and establishing a stronger linkage between basic and higher education. The policy starts to move towards realising African languages as academic languages, providing specific requirements for corpus planning while elevating the status planning aspect by recognising African languages as intellectual languages and requiring them to be used for ordinary communication. The recognition of the lack of will and resources seems to be well-placed, and creating a fund for this may be expected to address this limitation, at least from the side of DHET.

3.6.5 Applying the language conflict and ambiguity framework

When considering Maitland (1995)'s implementation framework of conflict and ambiguity (Matland, 1995), the three policies fall into three of the four categories. A discussion of this is provided below.

As with the curriculum for Grades 1 to 3, the LTSM policy falls into administrative implementation, as it explicitly states the purpose and process for LTSM development, procurement, use and monitoring. This may be expected, as aspects of the policy, such as the national textbook catalogue, have been previously implemented. This policy, therefore, serves as an update and a consolidation rather than a completely new articulation. The policy aligns with the curriculum, and conflict areas would be resolved through the BELA Bill amendment. There are, therefore, overall low levels of ambiguity or conflict.

The remaining critique or concerns on the quality of state textbooks apply to any development process and is not unique to the government. In addition, the policy makes allowance for the commissioning of development and use of open-source materials over and above parameters being set by the NCS curriculum, which has been assessed to be of high quality. The second concern, the negative economic effect on the publishing sector, is worth noting. However, the mandate of the DBE is to provide high-quality education in the most efficient manner and not economic development, primarily through publishing.

Table 3.4: Conflict and ambiguity framework in language policies South Africa

		Policy ambiguity	
		Low	High
Level conflict	Low	Administrative implementation (planning and resources) Constitution of South Africa National Education Policy Act South African Schools Act Language Compensation policy in the National Senior Certificate National Curriculum Statements Grade 1 to 3 Provision and Management of Learning and Teaching Support Material (LTSM)	Experimental implementation (context, variation, learning)
	High	Political implementation (power and feedback) Norms and Standards for Language Policy in Public Schools/ Language in Education Policy (LIEP) Basic Education Laws Act (BELA) Incremental Introduction of African Languages (IIAL) Revised Language Policy for Higher Education	Symbolic implementation (local coalitions) National Curriculum Statements Grade 4 to 12

Source: Matland 1995 adapted

The BELA Bill, IIAL and Revised Language Policy for Higher Education policies are similar to the LIEP policy due to their low ambiguity but are distinguished by high conflict. The expectation is,

therefore, *political implementation* determined by the most powerful actors in terms of influence and resources. The public debates on language determination and the politics and power associated with primary schooling and higher education reflect the lack of consensus that political action may resolve. All three policies are largely a revision of previous policies where actors have not fulfilled or responded willingly, and thus, coercion started to emerge. Although coercion is an option, it is only an effective mechanism through continuous and easy monitoring. In the BELA Bill, the review of the school's language policy by the HoD every three years presents such an opportunity. Similarly, in higher education policies, there is expected ongoing annual reporting, the extent and depth of this is not clear. However, this is not clear for IIAL. In fact, the reduced implementation of IIAL already reflects a compromise. However, in this model, there is an acknowledgement that unresolved policy segments may be included through ambiguous writing for later resolution within a context of coalitions, and there may be staggered implementation.

Overall the language in education policy development has seen substantial shifts over the three periods, with clear developments and implications for language planning, understanding policy and framing implementation.

3.7 CONCLUSION

This chapter provided a summary of the language in education policies, illustrating that changes in the official status and use of languages do not happen naturally but require deliberate language planning. In critiquing the policies, there are clear omissions and a lack of specificity in definitions, and incorrect underlying assumptions, for instance, that SGBs would be adequately equipped to determine the appropriate language policy for the school, make concerted efforts to promote multilingualism and voluntarily opt for provisioning in African languages where English and Afrikaans previously dominated.

It is also clear that pronouncing the development of African languages in policy has not yielded much beyond the basic implementation of the curriculum. However, the development of the third policy phase shows important shifts in the policy landscape, especially through the BELA

Bill, IIAL, LTSM policies and the language in higher education policy. These policies increasingly address the specifications of language planning, such as the gap of corpus planning and status planning. Furthermore, the interpretation of language policies against the policy as text and discourse framework initially, and the policy ambiguity and conflict framework lend a helpful interpretation and appreciation to policy development in South Africa.

Applying the conflict and ambiguity framework is especially useful in moving beyond policy creation and legislation towards policy implementation. Evidently, low conflict and low ambiguity policies dominated. This may not be too unexpected considering the systems-building era for the education system. Future policies may be more contentious.

CHAPTER 4: LANGUAGE TRANSFER THEORY AND POLICY: CAN AN INTERVENTION LEAD TO SUCCESSFUL LANGUAGE TRANSFER FROM L1 TO L2 OR FROM L2 TO L1? REVIEWING AFRICAN LANGUAGES AND ENGLISH

So far, the chapters have sketched the social and historical setting and given a policy analysis. Chapter 3 provided an analysis of the language policies in education. This chapter provides an empirical analysis of the application of the language of instruction policies. Both the Language in Education Policy and the National Curriculum Standards are applied in schools, and this chapter uses learner data to measure their impact.

4.1 INTRODUCTION

The choice of language of instruction (LOI) is one of the most important policy questions in education. This is especially true in developing countries that are typically multilingual with an “international language” such as English or French chosen as the lingua franca. Most developing countries opt for a bilingual language policy, teaching first in the mother tongue (L1) and then introducing the foreign/second language (L2), often as the destination language (Eberhard et al., 2020; Kosonen, 2017; Walter & Benson, 2012). This is based on educational theory recommending that schooling should begin in the language a child knows best (Ouane & Glanz, 2010; UNESCO, 2003; Walter, 2010; Walter & Benson, 2012). But policymakers wrestle with reconciling this with the strong demand from parents for their children to be taught in the international language¹⁰, given the economic returns and associated job opportunities vested in these languages (Casale & Posel, 2011; Giliomee, 2004; Gordon & Harvey, 2019; Mhlanga, 1995; Phindane, 2015; Wright, 2002). For example, some countries, such as Botswana and Tanzania, prioritise one LOI nationally; other countries, such as Uganda and Kenya, prioritize one LOI in the

¹⁰ Low-cost private schools in India, for example, often use English as the language of instruction. <https://www.epw.in/journal/2021/13/special-articles/learning-and-language.html>. Accessed June 6th 2022.

urban areas, sometimes referred to as the language of the catchment area¹¹. Rwanda reflects a more complex and volatile LOI environment. In 2021 it reversed its language policy, requiring all primary schools to instruct their students in English after at least three language changes between Kinyarwanda and French¹². In South Africa, the mother tongue is mostly used as the LOI for the first three grades, with English taught as a subject, followed by a switch to mostly English as the LOI.

The evidence for theories of language transition has largely been from the Global North with an application for minority language speakers acquiring a majority language. Very little evidence exists for contexts where most of the population are mother-tongue speakers attempting to acquire a minority second language. For instance, although seen as an “international language”, English is often the minority language in the Global South (Eberhard et al., 2020; Kirkpatrick, 2012; Kosonen, 2017; Walter & Benson, 2012). Moreover, the empirical research has largely focused on linguistically similar language pairs, such as Spanish to English, and English to French or German (Baker & Stoolmiller, 2011; Goswami, Gombert & Barrera, 1998). The concentration in European languages is demonstrated in the meta-analysis by Melby-Lervåg & Lervåg (2011), summarising findings from 47 studies over 30 years and by recent evidence examining more linguistically diverse pairs such as English to Korean and English to Chinese (Wang, Park & Lee, 2006; Wang, Yang & Cheng, 2009). Except for limited studies on English and local languages in Nigeria, Kenya, Uganda and Namibia (Fafunwa et al., 1989; Piper, Zuilkowski, Kwayumba, & Oyanga, 2018; Kim & Piper, 2019; De Galbert, 2020; Veii & Everatt, 2005), there is very little research on the applicability of these language transfer theories for the African context with a larger language distance between L1 and L2 within a multilingual context (Eberhard et al., 2020; Ouane & Glanz, 2010; Prah & Brock-Utne, 2009; UNESCO, 2003). The work of Fafunwa et al., (1989) examined this question by comparing three years of mother tongue education in Yoruba

¹¹ Early grade language of instruction (LOI) in Botswana is either Setswana or English, even though 26 languages are spoken in the country. Kiswahili is the early-grade LOI in Tanzania, and urban centers in Kenya. English is the LOI in urban Uganda.

¹² <https://www.worldpoliticsreview.com/in-rwanda-language-change-in-schools-leaves-students-and-teachers-struggling/>. Accessed October 10th 2022. <https://www.washingtonpost.com/politics/2020/01/24/third-time-11-years-rwanda-changed-language-used-primary-schools/>. Accessed May 9th 2023.

and English as a second language to six years of mother tongue education and a transition to English in grade 4. Although the study was small, limited to 10 schools, the findings and documentation provide instructive lessons.

Do improvements in L1 literacy skills also cause improvements in L2 when the language pair is linguistically distinct? Is there a reverse causal relationship flowing from L2 to L1 literacy skills? And given limited resources, which language, L1 or L2, should teacher professional development programmes target?

This chapter examines these questions in the context of South Africa, using longitudinal data from two randomised evaluations of structured pedagogy programmes targeting early grade literacy, called the Early Grade Reading Studies (EGRS). The first was a mother-tongue (L1) intervention implemented over three years from 2015 to 2018 (Cilliers, Fleisch, Prinsloo & Taylor, 2020; Fleisch, 2018; Fleisch, Taylor, Schöer & Mabogoane, 2017; Kotzé, Fleisch & Taylor, 2019) and the second was an English L2 intervention, also implemented over three years from 2017 to 2019 (Cilliers et al., 2020). Although these were two separate randomised evaluations rather than two arms within one randomised experiment, there were a great many factors held constant. Both studies assessed learners in their mother tongue and English. Importantly, both studies implemented a very similar intervention model, namely detailed lesson plans, integrated reading materials and professional support through on-site coaching. Both interventions were delivered over three years to children in grades 1–3 attending non-fee-paying schools in rural South African provinces. The key difference between the two studies was the language being targeted.

We found that targeting the home language improved home language and English literacy skills. In contrast, targeting English caused an improvement in English literacy but a deterioration in home language literacy for students in the bottom half of the distribution. To the best of our knowledge, our study was the first to examine the causal reciprocal relationship between two linguistically diverse languages using experimental data in South Africa.

4.2 LITERATURE AND THEORIES OF READING ACQUISITION AND LANGUAGE POLICY

4.2.1 The Simple View of Reading

Becoming literate relies on children understanding that spoken language can be represented by written language and then learning what symbols represent various sounds. Thus, literacy development rests on both knowledge of the oral language and how it is represented in print. The Simple View of Reading (SVR) defines comprehension as the product of two skills: decoding and oral language (Gough & Tunmer, 1986). A recent meta-analysis of 155 studies argued for the continued relevance of the SVR (Quinn & Wagner, 2018). Additional contributors identified as supplementary predictors to the simple view of reading are background knowledge (Quinn & Wagner, 2018; Spires & Donley, 1998), working memory (Quinn & Wagner, 2018; Schaefer & Kotzé, 2019) and reasoning and inference skills (Ardington, Wills, Pretorius, Mohohlwane, & Menendez, 2021; Quinn & Wagner, 2018). Several studies have applied the SVR to L2 acquisition and found a similar relationship for Dutch, Spanish and English bilingual learners. Both oral language comprehension and decoding were strong predictors of comprehension (Lee, Jung & Lee, 2022).

Although the SVR argues for an underlying similarity in language acquisition, each language requires specific instruction; learning an L2 depends on learning an L1. According to the developmental interdependence theory (Cummins, 1979), minimum language thresholds must be reached in L1 before successfully learning an L2. Without reaching these thresholds, learners risk losing competence in both languages, becoming semiliterate in both languages instead of biliterate. In other words, successful transfer only happens under certain conditions. Besides the specific reading skills that transfer from L1 to L2, learners would not need to learn each language entirely; some literacy skills transfer from L1 to L2, including linguistic knowledge about how language works; process knowledge of using and handling books; story grammar of narrative, and styles of social interaction; decontextualising language, as well as abstract thinking (Cummins, 1979; Kim & Piper, 2019; Macdonald, 1990).

The largest body of evidence on skill transfer from L1 to L2 is in phonemic and phonological awareness – focusing on letters and word reading with transfer established through correlation studies (Branum-Martin, Mehta, Fletcher, Carlson, Ortiz, Carlo & Francis, 2006; Koda & Reddy, 2008; Wang et al., 2006). Both correlation and causal evidence from the Global South have been limited, apart from recent causal evidence contributed by Wawire and Kim (2018) based on a randomised control trial in Kenya. They found a positive impact of a 8-week Kiswahili literacy intervention on phonological awareness and letter-sound knowledge in both Kiswahili and English. This result leaves open the possibility that a similar English intervention might also have had a positive spillover to Kiswahili. Our study built on this by examining both L1 to L2 and L2 to L1 skill transfers and doing so in the context of more substantial curriculum-wide programmes running over three years (grades 1–3). More recent work measured language transfer in Uganda for two local languages, Luganda and Runyankole-Rukiga, and English (De Galbert, 2020) and in Namibia, measuring language transfer predictors in Herero and English (Veii & Everatt, 2005).

4.2.2 Deciding on the language of instruction

There is an ongoing debate on the choice of the LOI—L1 or L2 – particularly in the Global South. The conversation is not only about the educational benefits but also a societal conversation about the heritage and preservation of indigenous languages while reconciling the pressure to transition to a “foreign/international language”. The colonial history of these languages contributes to the tension (Alexander, 2005; Giliomee, 2009; Ngcobo, 2009; Wright, 2002). Furthermore, the LOI question is shaped by an understanding of both L1 and L2 reading acquisition.

Several traditional theories inform bilingual education, including the immersion and submersion theories that are now widely critiqued as subtractive, replacing L1 with L2 (Cohen & Swain, 1976; Padilla, Fairchild & Valadez, 1990; Parkin, Morrison & Watkin, 1987). More recent approaches (Ball, 2011; Collier & Thomas, n.d.; Feltes, 2022; Ginkel, 2014) include two-way bilingualism or dual immersion, using two languages as the LOI; multilingualism, using more than two LOIs in the curriculum; and mother-tongue-based education that culminates in a transition to an L2. In the

latter, L1 is used as a bridging language to L2, marked by an early exit or a late transition to L2 (e.g. Grade 6).

Proponents for an early introduction of L2 paired with an early exit from L1 argued that young children are more efficient at acquiring L2, and there is a critical period for L2 acquisition (Colombo, 1982; Lenneberg, 1967, 1969). This has now been disproved (Ball, 2011; Ginkel, 2014; Snow & Hoefnagel-Höhle, 1977). More recent research (Cummins, 1980; Dutcher & Tucker, 1995; Ginkel, 2014; Walter, 2010) confirmed that young learners are not as efficient in acquiring L2 and, in fact, are not more efficient than older children or adults, although how adults and children learn language differs in aspects such as pronunciation, accent and syntax, shaped marginally by when L2 is acquired. When to introduce L2 and how efficient this will be is more substantively affected by contextual factors such as whether learners are exposed to the L2 outside the classroom, the number of hours of L2 teaching, and teacher competency in teaching L2.

A critical policy question is establishing when learners have enough mastery for a language to be the LOI. As discussed in the previous chapter, this question has implications for legislated language and curriculum policy; and other long-reaching policies such as LTSM and teacher development. This decision is part of a broader national language policy question.

How long should L1 be maintained before introducing and transitioning to the L2 as the LOI? There is often an understated distinction between learning a language sufficiently to interact in it - what may be conversational literacy - and learning a language proficiently enough to learn content in it. Cummins (1979, 1980) referred to this as the linguistic threshold hypothesis; it attempts to express the stage at which learners have sufficient skills to successfully learn content in either L1 or L2 as a LOI. He argued that a minimum language threshold is required to successfully become literate and then biliterate.

Empirical research (Ginkel, 2014; Hasbrouck & Tindal, 2017) is ongoing to establish which skills and thresholds fit the linguistic threshold hypothesis. The skills to be measured have evolved from grammar to vocabulary, although the exact vocabulary size required is still under discussion. Contribution from the theory include the development and use of high-frequency words in the

English language and other benchmarks, such as oral reading fluency. However, such thresholds have been underdeveloped in multilingual contexts and for agglutinating languages. Nakamura, De Hoop and Holla (2019) contributed to research in multilingual contexts examining two local South Indian languages, Kannada or Telugu, as L1 and English as L2. They proposed nascent thresholds for decoding skills such as syllable-level and phoneme-level phonological awareness in L1 for successful transfer to L2. While tentative, their work contributed to emerging empirical data on skill-based thresholds that may be developed by context and language. A broader critique of existing work on thresholds (Takakuwa, 2005, Nakamura et al., 2019) is, firstly, whether they are absolute or relative (e.g. a specific number of words reached by a specific age or grade or if it is a range in the number of words reached at any age), though most skills like vocabulary are continuous or unconstrained and thus difficult to measure; and secondly, how choices on which skills should be considered are made.

While the literature reviewed has been broad, important gaps have been identified. Firstly, limited studies validate the range of theories in the Global South. Secondly, most of the existing literature lacks causal evidence for language transfer, and thirdly, the possibility of language transfer through structured learning programmes is limited. This chapter contributes to these areas respectively.

4.2.3 A critique of the literature and theories of reading acquisition and language policy

Reading acquisition and language policies are contested. The strongest sustained critique is from theorists on translanguaging (Garcia and Kleyn, 2016; Makalela, 2016; Vogel and Garcia, 2017; Makalela & Silva, 2023), who argued that the prevailing theories and policies are shaped by colonial monolingual outlooks that are largely inappropriate for the often multilingual Global South. The linguistic distinction between an L1 and L2 in these contexts is untrue, as multilingual learners do not acquire language sequentially - not L1 then L2 - but have multiple L1s. These learners acquire what we name L1 and L2 simultaneously. Enforcing a monolingual, sequential acquisition reading theory and resultant policy is a disadvantage for these learners because they are restricted from using all their language resources for learning (Garcia and Kleyn 2016; Makalela, 2016; Vogel and Garcia, 2017).

This also applies in multilingual South Africa. Makalela's (2015, 2016) *Ubuntu*¹³ translanguaging model is based on a fuzziness in language boundaries and encourages translanguaging within classrooms. Makalela (2016) argued that the colonial monolingual approaches to languages led to the misinvention of multitudes of languages in multilingual Africa. The imposed strict language boundaries do not often apply across various African languages. He posited greater mobility between languages based on pre-colonial practices focusing on meaning-making.

The argument to create an environment for learners to use all their language resources is powerful; ensuring these resources are recognised should be a key policy consideration. However, there is a distinction between language and reading acquisition that translanguaging does not adequately address. The process for acquiring language is broad and encompasses broader societal input, hence the possibility for multiple L1s. But reading is taught explicitly, and orthographic structures are distinct across languages. Therefore, reading still has to be taught one language at a time. But learners with multiple L1s may be taught these synchronously at an L1 level. When a learner's L1s are related, for example, isiZulu and Siswati, there may be a greater possibility of an overlap in teaching reading in both languages.

The substantive contribution of translanguaging lies in meaning-making or reading to learn. Knowledge does not belong to a particular language, and every accessible resource that learners and teachers have should be engaged for learning. Mgijima and Makalela (2016) found translanguaging helpful in enabling Grade 4 learners to draw inferences as they could bring their background knowledge into interpreting texts during a reading lesson. Both isiXhosa and English were used during the language lessons simultaneously. Guzula, McKinney and Tyler (2016) have similar findings from two case studies, an intermediate phase after-school literacy club and a Grade 11 after school Mathematics programme facilitated in isiXhosa and English. Teachers and learners used translanguaging and other pedagogical strategies drawing conclusions on the

¹³ Ubuntu is a pan-African simplified to mean 'I am because you are'. The broader meaning is built on collective personhood, humanness, mutual human dignity and respect. The concept is found in several African Bantu languages Kamwangamalu, N. M. (2007). Ubuntu in South Africa: A sociolinguistic perspective to a pan-African concept. *Critical Arts: South-North Cultural and Media Studies*. <https://doi.org/10.1080/02560049985310111>.

richness of shared language repertoires between learners and teachers and how these may be leveraged in classrooms.

The emphasis, however, was on comprehension and not the teaching of reading. This use of translanguaging still aligns with an L1 and L2 distinction but encourages the use of both languages to enable better comprehension: using the L1 that learners know best to ensure they understand the content and context of an L2 passage. The emphasis should be on understanding in content subjects such as Mathematics, Science and History. The translanguaging resource would be especially strategic in urban contexts where teachers and learners tend to be more multilingual.

When synthesising the translanguaging critique with the reading and policy theories in this chapter, aspects of translanguaging align well with the L1 prioritisation reading theories and policies. Both are about acknowledging and prioritising the languages learners bring to school and using these strategically. Both are about using all the language resources learners bring to enrich and make reading possible. Often this is an L1 or, in the case of translanguaging, L1s that are most useful for learning how to read and then using these for meaning-making. The relevance of translanguaging should also be framed in reference to the demographic reality of multilingualism. While South Africa, Africa and the Global South are generally more multilingual, this differs from how multilingualism is experienced in schools and classrooms. For instance, the extent of multilingualism may be different in rural and urban context. Even within a province with multiple languages, learners may select schools that match their mother-tongue therefore reducing in-classroom multilingualism. The analysis of administrative data on school LoLT and mother tongue would be a helpful lens.

We should be careful about making assumptions on the prevalence of multilingualism without large-scale data. Additional work should be done on integrating translanguaging into policy and how to assess it. The assumptions about teacher knowledge of multiple languages and academic terminology in those languages as well as the extent of matching between teachers and learners remain areas of ongoing research (Garcia and Kleyn, 2016; Vogel and Garcia, 2017; Ramadiro and Fok, 2022; Makalela and Silva, 2023).

4.3 SOUTH AFRICAN CONTEXT

The data used in this study are set in South Africa, a middle-income country with nine provinces and corresponding education departments. While the performance of South Africa has improved significantly in the past decade, overall levels of learning remain low. For example, South Africa scored an average of 320 in the 2016 Progress in International Reading Literacy Study (PIRLS), whereas the midpoint is 500 points (Gustafsson, 2020; Howie, Combrinck, Roux, Tshele, Mokoena & Palane, 2017). Of the 32 countries with comparable trend data between 2016 and 2021, a decline in reading outcomes was seen in 21 countries in the 2021 results. South Africa, unfortunately, was amongst these, declining to 288 points (Mullis, Von Davier, Foy, Fishbein, Reynolds & Wry, 2023; Department of Basic Education, 2023b). The 2021 results require further analysis following a more comprehensive results release and considering the effects of the pandemic.

South Africa is similar to many developing countries' linguistic diversity, with twelve official languages. English is the dominant language used in post-school education and spoken in commerce (Le Cordeur, 2013; Madadzhe, 2019; Nudelman, 2015) although it is a minority L1 language, spoken by less than 10% of the population as an L1 (Statistics South Africa, 2012). Low English contextual exposure is found in broader social communication, as seen through radio and television programmes. For example, only two of the top 10 largest radio stations use English predominantly. In a typical week with a listenership of 37 million adults, only 30% listen to English radio stations. While access to international television platforms and streaming services of other television providers is increasing, the public television broadcaster still has an average audience of 26 million adults monthly with a legal mandate to spend 50% of their independently produced programmes' budget on local African language or programmes (South African Broadcasting Services, 2020).

4.3.1 Language policy

Notwithstanding the highly constrained English societal context, the language policy balances the need for children to learn to read and write in a language they understand with a decision to develop proficiency in English. Schools are required to use the mother tongue as the LOI while

simultaneously teaching a first additional language, often English, from the first grade. Although the language policy allows schools to implement this model for up to the sixth grade, the language of teaching changes for most learners from the start of the fourth grade. In addition, schools may choose to have more than one LOI.

Approximately 70% of learners learn in their L1 as the LOI for the first three grades. Population data shows a high match between the LOI and their actual mother tongue (Van der Berg, Gustafsson & Burger, 2020). On the other hand, approximately 23% of learners start learning in English as their LOI, which is almost four times more than the English home language population share, which stands at 6% (Van der Berg et al., 2020).

Learners transition to using either Afrikaans or English as the language of instruction for the remainder of the grades. While 9% of learners start their schooling in Afrikaans, approximately 1% switch to Afrikaans, making the sum of those learning in Afrikaans 10%, and the remaining learners switch to English, making the LoLT for the remainder of schools 90% (Department of Basic Education, 2013). Less than 1% of implementation takes place in African languages.

Of note to this study are differences in the South African national curriculum framework between teaching L1 vs L2 early grade literacy (Department of Basic Education, 2011a). The curriculum for L1 assumes that children have a basic command of oral vocabulary as they enter grade one but have not yet developed decoding skills. The primary objective of the early curriculum is to build and master decoding skills (Department of Basic Education, 2011a). In L1, learners are taught to master phonological awareness, letter naming, letter sounds, phoneme/grapheme relationships and sounding out syllables and letter blends. Combined, these skills are used to decode words. These skills and strategies are taught from Grade 1 and continue into Grade 3 in the L1 with a maximum time allocation of 8 hours per week.

In contrast, not only is the teaching of English as L2 allocated less time in the week, a maximum of three hours, but the focus of teaching is different. In Grade 1, the focus is not on reading but on oral vocabulary development. In subsequent years, the curriculum largely assumes that the decoding skills have been mastered in the L1 and would be transferred to L2. Even though there

are clearly distinct demands for learners to master different consonant blends in English, the assumption is that decoding knowledge transfer would take place.

4.4 PROGRAMME DESCRIPTION AND EVALUATION DESIGN

4.4.1 Programme description

We used data from the first and second Early Grade Reading Studies (EGRS I and EGRS II) conducted between 2015 and 2020 in South Africa. The two studies are similar regarding the research team, programme design, duration, sample, and service provider. First, both studies evaluated the same structured learning programme, which entails the provision of daily lesson plans to teachers with integrated materials combined with an on-site coach providing monthly in-classroom support to teachers as well as needs-based workshops. Each study fully integrated the lesson plans with the official government curriculum. Second, the studies also had the same duration and target grades: teachers were supported over one year with the intervention following the learners for three years: i.e., Grade 1 teachers supported in year 1, then Grade 2 teachers supported in year 2, and Grade 3 teachers supported in year 3. Third, the programme targeted poor, non-fee-paying public schools in both studies, referred to as quintile 1 to 3 schools¹⁴. Fourth, the Department of Basic Education initiated and supervised the studies. Still, implementation was outsourced to the same service provider in each case. Fifth, both studies were designed as randomised control trials. The experimental design details are provided in the next section.

The key difference between the two studies is that the first Early Grade Reading Study (EGRS I) targeted the teaching of Setswana Home Language (L1). The second study (EGRS II) targeted teaching English as a First Additional Language (L2). None of the interventions has transfer-specific components. The programmes were also implemented in two different provinces in South Africa and were two years apart. EGRS I started in 2015 and was implemented in the North-

¹⁴ The majority of schools in South Africa are public (93%) (Department of Basic Education, 2020b). Public schools in South Africa are classified by school Socio-Economic Status, referred to as quintiles. These are not perfectly proportional, quintile 1 to 3 schools are the poorest constituting 83% of schools overall. Furthermore, quintile 1 to 3 schools are non-fee paying.

West Province, whereas EGRS II began in 2017 and was implemented in Mpumalanga, where the home language is Siswati or isiZulu. In both studies, schooling continued as usual in line with the curriculum, and there were no dedicated interventions targeting other languages or subjects¹⁵.

The provinces are relatively similar in terms of poverty levels and education performance. In each province, 68.7% of schools were classified as quintile 1 to 3 (Republic of South Africa, 1996b; Department of Basic Education, 2022). The North West Province was ranked fourth, and Mpumalanga ranked sixth on their performance in the 2016 PIRLS assessment (Howie, Combrinck, Roux, Tshele, Mokoena, & McLeod Palane, 2017). The provinces also retained similar rankings in the national school-leaving examination 2020, at fifth and sixth positions, respectively (Department of Basic Education, 2021b).

The dominant language in North West is Setswana, spoken by 63% of the Province. In Mpumalanga, isiZulu, spoken by 24% and Siswati by 27% of the population, are the two dominant languages. The remaining main languages are Xitsonga and IsiNdebele, which are spoken by 10% of the population each (Statistics South Africa, 2012). A comparison of the actual home language of learners and the LOI by province and language in the Foundation Phase shows a 61% Siswati and 64% isiZulu match between home language and LOI for learners in Mpumalanga, while in North West, 100% of Setswana home language speakers are learning in Setswana as the LOI (Van der Berg et al., 2020).

These languages were also the L1 in this study. All three languages have transparent orthographies, i.e. there is a one-to-one mapping in the grapheme–phoneme relationship, unlike English, which has an opaque orthography and a more complex mapping. They are, however, distinct in their morphology, i.e. the internal structure of words and how words relate to each other. Two languages, isiZulu and Siswati, are part of the Nguni language group distinguished by their conjunctive orthography; i.e. one word may represent a sentence (Khumalo, 1987). In

¹⁵ Note that the curriculum stipulates that teachers should dedicate 7-8 hours to teaching home language, compared to 3-4 hours teaching EFAL. The different amount of time allocated to the targeted language of the two interventions may have contributed both the main outcomes and transfer

contrast, Setswana has a disjunctive orthography with short word segments written separately from suffixes and prefixes (Machobane & Mokitimi, 1998). For example, the sentence “there was a stranger who was very hungry” is written as “Kunesihambi esasilambile kakhulu” in isiZulu using only three words and “Go na le moeng o a neng a tshwere ke tlala thata” in Setswana using twelve words.

The morphological differences in the L1s required careful test development within each study and across the two studies. The most comparable L1 items were the letter–sound naming, rapid object naming and oral reading fluency. The one-for-one letter-sound mapping allowed for simple design aspects across EGRS I and II, with the same sequence of letters followed for 70% of the assessments. The differences were in ensuring that high-frequency letters – less than five letters per language – appeared early in the assessment. The same items were also used for rapid object naming across the languages, and the object names were not particularly different in length or complexity. The oral reading fluency passages, however, were distinct. The passages differed by length, with shorter isiZulu passages averaging 59 for isiZulu and 60 for Siswati. The average length for Setswana was 159 words. This was informed by the specific language structure; we expected learners to read faster in Setswana (in terms of the number of words). The passage length aligned with the newly developed reading benchmarks for African languages, which specify 35 words a minute correct for Nguni languages by the end of Grade 3 and 60 words a minute correct for Sesotho-Setswana languages (Mohohlwane, Wills, & Ardington, 2022). The passages were piloted and revised to ensure appropriateness as part of the development.

4.4.2 Experimental design and data collection

The studies were evaluated using a clustered randomised control trial. In each study, we created 10 strata of 13 schools that were similar regarding socioeconomic status and exam performance. We then performed stratified random assignment, allocating 50 schools (5 per strata) to the intervention and 80 schools to the control¹⁶. A protocol to sample 20 learners per grade from all

¹⁶ The studies also included additional treatment arms, to compare the cost-effectiveness of different modalities of implementation. This chapter is restricted to the treatment arms that are comparable across studies, and were also the most cost-effective.

the learners within the grade was implemented. The samples for both EGRS I and II were designed to have a minimum detectable effect size of 0.21 standard deviations when comparing an intervention group and a minimum detectable effect size is 0.23 standard deviations when comparing across intervention groups. Additional assumptions were a 95% confidence interval, power of 0.8, an intra-class correlation coefficient (ρ) of 0.3 and a correlation between the pre- and post-test of 0.7 (Department on Basic Education, 2015b; 2017b).

Several approaches to analysis of the data including correlations between items and a Principal Component composite score were calculated. Previous papers reporting on the results found that both programmes successfully improved literacy in the targeted language. In EGRS I, the programme improved home language literacy by 0.24 standard deviations (SDs) after two years (Cilliers et al., 2019). In EGRS II, the programme improved English reading proficiency by 0.12 SDs after three years (Cilliers, Fleisch, Kotze, et al., 2020). The focus of this chapter was to investigate cross-language transfer: the impacts on the languages that were not targeted by the programmes.

In EGRS I, four waves of data collected are reported for this chapter. Wave 1 was completed at the start of Grade 1 in 2015, and wave 4 was conducted one year after the intervention ended, in 2018, amongst Grades 3 and 4 learners. In EGRS II, five waves of data collection were completed. Wave 1 was similarly conducted at the start of Grade 1, and wave 5 was conducted in Grade 4, again one year after the intervention. The next section provides details on the test design.

Table 4.1: Timelines for the intervention and quantitative data collection EGRS I and EGRS II

	2015	2016	2017	2018	2019	2020
	EGRS I					
Intervention	Grade 1 Teachers	Grade 2 teachers	Grade 3 teachers	No intervention		
Data collection	Start and end of the year (waves 1 and 2)	End of the year (wave 3)	No data collection	End of the year (wave 4) Grade 3 and 4		

EGRS II Intervention		Grade 1 Teachers	Grade 2 teachers	Grade 3 teachers	No intervention
Data collection		Start of the year (wave 1) End of the year (wave 2)	End of the year (wave 3)	End of the year (wave 4)	End of the year (wave 5) Grade 4

4.4.3 Data collection and test development

A data collection service provider visited the sample sites multiple times throughout the evaluation, collecting detailed data on student learning and teaching practices, see Table 4.1. In each study, a random sample of 20 Grade 1 students were sampled and assessed at baseline before the start of the intervention and tracked over four years or more. The learner assessments consisted of one-on-one adapted Early Grade Reading Assessments (EGRA) complemented by an exam-type setting written assessment. These were administered by trained fieldworkers using electronic tablets for the one-on-one assessments on the Tangerine or SurveyCTO app. The assessments consisted of tasks intended to measure a broad range of skills, starting from predictive preliteracy to advanced reading skills. The tasks included letter recognition, listening comprehension, word recognition, oral reading fluency and comprehension as well as written comprehension.

Table 4.2 below shows the full range of the assessments from wave one to four for EGRS I and wave one to five for EGRS II. Learners were assessed in both L1 and L2 across the studies.

Table 4.2: Learner assessment tasks across the various waves of EGRS I and II data collection

Construct		Wave 1		Wave 1		Wave 2		Wave 2		Wave 3		Wave 3		Wave 4		Wave 4		Wave 4		Wave 5	
		Start-Gr 1		Start-Gr 1		End-Gr 1		End-Gr 1		End - Gr 2		End - Gr 2		End - Gr 3		End - Gr 3		End - Gr 4		End of -Gr 4	
		HL	EFAL	HL	EFAL	HL	EFAL	HL	EFAL	HL	EFAL	HL	EFAL	HL	EFAL	HL	EFAL	HL	EFAL	HL	EFAL
Language Comp	Receptive vocabulary (Do this)			x		x		x				x		x						x	
	Expressive vocabulary (rapid object naming)	x		x	x			x	x			x		x		x		x			
	Expressive vocabulary (rapid letter naming)											x						x			
	Listening comprehension			x				x				x				x				x	
	Written vocabulary					x				x										x	
Decoding	Phonological working memory (digit span/word and number recall)	x		x																	
	Phonological awareness (phoneme isolation)	x		x		x		x		x											
	Rapid letter naming											x		x		x		x			
	Letter-sound recognition	x		x		x		x		x		x		x		x		x			
	Word reading fluency	x		x		x		x	x	x	x	x		x	x	x		x	x		x
	Non-word reading fluency					x				x											
	Sentence reading fluency	x		x		x				x											
	Oral reading fluency (ORF)					x				x		x	x	x	x	x	x	x	x	x	x
	ORF comprehension					x				x		x	x	x	x	x	x	x	x	x	x
	Written comprehension													x	x	x	x	x	x	x	x
Spelling	Spelling of a CVC word							x													
	Dictation					x				x											
	Writing two words					x				x		x									

Notes: Light grey is EGRS I, Clear is EGRS II *HL is Setswana in EGRS I; Siswati or isiZulu in EGRS II EFAL is English First Additional Language

Table 4.3 below summarises the learner assessments across the data collections. While EGRS I and II focused on L1 and L2, respectively. We present the assessments next to each other. The assessment instruments are most similar in the round of data collection one year after the completion of the intervention: i.e. when our sample of non-repeating students was in Grade 4. The English assessments were exactly the same¹⁷. Although the words included in the home language assessment differed across studies because the languages assessed were different, they were each designed to be similar in difficulty. A brief description of the assessments follows below.

Table 4.3: Common items of the learner assessments across rounds of data collection

	Grade 2				Grade 3				Grade 4			
	EGRS I		EGRS II		EGRS II		EGRS II		EGRS I		EGRS II	
Construct	HL	EFAL	HL	EFAL	HL	EFAL	HL	EFAL	HL	EFAL	HL	EFAL
Letter-sound recognition	X		X		X				X			
Word reading fluency	X	X		X		X			X	X		X
ORF	X		X	X	X	X			X	X	X	X
ORF comprehension	X		X	X	X	X			X	X	X	X
Written comprehension									X	X	X	X

Notes. Light-grey shaded refer to EGRS I assessment instruments. HL=Home language; EFAL=English as a First Additional Language; ORF=Oral Reading Fluency. No data was collected at the end of Grade 3 for EGRS I

The text composition below is based on Table 4.3, with details for both home language (L1) and English (L2) for Grades 2 and 4. This is limited to letter sound recognition only for L1. For English, the focus was on word reading, oral reading fluency (ORF), comprehension, and written comprehension.

¹⁷ Eight additional words were added in the word recognition test for EGRS II. We dropped these items for our analysis. The same story was used for oral reading comprehension although the time to administer the task changed from 1 to 3 minutes. We adjusted for this and used only 1 minute reading across both studies. Any other differences in the test administration are also addressed for the analysis.

4.4.3.1 L1 Letter sound recognition

In Grade 2, EGRS I and II learners were given 110 letters on a chart in a timed, 1-minute letter recognition assessment. The letters were in the same order for 70% of the task across the studies, and the same total number of overall letters in the upper and lower cases were assessed. The same letter-sound recognition item was administered in EGRS I only and not in EGRS II for Grade 4. The test was similar, with 110 letters and at least a 70% match in the sequence of letters.

4.4.3.2 Word reading

In Grade 2, both EGRS I and II had an L2 English word recognition task; however, it differed substantially from EGRS I. EGRS I had four words while EGRS II had 42 words. In EGRS I, these four words were a sight word, animal names and an adjective, while all the EGRS II words were sight words. The EGRS II assessment benefitted from improvements in the test development process.

In Grade 4, EGRS I and II had an L2 word reading task. The same 104 words were administered in both studies. In EGRS II, however, an additional eight words were added at the end of the task, totalling 112 words. The test was administered in a one-on-one oral setting where learners were given one minute to read as many words as possible. The subtest allowed us to compare performance across the two studies. In the case of Grade 4, the results without the additional eight words and with the additional eight words are provided.

4.4.3.3 Oral reading fluency and ORF comprehension

“How the elephant got its trunk” was the English (L2) passage administered to Grade 4 learners in EGRS I and II. The passage was kept the same, but in EGRS I, an additional 19 words were included. This was a short sentence added as the third sentence and a short sentence added at the end of the passage. The ORF comprehension questions ranged from 5 to 8 questions. The first three questions were the same across the studies in the same sequence. In comparison, two questions were asked across all studies. Still, in a different sequence, one question was finally asked in selected versions of the assessment.

There was a key difference in the administration of the assessments. In the early EGRS design, a 60-second rule was maintained for the ORF fluency, but with the effort to repurpose the data for

benchmarks, this rule was augmented to a 180-second rule. However, we had a 60-second comparison across all studies that could be considered. In the initial administration, the questions that would be asked of a learner were linked to how far the learner had read within one minute. In contrast, the three minutes rule allowed them to read for longer and thus answer more questions. We, therefore, limited the comparison to the 1-minute administration as the primary comparison.

The ORF questions were classified according to the PIRLS assessment framework. The questions were not designed based on the taxonomy but rather to ensure a response for every row of reading in the comprehension passage. So while the questions ranged in complexity, they did not comply with a specific taxonomy. The significance of applying a taxonomy is that it allowed us to interpret the difficulty level of the questions in the text and the level of comprehension skills that learners have mastered.

The PIRLS assessment framework (Mullis, Martin, & Sainsbury, 2015) categorises questions into four categories. Firstly, with the literal questions, the answers can be found directly in the text, often with the questions and answers written in the same format. The second is straightforward inference, where you cannot directly point to the answer in the text, but the answers are still straightforward, based on information contained in the text. The third, interpret and integrate, is based on understanding the overall text with the answer to the questions being spread across the text. The reader needs to integrate the various sections, integrate their personal knowledge, and make a connection to respond.

Finally, examine and evaluate questions require critical thinking to construct meaning. This requires the reader to judge the author's intention, the meaning of the language, and the text structure. They then need to evaluate the text and give their understanding of it in line with the author's purpose.

**Table 4.4: English Oral Reading Fluency comprehension questions classifications and order:
EGRS I and II, Grade 4**

How the Elephant got its trunk	PIRLS Classification	EGRS I Gr 4	EGRS II Gr 4
Long ago, did elephants have long or short noses?	Literal	1	1
In this story, what is the name of the elephant?	Literal	2	2
Where did Bubu, the elephant, go for a walk?	Literal	3	3
Why did Bubu ask so many questions	Literal		4
Bubu asks lots of questions. Why do you think he asks lots of questions?	Literal	4	
Who did Bubu talk to at the river	Literal	6	5
What kind of animal had Bubu never seen before?	Literal	5	
Why did the crocodile grab Bubu's nose	Interpret and Integrate Straightforward	7	6
What happened to Bubu's nose	Inference		7
How can you tell that Bubu was brave	Interpret and Integrate	8	8
Total question		8	8

4.4.3.4 *Written comprehension*

In both EGRS I and EGRS II, the Grade 4 learners completed “The Life Cycle of Plants” as a written assessment. The text was 186 words long, and six questions were asked. The layout followed the format where the text was divided. Half the text was presented, followed by three questions, and then the second part of the text with the last three questions. The first five questions were exactly the same and followed the same sequence. The question sequence in both EGRS I and II was exactly the same for the first five questions, and the last question was slightly different but the same in substance.

Table 4.5: English written comprehension questions classifications and order: EGRS I and II, Grade 4

The Life Cycle of Plants	PIRLS classification
What is the process of living, growing, changing and dying called?	Straightforward inference
How do many plants begin their life cycle	Literal
What two things does a seed need to have with it in the ground to be able to grow?	Literal
When the seed starts growing small roots and sprouts, what is this process called?	Literal
What is a small plant called?	Literal
Which arrow is pointing to the stem of the plant?	Straightforward Inference
Circle the correct label.	
Total questions	

4.5 DATA ANALYSIS

4.5.1 Internal validity tests: balance and attrition

We examined attrition and balance in each study as a starting point. Table 4.6 below shows that the samples were balanced across treatment arms for both studies, even after accounting for attrition. Table 4.7 shows that in both studies, 28% of the students sampled at baseline attrited by the end of year 4. Repeaters were tested in the grade they were in using the same year 4 assessments. The coefficient on “Treatment” in column 1 shows that the attrition rates are balanced – i.e. they are roughly the same in the treatment arms and control.

The coefficient on “Attrition x Treatment” showed that there is no systematic difference between those who attrited in the treatment arms and those who attrited in the Control, with the exception of age in EGRS I: attriters in the treatment arm were younger relative to attriters in the control. Taken together, we have confidence that our sample was balanced and that attrition would not bias our results.

The coefficient on “Attrition” showed that older boys were likelier to attrite in EGRS I but not in EGRS II. In both studies, there was no evidence that students who performed better at baseline in the reading assessments were more likely to attrite. Most importantly, the coefficient on

“Treatment” in columns (2) to (4) shows that the sample remained balanced for students in year 4.

Table 4.6: Balance

	(1)	(2)	(3)	(4)	(5)	(6)
		All students		Non-attriters in year 4		
VARIABLES	Age	Boy	Learning	Age	Boy	Learning
Panel A. EGRS I						
Treatment	-0.024 (0.052)	0.012 (0.020)	0.066 (0.144)	0.030 (0.051)	0.024 (0.022)	0.100 (0.151)
Observations	2,547	2,545	2,556	1,842	1,841	1,846
R-squared	0.009	0.002	0.083	0.007	0.002	0.088
Panel B. EGRS II						
Treatment	0.032 (0.051)	0.012 (0.019)	-0.017 (0.068)	0.051 (0.058)	-0.003 (0.021)	0.008 (0.077)
Observations	2,383	2,383	2,383	1,732	1,732	1,732
R-squared	0.019	0.004	0.028	0.016	0.005	0.029

Notes. Each column in each panel is a separate regression. Panels A and B use EGRS I and II data, respectively. In columns (1) to (3) the sample includes all students who were assessed at baseline. In columns 4 to 6, the sample is restricted to students assessed at the end of year four. Standard errors are in parentheses and clustered at the school level. All estimations include strata fixed effects. * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$

Table 4.7: Attrition and balance at Grade 4

	(1)	(2)	(3)	(4)
VARIABLES	Attrition	Age	Boy	Learning
Panel A. EGRS I				
Treatment	-0.004 (0.028)	0.029 (0.052)	0.024 (0.022)	0.100 (0.152)
Attrition		0.223*** (0.057)	0.078*** (0.024)	0.001 (0.078)
Attrition x Coaching		-0.191** (0.081)	-0.042 (0.040)	-0.123 (0.116)
Observations	2,556	2,547	2,545	2,556
R-squared	0.005	0.022	0.006	0.084
Mean attrition	0.279			

Panel B. EGRS II				
Coaching	-0.008 (0.024)	0.050 (0.058)	-0.004 (0.021)	0.006 (0.077)
Attrition		0.018 (0.053)	-0.018 (0.029)	-0.069 (0.062)
Attrite X Coaching		-0.066 (0.076)	0.059 (0.047)	-0.090 (0.097)
Observations	2,383	2,383	2,383	2,383
R-squared	0.003	0.019	0.005	0.031
Mean attrition	0.276			

*Notes. Each column in each panel is a separate regression. Panels A and B use EGRS I and II data, respectively, and include all pupils assessed at baseline. "Attrition" indicates whether a pupil was not present during data collection. Standard errors are in parentheses and clustered at the school level. All estimations include strata fixed effects. * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$*

Next, we also investigated the similarity of the two samples by comparing the English reading proficiency levels of the control students in Grade 4. The balance between these two samples is not necessary for the internal validity of the results but does strengthen the argument that the differences we observe in effect sizes are due to differences in the language targeted in the intervention rather than treatment heterogeneity. Table 4.8 shows that students in the control groups in the two samples performed remarkably similarly in English word recognition and oral reading fluency (ORF), with the EGRS I sample slightly outperforming the EGRS II sample. Note that the EGRS II Grade 4 sample was assessed during the Covid period, so there might have been some learning loss.

Table 4.8: Comparison between EGRS I and II samples in Grade 4 English literacy

Variable	(1) EGRS I Mean/SE	(2) EGRS II Mean/SE	t-test Difference (1)-(2)
Word recognition	29.412 [1.161]	27.535 [1.020]	1.877
Oral reading fluency (ORF)	39.131 [1.722]	36.480 [1.475]	2.652
ORF comprehension	0.166 [0.010]	0.230 [0.012]	-0.065***
Written comprehension	0.184 [0.009]	0.184 [0.010]	0.000

*Grade 4 data, with samples restricted to control group students in each study. The values displayed for t-tests are the differences in the means across the groups. Standard errors are clustered at the school level. ***, **, and * indicate significance at the 1, 5, and 10 per cent critical level.*

As a further comparison, Figure 4.1 shows the proportion of students in the control groups by grade and study who cannot read a single word, either in L1 or L2. Even after four years of school, over a fifth of learners could not read a single word in English, and a slightly smaller fraction (15% and 20% in EGRS I and II, respectively) could not read a single word in their home language.

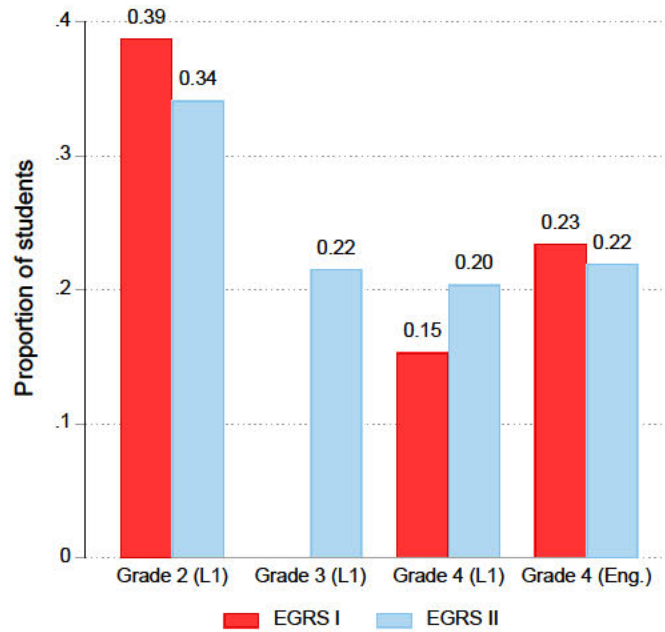


Figure 4.1: Proportion of students who could not read a single word by grade, language, and sample

4.5.2 Main results: Language transfer

We estimated the impacts on each sample of pupils (EGRS I or II) separately, using the following equation:

$$y_{icsb} = \beta_0 + \beta_1(\text{Treatment})_s + X'_{icsb}\Gamma + \rho_b + \epsilon_{icsb}, \quad (1)$$

where y_{icsb} is the aggregate score of reading proficiency for student i who was taught by a teacher in class c , school s and stratum b ; $(\text{Treatment})_s$ is a dummy variable equal to one if the student was assigned to the treatment group; ρ_b refers to strata fixed effects; X_{icsb} is a vector of controls¹⁸; and ϵ_{icsb} is the error term clustered at the school level. Results are reported in Table 4.8 below.

¹⁸ The control variables include a vector of the different baseline measures of student home language literacy (phonemic awareness, letter recognition, etc.), student gender and age, and some measures of school socio-economic status.

Our main results are reported in Table 4.9. There is a striking asymmetry in language transfer, depending on which language is targeted. Targeting the home language caused positive spillovers onto English literacy (Panel A, columns (3) and (4)), but targeting English caused a reduction in home language literacy (Panel A, columns (1) and (2)). EGRS I caused a 9% increase in English ORF, but EGRS II caused an 11% reduction in home language ORF compared to the control group. Moreover, the intervention targeting home language instruction had a larger impact on English literacy than the intervention targeting English instruction. Notably, all of these outcomes were observed one year after the programmes ended, suggesting persistence in learning gains/loss.

Table 4.9: Impacts on home language and English literacy at the end of Grade 4

	(1) Home language	(2) Home language	(3) English	(4) English
	ORF	Reading compr.	ORF	Reading compr.
Panel A. Improving home language instruction (EGRS I)				
Coaching	7.159*** (1.972)	0.058*** (0.015)	3.561* (2.026)	0.024* (0.013)
Control mean	47.357	0.298	39.131	0.166
Observations	1846	1846	1846	1846
R-squared	0.176	0.163	0.157	0.128
Panel B. Improving English second language instruction (EGRS II)				
Coaching	-2.774*** (1.024)	-0.033* (0.019)	-1.151 (2.025)	0.030* (0.017)
Control mean	25.093	0.448	36.480	0.230
Observations	1729	1729	1729	1729
R-squared	0.284	0.220	0.253	0.237

Notes. Each column in each panel is a separate regression, estimated using equation 1. Panels A and B used endline data from the EGRS I and II, respectively. Endline took place one year after the programme ended, four years after the start of the programme. The dependent variables in the first two columns relate to home language literacy; the dependent variables in the remaining columns relate to English

*literacy. Standard errors are in parentheses and clustered at the school level. All estimations included strata fixed effects and baseline controls. * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$. EGRS=Early Grade Reading Study.*

Table 4.10 shows the impacts of EGRS II at the end of Grade 3, – the final year of programme implementation. Three points are worth highlighting. First, the programme had a desired positive impact on English vocabulary. This positive effect on English language skills was already present at the end of the first year of the programme since the development of English vocabulary is a large emphasis of the Grade 1 L2 curriculum. Second, it also had a small, positive, and statistically significant effect on reading proficiency. The programme was successful in achieving its objectives of improving English literacy. Third, targeting L2 had a positive significant effect on L1 letter recognition, providing evidence for positive spillovers in basic decoding skills, despite a deterioration in higher-level reading proficiency in L1.

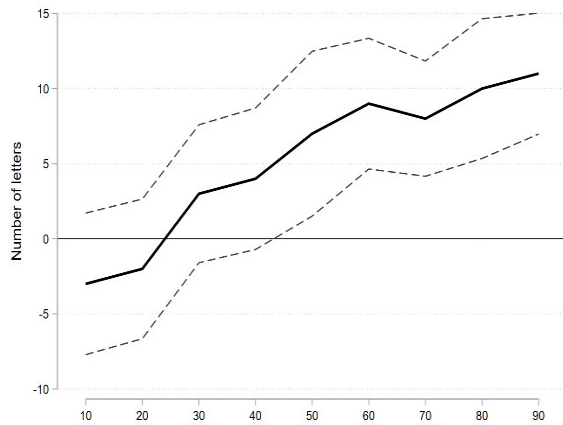
Table 4.10: Impact of EGRS II on English and home language end of Grade 3

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Home language			English			
VARIABLES	Letter recognition	ORF	Reading compr.	Vocab	Word recognition	ORF	Reading compr.
Treatment	4.343** (1.915)	-1.914 (1.168)	-0.107 (0.115)	0.343*** (0.095)	2.373* (1.395)	2.758 (1.894)	0.294*** (0.091)
Observations	1927	1927	1927	1927	1927	1927	1927
R-squared	0.228	0.248	0.247	0.267	0.222	0.243	0.230
Control mean	42.95	23.09	2.401	3.120	23.12	27.25	0.956

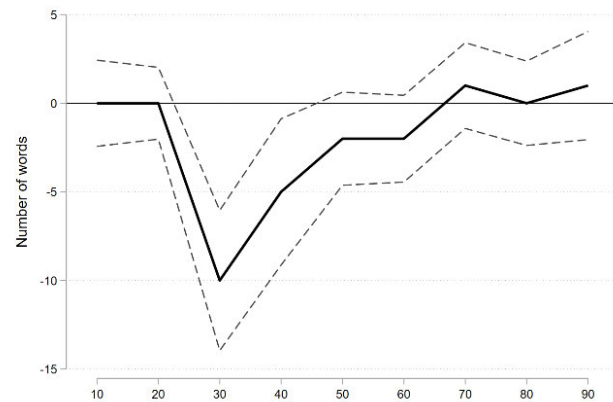
Notes. See Table 4.5. ORF=Oral reading fluency.

Moreover, quantile regressions reported in Figure 4.2 reveal stark inequalities in who benefited or suffered from the EGRS II intervention. Only students in the top half of the distribution improved their English literacy skills (Panel B), and only students in the bottom half of the distribution experienced a reduction in L1 ORF. There was no effect for the bottom quintile of students because of floor effects. In both the treatment and control arms, the bottom fifth of students could not read a single word in their home language. This pattern of result is not present in EGRS I.

Panel A. Home language (L1) by quantile

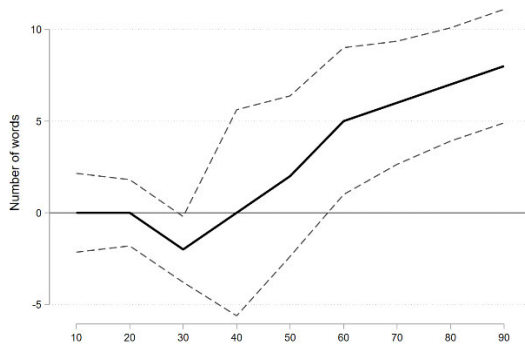


(a) Letter recognition

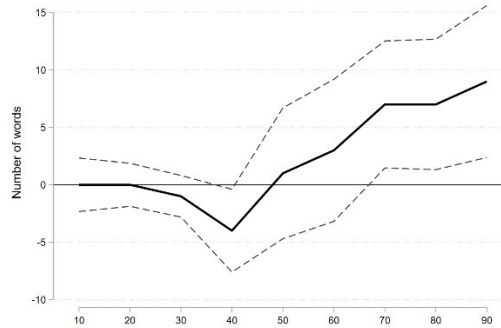


(b) Oral reading fluency

Panel B. English (L2) by quantile



(c) Word recognition



(d) Oral reading fluency

Figure 4.2: Quantile regressions for ERGS II on Grade 3 literacy outcomes

Notes. Quantile regressions for each decile of student performance. In Panel A, the dependent variables were home language letter recognition and oral reading fluency (ORF); in Panel B, the dependent variables were English word recognition and ORF.

4.5.3 Mediation analysis

As a final step, we performed mediation analysis on the EGRS I sample to determine how much of the improvements in English in Grade 4 can be attributed to earlier gains in home language literacy. We applied the methods proposed by Imai, Keele and Tingley (2020), which allowed us to decompose the overall effect size on English literacy between the indirect effect that operated

through a mediating variable (i.e., improvements in English that are due to improvements in L1), and the direct effect (i.e., improvements in English that cannot be attributed to improvements in L1). We noted that there were strong assumptions underlying this method, so these results should be treated as only suggestive.

Results are shown in Table 4.11. Columns (1) and (2) show the direct and indirect effects, respectively. The mediating variables are different indicators for home language literacy, measured at the end of Grade 2. For comparison, Column (1) shows the overall effect of the coaching programme on Grade 4 English ORF, restricting the sample to the same learners who were assessed in Grades 2 and 4. These results suggest that all of the observed gains in English are explained by the earlier gains in home language literacy. In fact, column 1 suggests that there would have been a negative impact on English literacy were it not for the improvements in word recognition, ORF, or comprehension in L1. It is hard to conclusively state which of these indicators for home language literacy are most important for developing English literacy because they are all highly correlated and fundamentally relate to the same underlying construct.

Table 4.11: Mediating effects of Grade 2 home language literacy on Grade 4 English ORF

	(1)	(2)	(3)
	Direct effect	Indirect effect (mediated by M)	Overall effect
Mediator (M)			
Letter recognition	0.028	3.785	3.813
Word recognition	-2.083	5.896	3.813
ORF quintile	-2.203	6.016	3.813
Paragraph comprehension	-1.486	5.299	3.813

ORF=Oral reading fluency

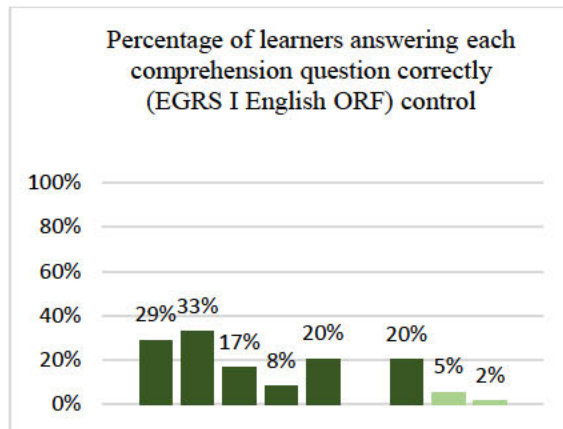
4.5.4 Question analysis

The final analysis is question analysis using data from both studies. This is based on comparing learner performance in English ORF in Grade 4. This comparison allows us to see if there was a transfer or gain in specific question types based on the question classifications and the questions in Tables 4.4 and 4.5 above. We compared this in both EGRS I and II and control group learners.

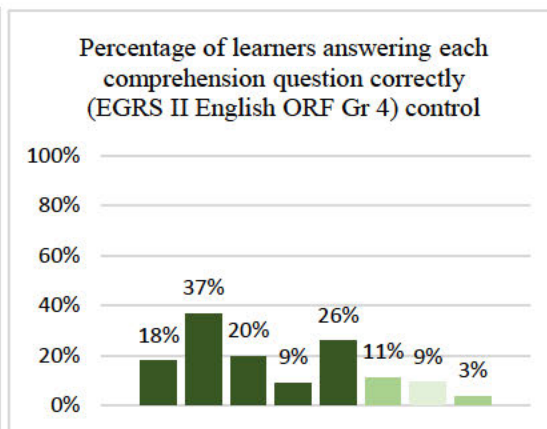
We did not find any specific advantage amongst EGRS II learners by question type. However, we noted the similarities in EGRS I and II scores for English. This again affirmed that EGRS I learners gained just as much in the L2, which was not the intervention target language.

Figure 4.3: Learners comprehension scores by question type in Grade 4, control and treatment group

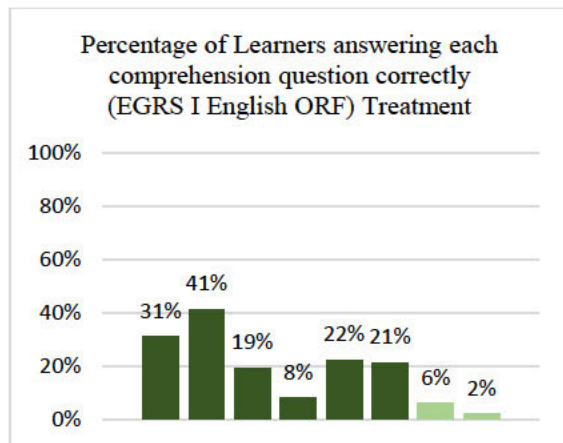
Panel A



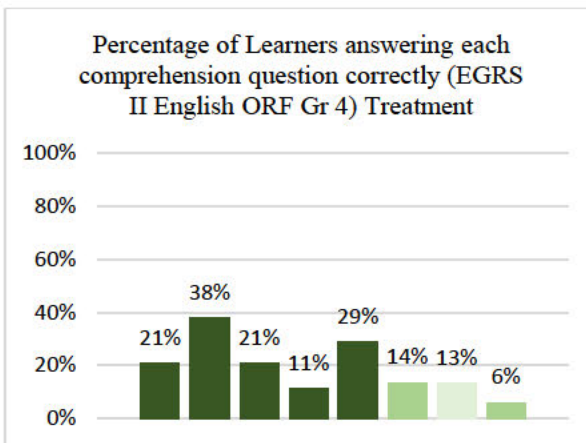
Panel B



Panel C



Panel D



Key

	Literal
	Interpret and integrate
	Straightforward inference

4.6 DISCUSSION

In the results section of this chapter, we presented the comparative finding of EGRS I and II, both the impact on the various subcomponents of reading and the spillover effect onto the “other” language. In the case of EGRS I, the study focused on the impact of a structured pedagogical intervention on the L1 of Setswana with a positive spillover to an L2 of English. In the case of EGRS II, the focus was on the impact of a structured pedagogic intervention on English as the L2 and the spillover or transfer of language and reading skills to isiZulu and Siswati, the L1 of learners in the study. While both studies demonstrated that the structured pedagogic programme had a significant and educational meaningful positive impact on a range of literacy indicators, notable spillover or transfer only occurred when learners received the L1 intervention.

4.6.1 Ruling out competing mechanisms

Data from the two studies suggest that differences in the quality of programme implementation, or spillovers in teaching practices or teaching time, do not explain the results. First, the quality of implementation was high and remarkably similar in both programmes. For example, 94% and 95% of treated teachers in EGRS I and II, respectively, reported having received training at the beginning of the year; over 90% of treated teachers in each study reported having access to the graded reading booklets distributed by the programme; and 90% of treated teachers in EGRS I reported to having the lesson plans, with 85% of treated teachers in EGRS II reported using the lesson plans. Moreover, observed teaching practices improved in both programmes along similar dimensions, which indicated that the programmes succeeded in causing the desired instructional change. For example, data from classroom observations revealed that the proportion of classes where a pupil reads individually to a teacher increased by 33 and 40 percentage points in EGRS I and II, respectively¹⁹.

¹⁹ All of these statistics are drawn from separate write-ups of the respective studies. See Cilliers et al. (2020) and Cilliers et al. (2022b)

Table 4.12: Implementation quality

	(1)	(2)
	EGRS I	EGRS II
Panel A. Teacher surveys	Mean	Mean
Received training beginning of the year	0.94	0.95
Access to graded reading booklets	0.9	0.96
Use graded reading booklets		0.93
Access to lesson plans	0.9	
Use lesson plans		0.85
Use lesson plans daily		0.79
Panel B. Impact on teaching practices	Coef./(SE)	Coef./(SE)
Group-guided reading	0.378*** (0.157)	0.293*** (0.148)
Pupils read individually to teacher	0.397*** (0.202)	0.333*** (0.121)

Notes. Data in Panel A come from teacher surveys and document inspection conducted in the respective studies, each case restricted to teachers in the treatment arm. “Graded reading booklets” and “lesson plans” are resources the programme provides. See Table 2 in Cilliers *et al.* (2020) and Figure 1 in Cilliers *et al.* (2022b) for more details. Data from Panel B come from classroom observations conducted in a random sample of 40 teachers in each study: 20 teachers in the treatment and control groups, respectively. Statistics reported are the coefficient of a regression of the dependent variable on treatment, including strata fixed effects. Standard errors are in parentheses. *** $p < 0.01$. See Table 6 in Cilliers *et al.* (2020) and Table 3 in Cilliers *et al.* (2022b) for more details.

As further evidence of the quality of implementation, we showed in Figure 4.2 that each programme succeeded in improving the intended literacy outcomes in the target language. In EGRS I, students improved their home language literacy by 0.15 and 0.25 standard deviations by the end of the first and second years. By the end of the third year, EGRS II had the desired positive impact on English language and literacy skills. The positive effect on English language skills was already present at the end of the programme’s first year, which is consistent with the fact that English vocabulary is heavily emphasised in the Grade 1 L2 curriculum.

Second, the negative effect on home language literacy in EGRS II is unlikely due to crowding out of teaching time. At the end of Grade 3, we asked teachers how many hours they dedicate to teaching home language literacy. There was a small, statistically insignificant decrease of 13 minutes in the amount of time that treated teachers reported to spend teaching home language in a week, relative to a control mean of 7 hours. This is unlikely to explain the observed negative effects.

Third, although it is theoretically possible that the improvements in English reading skills in EGRS I were due to a transfer of teaching skills from one subject to another, it is unlikely to explain the magnitude of the results for four reasons. First, if general teaching practices improved, one would expect to see improvements in all the subjects taught by the treated teachers, but in both EGRS I and II, there were no positive spillovers in mathematics²⁰. Second, these are bundled interventions combining coaching with providing resources, such as lesson plans and reading aids. So even if teachers in EGRS I improved their general pedagogy, they could not fully apply them in the English class without the additional learning aids. Third, positive spillover would require teachers to be familiar with the differing curriculum expectations for L1 and L2 and be able to navigate through these successfully. Fourth, if generic improvements in teaching practice prompted by an L1 structured learning programme caused improvement in both L1 and L2 in EGRS 1, then one would also expect it to apply the other way around in EGRS II, which is not the case.

4.6.2 Theoretical implications

Over the last decade, knowledge has been consolidated in “the science of reading”. At the heart of this knowledge base is the simple view of reading (SVR), which suggests that reading comprehension, the ultimate goal of reading for school purposes, is the product of decoding and oral language comprehension. The premise of the SVR is that a structured literacy approach is

²⁰ In South Africa one teacher teaches all the subjects at early grade. So, the same Grade 1 teacher teaches Home Language, English and Mathematics.

necessary for any reading acquisition and that each component needs to be taught systematically.

What would be the possible mechanisms explaining the South African case using this theory? The starting point for this analysis must be the South African national curriculum framework for L1 and L2 (Department of Basic Education, 2011b). The curriculum policy documents clarify that teaching in L1 assumes that children have a basic command of the oral vocabulary as they enter Grade 1 but have not developed decoding and reading fluency skills. The primary object of the early-grade curriculum is to build decoding and fluency skills. In L1, learners are taught to master phonological awareness, letter naming, letter sounds, phoneme/grapheme relationships and sounding out syllables and letter blends. Combined, these sub-components are the key to word decoding. A range of reading strategies, particularly whole-class reading, group guided reading, paired reading and individual reading, are incorporated to facilitate fluency and comprehension. Shared reading, in particular, is designed to model reading for comprehension. These skills and strategies are taught from Grade 1 and continue into Grade 3 in the L1 with a maximum time allocation of eight hours. In contrast, not only is teaching English as L2 allocated less time in the week, a maximum of three hours, but the focus of teaching, particularly in the first three years, is distinctly different. In Grade 1, the focus is not on reading but on oral vocabulary development. In subsequent years, the national curriculum largely assumes that the decoding skills have been mastered in the L1 and would be transferred to L2. Even though there are clearly distinct demands for learners to master consonant blends in English, the assumption is that decoding knowledge transfer would take place.

From the perspective of the SVR, the national curriculum expectations and evidence from this chapter, the results of this study are consistent with the simple view of reading (SVR). The findings suggest that EGRS I, learners had fairly high levels of oral language proficiency in L1. Most learners improved their mastery of word decoding skills in their L1 when instructions were explicit through a structured pedagogical programme. All of the SVR assumptions and conditions were met, and we can theorise that the consistent gains in reading outcomes are the product of decoding and oral language skills. The gains in English, L2 reading fluency and comprehension are

likely to have been influenced by the high levels of mastery of decoding skills in Setswana that were transferred to the L2.

In EGRS II, which focused on reading in English as the L2, while there were gains overall in both oral language vocabulary, reading fluency and comprehension, the impact on L2 was much more modest than the gains in the L1 intervention in EGRS I. More importantly, there was initially little evidence of a positive spillover or transfer to the L1. When interpreting these in light of the SVR for the targeted language as L2, we argue that the modest gains result from the limited English vocabulary that children bring to school in a context of low English exposure matched with a curriculum and pedagogical programme that provides limited decoding training. This is based on the assumption that L1 teaching attends to these critical skills, so while opportunities for fluency and comprehension exist, the SVR assumptions and conditions are not entirely met, and thus learning in the target language is limited.

Now turning to L1, we found an initial positive transfer for letter sound reading with no further gains in fluency or comprehension. Letter sound reading is an important initial decoding skill. Still, this transfer level should be expected as letter sounds are written similarly across L1 and L2. Knowledge within this skill may be seen as general linguistic knowledge transfer. However, the successful transfer of further skills assumes that teachers have sufficient knowledge of the orthographic rules for both L1 and L2 to sufficiently teach this. This may be difficult due to the large linguistic distance between indigenous South African languages and English. Without a good command by teachers of both L1 and L2 it is not surprising that, further skills did not transfer.

The negative impact of EGRS II on L2 ORF and reading comprehension for the students in the bottom half of the distribution might be because teachers did not have sufficient knowledge of the orthographic rules for both L1 and L2. There is a large linguistic distance between indigenous South African languages and English. EGRS II teachers might have applied the same sequencing of decoding skills—i.e., the same sounding out syllables and letter blends they received for L2 to their L1 classes. But this is the wrong starting point, given the different orthographic rules in the other languages. This could have confused students who were already struggling with basic

decoding skills. We can only speculate on this interpretation; more research is required to fully understand the result.

It is possible that the morphological differences between the L1 and L2's in the two studies accounted for some of our results. In particular, the home languages spoken in the L2 intervention, Siswati and isiZulu, have a conjunctive orthography, while the home language spoken in the L1 intervention, Setswana, possesses a disjunctive orthography that is more similar to English. A positive transfer of ORF is likely more probable when the orthographies of the two languages are similar. Consequently, we might have observed positive (or lack of negative) transfer in ORF from L2 to L1 in EGRS II if the home language were Setswana.

Nevertheless, three pieces of empirical evidence and theoretical considerations suggested that the differences in morphology between the home languages are insufficient to fully explain the results. Firstly, there is evidence of negative transfer from L2 to L1 ORF. Secondly, the English literacy skills of the control groups in both samples were remarkably similar. Table 5.3 demonstrates that there is no statistically significant distinction between the two samples regarding English ORF at Grade 4, and, in fact, the EGRS II sample performed better in the comprehension test. Thus, the evidence does not support the notion that transferring ORF skills between L1 and L2 is easier when the home language is Setswana. Thirdly, students tend to develop decoding skills at a slower pace in English due to the cognitive load of learning both a new language and decoding skills. This is substantiated by the notable discrepancy in the impact on L1 literacy in EGRS I compared to the impact on English literacy in EGRS II (refer to Figure 2). Considering the lesser impact on L2 decoding skills, one would anticipate a smaller transfer of L1 decoding skills as well.

Turning to contributions towards theory, the positive transfer from L1 to L2 supports the developmental interdependence theory. We found a minimum threshold necessary in L1 for transfer to L2. We saw evidence of this when we examined the number of learners scoring zero for word reading. In EGRS I, 39% of learners could not read a word in Grade 2, but this was reduced by more than half, to 15%, by Grade 4. In EGRS II, we found higher proportions of zero

scores over time, at 34% in Grade 2 and 20% in Grade 4. We interpreted this as evidence of reaching some minimum threshold in L1 for EGRS I and failing to do the same in EGRS II.

Our evidence was built on the causal evidence in Kenya (Wawire & Kim, 2018), although transfer was limited to phonological awareness and letter sounds. As in the study from Kenya, in EGRS I, we knew that L1 was deliberately and systematically taught, while this was not the case for L1 in EGRS II since L2 was the target. As discussed above, the L1 curriculum emphasised mastering decoding in Grade 1, while the L2 curriculum emphasised oral vocabulary. The assumption was that students already had a basic command of the oral vocabulary in their L1 and that the decoding skills they learnt in L1 would transfer to L2. We not only found evidence of transfer in phonemic and phonological awareness, our data showed gains in the ultimate skill of comprehension using causal evidence for L1 to L2 transfer.

4.7 CONCLUSION

Over the past decade, evidence of the impact of structured learning programmes has included a few contributions from developing countries. However, one critical problem relates to the subject and language sequencing and the extent to which intervention designed to improve instructional practices in one subject and/or language would transfer or spill over into other subjects and languages. This study examined the reciprocal language transference between L1 and L2 in the African context, taking advantage of two large-scale randomised evaluations of structured pedagogy programmes in South Africa. The two interventions used the same basic component model with the same dosage, both designed to implement the official curriculum, with one (EGRS I) focusing on teaching children to read in their home language (L1), the second (EGRS II) designed to teach children in the second language, English.

We found that in both studies, the structured learning programme successfully changed teaching practices and improved literacy in the targeted language. However, it was only targeting the teaching of home language that improved students' literacy in both home language and literacy. Targeting English instruction had more muted effects on English literacy outcomes and even reduced home language literacy for the worst-performing students. Furthermore, despite some

initial positive effects on letter sound recognition in L1, there were no positive spillovers to L1 reading fluency and comprehension, and ultimately a negative impact on these L1 reading skills for students in the bottom half of the performance distribution.

We now turn to language transfer. Many studies have shown correlations between literacy measures in L1 and L2 as cited in the literature section but have lacked a way to identify causal relationships between L1 skills and L2 skills (Branum-Martin, Mehta, Fletcher, Carlson, Ortiz, Carlo & Francis, 2006; Koda & Reddy, 2008; Wang et al., 2006). In this chapter, we have measured the causal impact of L1 skills on L2 reading outcomes and the causal impact of L2 skills on L1 reading outcomes. The experimental designs mean that we can rely on an externally caused improvement in one language to identify the impact of reading skills in that language on reading skills in another language. Moreover, we have two reciprocal experiments allowing us to observe the causal relationships between L1 and L2 skills in both directions. The close similarity in research and programme design between EGRS 1 and EGRS 2 means we can rule out any possible reasons for different results between the two experiments other than the nature of language transfer between L1 and L2.

These results are consistent with the simple view of reading (SVR), which argues that reading comprehension requires both strong decoding skills and oral vocabulary skills. Weakness in either will lead to weakness in reading for meaning. In the case of EGRS I, the gains in English reading fluency and comprehension are likely to have been influenced by the high levels of mastery of decoding skills in Setswana that were transferred to the L2. In the case of EGRS II, the focus of L2 was on oral vocabulary, and students improved their vocabulary skills. But because L2 teaching did not stress the teaching of decoding skills, and L1 decoding skills were also weak, there were limited improvements in reading fluency. The findings of weak decoding skills in L1 in both the intervention and control groups suggest that many children never acquire a level of decoding automaticity. Additional evidence could be gathered from a specifically designed study.

Understanding how and when language transfer happens, and the underlying language and reading theories provide valuable information as a contribution to literature and theory. A critical

further step is considering the policy implications of the findings. The causal nature of the evidence in this chapter and the randomised control trial design of the studies this data is drawn from provides us with credible results to inform the LOI debate, which has been largely theoretical and ideological to date. First, it is clear that structured pedagogical interventions have a positive impact on both L1 and L2 with clearer, larger and positive spillovers for L1 interventions.

Second, this study implies that decoding skills are best taught in the L1 since children already possess sufficient oral language skills. Moreover, decoding skills naturally transfer across languages with similar orthographies, whereas oral language skills, such as vocabulary, do not transfer in the same way.

Furthermore, teaching decoding skills in L2 could worsen students' decoding skills in L1, especially if there is a large orthographic distance between the languages and students have not sufficiently mastered L1 decoding skills. Without a sound L1 base, any L2 intervention will likely produce semiliteracy rather than biliteracy. Recognition of this and policies prohibiting L2-only interventions should be considered at the policy level.

This has important policy implications for multilingual settings where children do not enter school with sufficient prior exposure to the L2. The focus in curriculum policy and the support programs offered to teachers should be on improving the teaching of reading in students' home language. Moreover, only once children have sufficient mastery of home language literacy can reading in a second language also become fluent, and a transition in the language of instruction to the second language be considered in a multilingual context. Our studies did not include a programme targeted at L1 and L2, so we do not know whether such an intervention would be more or less cost-effective. But if resource constraints mean that governments or implementing organizations can only intervene in one language, L1 should be prioritised.

One caveat is that our results are drawn from two experiments in two different populations and not one experiment in one population. Even though the interventions were almost equivalent, the different populations might have responded differently to the treatment. We showed in the

chapter that the two provinces are very similar regarding socio-economic status and education outcomes and that both studies sampled the same type of schools. But a key difference is the students' home language. Theoretically, the extent of language transferences from L2 to L1 might depend on the degree of similarity between the two languages. These are only conjectures, of course, and future studies comparing L1 and L2 interventions within the same language or the same language group would provide further insights. We suspect the patterns and relationships established in this chapter would apply to other language pairs within the South African languages. However, this needs to be tested using data in those languages.

In conclusion, mother tongue learning as the LOI is socially and theoretically sound and educationally useful as shown in this article. We found that supporting the L1 is strategic and impactful. However, as in learning any language this is within a conducive language learning context that includes the language learner know best when starting school, amongst others. While L2 learning is necessary in most contexts, it is still more strategic to support L1 as there is a transfer to L2. In a context where there are limited resource or constrained policy choices, L1 should be privileged.

CHAPTER 5: BRIDGING THE 20-YEAR GAP: EXAMINING READING OUTCOMES BY LANGUAGE IN SOUTH AFRICA

The chapters so far have provided the social context for language development and a review of language policies. Chapter 4 was an empirical analysis of reading and language data in the Foundation Phase, serving as an application of language policies. This chapter sets language and reading outcomes more broadly in international assessments.

5.1 BACKGROUND AND OVERVIEW

South Africa's learner performance has steadily improved, as measured in various international assessments, including the Progress in Reading Literacy Study (PIRLS). While this is laudable, disaggregation by languages shows an uneven performance. According to the South African Constitution, all 11 official languages have intrinsic value and legal equivalence (South Africa, 1996a). Yet, the impacts of homeland and 'Bantu education' policies under the apartheid government persist. The apartheid government strongly supported education instruction in each of the homelands' official languages as part of their grand divide-and-conquer philosophy (Davenport, 1966; Malherbe, 1977; Seroto, 2013). However, the quality of education provided and other societal factors have resulted in the former homelands having the poorest learning outcomes in the country (Fleisch, 2008; Van der Berg, 2007). In addition, learning outcomes in African languages were poor when compared to English and Afrikaans reading outcomes. While a large proportion of African language learners can now be found across all provinces, these historical factors drive the relationship between African languages and poor learning outcomes—even though studies show that learning in one's home language, at least in early grades, has big learning advantages.

As this chapter's findings confirm, learners' languages reflect the inequalities in the education system and the country in general. Beyond enumerating the changes by LoLT between 2006 and 2016, we also analysed the most significant language contributors to the improvements seen in

overall performance and discussed how we should interpret these improvements, considering the purpose of PIRLS.

Finally, with globalisation as the norm, multilingualism is a growing societal feature, with more than 7 000 languages spoken internationally in 2020 (Eberhard et al., 2020; UNESCO, 2003). Africa is the most multilingual continent, with hardly any monolingual countries; Asia and Europe are also increasingly multilingual (Extra & Yağmur, 2012; Kame, 2012; Kirkpatrick, 2012). Over time, multilingualism rather than monolingualism could become the international norm. Therefore, the lessons learnt from the South African multilingual landscape are relevant to broader contexts for language education planning and policies.

5.2 LANGUAGE IN EDUCATION POLICIES IN SOUTH AFRICA

First, we turn to the language in education policies and their options for multilingual education in South Africa. These policies fall into three categories: 1) establishment of the education sector, 2) curriculum reform, and 3) refining and updating, which is an ongoing category. A detailed discussion and the influences on policy change and direction can be found in (Banda, 2000; Deacon, Osman & Buchler, 2010; Mohohlwane, 2019; Nugraha, 2019). For this chapter, only four policies are relevant. The first two policies are the South African Schools Act (Republic of South Africa, 1996b) and the Norms and Standards for Language Policy in Public Schools (Republic of South Africa, 1998a)²¹, which fall into the first category of establishing the education sector. The second two are the National Curriculum Statements (Department of Basic Education, 2011a) and the Basic Education Laws Amendment Bill (Department of Basic Education, 2017), which fall into the second and third categories. We discuss three policies here and the fourth in Section 3 of the chapter.

The South African Schools Act (SASA) mandates the Minister of Education to determine language policy norms and standards to govern all schools. The Act then delegates the choice of which language to offer each school to the school governing bodies (SGBs). Under the SASA, the

²¹ Government Notice 1701 of 1997 is cited above. It was amended by Government Notice 665 of 1998, but the latter is very difficult to find in soft copy. The said amendments do not affect the issues discussed here.

relationship between provincial education departments and SGBs in determining the LoLT is vague. This has led to disagreement and contestation, culminating in court cases (*Hoërskool Ermelo v The Head of Department of Education: Mpumalanga*, 2009; *Head of Department: Mpumalanga Department of Education and Another v Hoërskool Ermelo and Another* 2009). The Hoërskool Ermelo cases were about a disagreement between the SGB and the Mpumalanga Provincial Education Department to amend the schools' LoLT policy from monolingual Afrikaans to a bilingual Afrikaans and English policy. The SGB of the school rejected the request of the district to enrol Grade 8 English LoLT learners over five years starting in 2001 and culminating in an official dispute in 2007. Several judgements were passed accompanied by appeals and a final judgement in the highest court, the Constitutional Court, in 2009 (*Head of Department: Mpumalanga Department of Education and Another v Hoërskool Ermelo and Another*, 2009). The Constitutional Court ruled that the SGB had acted unreasonably and did not adapt the LoLT policy to reflect its broader community over time. It emphasised that the LoLT decision is a delegated function of SASA and not the sole preserve of the SGB. However, the administrative policies followed by the Mpumalanga Provincial Education Department were not supported by the correct legal frameworks. Finally, the court recommended policy clarity for LoLT determination, authority between the provincial education department and the SGB, and a provincial review and approval process.

The Basic Education Laws Amendment (BELA) (Basic Education Laws Amendment (BELA) Bill, 2017) was introduced in 2017 as part of the latest policy phase of updating, refining and addressing policy gaps. In addition to addressing gaps in the policy landscape, the BELA updates the SASA, cited earlier, and the Employment of Educators Act of 1998 (Republic of South Africa, 1998b). These updates are informed by the current policy agenda and recommendations from court cases, including on LoLT. The BELA clarifies that the SGB LoLT determination is a delegated function subject to the approval of the provincial head of department. Second, the Act clarifies that the LoLT may only be one of the eleven official languages of South Africa, with the

recognition of sign language as a twelfth official language for LoLT purposes.²² Third, the LoLT policy should be reviewed every three years. Fourth, contextual and preferential factors for LoLT consideration include both parent choice, expressed through the SGB, and the changing demographics surrounding the school. In this way, the BELA attempts to share the decision-making power between the province, SGBs, and broader society (unlike in the SASA).

The BELA bill is highly contested for the various laws it attempts to amend. We focus on the LoLT critiques from two civil society organisations and the official opposition party. AfriForum, a non-profit civil rights organisation that advocates for Afrikaners²³, contends that reducing SGB decision-making powers is unconstitutional and unnecessary. They anticipate that the proposed changes will disadvantage Afrikaans by reducing its use as the LoLT and that the SASA, as developed in 1996, does not need amendment (AfriForum, 2022).

The official political opposition party, the Democratic Alliance, has shared similar critiques in media statements and public discussions (Democratic Alliance, 2022; Nododa, 2022). They argued that the change from the SGB as the final decision-maker weakens community control and is a draconian centralisation of state power. They, too, anticipate a negative impact on monolingual schools.

In contrast, Equal Education and the Equal Education Law Centre (Equal Education Law Centre & Equal Education, 2022), in a joint submission, voice the opposite argument by lauding the LoLT amendments with proposals for further specifications, such as how many learners are required for monolingual schools to become bilingual, and similar suggestions for practical and measurable implementation. They argue that the SASA enabled discrimination, using LoLT to exclude mostly African learners from English and Afrikaans LoLT schools and that these amendments are necessary (Equal Education Law Centre & Equal Education, 2022; Stein, 2022).

²² The Constitutional amendments Eighteenth Amendment Bill was approved by Cabinet in May 2022 and shared for public comment. Among other purposes, when the Bill is finalised and signed into law, sign language will be recognised as a twelfth official language.

²³ Afrikaners are a South African population group descendent of Dutch colonialists from 1652. Politically and historically Afrikaner history in South Africa is contentious and includes legally institutionalising segregation and prioritising Afrikaners' interests, including language.

The public comments deadline lapsed in August 2022, and responses and finalisation should be forthcoming.

The third policy is the Norms and Standards for Language Policy (Republic of South Africa, 1998a), commonly called the Language in Education Policy (LiEP). The preamble emphasises the value of home language instruction and indigenous languages in South Africa, promoting an additive bilingualism approach. Schools are required to provide at least one language as a home language in Grades 1 and 2, with this used as the LoLT. They are then required to provide an additional language as a subject from Grade 3. The policy also allows for the use of the home language as the LoLT up to Grade 6. While the policy does not say that the same home language LoLT cannot be maintained beyond Grade 6, it speaks about revisiting the choice of LoLT for Grade 7 onwards based on learner numbers, resources and other conditions.

Therefore, what has become accepted as the norm in implementing the LiEP is based on choice and practice rather than prescript. Three main choices in implementation are striking: first, schools do not have to introduce a second language (often English or Afrikaans) from Grade 1, as is the current practice, since this is not a prescript but an implementation choice. The policy only makes a second language compulsory from Grade 3. While the merits of an early or late entry may be debated, it is not a policy requirement. Second, using home language as LoLT until Grade 3, followed by a LoLT switch in Grade 4, is not prescribed but a choice. The same home language may be maintained as the LoLT beyond Grade 3.

Third, the understanding that African home languages cannot be the LoLT beyond Grade 6 is a matter of incorrect interpretation, practicality and choice. Since all 11 official languages have the same legal status in South Africa, a switch to English or Afrikaans is not a prescript but a choice. Yet, almost all Grade 12 learners (Sapire & Roberts, 2017) write their final non-language examinations in either English (at 87%) or Afrikaans (at 4.5%) and others at 9%. It is not clear what the 'other' category captures as it does not include any remaining South African languages or sign language. In Grade 12, English dominates as the LoLT and as an additional language; it is the only language taken by 100% of all learners in some form (Van der Berg et al., 2020). When

turning to home language examination, for indigenous African languages, over 90% of learners have a match in their reported home language and the home language exam. This is different for English, at 16% and Afrikaans, at 35%. So while English and Afrikaans dominate as the LoLT and resultantly as the medium of non-language subjects, they are taken as a home language by a minority (Van der Berg et al., 2020).

In considering the LoLT, we find the policy environment vibrant, as seen in the active participation of civil society and different political parties. The enabling legal protections through the Constitution and the adoption of sign language also show a willingness to protect the rights of learners across all languages. The policies themselves have been broad, allowing for adapted implementation. However, considering the evidence presented, the policies have not empowered the extended delivery of education in African home languages. Overall, English and Afrikaans dominate as the LoLT across the schooling system, although the pattern in the Foundation Phase is different (Department of Basic Education, 2010b). Unsurprisingly, the latest policy developments are especially critiqued by groups representing these languages, as seen in the court cases and BELA bill amendments discussed. While policy alone is insufficient for change, the latest policy changes may change the LoLT landscape.

5.3 CLASSROOM AND SOCIETAL IMPLEMENTATION OF THE LANGUAGE IN EDUCATION POLICIES

The chapter thus far reflects on the LoLT legislative framework and policy interpretation. We now turn to parental choice and classroom practice. Parental choice and preference are brought into the LoLT decision-making process through SGBs.

The language children know best upon entering school, which is their home language, should be understood as a leverageable educational resource when deciding on a school's LoLT (Abdulatief et al., 2016). But what informs parent choice? Is it purely valuing language as an educational resource, or is there more to the decision?

Two points are worth making. Firstly, as shown in various studies, including PIRLS (Gustafsson & Taylor, in press, 2023), schools in wealth quintiles 4 and 5 largely outperform quintiles 1 to 3

schools. While there are compounding differences in school composition and socioeconomic status (SES), these schools often differ in their LoLT. Most quintile 4 to 5 schools have an English or Afrikaans LoLT from Grade 1 (Howie et al., 2017), and even schools that change from an African language to English came from higher quintiles (Taylor & Von Fintel, 2016). This is further reflected in the asset ownership of learners by language, as shown later in this chapter. Unfortunately, detailed analysis specifying LoLT by quintile is difficult to find. The language correlation signals to parents and the broader society that educational success is correlated with these languages. Secondly, economic returns such as job opportunities, pay and promotion are vested in English and Afrikaans, with none vested in African languages (Casale & Posel, 2011; Wright, 2002).

So, while parents may value African home languages, they must make difficult choices about education quality and employment outcomes. We see this in their stated preferences. In a national attitudes survey, the Human Sciences Research Council asked adults what the LoLT should be in schools. In 2003, 55% favoured English, increasing to 65% in 2018 (Gordon & Harvey, 2019). The phrasing of the question did not however allow for the selection of more than one language. Nonetheless, policymakers should wrestle with reconciling this stated preference with the evidence that learning in your home language positively impacts learning outcomes in the early grades (Department of Basic Education, 2017; Taylor & Von Fintel, 2016). However, a policy nuance for consideration on the appropriate language selection should be language homogeneity within each respective province, and the feasibility and trade-offs of LoLT and home language matches—particularly in urban settings compared to rural settings. Using PIRLS data, we attempt to contribute to these considerations later in this chapter.

In the remainder of this section, we examine how the LiEP has been implemented concerning parent choice. Using administrative education and population data (Van der Berg et al., 2020), Table 5.1 shows a high match between school LoLT and the population speaking that language as a home language, except for English. It is the only language where the LoLT outnumbers the population figures; only 6% of the population reported English as their home language, but 23% of schools have English as LoLT in the Foundation Phase. Interestingly Afrikaans home language

speakers and LoLT-takers match almost perfectly. Most learners that start learning in Afrikaans maintain it as a LoLT throughout their schooling. There is no decrease or significant switch in Grade 4 (Department of Basic Education, 2010b; Van der Berg et al., 2020).

Although isiZulu is the largest home language in South Africa at 28%, it is the LoLT for a disproportionately smaller percentage (21%) of learners. The smaller languages, such as isiNdebele and Siswati, seem to have the lowest ratio of speakers to LoLT-takers. These learners likely opt for schools with a different LoLT as few schools teach in these languages.

In summary, although the LiEP allows for the same LoLT throughout schooling, most schools change their LoLT in Grade 4. Approximately 1% switch to Afrikaans, making the sum of those learning in Afrikaans 10%, and the remaining learners switch to English, making the LoLT for the remainder of schools 90% for English (Department of Basic Education, 2013). Very little implementation, less than 1%, takes place in African languages.

Table 5.1: Foundation Phase languages by LoLT and home language

	% of Grade 1 to Grade 3 learners with this LoLT	% of population aged 7 to 9 with this home language
Afrikaans	9.0	9.2
English	23.1	6.3
isiNdebele	0.6	1.4
isiXhosa	16.6	19.4
isiZulu	20.6	28.0
Sepedi	9.3	9.8
Sesotho	5.7	7.8
Setswana	8.4	8.9
Siswati	1.7	2.8
Tshivenda	2.1	2.4
Xitsonga	3.1	4.1
Total	100.0	100.0

Source: Van der Berg et al. (2020). Table compiled using 2013 Annual Survey of Schools data (obtained from EMIS in DBE), using only records for public ordinary schools. The second column draws on the 2016 Community Survey data.

So far, we have discussed the patterns of LoLT implementation in the Foundation Phase and Intermediate Phase in terms of policy prescripts, policy interpretation and parental choice. These policies are the South African Schools Act, the Language in Education Policy, the Basic Education Laws Amendment Bill and the National Curriculum Statements. A final issue to consider is the constraints in realising the policies. Although the policy allows for home language LoLT at least until Grade 6, the national curriculum is only available in African home languages until Grade 3 for non-language subjects, namely Life Orientation, Life Sciences and Mathematics. From Grade 4 onwards, all non-language subject curriculum documents are only available in English or Afrikaans. Similarly, most resources such as textbooks, dictionaries and assessments follow the same pattern. Teacher training follows the same pattern, with Intermediate Phase exclusively available in Afrikaans and English as LoLT (Van der Berg et al., 2020). This makes the practical realisation of the home language as LoLT policy, at least until Grade 6, difficult to implement without strong political will and dedicated funding.

5.4 LANGUAGE AND LITERACY STUDIES: LESSONS FROM SOUTH AFRICAN AND INTERNATIONAL CONTEXTS

This section provides an overview of language and learning studies, first in South Africa and then internationally. It contributes lessons from studies that have worked across different languages. As cities become more linguistically diverse (Statistics South Africa, 2012), addressing and enabling multilingual learning is becoming increasingly important. This section explores outcomes in schools based on the LoLT.

Using South African longitudinal administrative and assessment data from the population of primary schools and a fixed effects estimator, Taylor and Von Fintel (2016) found that mother-tongue instruction in the early grades significantly improved English acquisition as measured in Grades 4, 5 and 6. They found that three years of English instruction in the Foundation Phase relative to three years in the home language is associated with a negative effect on English performance in Grades 4–6 of approximately 17% of a standard deviation in test scores. This is

one of only a few international studies to bring empirical evidence to the current LoLT policy debate.

Mohohlwane, Taylor, Cilliers and Fleisch (2023), (also reflected in Chapter 4) found the same language impacts using two Early Grade Reading Studies (EGRS). The two randomised control trials were implemented between 2015 and 2017 for EGRS I, focusing on Setswana and between 2017 and 2019 for EGRS II, focusing on English First Additional Language (EFAL). Both studies were implemented in the Foundation Phase, with the difference being the intervention language. The abovementioned study is among the few longitudinal studies in South Africa examining this. When comparing the impact of the interventions, learner test scores showed that a focus on home language had a large positive impact on both home language and EFAL, but focusing on EFAL had a marginal positive impact on EFAL and a significant negative impact on home language. These impacts were measured during the Foundation Phase and after the LoLT transition in Grade 4. An alternative perspective may be that EFAL interventions should be prioritised since EFAL becomes the LoLT for most learners, even if there are some initial costs to the home language. Using longitudinal data, Mohohlwane et al. (2023) found the opposite, both during the Foundation Phase and after the EFAL LoLT transition. Moreover, literature on language transfer and second language learning does not support this view since the preconditions of learning a second language are largely not met in South Africa, namely, extended exposure to English in academic, social and home settings for learners; access to appropriately levelled reading materials, extended instructional time led by teachers with expertise in the language, as well as the pedagogy of second language instruction. In other words, in the South African context, there are two benefits to emphasising improved performance in the home language. First, to acquire fundamental early literacy skills that enable sufficient reading comprehension competencies. The second benefit is to master the early literacy skills that can be transferred to learning an additional language, such as English, which is the LoLT beyond Grade 3.

Spaull (2016) demonstrated the poor quality of learner performance in Grade 3 before any language switch. He found a clear language effect and a quality issue using Grade 3 tests where the same learners were tested on the same test a month apart, first in their home language and

then in English. The average score when the test was written in an African home language was 33%. The same learners performed worse on the English test, scoring 22% on average. While test difficulty may unfairly bias learner performance, this is not the reason for the poor outcomes in this case. The analysis by Spaull (2016) was based on the National School Effectiveness Study, where deliberate efforts were made to ensure test appropriateness (Taylor & Taylor, 2013); we highlight four of them. First, the PIRLS assessment framework was adopted and adapted, ensuring a range of skills and comprehension processes were included. Second, the test included Grade 1 items such as matching words and pictures. Third, multiple-choice questions were also included. Fourth, 43% of the items required learners to retrieve explicitly-stated text, which is the very basic PIRLS comprehension framework category.

In summary, literacy outcomes were poor in both the home language and EFAL, showing weakness in both quality of instruction and language-specific challenges. In contexts where there is a choice in learning in one's home language or EFAL (Van Staden et al., 2016), there is compelling evidence for learning in one's home language. Furthermore, the LoLT has serious implications for overall learning outcomes for learners, not only in the specific language but also in the ability and quality of learning in other subjects.

5.4.1 Lessons from international assessments

We now turn to international evidence examining the effect of not learning in your home language in non-language subjects. In their examination of Science outcomes for learners in Grade 4 in Belgium, Van Laere, Aesaert and Van Braak (2014) found that those learning Science in their home language (Dutch) performed better than those whose home language was not Dutch but who did Science in Dutch. The home language speakers had higher proficiency in both Dutch reading and Science scores. The learners had better vocabulary and decoding skills in the home language. They could transfer these foundational skills to learn content in another subject – Science. However, those with a higher SES performed better. Over and above factors such as SES, classroom resources and teacher instructional practices, which may explain most of the difference, this study reminds us that LoLT and reading proficiency have serious implications for overall learning across all content areas.

A study conducted by McClain, Oh and Mancilla-Martinez (2021) in three elementary schools in the United States collected data on receptive vocabulary from English-matched, Spanish-matched and English-Spanish-unmatched learners. Unmatched learners' scores on monolingual measures suggested that their language skills lagged behind their matched peers. However, unmatched learners' language skills on a bilingual measure did not lag behind.

A German National Educational Panel study assessed reading comprehension in Grade 4 consisting of a sample of monolingual, first language (L1) bilingual and second language (L2) bilingual learners. The results (Novita, Lockl & Gnambs, 2021) showed that, after controlling for socioeconomic background, L2 learners showed lower reading comprehension and linguistic skills than L1 learners. Subsequently, monolingual learners outperformed both L1 and L2 learners. The linguistic pair under examination was classified as German or a second language from a migrant population.

Gibson, Jarmulowicz and Oller (2018) provided a different perspective, arguing that differences in learner scores result from widely-used standardised tests that do not offer comparable normed scores. These differences are not based on language matches. Their study explored the difficulties of using standardised tests to explore the gaps in vocabulary development between monolingual and bilingual learners. In our view, their study clearly demonstrates why measuring learning and language effects requires careful analysis to understand the constructs being assessed, the test development process and the relationship between standardised tests. Their work also highlights comparability across different language orthographies, with more nuances such as differentiating language-specific benchmarks or norms, and finally addressing the more delicate science of reconciling the different reading trajectories between home languages versus first additional languages.

Local research by Cockcroft (2016), comparing verbal working memory and vocabulary between 120 monolingual and bilingual learners, found that the matched learners outperformed unmatched learners in all the vocabulary assessments. However, there were no significant differences between both groups on the working memory measures (Cockcroft, 2016). This

means that the way the brain uses the acquired information to execute a cognitive task is the same in both matched and unmatched groups. The linguistic pairs compared were English and isiXhosa or isiZulu. In a study conducted by Shepherd (2013), in understanding Grade 4 reading performance of learners in Botswana and South Africa, the empirical evidence suggests earlier exposure to mother tongue education has positive effects in achieving additive bilingualism.

These studies provide evidence for the advantages and disadvantages of matched or unmatched assessments of language comprehension. Learners undertaking a reading assessment in their matching language perform better than their unmatched peers.

So far, we have discussed the language in education policy and context and evidence on implementing different language interventions in South Africa with some international evidence considered. We have not, however, discussed the understanding and contentions in using assessments or how assessments have been introduced in South Africa. We do this in the next section.

5.5 THE RATIONALE AND HISTORY OF ASSESSMENT AND EDUCATION REFORM IN SOUTH AFRICA

Assessment is a central component of education; it informs us about the learning progress and, depending on the purpose, whether learners have met the criteria for either entry or progression. In the South African context, systematic assessment is usually associated with accountability. However, systemic assessment, such as the Annual National Assessment (ANA), has resulted in rejection by teachers and unions (South African Democratic Teachers' Union, 2014).

Prinsloo (2021), as well as Govender and Hugo (2020), critiqued large-scale assessment studies such as PIRLS, TIMSS and those conducted by the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SEACMEQ), arguing that such assessments do not provide reliable information on learners' performances and lack consideration for the social and cultural context of the country. For both systematic and large-scale study assessments, Taras (2005) and Nuga Deliwe (2017) made a strong case that these contrasting views on the role and purpose of assessments result from a lack of commonality in the definition of both theoretical and practical

applications of assessment. Broadly, there are two types of assessments: formative and summative, each serving functions and processes for different purposes.

In the existing literature, “formative assessment” (also known as the assessment for learning) is used in the teaching and learning process to determine the extent to which instruction or teaching has been successful, which learners need more support, and how teachers should adapt their teaching methods (Ahmad, Sultana & Jamil, 2020; Kanjee, 2020). In other words, formative assessment is a measure of the learning process concerned with how students construct their knowledge, for example, ongoing tasks outlined in the National Curriculum Assessment Policy (CAPS) throughout a term.

The literature refers to ‘summative assessment’ as the assessment of learning. This is an appraisal process to measure knowledge acquisition at a given time. The information can be used to determine the level of individual performance, evaluate the education system’s usefulness, and decide on promotion to the next grade or education phase (Özdemir, 2010).

These distinctions are why it is important to understand assessments from a purpose and practical application perspective, as Taras (2005) highlighted. Assessments are an integral component of education that we must confront and include.

5.5.1 Assessment history as part of education reforms in South Africa

Understanding the history and development of assessment practice in South Africa provides an important context for understanding PIRLS specifically, which is the focus of this chapter. While assessments are a common part of education systems, their development, use and gaps are unique. In South Africa, assessments were developed as part of education reform. We focus on the post-Apartheid era.

The education system, inherited post-Apartheid, was fragmented and decentralised across nine homelands and the rest of South Africa. As a result, policy efforts focused on creating a centralised and standardised education system with assessment as a part of education reforms. Adapting categorisations used by Gustafsson (Gustafsson, 2019) and Ndhlovu, Sishi and Nuga

Deliwe (2006), we can think of the reforms in five periods; 1994 to 1999 as the first, 1999 to 2003 as the second and then 2004 to 2007, 2007 to 2017 and finally 2017 to date. While the periods are relatively short, they are distinguished by the area of emphasis within each period. The Grade 12 examinations were the genesis of assessment reforms, with other national and international assessments incorporated over time. However, the specific areas of emphasis and rationale depended on that period's specific policy and stakeholder pressures.

5.5.1.1 *First period: 1994-1999*

Before 1994, the assessments were concentrated at Grade 12 as the school-leaving examination, with each province developing and conducting its own exams. While the Joint Matriculation Board served as a quality assurer (Moropa, 2016), there were several issues, including irregularities in marking, racial discrimination and political interference. The Joint Matriculation Board ceased to exist in 1992. The priorities between 1994 and 1999 were centred on addressing these issues. The main developments during this time were creating administrative systems aligned and consolidated across the country and increasing enrolment in the Grade 12 examinations (Ndhlovu et al., 2006).

A primary development was establishing a single education system with the National Department of Education as empowered with a national policy, oversight and standard-setting role and nine provincial departments mandated to deliver education provincially, among several key policies developed to govern these relationships, clarify roles and responsibilities.

Policies for an Education Management Information System (EMIS) and the associated mandate to collect and generate data nationally led to the development of the national qualifications framework. This includes the National Senior Certificate (Republic of South Africa, 1996c). The same policy mandated the establishment of Umalusi, an education quality-assuring body established in 2008 (Moropa, 2016).

Finally, South Africa also participated in the first Trends in International Mathematics and Science Study (TIMSS) in 1995. While this chapter focuses on literacy and TIMSS is a Mathematics and Science Study, it marked South Africa's debut in international assessments. TIMSS is managed by

the International Association for the Evaluation of Educational Achievement (IEA). They are also responsible for PIRLS, which is the focus of this chapter. The TIMSS participation was initiated by the Human Sciences Research Council (HSRC) with funding from the HSRC's parliamentary grant (Reddy & Hannan, 2021). TIMSS is a sample-based international assessment, and South Africa participated in Grades 7, 8 and 12 (Nuga Deliwe, 2017). Following the inaugural participation in 1995, the second round of TIMSS was in 1999. The Grade 12 administration was not reported in detail and has not been repeated. TIMSS is conducted every four years, and South Africa has participated in most cycles since.

5.5.1.2 *Second period: 1999-2003*

With the administrative and standardisation period well underway, the focus shifted to improving the Grade 12 pass rate, the quality of education, and equity concerns. Although reporting the Grade 12 results by race was still resisted, understanding which learners performed well, in which subjects and why was a priority, shifting the focus from just the pass rate to a broader context (Ndhlovu et al., 2006).

The education focus increasingly shifted beyond Grade 12. In addition to TIMSS which continued in 2003, an international assessment, South Africa participated in the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SEACMEQ, also sometimes referred to as SACMEQ) for the first time in 2000. This was the second round of assessments. Although South Africa had been part of SEACMEQ since 1995, with 15 countries in total as part of realising Education for All goals and commitments, the country's focus one year after democracy differed (Moloi & Strauss, 2005).

SEACMEQ is a sample-based regional assessment nationally representative, and South Africa has participated in all subsequent rounds. In 2000, more than 40 000 learners were assessed regionally in Grade 6 Mathematics and Reading. The results, released in 2003, showed much poorer performance from South Africa than lower-resourced countries such as Kenya. This deepened concerns over South African education quality, particularly as it was a regional comparison (Gustafsson, 2019).

During this same period, South Africa initiated its own systemic evaluations for Grade 3 in a sample-based nationally representative survey assessing Literacy, Mathematics and Life Skills (Ndhlovu et al., 2006; Nuga Deliwe, 2017). The poor results increased public interest and cemented the importance of early measurement, with a realisation that Grade 12 performance was not the only important indicator for measurement.

5.5.1.3 *Third period: 2004-2007*

This phase was about entrenching the focus on learner outcomes and using assessment results to inform teaching and system strengthening rather than only measuring learning. The culmination of using assessments was seen in the curriculum reforms that included the staggered introduction of the National Curriculum Statements (Ndhlovu et al., 2006).

Since the SEACMEC results highlighted that funding reforms alone were insufficient to ensure better quality outcomes, accountability and efficiency became a focus (Gustafsson, 2019). A further round of SEACMEQ was conducted. The systemic evaluations were sustained and extended to additional grades during this time. A further extension was the introduction of a second IEA international comparative assessment through the inaugural participation of South Africa in PIRLS. Endorsements for such participation came from the then Minister of Education, Dr Naledi Pandor, the then Acting Director-General, Dr Cass Lubisi, and the heads of provincial education departments across all nine provinces. Data collection took place in 2005 in Grades 4 and 5. Participation was funded by the National Research Foundation and the Royal Netherlands Embassy. The study was managed by the Centre for Evaluation and Assessment at the University of Pretoria (Howie et al., 2008).

The education minister emphasised the need for individual teacher accountability and equipping teachers to assess and support reading at a classroom level. The gap in measuring outcomes across all schools was acknowledged. Initiatives to respond included introducing the Early-Grade Reading Assessment (EGRA) (Gustafsson, 2019). The EGRA is a short reading assessment developed in all 11 official languages, explicitly designed for easy administration in the early grades without significant training to those administering the test. To date, five phases of EGRA

have been rolled out, although the assessments are still not universally used. Details on the development of EGRA, its use and a critique can be found in Mohohlwane et al (2022).

5.5.1.4 Fourth Period: 2007 to 2017

Participation in PIRLS continued in 2011 and 2016 and in TIMSS in 2011 and 2015. However, reforms had a local focus. In this period a Grade 9 qualification was discussed, national assessments and school principal accountability (Gustafsson, 2019). A ministerial committee reviewing Grade 12 recommended the introduction of a Grade 9 qualification (Department of Basic Education, 2014). However, not much action was taken following this.

Significantly, the Annual National Assessments (ANAs) were introduced from 2011 to 2014, ending abruptly in 2015. The introduction of the ANAs was part of the broader national assessment and school accountability set of reforms (Gustafsson, 2019). The ANAs were multifaceted, with universal ANAs administered by teachers in Grades 1 to 6 and Grade 9 added from 2012 in Mathematics and Literacy. An additional verification ANA, a sample-based version, was also introduced. The discontinuation of the ANAs followed strong opposition by teacher unions and political parties due to the perceived misuse of the ANA results and a lack of policy coherence on their purpose, overlap and limitations. Details on this are available in the World Bank (2013) report based on an internal review of the ANAs.

5.5.1.5 Fifth period: 2018-2023

The current period is interesting as education reform is less focused on implementing assessment. The halting of the ANAs is a significant halting of development locally, although systemic evaluations have been negotiated and conceptualised (Department of Basic Education, 2020a). Data for Grades 3 and 6 in Mathematics and Literacy were reportedly collected in 2022. However, the results, dissemination, use and response are outstanding.

Similarly, much discussion has recommenced on the Grade 9 examination culminating in the parliamentary debate on the General Education Certificate (GEC) draft policy (Department of Basic Education, 2021a). The support of Umalusi and its role and the establishment of this

certification system is yet to be implemented. International assessment participation continued in TIMSS in 2019 and PIRLS in 2021.

5.5.2 Summary: History of assessment and education reform in South Africa

In summary, assessments' rationale and purpose are important to guide the interpretation of the assessment results. This also guards against unwarranted critique. We should ask questions that strengthen the assessment processes: How do we standardise assessment? How do we use assessment to improve teaching and learning? How are assessments used for policy-making decisions? And how do we develop fair assessments in multilingual and multicultural societies like South Africa?

We learned that the range of assessment in South Africa was developed as part of the broader reforms in education. Thirdly, we found that assessment development has not been linear – it did not follow a particular sequence between local, regional and international and in some cases participation was halted. Importantly, the Grade 12 examinations have been the genesis and continue to be an anchor with significant implications for quality and substance in earlier grades. We also saw that international assessments are part of a broader local and regional assessment regime.

Finally, a detailed analysis of assessments South Africa has participated in is beyond the scope of this study. A detailed analysis is provided by Nuga Deliwe (2017). The author details the enabling conditions, rates the assessments, and makes recommendations. An adapted table by Nuga Deliwe with the assessments South Africa has participated in since 2015 is attached as Annexure 1.

5.6 PIRLS ASSESSMENT DESIGN, SAMPLING, AND PARTICIPATION IN PIRLS IN SOUTH AFRICA

This section details South Africa's participation in PIRLS. We also discuss the PIRLS assessment framework, sampling and data collection processes. Finally, a question analysis of a PIRLS question sample is provided. South Africa has participated in four out of the five rounds of PIRLS, missing the first round in 2001. i.e., 2006, 2011, 2016 and 2021. This chapter excludes discussions

on the 2021 assessment round as the reports and data are not available yet. Across the three cycles, nationally representative participation was only maintained at the Grade 4 level; the Grade 5 participation had different purposes. This chapter focuses on the Grade 4 level. The table below provides a summary.

Table 5.2: SA PIRLS participation by type and grade

Year	2006	2011	2016
PIRLS assessments	PIRLS	PIRLS prePIRLS	PIRLS PIRLS Literacy ePIRLS
SA grades	Grade 4 nationally representative (PIRLS)	Grade 4 nationally representative (prePIRLS)	Grade 4 nationally representative (PIRLS Literacy)
	Grade 5 nationally representative (PIRLS)	Grade 5 English and/or Afrikaans (PIRLS)	Grade 5 benchmarking only for English, Afrikaans and isiZulu (PIRLS) Grade 5 ePIRLS only took place in English in 9 schools

Source: Compiled from PIRLS reports

The PIRLS assessments are led by the International Association for the Evaluation of Educational Achievement (IEA), a non-profit independent organization responsible for PIRLS and its Mathematics equivalent, TIMSS. In South Africa, the implementing agency for PIRLS is the Centre for Evaluation and Assessment (CEA) in the Education Faculty at the University of Pretoria. The 2006 sample was drawn using a three-stage stratified cluster design (Howie et al., 2008). First, schools were sampled proportional to the size of the target grade. Then classrooms were randomly allocated within the sampled schools. Third, all the learners within the sampled classrooms were tested. Small classrooms were combined to form pseudo-classes. Other sampling considerations included language and province, resulting in a final sample of 441 schools. Of the selected schools, 429 (98.5%) were tested, and 16 073 Grade 4 learners participated. All learners present on the day of the testing were included.

Several IEA data collection guidelines and standards were followed (Howie et al., 2017). For the 2006 rounds, data collection took place between October 2005 and January 2006. The protocols included the appointment of an international and a national quality control manager. Monitoring took place in 8% of the sampled school. The IEA requires 5% data verification; however, this was exceeded in South Africa, with 100% of the data verified. The Grade 4 data was excluded from

the IEA report as non-response exceeded 25% and was deemed too low for estimation, however the data was complete.

In 2011, South Africa participated in the Grade 4 prePIRLS. The sampling and data collection details will not be reported here since this chapter does not use the data.

In 2016, South Africa participated in PIRLS Literacy (Howie et al., 2017). As in 2006, a similar sampling methodology was followed, drawing a nationally representative Grade 4 sample of 304 schools. The sample was selected to be representative of language and province. Data was collected from 293 schools, 96% of the sample. A total of 12 810 learners participated in all 11 official languages.

The data collection quality assurance processes were similarly implemented in 2016, with 100% of the data validated. Data collection started in November 2015 and was concluded in January 2016.

In 2017, a rescaling exercise was done, putting all assessments on the same scale to enable comparison. The rescaling was to the normal PIRLS benchmarks/stands: 2016 was retained, and 2011 was scaled to 2016 standards (Gustafsson, 2020).

We used data from PIRLS 2006 and 2016; we did not use the 2011 data as the recalibrated dataset was not publicly accessible or available from the CEA.

A PIRLS conceptual framework has been developed to inform passage development and questions. PIRLS uses four question-type categories that range in cognitive demand. The extracted box below explains this (Howie et al., 2017).

Table 5.3: PIRLS question categories**1. Focus on and retrieve explicitly stated information (literal)**

In focusing on and retrieving explicitly stated information, readers use various ways to locate and understand content that is relevant to the question. Items testing this process require the reader to focus on the text at the word, phrase and sentence level to construct meaning. The process may also require the reader to focus on and retrieve pieces of information from across the text (Mullis & Martin, 2013).

- Identifying information that is relevant to the specific goal of reading
- Looking for specific ideas
- Searching for definitions of words and phrases
- Identifying the setting of a story (e.g., time and place)
- Finding the topic sentence or main idea (when explicitly stated) (Mullis & Martin, 2013, p. 21).

2. Make straightforward inferences (SI)

The ability to “make straightforward inferences” that are not explicitly stated allows readers to move beyond the surface of texts and to resolve gaps in meaning. Some of these inferences are straightforward in that they are based primarily on information contained in the text, and readers must connect two or more ideas. The ideas themselves may be explicitly stated, but their connection is not and must, therefore, be inferred. However, despite the inference not being explicitly stated in the text, the meaning of the text is understood. Skilled readers will connect two or more pieces of information and recognise the relationship even though it is not stated in the text (Mullis & Martin, 2013).

With this type of processing, the focus may be on local meaning residing within one part of the text, and the focus may also be on a more global meaning, representing the whole text. Reading tasks that may exemplify this type of text processing include the following:

- Inferring that one event caused another event
- Concluding what is the main point made by a series of arguments
- Identifying generalisations made in the text
- Describing the relationship between two characters (Mullis & Martin, 2013, p.22).

3. Interpret and integrate ideas and information (I&I)

As with the more straightforward inferences, readers who are engaged in interpreting and integrating ideas and information in a text may focus on local or global meanings. As readers interpret and integrate, they construct meaning by integrating personal knowledge and experience with meaning that resides within the text. In this way, readers draw on their understanding of the world, as well as their background knowledge and experiences, more than they do for straightforward inferences and make connections that are not only implicit but that may be open to some interpretation based on their own perspective (Mullis & Martin 2013).

- Discerning the overall message or theme of a text
- Considering an alternative to the actions of characters

- Comparing and contrasting text information
- Inferring a story's mood or tone
- Interpreting a real-world application of text information (Mullis & Martin 2013, p.23)

4. Evaluate and examine content, language and textual elements (E&E)

According to Mullis and Martin (2013), as readers evaluate the content and elements of a text, the focus shifts from constructing meaning to critically considering the text itself. Readers engaged in this process step back from a text to examine and critique it. In evaluating and critiquing text structure and language elements, readers draw upon their knowledge of language usage to reflect on and judge the author's language choices and devices for conveying meaning. Using past reading experience and familiarity with the language and text structure, readers evaluate the visual and textual features used to organise the text (Mullis & Martin 2013).

- Judging the completeness or clarity of information in the text
- Evaluating the likelihood that the events described could really happen
- Evaluating how likely an author's argument would be to change what people think and do
- Describing the effect of language features, such as metaphors or tone
- Determining an author's perspective on the central topic (Mullis & Martin, 2013, p.24).

Source: Howie et al (2017)

The PIRLS design has evolved with each iteration, and developments have included incorporating comprehension processes and literary and informational reading purposes in 2006. In 2011 an easier version of PIRLS was introduced, known as prePIRLS. In 2016, PIRLS Literacy and ePIRLS were introduced (Mullis et al., 2015). Table 5.4 below summarises the reading and comprehension processes across the three types of PIRLS assessments.

Table 5.4: Distribution of reading purposes and comprehension processes across the three PIRLS types

	PIRLS	PIRLS Literacy	ePIRLS
Purpose for reading			
Literary experience	50%	50%	0%
Acquire and use information			100%
Processes of comprehension			
Focus on and retrieve explicitly stated information	20%	50%	20%
Make straightforward inferences			
Interpret and integrate ideas and information	30%	25%	30%

Evaluate and critique content and textual elements	20%	20%
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Source: Mullis & International Association for the Evaluation of Educational Achievement (2015)

The PIRLS assessments are created as a matrix assessment comprising five literary passages and five information passages. These are then incorporated into multiple combinations. Careful assessment linking practices are incorporated across assessments and within cycles, allowing for comparisons and measuring trends. Once the original assessments are created, the implementing agencies in each country are responsible for the translation. The IEA is only involved in appointing translators as part of the International Translation Verification process. The IEA does not involve itself with the first round, back translations and then back into target languages after review, as these are the responsibility of the National Research Coordinators and their implementation teams in each respective country.

5.6.1 Question analysis

The four question type categories are applied using multiple-choice questions consisting of four response options and open-ended constructed responses. The points allocated range from one point up to three points for the constructed responses, depending on the depth of the response. For more complex responses, a range of possible answers is accepted based on the rationale of the learner. A marking schedule is developed and distributed to ensure fairness and consistency across contexts.

During each cycle, PIRLS releases a selection of passages and questions into the public domain. This is intended to support using PIRLS results for accountability, strengthening the curriculum, and teaching and learning. In South Africa, the released items are provided across all 11 official languages. This enables the primary learnings intended by PIRLS and the measurement of equivalence across the languages. Mtsatse and Van Staden (2021) measured potential translation bias between an English and isiXhosa PIRLS assessment and found no statistically significant difference in item functioning. The passages had been translated into standardised isiXhosa, however, teachers indicated that they did not always teach the standardised version and this

may affect why learners performed poorly. Additional analysis using the latest released passages would be a helpful contribution to understanding learner performance in specific languages.

The table below provides an analysis based on a selection of these. It documents the types of passages and questions and performance changes between 2006 and 2016.

South African learners performed below the international average in general. This was worse for literary texts than informational texts. Howie et al. (2008) confirmed the same pattern by language. Learners performed better in information texts across most languages, except for Tshivenda and Sesotho. The 2016 results, however, were the opposite. Howie et al. (2017) found that South African learners performed better in literary texts on average. This pattern is the same across languages, with Setswana as the only language where the scores remained the same. While Howie et al. (2017) reported the overall averages, the analysis of Table 5 below does not show such a clear pattern for 2016.

A further consideration is the question complexity. Questions range from easier – literal – to more complex questions – the examine and evaluate types. Notably, performance did not always follow this pattern. As shown in Table 5 below, the “integrate and interpret” questions in Antarctica's (2006) responses exceed those for the literal question. A similar case was found in 2016, where South African learners performed better in “straightforward inference” questions rather than “literal” questions in both “The Pearl” and “African Rhinos and Oxpecker Birds” stories.

These findings demonstrate the complexity of reading measurement and that we should not oversimplify categorising passages and questions. The better performance in the informational texts in 2006 and the unexpected higher scores for more complex question types in 2016 are evidence of this. Even within a passage or question categories, there is a range in difficulty. This is not limited to comparisons across passages. Future analysis should explore questions within a category.

Table 5.5: Question performance analysis between International and South African performance for literary and information texts, 2006 and 2016

Passage name, type and source	Questions	Performance in 2006 (international average)	Performance in 2006 (SA average)	Passage name, type and source	Questions	Performance in 2016 (international average)	Performance in 2016 (SA average)
<i>An Unbelievable Night (2006)</i>	Low international benchmark reading for literary experience						
Mullis, Martin, Kennedy, Foy (2006)	Literal Q7	77%	40%	<i>The pearl (2016)</i>	Literal Q3	61%	41%
	Literal Q9	69%	31%	Mullis, Martin, Foy, & Hooper, (2017)	Straightforward Inference Q1	60%	55%
					Interpret and Integrate Q9	47%	27%
					Interpret and Integrate Q15	54%	43%
	Intermediate international benchmark literary experience						
	Straightforward inference Q5	67%	17%		Literal Q13	46%	38%
					Straightforward inference Q3	37%	23%
High international benchmark for literary experience							
Interpret and Integrate Q8	41%	8%					
<i>Antarctica: Land of Ice (2006)</i>	Low international benchmark for information acquisition						
Literal Q1	81%	34%	<i>African rhinos and oxpecker birds (2016)</i>	Literal Q4	64%	41%	
				Literal Q11	51%	38%	
				Straightforward inference Q6	57%	57%	
Intermediate international benchmark for information acquisition							

	Straightforward inference Q7	67%	20%		Literal Q16	45%	24%
					Straightforward inference Q8	47%	43%
					Interpret and integrate Q9	33%	19%

Source: Compiled from PIRLS reports

5.7 DATA ANALYSIS AND DISCUSSION

We now turn to the PIRLS data analysis. We used the standard PIRLS survey design adjustments with student-level weights and estimated learning outcomes through plausible values. The asset quintiles were an index created by principal component analysis of self-reported assets in the learner's home, which proxy for the wealth of the learners, as the learner's total wealth is unobserved. Therein, the first quintile represents the 20% least wealthy learners, and the fifth quintile represents the 20% wealthiest learners, as determined by asset wealth. The regression uses ordinary least squares with categorical variable coefficients reflecting the difference from the base value of each category. For the LoLT, we use the language of the assessment. As stated in the PIRLS report, schools were asked to use their Foundation Phase LoLT to determine this (Howie et al., 2017). So while the school LoLT may have changed in Grade 4, the assessment language is the Foundation Phase LoLT.

To determine whether the LoLT matches the home language, Howie et al. (2017) defined only “I always speak <language of test> at home” as matching, while in this chapter, we combined “almost always” and “always” as matching.

South Africa has participated in four rounds of PIRLS: 2006, 2011, 2016 and 2021. In 2006, a nationally representative sample of Grades 4 and 5 participated in anticipation of floor effects. In this chapter, we present only the Grade 4 results, while the results for both grades were reported in the South African reports. In 2011, South Africa participated in the Grade 4 prePIRLS. In 2017, a rescaling exercise was done, putting all the assessments on the same scale to enable comparison. The rescaling is to the normal PIRLS benchmarks/stands: 2006 and 2016 are retained, while 2011 is scaled to the 2016 standard (Gustafsson, 2020).

We used data from PIRLS 2006 and 2016. The reason for not including the 2011 data is that the recalibrated dataset is not publicly accessible or available to the CEA overseeing the South African implementation of PIRLS.

Table 5.6: Changes in the language of assessment in schools between 2006 and 2016

Language	2006	2016	Change
Afrikaans	9.6%	9.2%	-0.4%
English	16.3%	23.0%	6.7%
isiNdebele	2.2%	0.3%	-1.9%
isiXhosa	10.2%	15.9%	5.7%
isiZulu	13.5%	21.8%	8.3%
Sepedi	7.0%	9.4%	2.4%
Sesotho	8.9%	5.2%	-3.7%
Setswana	9.9%	7.1%	-2.8%
Siswati	7.6%	2.3%	-5.3%
Tshivenda	7.3%	2.2%	-5.1%
Xitsonga	7.4%	3.8%	-3.6%

Source: Calculated from PIRLS 2006 and 2016 data

Table 5.6 highlights the changes in the language of assessment in schools. This table shows that the LoLT in the PIRLS sample has changed over the decade. Particularly, there has been a greater concentration in English and isiZulu LoLT followed by isiXhosa. These three languages were the largest LoLTs in 2006 and retained those positions in 2016. Aside from Sepedi, all the other languages declined. As PIRLS LoLT stratification was based on the Annual Schools Survey (ASS), these changes mirrored the data in the ASS, namely that in the Foundation Phase, English, isiZulu, and isiXhosa are the largest LoLT in schools (Department of Basic Education, 2010b). The 6.7 percentage point increase in English could tentatively be attributed to the rise in parental preference in enrolling their children in English LoLT schools (Gordon & Harvey, 2019) and migration to multilingual Gauteng. In both PIRLS rounds, the highest LoLT samples were English, isiXhosa and isiZulu. Unsurprisingly, these distributions matched the census data of spoken language distribution (Statistics South Africa, 2012). There were also decreases in most languages. We must, however, interpret these cautiously, considering the relatively small number of learners of some languages in the sample. This is especially applicable for isiNdebele, Xitsonga, Tshivenda and Siswati. Due to the small sample size, the estimates associated with such groups will have larger standard errors and need to be interpreted with additional caution.

Table 5.7: Home language and LoLT match, 2016

Province	LoLT match	
	Unmatched	Matched
Eastern Cape	5.2%	94.8%
Free State	3.4%	96.6%
Gauteng	11.8%	88.2%
KwaZulu-Natal	4.3%	95.7%
Limpopo	3.3%	96.7%
Mpumalanga	7.8%	92.2%
North West	4.8%	95.2%
Northern Cape	6.3%	93.7%
Western Cape	2.6%	97.4%

Source: Calculated from PIRLS 2016 data

Table 5.7 enables us to examine the match between learners' home language and the language of assessment at the provincial level. Again, we used the language of assessment as a proxy to determine the school's LoLT. There is a considerably high consistency of at least 90% across all provinces where the learner's home language matched the assessment language, excluding Gauteng, which had an 88% match. It is expected that Gauteng would have a lower value, considering the high density of multilingualism in Gauteng, as described in the 2011 census.

Table 5.7 shows that LoLT shifts were larger at a provincial level compared to languages in isolation, as shown in Table 5.6. Again, smaller sample sizes and possible sampling limitations increased standard errors for language shares within provinces, so the magnitude of shifts should not be over-interpreted. When comparing the PIRLS 2006 (see Annexure 2) and 2016 estimates in Table 5.7, we see interesting patterns with increases in a few languages but mostly a decline in others. The only other language that increased is Sepedi. English had the largest increase, from 16% to 23%, with its share in Northern Cape doubling from 11% to 22% and in Gauteng it increased from 34% to 46%. Furthermore, isiZulu increased from 14% to 22%, with four provinces experiencing increases, namely Gauteng, Free State, Limpopo and Mpumalanga. The biggest of these is Mpumalanga, increasing from 14% to 27%. Tshivenda and Siswati tripled their shares, although they remain small.

Afrikaans remained at approximately 9% over the ten years, but significant changes happened within provinces. Afrikaans LoLT more than doubled in the Free State, from 5% to 12%, and

from 2% to 7% in the North West province. However, these changes are not statistically significant and are indicative of the caution one has to apply not to over-interpret language shifts within provinces. In contrast, the Northern Cape decreased by more than 8 percentage points, with those learners opting for English instead.

While Table 5.7 shows the overall matches between school LoLT and home language, Table 5.8 examines differences within classes. We define monolingual classes as those with fewer than 25% of learners that only sometimes or never speak the LoLT at home. We find the highest percentage of monolingual classes in Limpopo (88%), followed by the Eastern Cape (84%), then Northern Cape (82%) and North West (81%). The most multilingual provinces are Gauteng at 64% (i.e. only 36% monolingual), followed at a great distance by Western Cape, at 34% multilingual (66% monolingual). Nationally, 73% of schools are monolingual. A key finding from the results is that the perspective that South African classrooms nationally are highly multilingual is exaggerated. Furthermore, the number of learners learning in a language other than their home language is even lower. The extent of multilingualism differs substantially between provinces. Both the census and our analysis demonstrate high multilingualism in Gauteng. Unfortunately, we could not replicate this for 2006, as the relevant variables were missing in more than 10% of observations.

Table 5.8: Sample count and percentage of learners in monolingual and multilingual classes by province, 2016

	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo	Mpumalanga	North West	Northern Cape	Western Cape	Total
Multilingual	188	239	1,009	330	252	478	195	130	420	3 241
	16%	22%	64%	27%	12%	25%	19%	18%	34%	27%
Monolingual	974	845	562	894	1 912	1 455	816	601	823	8 882
	84%	78%	36%	73%	88%	75%	81%	82%	66%	73%
Total	1 162	1 084	1 571	1 224	2 164	1 933	1 011	731	1 243	12 123
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: Calculated from PIRLS 2016

Table 5.9 below examines LoLT by province, while the discussion compares this to the 2011 census (Statistics South Africa, 2012). Again this is the LoLT of the Foundation Phase. The three most striking provinces are Eastern Cape, Western Cape and Gauteng. Altogether, 13% of learners in the Eastern Cape opted for English as the LoLT although only 6% of the population have English as their home language. In the Western Cape, 35% of learners have an English LoLT, although only 20% of this population are home language learners. Gauteng has the largest contrast: 49% of schools have an English LoLT, but only 13% of the population are English home language speakers.

Afrikaans is also notable as it is an LoLT in seven provinces. This excludes KwaZulu-Natal and Limpopo, where there were very few Afrikaans LoLT schools. The PIRLS sample did not include any Afrikaans LoLT schools in these provinces in either 2006 or 2016. Approximately 50% of all schools in the Northern Cape had Afrikaans as the LoLT in the Foundation Phase, followed by 44% in Western Cape. Most learners that started learning in Afrikaans maintained it as a LoLT throughout their schooling. No decrease or significant switch in Grade 4 was notable (Department of Basic Education, 2010b).

Table 5.9: Language of assessment in PIRLS by province, 2016

	Afrikaans	English	isiNdebele	isiXhosa	isiZulu	Sepedi	Sesotho	Setswana	Siswati	Tshivenda	Xitsonga
Eastern Cape	10.0%	13.0%	0	74.7%	0	0	2.0%	0	0	0	0
Free State	12.0%	11.0%	0	1.4%	2.4%	0	73.0%	0	0	0	0
Gauteng	6.0%	49.0%	0	0	21.4%	9.5%	5.0%	3.3%	0	0	5.9%
KwaZulu-Natal	0	23.0%	0	1.9%	75.2%	0	0	0	0	0	0
Limpopo	0	7.0%	0	0	2.2%	56.5%	0	2.9%	0	17.7%	13.7%
Mpumalanga	1.2%	18.0%	3.1%	0	27.4%	8.4%	0	0	28.7%	0	12.9%
North West	7.0%	11.0%	0	5.4%	0	0	2.0%	74.8%	0	0	0
Northern Cape	40.0%	22.0%	0	0	0	0	0	38%	0	0	0
Western Cape	45.0%	35.0%	0	19.3%	0	0	0	0	0	0	0
National	9.0%	23.0%	0.3%	15.9%	21.8%	9.6%	5.2%	7.1%	2.3%	2.2%	3.8%

Source: Calculated from PIRLS 2016

Table 5.10 shows the LoLT matches in PIRLS using wealth (home asset) quintiles. We do not find any patterns by home asset quintile; all quintiles have an approximately 94% match. This means learners report a high match between their home language and the school LoLT regardless of the quintile. The tables above show higher numbers of learners enrolled in English and Afrikaans LoLT schools than the identified home languages, according to the census. In these schools, there may be matched learners, such as bilingual learners writing in their home language or bilingual learners writing in a second language. These bilingual or multilingual identities explain the unexpectedly high match, especially for quintiles 4 and 5, considering what we know from other sources on the underlying learners (Matentjie, 2019).

Table 5.10: LoLT matches by home asset ownership quintile, 2016

Quintile	Unmatched	Matched
1	5.3%	94.7%
2	5.2%	94.8%
3	5.9%	94.1%
4	6.7%	93.3%
5	5.8%	94.2%

Source: Calculated from PIRLS 2016

Table 5.11 depicts multiple regression correlation coefficients between learner reading scores in PIRLS/IEA points and the following variables, respectively: whether the language was written in the home language of the learner, the home asset wealth quintile of the learner, the test language of the learner and the province of the learner. Whether or not learners wrote the examination in their home language is not statistically significant. The asset quintiles of the learners follow a nearly linear trend, with the richest 20% scoring 47 points more than the poorest 20%. With English as the base language, all languages performed worse than English, with all the languages apart from Afrikaans performing statistically weaker than English test takers, but only the following differences statistically significant at the 5% level (with points difference from English in brackets): isiXhosa (–64.46), isiZulu (–58.13), Sepedi (–77.13), Sesotho (–71.75) and Setswana (–96.52).

Table 5.11: Reading outcomes by language, SES and province, 2016

Variable	Coefficient
Test in home language [#]	-1.153 (7.1)
Asset quintile 2 (base: quintile 1) [@]	19.*** (3.8)
Asset quintile 3	16.2*** (5.2)
Asset quintile 4	23.7*** (4.5)
Asset quintile 5	46.9*** (6.5)
Afrikaans (base: English)	-11.8 (16.4)
isiNdebele	-44.3** (20.4)
isiXhosa	-64.5*** (21.4)
isiZulu	-58.1*** (16.8)
Sepedi	-77.1*** (20.6)
Sesotho	-71.8*** (19.6)
Setswana	-96.5*** (17.0)
Siswati	-43.8** (19.4)
Tshivenda	-44.7** (21.4)
Xitsonga	-47.5** (21.6)
Free State (base: Eastern Cape)	58.0* (30.8)
Gauteng	20.8 (29.9)
KwaZulu-Natal	11.3 (25.0)
Limpopo	0.3 (27.7)
Mpumalanga	6.6 (27.4)
North West	56.9** (26.3)
Northern Cape	2.0 (25.9)
Western Cape	41.6* (23.1)
Constant	330.4*** (21.8)
Observations	12,123
R-squared	0.170
Standard errors in parentheses	*** p<0.01, ** p<0.05, * p<0.1

Source: Calculated from PIRLS 2016

- Whether the test is written in the learners' home language is defined by variable ASBG03 where "I always/ almost always speak the language of the test at home" is defined as "home language", $n = 9474$, and "I sometimes/never speak the language of the test at home" is defined as "other language", $n = 2649$.

@ - The asset quintiles are an index created by principal component analysis of self-reported assets in the home of the learner such that the first quintile proxies the 20% least wealthy learners and the fifth quintile proxies the 20% wealthiest learners (as determined by asset wealth).

We considered several sources to interpret the PIRLS points as effect sizes. International and local literature agrees on 0.4 to 0.5 of a standard deviation as an estimate of a year of learning (Gustafsson, 2020; Taylor & Von Fintel, 2016; UNESCO, 2019; Van der Berg, 2021). The 2016 South Africa PIRLS report considered 40 points as approximately a year of learning in South Africa (Howie et al., 2017, p. 185). Considering this interpretation, all the languages other than Afrikaans are more than a year of schooling behind English test takers in language attainment.

None of the provinces are statistically significantly different from the Eastern Cape at the 5% level. A possible reason for this is high collinearity with languages, where geographic language distribution might correlate more strongly with learning outcomes than provincial borders and is thus reflected in the language coefficients rather than the provincial coefficients. This might also reflect the persistence of apartheid homeland effects, which geographically correlate with learning outcomes and language more strongly than provincial borders.

Taking the findings together, we see more variation in the scores by language than along the other dimensions. We may assume then that the most advantaged learners were those writing in English in quintile 5 schools. Inversely, the most disadvantaged learners would be those writing in any of the Sesotho-Setswana languages in quintile 1 schools.

There has been some concern that pervasive low scores in the 2006²⁴ Grade 4 examinations entailed floor effects, leading to a mismeasurement of the absolute language level of poorly performing learners (Howie et al., 2017). A detailed consideration of this is beyond the scope of this chapter. We take no view on whether this is the case. However, as this is contested, we report both changes in absolute scores (Figure 1) and changes in the percentage reaching the low international benchmark (LIB) (Figure 2), as the LIB is a threshold known not to suffer from mismeasurement. The low benchmark of 400 PIRLS points means that when reading a simple

²⁴ The 2016 PIRLS Literacy assessment included a larger subsample of easier questions to accurately measure poorer performing learners.

text, learners are able to: 1) locate and retrieve explicitly stated information, 2) make straightforward inferences, and 3) begin to interpret.

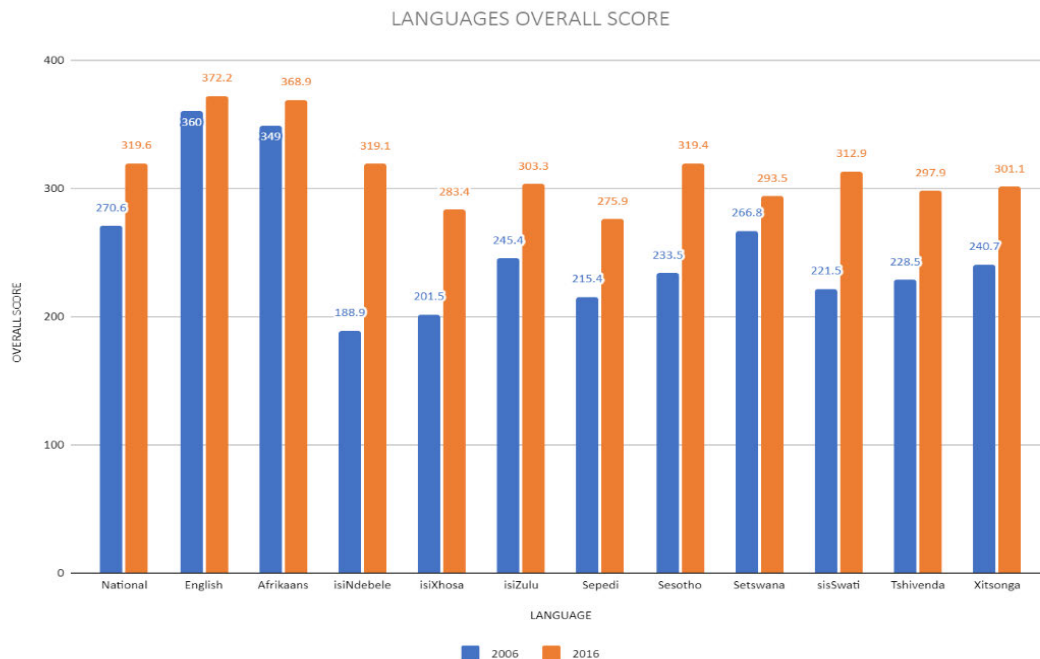


Figure 5.1: Changes in average learner performance by language from 2006 to 2016

Source: Calculated from PIRLS 2006 and 2016

Gustafsson (2020) argued that, among participating countries, South Africa's improvement is the third steepest, following Morocco and Oman. Figure 5.1 shows the average performance by language in 2006 and 2016. The largest improvements have been in African languages rather than English and Afrikaans. Across the African languages, gains exceeded 70 points. The largest of these was found among Nguni languages, especially isiNdebele, with 130 points increase. Of course, this is an improvement from a much lower base than English. This is the equivalent of more than two years of schooling, although isiNdebele schools only make up 3% of schools in the PIRLS study. However, isiZulu and isiXhosa comprise 38% of schools in the sample so that the confidence band around the estimates for these languages is much narrower.

While a detailed analysis of the learners' responses by languages is beyond this chapter's scope, we conclude that learners have been improving in their early literacy skills based on these

improvements. While these may not be the ultimate skill of comprehension, early skills are an important building block towards comprehension. Since these improvements are across all languages, these skills are improving across the Foundation Phase education system.

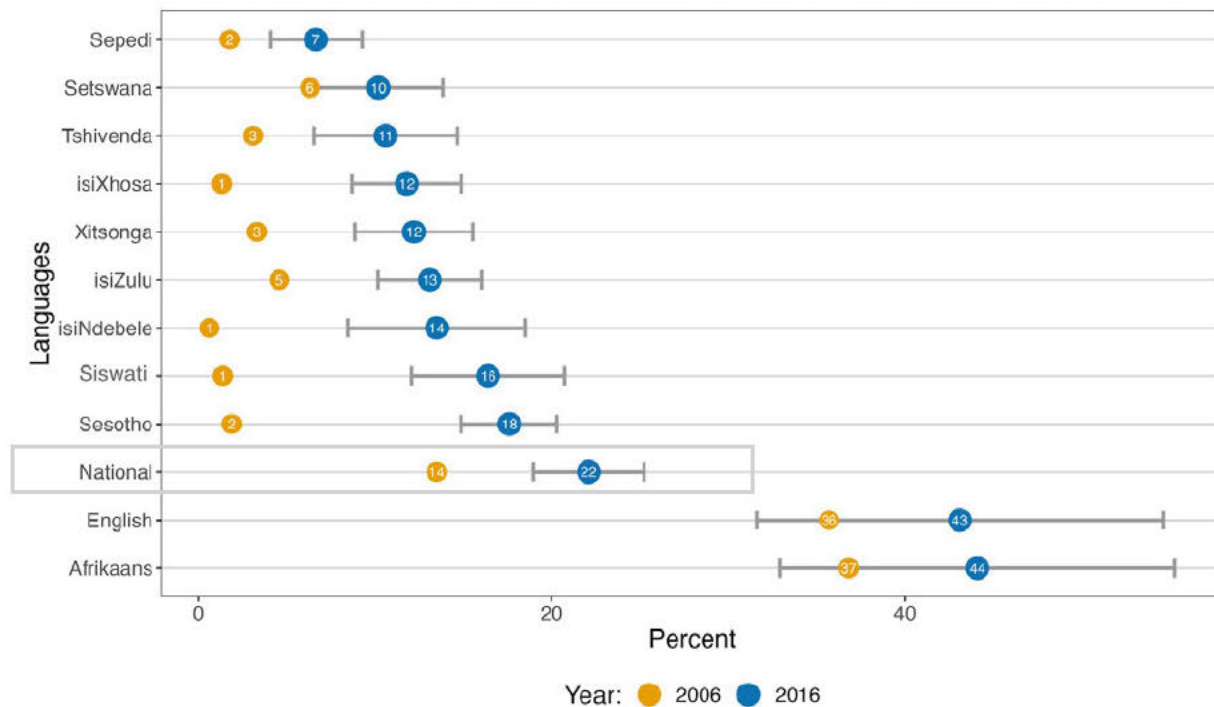


Figure 5.2: Percentage of Grade 4 learners reaching the LIB in 2006 and 2016 by language

Note: 90% confidence interval on the difference in means.

Figure 5.2 shows which language had the largest changes between 2006 and 2016 based on the LIB. The percentage reaching the LIB has increased nationally from 14% to 22%, and there were also increases across all languages. English and Afrikaans had the highest percentages of learners reaching the LIB in 2016, at 43% and 44%, respectively. There has been a six percentage point increase for English and an eight percentage point increase for Afrikaans over the 10 years, although these are not statistically significant. This means that 60% of English and Afrikaans LoLT learners still had not reached the LIB by 2016. In 2016 we found the largest gains in Siswati from 1% to 16%, isiXhosa from 1% to 12%, and isiZulu 5% to 13%. We should, however, keep in mind that isiNdebele and Siswati are smaller languages, with larger confidence intervals. However, the overall Nguni language increases are noteworthy, considering that they comprise 40% of all

schools. Sesotho gains are also important as a moderately-sized language. It had the largest gain of 18 percentage points. Overall improvement among African languages is significant compared to English and Afrikaans, with progress of at least 10 percentage points more African learners, reaching the LIB by 2016.

Yet, the gap between the African languages and English and Afrikaans, collectively, remains stark. While the African languages had the steepest increases, the trajectory for African languages to catch up with Afrikaans and English is not promising. In the best-case scenario, using Nguni languages as an example, which gained between 6 and 10 percentage points over ten years, it would be another 20 years before these languages are where English and Afrikaans were in 2016.

Table 5.12: Fraction of each quintile reaching the PIRLS LIB (400) in 2006 and 2016

	2006					
	National	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5
Constant	0.135*** (0.01)	0.0511*** (0.01)	0.0660*** (0.01)	0.0849*** (0.01)	0.206*** (0.02)	0.417*** (0.04)
Observations	1 1478	2 323	2 282	2 285	2 297	2 291
	2016					
	National	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5
Constant	0.221*** (0.02)	0.124*** (0.01)	0.161*** (0.01)	0.184*** (0.01)	0.233*** (0.02)	0.389*** (0.03)
Observations	12 810	2 603	2 524	2 560	2 570	2 553

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.1$, *** $p < 0.01$

Source: Calculated from PIRLS 2006 and 2016 data

Table 5.12 shows the fraction reaching the LIB by quintile. The results are statistically significant, and we see an interesting pattern: quintiles 1 to 4 increased between 2006 and 2016 and quintile 5 slightly decreased. Notably, we see the largest increases from quintile 1 to 3, between 7 and 10 percentage points. This is noteworthy considering the low point in 2006. It is a signal of systemically improving education especially because improvement in reaching this benchmark is seen across all quintiles. Therefore, regardless of school SES, schools have improved. However, we see that the higher the quintile, the higher the fraction reaching the benchmark.

5.8 DISCUSSION AND CONCLUSION

It is important to consider and communicate the purpose of assessment upfront. In the case of PIRLS, the data enables the systemic measurement of early literacy acquisition before the end of primary school. An appropriate use of the PIRLS results is measuring the level of learning nationally across time and measuring overall changes by languages. This is in addition to the international level comparisons.

On the other hand, assessments have also been misinterpreted, exacerbating the anti-testing critique in South Africa and general despondency towards large-scale measurement (Nuga Deliwe, 2017). Assessments, such as PIRLS, are said to be used as a finger-pointing exercise rather than an accountability measure. For example, teachers are critiqued for low learner outcomes, but a detailed analysis of the PIRLS results to identify reading skill gaps in line with the national curriculum paired with a systemic effort to strengthen these aspects, is not sustained.

Multilingualism has increased in South Africa from 12% in 1996 to almost 50% in 2011. In particular, African language speakers, who make up the majority of South Africans, are becoming more multilingual, increasingly stating English as a second language (Posel & Zeller, 2016; Statistics South Africa, 2012). We found the same evidence in our analysis – English as a LoLT increased between 2006 and 2016 from 16% to 23%. However, we also saw increases for several African languages; isiZulu speakers have increased from 14% to 22% across four provinces. While overall, more than 90% of learners had a match between the language of the test and their home language, there may be some multilingual classes within the school.

Using the PIRLS data, we defined multilingual classes as those with more than 25% of learners that only sometimes or never speak the LoLT at home. We found that 27% of classrooms are multilingual. While several analyses, including this chapter, point to some multilingualism across various languages, this is dominated by Gauteng, with 64% of classes being multilingual. This requires differentiated approaches in policy and intervention responses for urban contexts such as Gauteng, compared to the rest of the country.

As a contribution to the ongoing debates on language policy implementation, the findings from this chapter continue to demonstrate the improvements in home language learning and teaching. Furthermore, the large match between home language and LoLT makes it worth considering whether extending the LiEP policy to the Intermediate Phase would be a sensible investment.

Furthermore, the data show that the reading performance gap between African home languages and Afrikaans and English remains substantial. The Afrikaans and English advantage has remained over a decade. Following earlier studies and South African literature, this is not an intrinsic language issue but largely a reflection of inequality in schooling and home socio-economic status, with language acting as a proxy. This chapter contributes to this evidence base. We also rule out that this is a translation issue based on the literature and the PIRLS process (Mtsatse and van Staden, 2017; Roux, van Staden & Pretorius, 2022) .

Encouragingly, the study shows that the large reading gains seen nationally between 2006 and 2016 were driven by African languages, albeit at the LIB level. The significant gains, particularly for Nguni languages, should be lauded. What we do not address in this chapter is how teachers teach African languages and how this may have led to these improvements. This is an important further issue that requires attention.

Now turning to the latest PIRLS 2021 results; South Africa is amongst the 21 countries that experienced a decline out of the 32 countries with trend data. Nationally, 81% of Grade 4 learners could not read for meaning, showing a deterioration to 2011 levels. The largest declines were amongst Setswana and Sepedi, while English and Afrikaans did not decline or gain, retaining their 2016 levels.

Learning losses resulting from the COVID-19 pandemic school closures are arguably the cause of the overall decline. School closure was one of the early responses to the COVID-19 pandemic across the world. In South Africa, learners lost approximately 60% of the academic year in 2020 and 50% in 2021. The cohort of learners that participated in the 2021 PIRLS experienced nearly two-year educational disruption. Using national panel data and early grade reading outcome data, researchers found differentiated access to schooling by school quintile, and household

wealth, disadvantaging poorer learners. In addition, evidence of large learning losses was identified locally prior to the PIRLS results amongst African language schools (Ardington, Wills, & Kotze, 2021; Shepherd, Mohohlwane, Taylor, and Kotzé, 2021; Mohohlwane and Shepherd (2022)). The language differences therefore likely reflect systemic inequalities, and it is unlikely that there is an overall deterioration in the quality of African language education. In light of these large declines, additional analysis of the PIRLS 2021 data to identify reading gaps and remediation for these is even more urgent.

CHAPTER 6: SUMMARY OF MAIN FINDINGS AND CONCLUSION

This thesis began with a broad discussion on education outcomes, followed by a focus on the language landscape of South Africa. The myriad of questions informed by the policy context centred on determining the appropriate language in education policies at different periods and in different contexts. Using theory, historical discussions, policy analysis and the analysis of reading data, the research in this thesis has addressed this question. This chapter concludes the thesis by summarising the main findings and contributions from each of the four chapters. This is followed by possible research and policy areas for future work. Finally, a summary of the overall central motif across the thesis and how the overall thesis should be taken together concludes the chapter.

6.1 CHAPTER 2: THE ALIGNMENT IN POLITICS, LANGUAGE DEVELOPMENT AND LANGUAGE POLICY

Language planning is a strategic public policy tool that may be used to shape society. It has implications for the education system, society and people groups. Language is not only a communication tool, it shapes identities and distributes power. The chapter made the case for why language matters. South African historically has demonstrated this throughout the various stages of the development of Afrikaans. Efforts have included political events, policies and dedicated organisations. The contrast between the development of Afrikaans and that of African languages is a unique contribution of this thesis. The chapter demonstrated the careful application of language planning for Afrikaans and a sporadic account of the same for African languages.

The chapter then considered why there is still a dilemma in prioritising English and Afrikaans over African languages. The economic returns of English mastery with no returns for African languages, are considered. The far more complex South African multilingual context is then brought to the fore. Three alternative policy solutions within a multilingual education context were then considered. The first policy option was maintaining the status quo, teaching in the various African mother tongues for the first three years while introducing English and then

transitioning to English from Grade 4. This would continue to use African languages as a bridge to English, with economic returns retained only for English. The second option was the unification of Nguni and Sotho languages, taught as regional languages for the first six years of schooling, followed by a transition to English. What would happen to the remaining languages, Tshivenda and Xitsonga, still requires careful consideration within such a scenario. However, the regional use of these languages may increase their use within the formal economy, creating an enabling environment for their economic value. The third option aligned with the most recent language in education policy development, providing mother tongue education for the first six years, which is within the existing language in education policies. In addition, English could become compulsory as a first additional language while specifically introducing an African first additional language through all phases of schooling, including tertiary education. This third option provided a comprehensive approach to enabling African language use not only as a bridge to English but as languages of society, education and formal work. This option still recognised the role of English. Over time this policy option may create a strong rationale for economically rewarding African languages in the same way English is rewarded.

What is clear from the development of Afrikaans, is that the successful implementation of language policies is complex and requires political, technical and social collaboration from various stakeholders. Regardless of the policy option selected, this will require the deliberate and careful development of African languages foregrounded in education resourcing, prioritisation, and directly addressing the question of economic returns for African languages.

6.2 CHAPTER 3: LANGUAGE IN EDUCATION POLICY AND PRACTICE

Chapter three discussed the developments in curriculum and language in education policy and practice. The roles and responsibilities of education stakeholders in shaping the language and literacy landscape were examined by discussing ten language-in-education policies from 1994 to 2023. These are the *Constitution of South Africa*, the *National Education Policy Act*, the *South African Schools Act*, the *Norms and Standards for language policy in public schools*, the *Language Compensation policy in the National School Certificate*, the *National Curriculum Statements*, the *Incremental Introduction of African Languages (IIAL)*, the *draft Basic Education Laws Amendment*

(BELA) Bill, the Provision and Management of Learning and Teaching Support Material (LTSM) and the Revised Language Policy for Higher Education.

A critique of these policies was provided, and specific areas of possible improvement were identified and interpreted within a policy and implementation theoretical framework. All ten policies show that policy development and legislation are not the complete cycles of policy. Firstly, policy development is not static and even legislation and policy require revision over time. This chapter then tests this against the policy conflict and ambiguity framework. Policy is interpreted and enacted by various actors, and the nature and details of the policy mean that specific barriers are faced. Barriers include administrative, symbolic and technocratic challenges. Each barrier requires different responses, and correctly identifying the policy category as applied in this thesis equips policymakers to develop the appropriate response.

The chapter also contributed to the categorisation of phases of development, enabling interpretation of language policies within the development stages of South Africa. The first phase of development which took place between 1994 and 1998 was based on reconstructing an education system; while the most recent policies are responding to contestations that include authority, language protection and legal findings, representing much more fragmentation.

6.3 CHAPTER 4: LANGUAGE TRANSFER THEORY AND POLICY: CAN AN INTERVENTION LEAD TO SUCCESSFUL LANGUAGE TRANSFER FROM L1 TO L2 OR L2 TO L1? REVIEWING AFRICAN LANGUAGES AND ENGLISH

A bilingual education policy approach continues to dominate the language in education policy options presented worldwide with an understanding that the acquisition of a “world language” facilitates international engagement and competition. As a result, in many countries, children need to become proficient in both their home language (L1) and a world language, such as English (L2). Governments face trade-offs in prioritising these two objectives: making mutually exclusive choices between prioritising home language or English, or various combinations of the two.

Identifying the most effective inputs for improving learner performance is central to education planning, policy and prioritisation. International research indicates that the effectiveness of the

inputs will depend partly on factors such as equity, past policy and the stage of development of the country in question and its education system.

However, we still lack rigorous evidence on classroom practice, resources and curriculum standards to enable us to measure learner performance in a developing country like South Africa. The literature on African language reading and literacy points out the inappropriateness of monolingual English approaches for teaching reading to multilingual learners, particularly those with vastly different languages, as is the case in South Africa. The specific differences are orthography, the phonological and morphological properties of language structure, and how to teach them.

The debates on the evolving understanding of bilingualism and how this has found expression in education policy are largely theoretical or ideological. Empirical studies on foundational reading skills in African languages are limited in number. Chapter four contributes empirical evidence on cross-linguistic transfer between L1 and L2, using the results of two randomised evaluations of structured pedagogy programmes implemented in South Africa. The programmes had the same design, implementation organisation, and duration. The key difference was that one programme targeted the teaching of reading in L1, while the other targeted L2.

We found that both interventions had positive effects on the languages they targeted. The L1 intervention also had a positive effect on L2 reading proficiency. In contrast, the L2 intervention had a negative effect on L1 outcomes for the lower-performing students. These results are consistent with the simple view of reading and show that decoding skills are best learned in L1. It is thus cost-effective to prioritise learning to read in L1, supporting teachers in this subject, even if becoming proficient in L2 is also regarded as an important policy objective.

The main findings from these studies emphasised that improvement in reading in African languages depends on changes in classroom practice through a focus on explicit reading instruction. Policy emphasis should be on L1 proficiency based on the simple view of reading, ensuring learners master reading in their L1. The positive spillover from L1 to L2 further demonstrates that the LOI policy and theory are sound and implementation should be supported

and strengthened. The alternative, supporting interventions in L2 exclusively, should be avoided, as there is evidence of the negative impact of this on L2. In addition to an empirical contribution, this chapter contributes to several theories: language acquisition, reading acquisition, and language transfer from a developing country perspective.

6.4 CHAPTER 5: BRIDGING THE 20-YEAR GAP: EXAMINING READING OUTCOMES BY LANGUAGE IN SOUTH AFRICA

Chapter five focuses on learner performance in the PIRLS international assessments and how the South African sample composition has changed. This provides a picture of LoLT changes in the Foundation Phase (most learners are assessed in the FP LOLT). The chapter also examines how outcomes measured in each language have changed between 2006 and 2016.

Learners tested in all official languages did not reach the international centre point of 500 points. From as early as 2006, performance could be categorised into two; low performance amongst the African languages and better performance in English and Afrikaans. African language learners scored between 180 points in isiNdebele and 265 points in Setswana. The score for English was 360 points and 349 points for Afrikaans. In this chapter we find significant gains using 2016 PIRLS data. The gains exceed 70 points amongst African languages, with the steepest of these among Nguni languages, especially isiNdebele with 130. We estimate these gains to be equivalent to one or even two years of learning (Howie et al., 2017).

While there have been significant gains, learners receiving their Foundation Phase education in indigenous South African languages still perform far below their counterparts learning English or Afrikaans. These literacy results reflect a relationship between language and literacy that continues to be one of the overlapping dimensions of inequality in education practice and outcomes. The 2021 PIRLS results, reflecting learning losses, paint an even more concerning picture with an even larger difference between African languages, English and Afrikaans.

Multilingualism was also examined in the chapter. According to the census (Statistics South Africa, 2012), multilingualism increased from 12% in 1996 to almost 50% in 2011. African people are particularly more multilingual. Classrooms, however, are not multilingual to the same extent.

Approximately 25% of classrooms are multilingual, which is driven by Gauteng and is not equally spread nationally. So, while multilingualism should be considered for future policy, the Gauteng lens should not be overemphasised. We may speculate that the reason for this is higher matches and provision of schools offering the learners LoLT but more investigation is required.

6.5 RESEARCH AND POLICY EXTENSIONS

While this thesis has significant contributions, there are policy and research gaps. Some discussion and suggestions follow.

Chapter two presented language planning and how this has been systematically supported for Afrikaans and sporadically for African languages. However, additional work is required. Identifying and documenting language planning from 1994 has been more systematic, but there are still gaps. This includes reviewing the role of PANSALB and how this could be enhanced or revised at a policy level. A detailed review of progress within each language group would provide much-needed details on functionality in realising the language planning framework. There may be a need for renewed policy pronouncements on language planning, considering the failings of PANSALB.

The role of cultural and social organisations including the church and media should be acknowledged and carefully studied. The roles of these organisations for African languages should be identified and leveraged to maximise language planning.

Chapter three examines ten language policies between 1994 and 2023. Continued documentation and critique should occur, especially as the BELA bill consultations have been completed, and the LTSM policy should follow similar finalisation. A further review of policies such as IIAL should be considered, especially as implementation is not based on its primary purpose, which enhances and empowers African languages at a first additional language level.

Chapter four demonstrated the educationally meaningful impact of enacting an L1 intervention. Further, enacting the Language in Education Policy with implementing home language learning until Grade 6 at least should be pursued. Evidence from this study and literature demonstrates the potential benefits of this. Importantly, this would need to be staggered and well

communicated to enable the relevant stakeholders to respond appropriately. This includes universities responsible for training teachers, PANSALB responsible for terminology development, publishers responsible for producing language-relevant LTSM and parents.

Any LOI changes should be carefully documented, measured and evaluated to ensure that policy and implementation align. This would also enable short- and long-term learning at the policy design, interpretation and enactment stages. Unfortunately, policy changes are often poorly measured, monitored and evaluated. This should not be the case again.

Considerations and questions include the different language reading benchmarks developed by the DBE recently and their implications for test development. This included passage length, complexity and translation equivalence across languages. In Chapter 5 we found that South African learners perform differently but in unexpected ways by question type. Additional detailed analysis by passage and question would be helpful to understand areas of improvement and difficulty in written comprehension.

6.6 CONCLUSION

Language and its role in society and education is a unifying theme across the thesis. Throughout the chapters, it was demonstrated that language policies had a powerful influence on social and economic relations, with complex dimensions in multilingual and unequal societies such as South Africa. The historical landscape using a language planning framing; complimented with policy analysis and the use of data informed a comprehensive response to the research and policy questions.

There are practical considerations around how to use language to achieve better educational and economic outcomes. The approach taken must bear in mind historically disadvantaged language groups. In South Africa, these are African language groups and their speakers. A comprehensive policy response needs to account for financial, human and linguistic resources while factoring in less tangible aspects such as history, identity and power. Data should continue to be collected and analysed to measure policy implementation and the impact of language-in-education policies.

Finally, this thesis shows that change needs to be led by the government and in the case of language policy, it requires clear, consistent and ongoing legislation and resources. The recent establishment of a language policy unit within the DBE and a July 2023 language conference (Department of Basic Education, 2023c) where the Minister of Basic Education committed to the development of a comprehensive multilingual strategy may be signals of a new phase of language development for education in South Africa.

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ANNEXURES

ANNEXURE 1: STELLENBOSCH UNIVERSITY ETHICAL APPROVAL



CONFIRMATION OF RESEARCH ETHICS APPROVAL

REC: Social, Behavioural and Education Research (SBER) - Initial Application Form

27 January 2023

Project number: 26870

Project Title: Revising the language debate in South Africa: what does empirical data contribute to education policy and practice in selected languages?

Dear Mrs NL Mohohlwane

Identified supervisor(s) and/or co-investigator(s):

Prof S Van der Berg, Prof N Davids

Your REC: Social, Behavioural and Education Research (SBER) - Initial Application Form submitted on 06/12/2022 18:43 was reviewed and approved by the Social, Behavioural and Education Research Ethics Committee (REC: SBE).

Your research ethics approval is valid for the following period:

Protocol approval date (Humanities)	Protocol expiration date (Humanities)
27 January 2023	26 January 2026

GENERAL COMMENTS PERTAINING TO THIS PROJECT:

INVESTIGATOR RESPONSIBILITIES

1. Please take note of the General Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.
2. Your approval is based on the information you provided in your online research ethics application form. If you are required to make amendments to or deviate from the proposal approved by the REC, please contact the REC: SBE office for advice: applyethics@sun.ac.za
3. Always use this project ID number (26870) in all communications with the REC: SBE concerning your project.

4. Please note that the REC has the prerogative and authority to ask further questions, seek additional information, and monitor the conduct of your research and the consent process, where required.

RENEWAL OF RESEARCH BEYOND THE EXPIRATION DATE

You are required to submit a progress report to the REC: SBE before the project approval period expires if renewal of ethics approval is required.

If you have completed your research, you are required to submit a final report to the REC: SBE to close the active REC record for this project.

Project documents approved by the REC:

Document Type	File Name	Date	Version
Proof of permission	DBE Approval letter	29/08/2022	1
Proof of permission	DBE Research application form Mohohlwane 8 4 2022	29/08/2022	1
Proof of permission	Letter of permission_PIRLS data use	13/09/2022	1
Document Type	File Name	Date	Version
Research Protocol/Proposal	Mohohlwane - Proposal - Final 5 Oct 2017	16/11/2022	1
Investigator CV (PI)	CV Nompumelelo Mohohlwane Brief NOV 2022	18/11/2022	1
Default	TEMPLATE FOR RESPONSE LETTER N Mohohlwane	29/11/2022	1

If you have any questions or need further help, please contact the REC office at applyethics@sun.ac.za

Sincerely,

Mrs Clarissa Robertson (cgraham@sun.ac.za)

Secretariat: Social, Behavioral and Education Research Ethics Committee (REC: SBE)

National Health Research Ethics Committee (NHREC) registration number: REC-050411-032.

The Social, Behavioural and Education Research Ethics Committee complies with the SA National Health Act No.61 2003 as it pertains to health research. In addition, this committee abides by the ethical norms and principles for research established by the Declaration of Helsinki (2013) and the Department of Health Guidelines for Ethical Research: Principles Structures and Processes (2nd Ed.) 2015. Annually a number of projects may be selected randomly for an external audit.

ANNEXURE 2: DEPARTMENT OF BASIC EDUCATION APPROVAL



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

Private Bag X895, Pretoria, 0001, Sol Plaatje House, 222 Struben Street, Pretoria, 0002, South Africa
Tel.: (012) 357 3000, Fax: (012) 323 0601, www.education.gov.za

Ref no: 05664/1
Enquiries: Ms L Malemela
Tel: (012) 357-3221
Email: Malemela.L@dbe.gov.za

Ms N Mohohlwane
222 Struben Street
PRETORIA
0001

By e-mail: Mohohlwane.N@dbe.gov.za

Dear Ms Mohohlwane

RESPONSE TO A REQUEST TO ACCESS DATA

The Department of Basic Education (DBE) received your request to access data for your research on '(How) should the language in education policy promote mother-tongue instruction or a straight-for-English approach in primary schooling in South Africa: what does empirical data contribute?'; and your request for support to access the Progress in International Reading Literacy Study data.

The request is approved on condition that the researcher adheres to the conditions set in the DBE's research guidelines and protocols.

It is emphasised that the information received from documents or datasets should solely be used for the purpose of this research. The Research Coordination, Monitoring and Evaluation Directorate will liaise with the relevant DBE officials to obtain this data on your behalf.

Basic Education • Basiese Onderwys • Imfundvo Lesisekelo • Ifundosisekelo • IMfundo Eyisisekelo • IMfundo esiSiseko • Dyondzo ya le Hansi
Pfunzo ya Mutheo • Thuto ya Motheo • Thuto ya Motheo • Thuto e Potlana

RESPONSE TO A REQUEST TO ACCESS DATA

We wish you all the best with this research project and look forward to the outcome of this research.

Yours sincerely

MR HM MWELI
DIRECTOR-GENERAL
DATE: 27 AUGUST 2022

ANNEXURE 3: PIRLS DATA APPROVAL



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

**Faculty of Education
Department: Science, Mathematics
and Technology Education**

Centre for Evaluation & Assessment

13 September 2022

Dear Ms. Nyathi

RE: Chapter 7: RE: Permission to use PIRLS Data

Thank you for your interest in using the PIRLS data for purposes of your PhD studies. As requested, you have permission to:

1. Use the PIRLS Grade 4 data from 2006, 2011 and 2016.
2. Publish a working paper using the same data to write up the thesis chapter. This would only be after the Brill chapter is published as part of your PhD paper/working paper publishing.
3. Use both publically available datasets and unpublished data, specifically:
 - o 2006 Grade 4 data shared by CEA
 - o 2011 Grade 4 corrected trend data
4. Access to restricted variables such as province for 2006, 2011 & 2016.

Please feel free to contact Mr Mishack Tshele (mishack.tshele@up.ac.za) for any information or assistance.

We wish you the best of luck on this PhD journey.

Sincerely,

Prof S. van Staden

PIRLS 2021 National Research Coordinator



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ANNEXURE 4: LETTER ON EDITING



To whom it may concern

This serves as confirmation that I, Lize Vorster, performed the language editing and technical formatting of Nompumelelo Lungile Mohohlwane 's thesis entitled:

(How) Should the language policy promote mother-tongue instruction or a straight-for-English approach in primary schooling in South Africa: what does empirical data contribute?

Editing is done in track changes, and the student has final control over accepting or rejecting changes at their own discretion. Technical formatting entails ensuring consistency in the look of the thesis and complying with the institution's technical requirements.

Yours sincerely

Lize Vorster
Language Practitioner

ANNEXURE 5: CHRONOLOGY OF SYSTEMIC LEARNING ASSESSMENTS IN SOUTH AFRICA, 1994 TO 2022

Year	Programme	Type	Grade tested	Subjects tested	Pupils	Schools	Key SA analyses
1995	Trends in Mathematics and Science Study (TIMSS)	International, sample-based, questionnaires for P, T, S and Cur	Grade 7/8 and Grade 12	Mathematics ^{EAL} , Science ^{EAL} .	9 792/14 000 including Grade 12 learners	251/400 including Grade 12 learners	Howie, S. & Pietersen, J.J. (2001). Mathematics literacy of final year students: South African realities. <i>Studies in Educational Evaluation</i> , 27: 7-25.
1999	TIMSS called TIMSS-R at the time	International, sample-based, questionnaires for P, T, S and Cur	Grade 8	Mathematics ^{EAL} , Science ^{EAL} , English language.	8 146	200	Howie, S. (2003). Conditions of schooling in South Africa and the effects on mathematics achievement. <i>Studies in Educational Evaluation</i> , 29: 227-241.
1999	Monitoring Learner Achievement (MLA)	International, sample-based, questionnaires for P, T, S and Cur	Grade 4.	Literacy ^{AfrL} , Numeracy ^{AfrL} , Life skills ^{AfrL} .	10 759	400	Department of Education. (1999). <i>Report on the results of the Monitoring Learning Achievement (MLA) Project</i> . Commissioned by the Department of Education and supported by UNESCO and UNICEF. Author: J P Strauss, Research Institute for Education Planning, University of the Orange Free State. November 1999.
2000	Southern and Eastern African Consortium for Monitoring Education Quality (SACMEQ)	International, sample-based, questionnaires for P, T and S.	Grade 6	Language ^{EAL} , Mathematics ^{EAL} .	3 165	167	Moloi, M. Q. (2005, September). Mathematics achievement in South Africa: A comparison of the official curriculum with learner performance in the SACMEQ II Project. In SACMEQ International Invitational Conference, International Institute for Educational Planning (pp. 28-30)/ Van der Berg, S., & Louw, M. (2007). <i>Lessons learnt from SACMEQII: South African student performance in regional context</i> . University of Stellenbosch, Department of Economics and Bureau for Economic Research Working Paper, 16(07).
2001	Systemic Evaluation (SE)	National, sample-based, questionnaires for P, T, S, Par and Off	Grade 3	Literacy ^{AfrL} , Numeracy ^{AfrL} , Life skills ^{AfrL} .	51 307	1 309	Department of Education. (2003b). Systemic Evaluation, Foundation Phase: Learners with Disabilities in Special Schools report also produced in 2003

Year	Programme	Type	Grade tested	Subjects tested	Pupils	Schools	Key SA analyses
2003	TIMSS	International, sample-based, questionnaires for P, T, S and Cur	Grade 8. Although Grade 9 learners sat the test as well.	Mathematics ^{EAL} , Science ^{EAL} .	8 952	255	Reddy, V. (2006). <i>Mathematics and science achievement at South African schools in TIMSS 2003</i> . Pretoria: HSRC. Available from: < http://www.hsrcpublishers.ac.za >
2004	Systemic Evaluation (SE)	National, sample-based, questionnaires for P, T, S, Par and Off.	Grade 6	Language ^{EAL} , Mathematics ^{EAL} , Natural science ^{EAL} .	34 015	998	Department of Education (2005). <i>Grade 6 Systemic Evaluation: National</i> . Pretoria. Available from: < http://www.hsrc.ac.za/research/output/outputDocuments > Gustafsson and Patel (2008).
2006	Progress in International Reading Literacy Study (PIRLS)	International, sample-based, questionnaires for P, T, S and Cur	Grade 4 normally but written by Grade 4 and 5 learners in SA.	Language ^{EAL} and African languages – see footnote 25	14 657 in Gr 5 and 16 057 in Gr 4	398 in Gr 5 and 432 in Grade 4	Howie, S., Venter, E., Van Staden, S., Zimmerman, L., Long, C., Du Toit, C., et al. (2008). <i>PIRLS 2006 Summary Report: South African Children's Reading Literacy Achievement</i> . Pretoria: Centre for Evaluation and Assessment. University of Pretoria/Taylor, S., & Yu, D. (2009). <i>The importance of socio-economic status in determining educational achievement in South Africa</i> . Unpublished working paper (Economics) Stellenbosch: Stellenbosch University.
2007	Systemic Evaluation (SE)	National, sample-based, questionnaires for P, T, S, Par and Off	Grade 3	Literacy ^{AfrL} , Numeracy ^{AfrL} , Life skills ^{AfrL}	54 449	2355	Department of Education (undated leaflet). 2008a. Systemic Evaluation: Grade 3 Literacy and Numeracy results.
2007	SACMEQ	International, sample-based, questionnaires for P, T and S	Grade 6	Language ^{EAL} , Mathematics ^{EAL} . And HIVAIDS Knowledge Test ^{EAL}	9 071	392 (between 37 and 64 schools per province)	Moloi, M. Q., & Chetty, M. (2010). The SACMEQ III Project In South Africa/ Spaul, N. (2011a). A preliminary analysis of SACMEQ III South Africa. Stellenbosch: Stellenbosch University.

²⁵ Achievement data for African languages was generally low with many missing values according to CEA Acting Head in August 2017.

Year	Programme	Type	Grade tested	Subjects tested	Pupils	Schools	Key SA analyses
2007	National School Effectiveness Survey (NSES)	Longitudinal panel survey. Questionnaires for P, T and S.	Grade 3 (2007), followed through in Grade 4 (2008), followed through in Grade 5 (2009). First education panel	Language ^{EAL} , Mathematics ^{EAL}	8 383 in each year of a 3 year panel	266	Taylor, N. (2011). <i>National School Effectiveness Study - Synthesis Report</i> . Johannesburg: JET Education. Taylor, N., Van der Berg, S. & Mabogoane, T. (2013). What makes schools effective? Report of the National Schools Effectiveness Study. Cape Town: Pearson.
2008	Annual National Assessments (ANA)	National, census (attempted), no questionnaires	Grades 1 to 6	Literacy ^{AfrL} /language ^{AfrL} , Numeracy ^{AfrL} /mathematics ^{AfrL}	Approx. 3.3m	Approx. 10,000	Trial run – no technical report published according to DBE (2011a).
2009	Annual National Assessments (ANA)	National, census with sample-based verification, no questionnaires	Grades 1 to 6	Literacy ^{AfrL} /language ^{AfrL} , Numeracy ^{AfrL} /mathematics ^{AfrL}	Approx. 4.6m (sample approx. 12,700)	Approx. 14,000 (sample Approx. 510)	Trial run – no technical report published according to DBE (2011a).
2011	Annual National Assessments Universal (ANA - U)	National, census with no questionnaires administered.	Grades 1 to 6	Literacy ^{AfrL} /language ^{AfrL} , Numeracy ^{AfrL} Mathematics ^{AfrL}	6 million	Approx. 20, 000	Department of Basic Education. (2011a). Report on the Annual National Assessments of 2011. Pretoria.

Year	Programme	Type	Grade tested	Subjects tested	Pupils	Schools	Key SA analyses
2011	Annual National Assessments Verification (ANA-V)	National, sample-based verification supplementing census collection. No background questionnaires.	Grade 3, 6	Literacy ^{AfrL} / Language ^{AfrL} , Numeracy ^{AfrL}	129 375	1 800 (200 public schools per province)	Department of Basic Education. (2011a). Report on the Annual National Assessments of 2011. Pretoria.
2011	pre-PIRLS	International, sample-based, questionnaires for P, T, S, Cur and Par	Grade 4	Language ^{AfrL}	15 744	341	Howie, S., & van Staden, S. (2012). <i>South African Children's Reading Literacy Achievement - PIRLS and prePIRLS 2011 Summary of the key results (Media briefing)</i> . Pretoria: Centre for Evaluation and Assessment.
2011	PIRLS	International, sample-based, questionnaires for P, T, S, Cur and Par	Sub-national sample of learners Grade 5 learners in English or Afrikaans Home Language (other countries Grade 4 learners participated)	Language ^{EAL; AfrL}	3 515	92	Howie, S., & van Staden, S. (2012). <i>South African Children's Reading Literacy Achievement - PIRLS and prePIRLS 2011 Summary of the key results (Media briefing)</i> . Pretoria: Centre for Evaluation and Assessment.
2011	TIMSS	International, sample-based, questionnaires for P, T, S and Cur	Grade 8 in other countries (but in 2011 written by only Grade 9 learners in SA)	Mathematics ^{EAL} , Science ^{EAL}	11 969	285	Reddy, V., Prinsloo, C., Visser, M., Arends, F., Winnaar, L., Rogers, S.,....Ngema, M. (2012). <i>Highlights from TIMSS 2011: The South African perspective</i> . Pretoria, HSRC.

Year	Programme	Type	Grade tested	Subjects tested	Pupils	Schools	Key SA analyses
2012	Annual National Assessments Universal (ANA - U)	National, census with no questionnaires administered.	Grades 1 to 6 and Grade 9	Literacy ^{AfrL} /language ^{AfrL} , Numeracy ^{AfrL} Mathematics ^{AfrL}	7.2 million	Approx. 24,000	Department of Basic Education. (2012b). Report on the Annual National Assessments 2012: Grades 1 to 6 & 9. Pretoria.
2013	Annual National Assessments (ANA-V) Verification	National, sample-based verification supplementing census collection. Background questionnaires for P, T and S.	Grade 3, 6 and, in 2013, Grade 9	Literacy ^{AfrL} / language ^{AfrL} , Numeracy ^{AfrL}	124 681	2 168	SAB&T Deloitte. 2013. Technical report on Verification ANA (V-ANA) results 2013 for the Department of Basic Education. Dated 11 February 2014. Unpublished.
2013	Annual National Assessments Universal (ANA - U)	National, census with no questionnaires administered.	Grades 1 to 6 and Grade 9	Literacy ^{AfrL} /language ^{AfrL} , Numeracy ^{AfrL} Mathematics ^{AfrL}	7 million	Approx. 24,000	Department of Basic Education. (2013). Report on the Annual National Assessments 2013: Grades 1 to 6 & 9. Pretoria.
2014	Annual National Assessments Universal (ANA - U)	National, census with no questionnaires administered.	Grades 1 to 6 and Grade 9	Literacy ^{AfrL} /language ^{AfrL} , Numeracy ^{AfrL} Mathematics ^{AfrL}	7.4 million	Approx. 24,400	Department of Basic Education. (2014a). Report on the Annual National Assessments 2014: Grades 1 to 6 & 9. Pretoria.
2015	TIMSS	International, sample-based, questionnaires for P, T, S and Cur	Grade 9	Mathematics ^{EAL} , Science ^{EAL}	12 514	292 schools, 334 Mathematics and 331 Science teachers.	Reddy, V., Visser, M., Winnaar, L., Arends, F., Juan, A and Prinsloo, C.H. (2016). TIMSS 2015: Highlights of Mathematics and Science Achievement of Grade 9 South African Learners. Human Sciences Research Council.

Year	Programme	Type	Grade tested	Subjects tested	Pupils	Schools	Key SA analyses
2015	TIMSS-Numeracy (TIMSS-N)	International, sample-based, questionnaires for P, T, S, Cur and Par.	Grade 5	Mathematics ^{EAL} , Science ^{EAL} .	10 932	297 schools, 10 500 learners' parents or care givers and 297 maths educators.	Reddy, V., Visser, M., Winnaar, L., Arends, F., Juan, A and Prinsloo, C.H. (2016). TIMSS 2015: Highlights of Mathematics and Science Achievement of Grade 5 South African Learners. Human Sciences Research Council.
Annual	National Senior Certificate (also known as Matric)	National, universal/ census, all students in Grade 12. No questionnaires.	Grade 12	Approximately 130 subjects in 2016 ^{EAL} Language ^{AfrL}	Approximately 674 000	Approx 6 767 centres	Department of Basic Education. (2016). 2016 National Senior Certificate Examination Report. Pretoria: Department of Basic Education.
2019	TIMSS Numeracy and Science	International, sample-based, questionnaires for P, T, S, Cur and Par.	Grade 5 and Grade 9	Mathematics ^{EAL} , Science ^{EAL} .	11 903 20 829	297 schools 519 schools	Reddy, V., Winnaar, L., Arends, F., Juan, A., Harvey, J., Hannan, S., & Isdale, K. (n.d.). Building Achievement and Bridging Achievement Gaps.
2016	PIRLS	International, sample-based, questionnaires for P, T, S, Cur and Par	Sub-national sample of learners Grade 5 learners in English or Afrikaans Home Language (other countries Grade 4 learners participated)	Language ^{EAL; AfrL}	12 810	304 schools	Gustafsson, M. (2020). A revised PIRLS 2011 to 2016 trend for South Africa and the importance of analysing the underlying microdata (Working Paper of the Department of Economics and the Bureau for Economic Research). Stellenbosch University.

<i>Year</i>	<i>Programme</i>	<i>Type</i>	<i>Grade tested</i>	<i>Subjects tested</i>	<i>Pupils</i>	<i>Schools</i>	<i>Key SA analyses</i>
2021	PIRLS	International, sample-based, questionnaires for P, T, S, Cur and Par	Sub-national sample of learners Grade 5 learners in English or Afrikaans Home Language (other countries Grade 4 learners participated)	Language ^{EAL; AfrL}	TBC	TBC	van Staden, S., & Roux, K. (2022). PIRLS 2021 Encyclopaedia Education Policy and Curriculum in Reading: South Africa.

ANNEXURE 6: LANGUAGE OF ASSESSMENT BY PROVINCE PIRLS, 2006

	Afrikaans	English	isiNdebele	isiXhosa	isiZulu	Sepedi	Sesotho	Setswana	Siswati	Tshivenda	Xitsonga	Total
Eastern Cape	11.3	14.9	0.0	69.7	0.0	0.00	4.1	0.0	0.0	0.0	0.0	100.0
Free State	5.4	7.3	0.0	4.3	5.53	0.0	77.5	0.0	0.0	0.0	0.0	100.0
Gauteng	4.8	34.2	0.0	0.0	25.97	10.7	9.2	5.3	0.0	0.0	9.1	100.0
KwaZulu-Natal	0.0	23.3	0.0	3.6	73.07	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Limpopo	0.0	3.6	0.0	0.0	0.95	29.4	0.0	2.5	0.0	40.3	23.4	100.0
Mpumalanga	1.1	10.2	13.5	0.0	14.08	1.8	0.0	0.0	47.3	0.0	12.2	100.0
North West	2.5	10.5	0.0	4.5	0.00	0.0	4.6	77.9	0.0	0.0	0.0	100.0
Northern Cape	48.5	11.4	0.0	0.0	0.00	0.0	0.0	40.1	0.0	0.0	0.0	100.0
Western Cape	40.42	36.45	0.00	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.0	100.0
Total	9.6	16.3	2.2	10.2	13.5	7.0	9	10.0	7.6	7.3	7.4	100.0

